

Land Acquisition and Resettlement Due Diligence Report

Document Stage: Updated
Project number: 42229-016
March 2020

BHU: Secondary Towns Urban Development Project – Samdrup Jongkhar: Rehabilitation of Samdrup Jongkhar Water Supply System Improvement Project (Contract Package - SJM/WS/001) and Samdrup Jongkhar Sanitation and Sewerage Project (Contract Package - SJM/SST/003)

Prepared by the Department of Urban Development and Engineering Services, Ministry of Works and Human Settlement, Royal Government of Bhutan for the Asian Development Bank.

CURRENCY EQUIVALENTS

as of 8 May 2018

Currency unit	–	Ngultrum (Nu)
Nu1.00	=	\$0.015
\$1.00	=	Nu67.147

ABBREVIATIONS

ADB	=	Asian Development Bank
BHU	=	Bhutan
BOD	=	Biological Oxygen Demand
BTN	=	Bhutanese Ngultrum
DDR	=	due diligence report
DES	=	Department of Engineering Services
DMSC	=	design monitoring supervision consultant
FGD	=	focus group discussion
GAP	=	gender action plan
GRM	=	grievance redress mechanism
LAGC	=	Local Area Grievance Committee
LAP	=	local area plan
LARC	=	Land Acquisition and Resettlement Committee
ME	=	Municipal Engineer
MOF	=	Ministry of Finance
MOWHS	=	Ministry of Works and Human Settlement
NCWC	=	National Commission for Women and Children
PAPs	=	project-affected persons
PAVA	=	Property Assessment and Valuation Agency
PIU	=	project implementation unit
PMU	=	project management unit
PPTA	=	project preparatory technical assistance
RBP	=	Royal Bhutan Police
ROW	=	right of way
STP	=	sewage treatment plant
STUDP	=	Secondary Towns Urban Development Project
WSD	=	Water and Sanitation Division
WTP	=	water treatment plant
WWTP	=	waste water treatment plant
YDF	=	Youth Development Fund

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I. INTRODUCTION AND PROJECT BACKGROUND

A. Background

1. Under the Secondary Towns Urban Development Project (STUDP) the ADB will provide a \$10 million loan to the Royal Government of Bhutan for developing water and sewerage infrastructure in three secondary towns of Bhutan - Sarpang (Shechamthang), Samdrup Jongkhar (including Dewathang) and Trashigang (including Rangjung). The government will supplement the loan with \$2 million contribution. The STUDP will develop 8 subprojects in three thromdes. The subprojects include water supply, sewerage and wastewater treatment, solid waste management, transport (urban roads), storm water drainage. The provision of adequate, reliable and safe water and sewerage systems will lead to substantial environmental improvements, including health benefits to the target population.

2. The project is designed to achieve balanced and environmentally sustainable urban development in the identified priority towns by harnessing mixed-development approaches that integrate the natural terrain and resources in urban planning, design, and construction. The impact of STUDP will be balanced and sustainable development of human settlements in Sarpang, Trashigang and Samdrup Jongkhar. The outcome will be increased quality, reliability, and sustainability of urban infrastructure. This report undertakes due diligence to assess the impact of proposed subprojects on land acquisition and resettlement for proposed subproject in Samdrup Jongkhar thromde.

3. The Ministry of Works and Human Settlements (MOWHS) acting through the Water and Sanitation Division, Department of Engineering Services will be the executing agency. A program management unit, established in the MOWHS, will be responsible for planning, implementation, monitoring and supervision, and coordination of all activities under the project. The project-implementing unit under the Samdrup Jongkhar municipality will be the implementing agency and will be responsible for the daily coordination and execution of the project.

II. SCOPE OF THIS REPORT

4. This land acquisition and resettlement due diligence report (DDR) is prepared for assessing the land acquisition and resettlement impacts of subprojects in Samdrup Jongkhar. There are three civil works packages, which will be funded under STUDP in this town: (i) 2 in Samdrup Jongkhar; and (ii) 1 in Dewathang. This report will describe social safeguards aspects of Samdrup Jongkhar only.

5. Package 1 (SJM/WS/001) for the rehabilitation of the Samdrup Jongkhar water supply system improvement project involves construction of:

- (i) a 410 cubic meter (m³) reservoir;
- (ii) 3.4 kilometers (km) transmission trunk main from water treatment plant (WTP) to reservoir; and (iii) 17 km water distribution system (for supply zones 1-4).

Package 2 (SJM/SST/003) for Samdrup Jongkhar sewerage system involves construction of:

- (i) 4.5 km of sewerage network with manholes, etc. to connect 210 households and 40 institutions to the waste water treatment plant (WWTP) being constructed by the local government; and
- (ii) construction of access road, fencing, drainage and operator's quarters.

6. A due diligence process was conducted to examine land acquisition and resettlement issues for Samdrup Jongkhar as well, in line with the (ADB's Safeguard Policy Statement, 2009). The detailed due diligence is conducted after detailed designs of water supply and sewerage packages in Samdrup Jongkhar have been completed. Social due diligence process for all demonstrates that works are restricted to the road rights-of-ways and government owned land and no involuntary resettlement or acquisition of private lands will be necessary for the implementation of civil works. The works will not impact any non-titleholders and will not lead to any livelihood losses.

7. However, at the stage of preparing the Detailed Project Report, in case there are resettlement impacts during the course of project implementation, a resettlement plan will need to be prepared for the concerned sub-project in accordance with the provisions of ADB's Safeguards Policy Statement (SPS), 2009 and applicable laws of the government.

8. Upon project implementation, the project implementation unit (PIU) in-charge, will be required to undertake a review of this due diligence report, prepare a confirmation letter or report documenting any modifications for the subprojects and submit to the Project Manager in the project management unit (PMU) and ADB. A 'No Objection' confirmation is required from ADB prior to the start of construction.

9. During implementation, project management and supervision consultants contracted have visited the project sites and based on design changes of re-location of any of the structures, they have carried out detailed assessments and updated the DDR documents.

III. OVERVIEW OF SAMDRUP JONGKHAR

10. Samdrup Jongkhar dzongkhag (district) is the gateway and commercial hub of five eastern Dzongkhags. It lies in the south-eastern part of Bhutan sharing its borders with the Indian states of Assam and Arunachal Pradesh. It has a total area of 1,878 square kilometres (km²) and a population of 33,427 according to the latest National Population and Housing Census, 2017. Administratively, it comprises of two Dungkhags (Samdrupchoeling and Jomotshangkha) and eleven gewogs (blocks). The region is located at an altitude of 80-2,640 meters and it experiences hot and humid weather conditions with a maximum temperature of 36 and a minimum of 14 degree Celsius (°C). Its average annual rainfall is recorded to be 5,309.4 millimetres (mm).

11. Samdrup Jongkhar municipal area consists of Samdrup Jongkhar and Dewathang with areas of 1.90 sq km. and 2.39 sq km. respectively. Samdrup Jongkhar municipality is growing rapidly, but has not been supported by the corresponding infrastructure requirements. This led to a deteriorating quality of life due to insufficient municipal service delivery, traffic congestion, pollution and environmental degradation. To regulate this unguided development, a Structure Plan was developed in 2007 and updated in June 2013. Given the strategic location and the growth potential of Samdrup Jongkhar, development of the town in accordance with the Structure Plan and the Local Area Plan was an appropriate intervention to be supported by the currently on-going ADB supported Urban Infrastructure Project (UIP). In 2010 a study was carried out by a team of local consultants for formulation of the Water Supply Master Plan of the Samdrup Jongkhar Municipality. Based on the recommendations of this study UIP is supporting the development of water supply intake structure and water treatment plant (with associated structures) in Samdrup Jongkhar. The networked water supply will be funded under STUDP.

A. Physical Features

12. The town of Samdrup Jongkhar is located within a valley surrounded by steep slopes and teak forests. The river (Dungsam Chhu) flows through the middle of the town and across the Indo-Bhutan international border into Assam state of India. The topography of Samdrup Jongkhar town gradually slopes down towards the Dungsam Chhu and finally towards the Indian border.

13. Situated in the foothills, the dzongkhag has large fertile plain areas, rich mineral deposits and many on-going industrial and mining operations. Thus, there is a high potential and viability for agricultural and economic activities in the dzongkhag.

B. Demographics

14. The overall demographics of Samdrup Jongkhar town consists of 5,016 (54%) males and 4309 (46.%) females. The male literacy rate is higher than that of females at 88% compared with 75% of literate females.

Table 1: Demographic Information for Samdrup Jongkhar urban area

Category			Total
Gender	Male	5,016 (54%)	9,325 (100%)
	Female	4309 (46%)	
Education			
Male	Literate	(88%)	
		(75%)	
Female	Illiterate	(12%)	
		(25%)	

Source: Population and Housing Census of Bhutan, 2017.

C. Health and Education

15. Samdrup Jongkhar dzongkhag has one institute/college, seven Middle Secondary Schools (MSS), three Higher Secondary School (HSS), one Lower Secondary Schools (LSS), sixteen Primary Schools, 74 Non-Formal Education (NFE) institutions, five Extended Class Rooms (ECR) and two Monastic schools.¹ There are two hospitals, ten Basic Health Units (BHU), 36 out reach clinics (ORC) and three traditional medicine units.²

D. Economic Opportunities

16. The existing potential of Samdrup Jongkhar as a trading center for the country can be exploited by strategic development of infrastructure, housing, industries, warehouses and other facilities. Samdrup Jongkhar has a potentially strategic role to play in regional connectivity and developing trade links between Bhutan and the immediate region.

17. The growth of the town is expected to be accelerated with number of new activities e.g.- development of a second industrial estate - 170.79 acres at Motanga; and construction of the 600 MW Kholongchhu Hydroelectricity project in Trashigang which will make Samdrup Jongkhar

¹ Source: Annual Education Statistics, 2018

² Source: Annual Health Bulletin, 2018

town, with Nganglam, the main transit points for project goods and services to the entire eastern region.³

E. Use Pattern of the Surveyed Properties

18. Samdrup Jongkhar has recently been designated as a Municipality in 2011, one of only four in the country – the others being Thimphu, Phuentsholing and Gelephu.

19. Samdrup Jongkhar is a bustling town enlivened by the regular entry of transient population from India engaged and interacting with the local population in various economic and social activities. The Dzongkhag administration in the past has invested far less in terms of urban infrastructure compared with Thimphu and Phuentsholing. The increasing population demands for an increased infrastructure of the town. The town is rapidly expanding and has large growth potential, being a gateway to southeastern Bhutan. Water supply facilities is identified in the Samdrup Jongkhar Structure Plan as the priority urban infrastructure need. In the town proper, there is currently intermittent water supply due to an acute shortage of water.

20. The land within the Samdrup Jongkhar town boundary (194 hectares) is composed mainly of forested and highland agricultural areas. Of this, only 23.87 ha is suitable for development and is already fully developed. Owing to land constraints, development has already grown beyond the existing city boundaries to elevated areas.

21. With the inclusion of Dewathang town to form the new Municipality in 2011, its area has expanded. However, this additional area is located in a high elevation with minimal scope for expansion.

22. The new municipality (created in March 2011) has its own administration office. While it has a newly elected mayor supported by administrative and technical staff to attend to and address the basic needs and services of the population, it still relies mainly on the support of the district for its financial and technical requirements.

F. Infrastructure and Social Services

23. Like any other developing town in Bhutan, the infrastructure of Samdrup Jongkhar is insufficient to meet the need of its fast-growing population. The approximately 16.11 km road network is inadequate to ensure smooth traffic flow. Over the years, the number of vehicles plying the town has increased and the physical and infrastructure resources and services have not been able to match requirements.

24. The telecommunication requirement, the landline telephone system, cellular phone and internet service for the population are provided by Bhutan Telecom.

25. The health and medical infrastructure includes a health center and the District hospital. As for the educational system, Samdrup Jongkhar is under the jurisdiction of the Bhutan Board of Examination. There are several educational institutions in Samdrup Jongkhar, which include a new Higher Secondary School, a Middle Secondary School, a private school and a primary school. Likewise, with the inclusion of Dewathang under the Samdrup Jongkhar Municipality, it now has a technical college providing higher education.

³ Eleventh Five-Year Plan, Main Document Volume 1.

IV. ASSESSMENT OF LEGAL AND POLICY BACKGROUNDS

26. The policy framework for the Project is based on the ADB's SPS 2009, ADB Operations Manual and the Land Act of Bhutan 2007. Where differences exist between local law and ADB practices, the policy difference will be resolved in favour of the policy, which has the higher standard.

27. The Land Act of Bhutan 2007 states that: *“in case of land acquired in Thromde, the land owner shall be provided cash compensation. If the land to be acquired is the only plot owned by the landowner in the Thromde, the Government shall consider a substitute land in the same Thromde. If the value of the substitute land is inadequate, additional cash compensation shall be paid commensurate to the value of land.”*⁴ Also the subsequent section states that: *“upon acquisition, if the remaining parcel of land is less than 10 decimal, such land both in Thromde and rural areas shall also be acquired.”*

28. Compensation for land acquisition and compensation for crops/ fruits etc. are regulated in the Property Assessment and Valuation Agency (PAVA) document, the most recent revised rates issued by the Ministry of Finance in 2017.

29. ADB's SPS is aimed at avoiding involuntary resettlement wherever possible; minimizing involuntary resettlement by exploring project and design alternatives; enhancing, or at least restoring, the livelihoods of all displaced persons⁵ in real terms relative to pre-project levels; and improving the standards of living of the displaced poor and other vulnerable groups.

30. In compliance with ADB's requirements, affected people in a project area could be of three types: (i) persons with formal legal rights to land lost in its entirety or in part; (ii) persons who lost the land they occupy in its entirety or in part who have no formal legal rights to such land, but who have claims to such land that are recognized or recognizable under national laws; and (iii) persons who lost the land they occupy in its entirety or in part who have neither formal legal rights nor recognizable claims to such land. The involuntary resettlement requirements apply to all three types of affected peoples.

31. Comparison between ADB's Safeguards Policy Statement and Land Act of 2007 of Bhutan is in Table 2.

Table 2: Comparison of the Royal Government of Bhutan' Land Act of 2007 and ADB Involuntary Resettlement Safeguards Policy

ADB's Involuntary Resettlement Policy	Royal Government of Bhutan's Policy (Land Act of 2007)	Compliance with ADB's Involuntary Resettlement Policy-Remarks
1. Involuntary resettlement should be avoided wherever feasible.	Involuntary resettlement should be avoided where feasible.	▪ No difference.
2. Where population displacement is unavoidable, livelihoods should be enhanced or restored	Not mentioned explicitly but followed in practice.	▪ Displacement is not envisaged under the project.

⁴ Land Act of Bhutan, 2007, Sections 148 and 150.

⁵ According to clarifications provided in the ADB's Safeguard Requirements SPS Safeguard Requirements No 2 on Involuntary Resettlement, 2009, displaced persons are those who are physically displaced (relocation, loss of residential land, etc.) and/or economically displaced (loss of land, assets, access to assets, income sources, or means of livelihood) because of involuntary acquisition of land, or involuntary restrictions on land use, etc.

ADB's Involuntary Resettlement Policy	Royal Government of Bhutan's Policy (Land Act of 2007)	Compliance with ADB's Involuntary Resettlement Policy-Remarks
in real terms relative to pre-project levels;		
3. Conceive and execute involuntary resettlement as part of a development project or program.	In this Act (section 319), unless the context requires otherwise, the term: Public interest means the needs arising out of socio-economic development and environmental concerns including cultural, environmental, heritage, protection of land degradation, recreational, social and strategic interests as determined by the Government.	<ul style="list-style-type: none"> ▪ Full equivalence.
4. People affected should be informed fully and consulted on resettlement and compensation options. This includes informing all displaced persons of their entitlements and resettlement options.	Displaced persons are not provided with information about their entitlements other than the choice of substitute land or cash compensation.	<ul style="list-style-type: none"> ▪ Consultation and information generally carried out with affected persons though not overtly described in Land Act. ▪ PIUs will engage in meaningful consultation throughout the project
5. The absence of a formal legal title to the land by some affected groups should not be a bar to compensation; particular attention should be paid to households headed by women and other vulnerable groups, such as indigenous peoples and ethnic minorities, and appropriate assistance provided to help them to improve their status.	Not spelled out	<ul style="list-style-type: none"> ▪ Bhutan does not recognize Indigenous people as a separate group. All groups are mainstreamed in the urban society (no discrimination of any kind noted). ▪ Not consistent with ADB policy of providing compensation for non-titled persons. ▪ Replacement cost or value of land as prescribed in PAVA 2017. ▪ No land acquisition, involuntary settlement, economic or physical displacement are foreseen under the project.
6. Affected persons should be fully informed/consulted in resettlement and compensation options (meaningful consultation)	There are no provisions pertaining to consultation with affected persons other than permitting them to choose between substitute land or cash compensation. But consultation is carried out in practice.	<ul style="list-style-type: none"> • Equivalence with SPS in terms of actual practice. • No land acquisition, involuntary settlement, economic or physical displacement are foreseen under the project.
7. Affected persons should be compensated for all their losses at replacement cost	Policy states that compensation to be based on PAVA rate and Bhutan Schedule of Rates	<ul style="list-style-type: none"> • PAVA 2009 rates are much less than the market rates. However, the PAVA rates

ADB's Involuntary Resettlement Policy	Royal Government of Bhutan's Policy (Land Act of 2007)	Compliance with ADB's Involuntary Resettlement Policy-Remarks
	which are revised from time to time.	have been revised lately in 2017- the new rates are much closer to the market rates.
8. Affected persons should be timely compensated	Policy does not mention this but compensation is made before the start of project	<ul style="list-style-type: none"> • In practice there is equivalence with SPS.
9. Improve the standards of living of the displaced poor and other vulnerable groups, including women to at least national minimum standards	<p>While poor and vulnerable groups are not excluded there are no provisions directly relating to these groups and towards improving the standards of living.</p> <p>It is noted that there is provision for the granting of rehabilitation land to landless households. This however is not in the context of acquisition.</p>	<ul style="list-style-type: none"> • This is not applicable for STUDP. However, projects where this situation arises should require that the standards of living of the displaced poor and vulnerable groups, including women, should be improved to at least national minimum standards and this provision should be incorporated in the project resettlement plans (which will be prepared if any resettlement issues are identified during project implementation)
10. Establish a GRM to receive and facilitate resolution of the affected persons' concerns.	No policy.	<ul style="list-style-type: none"> • Project GRM will be established and will assist in solving issues pertaining to land acquisition or involuntary resettlement, should such issues arise during project implementation.

ADB = Asian Development Bank, GRM = grievance redress mechanism, PAVA = Property Assessment and Valuation Policy, PIU = project implementation unit, SPS = Safeguard Policy Statement, STUDP = Secondary Towns Urban Development Project.

Source: Asian Development Bank

V. PROJECT DESCRIPTION: WATER SUPPLY

A. Project Description: Rehabilitation of Samdrup Jongkar Water Supply System Improvement Project - Contract package- SJM/WS/001

32. The STUDP will develop downstream water supply infrastructure in Samdrup Jongkhar, directly complementing the water supply works (intake and water treatment plant) being undertaken under the ADB supported Urban Infrastructure Project (UIP, Loan 2816- BHU).⁶

33. The design monitoring and supervision consultant (DMSC) recruited under UIP prepared the final detailed design for the rehabilitation of the entire water supply system (including portion to be funded under STUDP) taking into consideration an integrated water management system

⁶ UIP supports sustainable urban development in Thimphu, Phuentsholing, and Samdrup Jongkhar Municipality. ADB is providing almost 85% funding of the \$23.70 million project cost while the remaining costs will be met by the Royal Government of Bhutan.

for Samdrup Jongkhar, which is based on the Structure Plan and Local Area Plan of the town. The works are currently on-going under UIP.

34. The scope of Loan-2816-BHU Project rehabilitation covers four zones:

Figure 1: Schematic Diagram of the 2816 Samdrup Jongkhar Rehabilitation

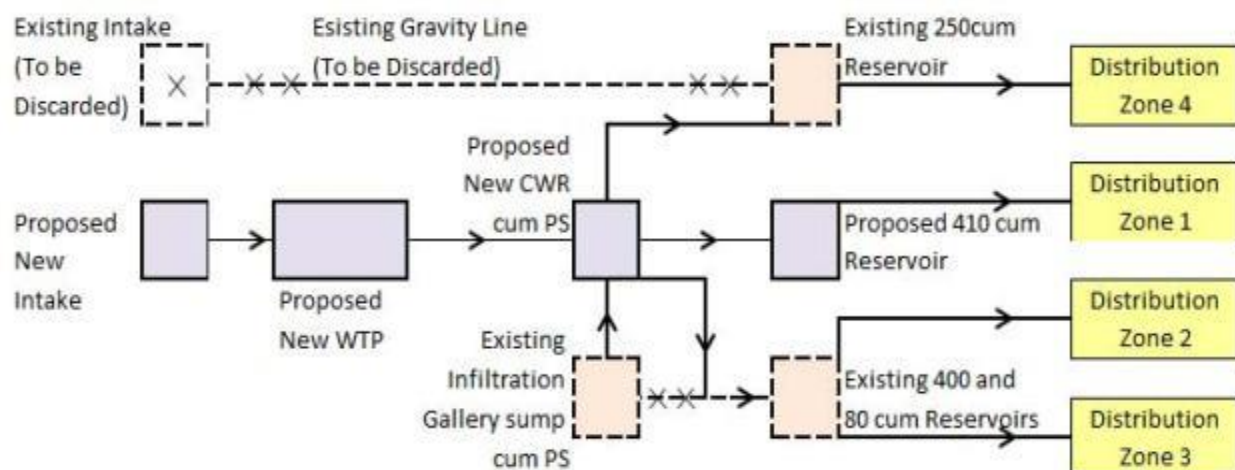


Table 3: Proposed Reservoirs being rehabilitated under L2816

Water zones	Zone 1	Zone 2	Zone 3	Zone 4
Proposed/ Existing	Proposed	Existing	Existing	Existing
Location	Near Gup Sonam's residence	Near Hospital	Near VIP Guest Houses	Near 4 Kilo
Capacity	Proposed	400 m ³	80 m ³	250 m ³
Ground level	188 masl	205 masl	248 masl	220 masl
LAP covering	1	3 and 2	3 and 4	2 and 4
Required capacity for 2048	408 m ³	414 m ³	83 m ³	240 m ³
Recommendation	Proposal for new reservoir of 410 m ³ capacity.	Existing can serve the requirement up to year 2046. Additional 14 m ³ to be constructed in the year 2045.	Existing can serve the requirement up to year 2046. Additional 3 m ³ to be constructed in the year 2045.	Rehabilitation required in strengthening its structural strength in order to utilize it up to 2048.

LAP, local area plan, masl = meters above sea level, m³= cubic meter.

35. Loan 2816 did not have sufficient funding envelope to cover all the rehabilitation requirements. Thus, in discussion with the Samdrup Jongkhar municipality and MOWHS, STUDP will support balance of the water supply investments covering:

- (i) Construction of 410 m³ reservoir at an area, which is confirmed as government-owned land;
- (ii) Construction of 3.4 km transmission trunk main from the Water Treatment Plant up to the reservoir; and
- (iii) Construction of 17 km distribution system supply for Zones 1-4.

The scope of the works has remained the same even after the updating and finalizing the design report prepared by the WSD, MOWHS.

B. Survey Results and Public Consultation

36. Specific questions were addressed by way of a supplementary survey questionnaire specific to the water project in Samdrup Jongkhar. The supplementary survey was conducted to understand existing situation regarding access to water, potential positive and negative impacts/concerns related to the proposed project and felt needs for improved water supply. The results of this questionnaire are in Appendix 1 show that the majority have heard about the project and all support the project in expectation of a wide range of benefits. However, people also have some concerns with regard to impact on their private land and the immediate environment. ADB and PMU, MOWHS conducted consultation with elected leaders on 4 August 2017 to ascertain the needs of the communities and their willingness to pay increased tariffs for the improved services. The elected leaders advised that people are willing to pay increased tariffs if there is a substantial improvement in water supply services.⁷ The thromde (municipality) has undertaken subsequent consultations with the residents regarding project timelines and grievance redress mechanism has been set up for the project. Notification for the same is provided in Appendix 2.

37. The public consultation under the project preparatory technical assistance was conducted on 07 March 2017 with 25 participants out of whom 13 were male and 12 were female. The welcome address and introduction on the Project was highlighted by the Municipal Engineer, PIU, Samdrup Jongkhar. The minutes of the public consultation and findings are attached in Appendix 3. The public clearance is appended in Appendix 4.

C. Awareness and Support of the Proposed Subproject

38. The participants were briefed about the project and 80% of the participants were found to be aware of the project. All participants were in complete support of the project. The project sites have already been identified. Site visits have confirmed that the sites identified are government owned and existing road right of ways. Therefore, no private land and assets are found to be affected. The land in which the facilities will be laid are owned by the government (state reserved forests) and currently unused and therefore free from encumbrances.

D. Land Acquisition and Resettlement

39. It is confirmed that the subproject will not impact or affect any private assets as assured by the Thromde officials and validated during the site visits by the project preparatory technical assistance (PPTA) consultants and ADB project team. The field visits/ reconnaissance surveys and discussions with the Thromde, residents of the local areas and Department of Engineering Services of the MOWHS helped establish that: (i) all works are restricted to the road right of way (ROW) which are vacant and unused government land; (ii) none of the ROW or government land is used in any productive manner or source of business and land areas are free of encumbrances and will not impact any non-titleholder and no livelihood losses, partial or full, permanently or temporarily, will be incurred; and (iii) the project will not require any involuntary resettlement or private land acquisition. Based on these findings there is no need for further surveys or inventories of loss of assets to be prepared. The Project Management & Supervision Consultants (PMSC) also visited the sites to assess for potential impacts and confirmed that no impacts are foreseen. The ADB Mission in August 2019 requested the PIU to carry out a detailed measurement survey

⁷ Currently poor-quality water is supplied 2-4 hours per day.

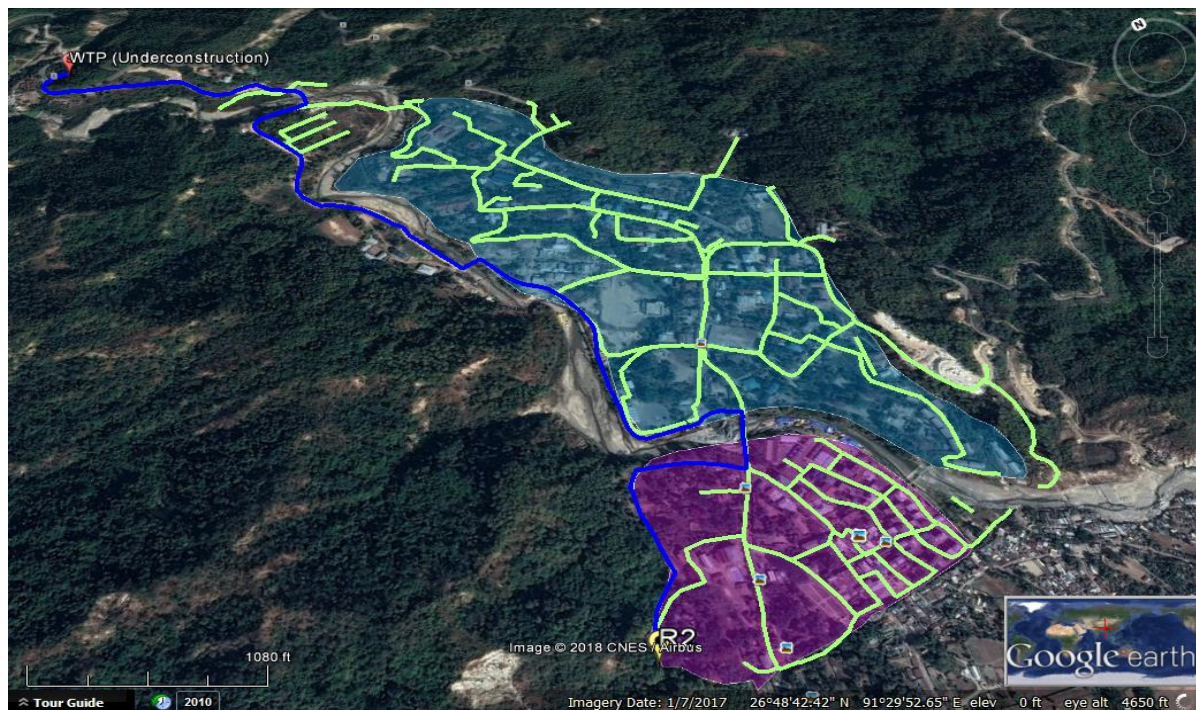
of the water and sewerage alignments – namely the pegging of the alignments so that the social and environmental impacts of any could be confirmed prior to award of tenders of works. This is yet to be done. The PIU has been advised by the PMU to complete the Detailed Measurement Survey (DMS) before the award of work so that claims made during the DPR stage that there are no impacts can be verified and if impacted the social safeguards due diligence procedures can be initiated. The tender evaluation is currently in process so PIU will be instructed to expedite the DMS. However, if there are impacts during construction arising from alignment change of the pipeline, etc. the impacts will be assessed and the DDR will be updated to a Resettlement Plan if compensations have to be made for loss of cash crop trees, or structures falling in the right of way of the water and sewerage pipelines. It will be ensured that compensation will be completed prior to civil works contracts are awarded.

40. Below are the components and status of land ownership:

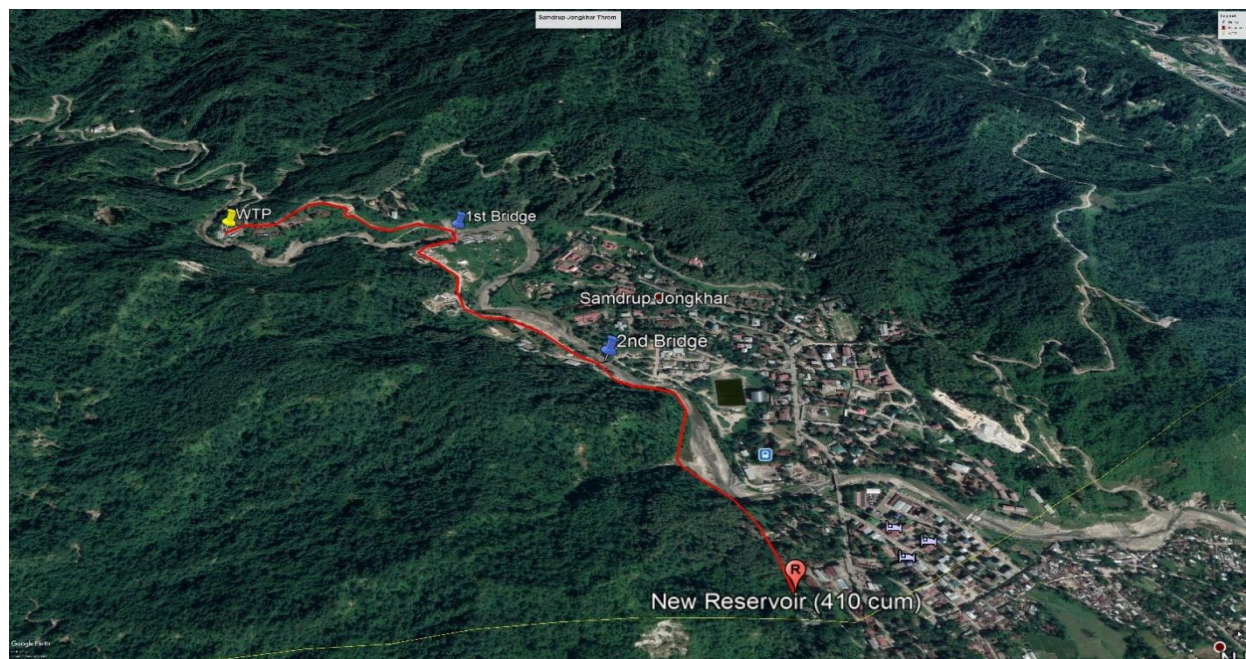
Table 4: Subproject Components and Land Ownership Status

Component	Status of Land Ownership
i. Construction of 410 cubic meter (m ³) reservoir	Proposed site is a within ROW and government owned land which is currently barren. No impacts to structure, livelihood losses or any other uses is recorded. Therefore, no involuntary resettlement impacts are anticipated. Map 1 illustrates overall map of water supply system showing the main line while Map 3 illustrates the location of the clean water reservoir. Please refer to Appendix 5 for the certificate of land ownership.
ii. Construction of 3.4 kilometers (km) transmission main from the Water Treatment Plant up to the reservoir	Proposed site is government owned land which is free of encumbrances. Line will traverse along shoulder of bypass road which is within the road right of way and currently unused. See maps 4,5,6,7 and 8. Certificate of land ownership is attached in Appendix 5.
iii. Construction of 17 km distribution system supply for Zones 1-4.	Proposed alignments are on government land and road right of way. No private land acquisition will be required and no permanent or temporary involuntary resettlement impacts are anticipated. Map 2 below illustrates the overall map showing distribution system for supply zones 1-4. Certificate of land ownership is attached in Appendix 5.

Map 1: Samdrup Jongkhar Thromde-Overall Map of Water Supply System Showing Distribution System for Supply Zones 1-4



Map 2: Samdrup Jongkhar Thromde-Overall Map of Water Supply System Showing Main line

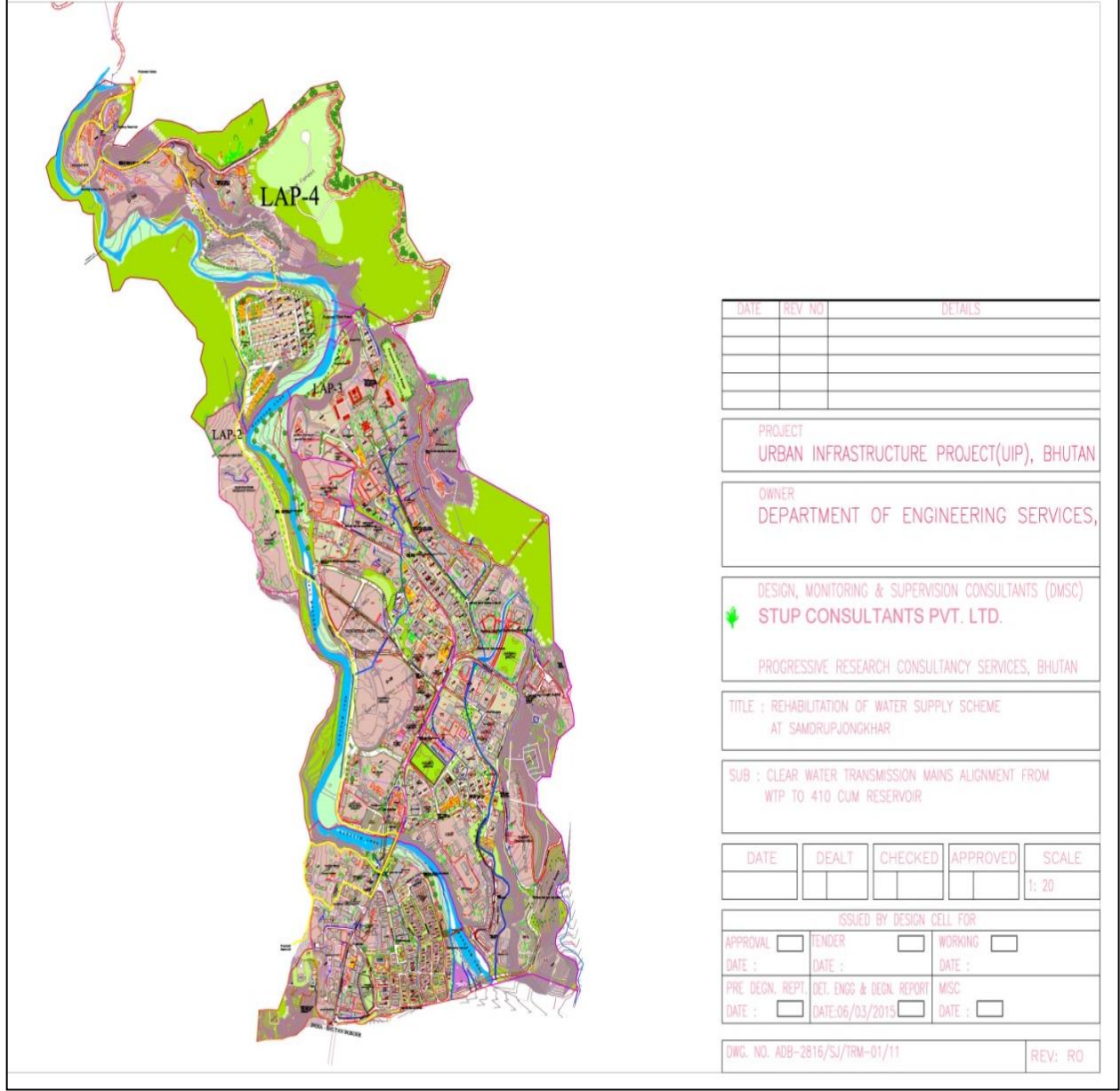


Map 3: Samdrup Jongkhar Thromde- Location of 410m³ Clear Water Reservoir



Source: PMU, STUDP: derived from Google maps.

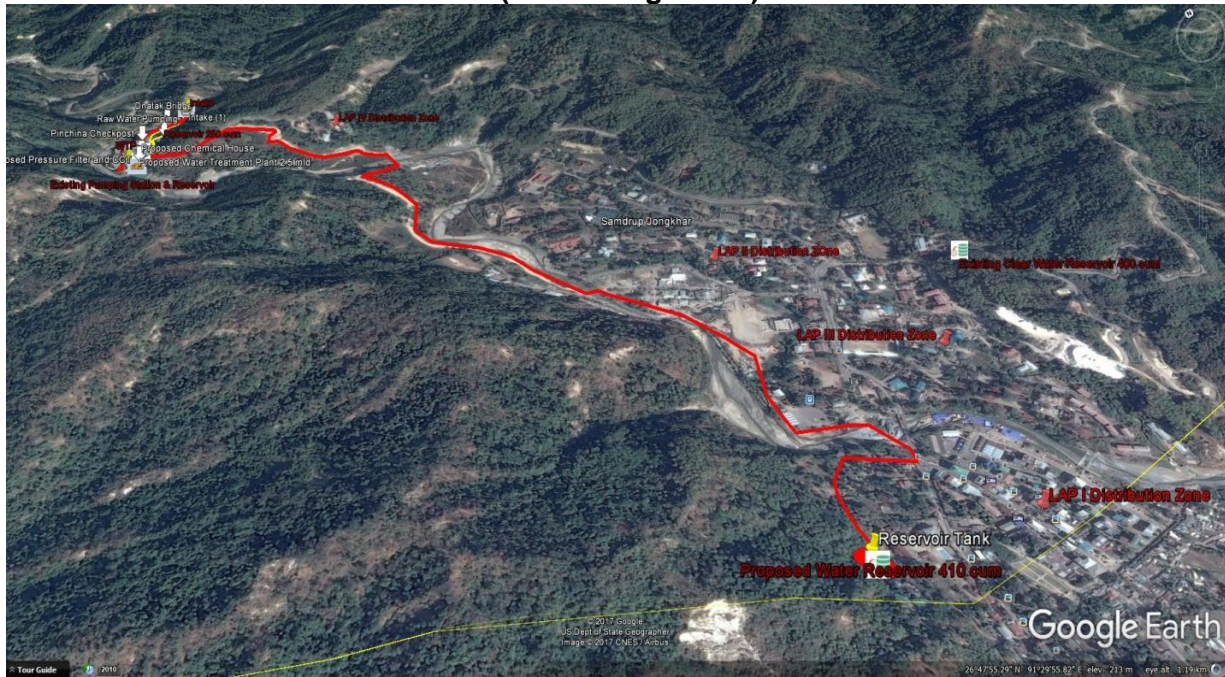
Map 4: Samdrup Jongkhar Thromde- Transmission Main from Water Treatment Plant to Clear



Water Reservoir

Source: STUP consultants (Detailed design and management consultants for Urban Infrastructure Project L2816).

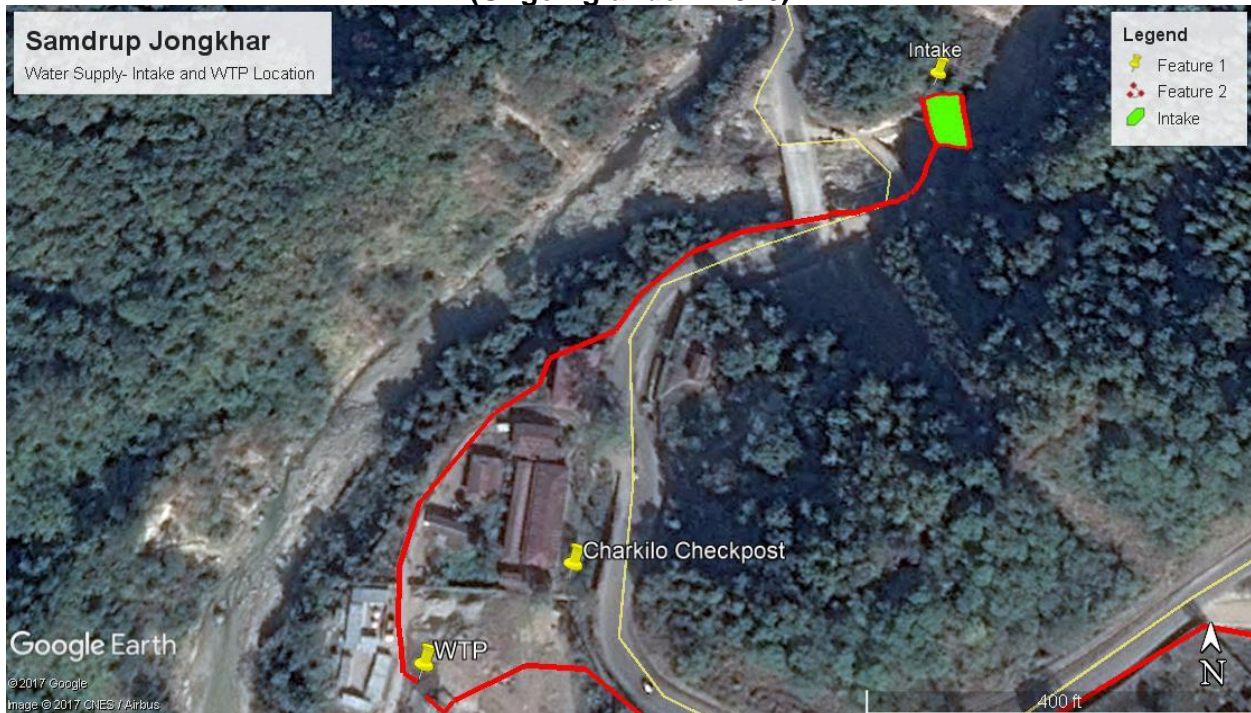
Map 5: Samdrup Jongkhar Water Supply- Clear Water Transmission Main (overall alignment)



Source: PMU, STUDP- derived from Google maps.

41. The transmission main from the WTP till the reservoir tank (3.4 km) will traverse along the shoulder of the bypass road which is currently under construction and will not affect any private assets.

Map 6: Samdrup Jongkhar Water Supply - Water Treatment Plant and Intake (Ongoing under L2816)



Source: PMU, STUDP- derived from Google maps.

Map 7: Samdrup Jongkhar Water Supply-Transmission Main (Sectional Blow-ups)





Source: PMU, STUDP- derived from Google maps.

Map 8 showing locations of all Reservoirs. The new reservoir (410 cum) will be built under STUDP



E. Summary of Issues and Mitigations

42. A summary of issues and concerns is provided in table 5 which is specific to the subprojects in Samdrup Jongkhar. These were gathered during the public consultation, focus group discussions with women, key informants’ interview with government officials, responses to structured questionnaires administered to households and other stakeholders. Similarly, impact mitigation measures were also suggested.

43. The participants view water as an important resource for everyday needs and thus, they give their full support to the project.

Table 5: Summary of Social Issues and Mitigation

<p><i>Positive Impact of the Project</i></p> <ul style="list-style-type: none"> • Improvement on health and sanitation condition; • Improvement on environmental condition; • Sufficient supply of drinking water operating regularly (current supply merely operates for about two hours a day); • Savings on time on fetching water; • Women could engage in other productive work to enhance income; and, • Signified willingness to pay for water tariff. <p><i>Other Possible Impacts</i></p> <ul style="list-style-type: none"> • Increase in water tariff; • Residents willing to pay increased tariff if there is marked improvement in water supply; and, • Water readily not available in case of industrial, farming and individual use during construction. <p><i>Suggested mitigation measures from the Community Consultations</i></p> <ul style="list-style-type: none"> • Consider subsidized rates for vulnerable families.

F. Conclusion and Recommendations

44. The overall benefit would be the improvement of the current water crisis faced by the residents of Samdrup Jongkhar Thromde. With additional reservoir tank construction, the water supply is expected to be adequate, especially for the newly planned areas of the town enabling the residents to enjoy regular water supply throughout the year, both in terms of quality as well as quantity.

45. No private land acquisition or involuntary resettlement impacts are identified at any of the project sites for any of the subproject components as works will be restricted to the ROWs and government owned lands free from encumbrances and are not used for any economic activities (formal or informal). There are no non-titleholders along these stretches and there will be no livelihood losses, assets or structures, either full or partial, permanent or temporary, is anticipated. The implementing agency (Samdrup Jongkhar Thromde) will ensure that there is minimal to no disruption of access and service to residents during the project implementation. The Thromde will ensure that services and access (wherever affected) will be reinstated promptly through adequate consultation with the affected communities. The environmental management plan (which is legally binding for the contractor to implement) will ensure that mitigation measures associated with temporary construction impacts (dust, noise, access restrictions) will be adequately addressed.

The environmental management plan (EMP) incorporates measures like leaving spaces for access between mounds of soil, providing walkways and metal sheets to maintain access across trenches for people and vehicles where required; increased workforce to finish work in areas with impacts on access; timing of works to reduce disruption during business hours; phased construction schedule; and working one segment at a time and one side of the road at a time. It is critical for the works to be completed as per schedule to minimize disturbances to the communities near the project sites.

46. The DDR is based on detailed designs and will need to be updated by the PIU in case of any design or site changes. The updated DDR needs to be approved by the ADB prior to implementation of works. Updated DDR will be verified by the project team and uploaded on the ADB website.

VI. PROJECT DESCRIPTION: SANITATION AND SEWERAGE

A. Project Description: Samdrup Jongkhar Sanitation and Sewerage Project Contract Package- SJM/SST/003

47. Samdrup Jongkhar Local Area Plan (LAP) 1 sewerage system and wastewater treatment plant (WWTP) were commissioned at the start of 2015. These were undertaken using thromde's internal budget allocations. Prior to that, all sanitation comprised on-site septic tanks and soak pits. Most properties are now connected to the sewerage system. The main reason some properties in the main town are not connected is adverse levels owing to topography.

48. The WWTP is situated southeast of LAP 1 near the Dungsam Chhu and the border with India. It comprises a single chamber buffer tank, an equalizing tank and two compact Eco-Line 9N aerobic wastewater treatment units. The on-site septic tanks are now bypassed so bathroom wastewater now goes directly to the sewer. Kitchen grey water is still discharged to the surface drains.

Map9: Satellite Image of Samdrup Jongkhar LAP 1



Source: TA- 8551, derived from Google maps.

The treated effluent is discharged directly to the Dungsam Chhu while the faecal sludge removed from the baffle tank and the wastewater treatment units (WTU) is put into open drying beds. The Eco-Line supplier has a maintenance contract with the Thromde, to keep the WTUs operating correctly, carry out repairs and remove sludge to the drying beds. The latter is done quarterly, and can be difficult and lengthy. The dried sludge is disposed of at the solid waste landfill site.

Photograph 1: Present solid waste landfill site



Source: TA- 8551

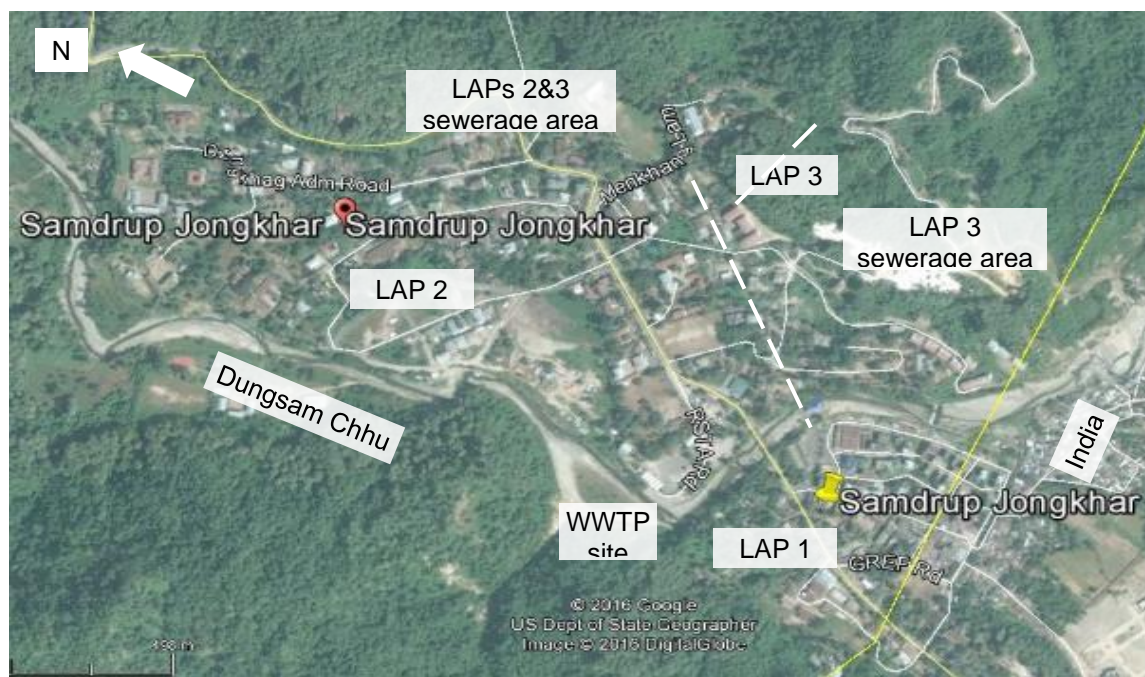
49. A second sewerage system, including a WWTP, is being developed to serve the LAP 2 area and only a part of LAP 3. The WWTP will be similar to the LAP 1 WWTP, but will comprise of 2 numbers 10N Eco-Line units. The design capacity is for 4,500 population equivalents. It has been designed using ADB funds.⁸ The work, including the sewerage element, is being funded by the government and the contract for the WWTP has already been awarded. The supplier under contract will provide maintenance.

50. The remaining (south-eastern) part of LAP 3 cannot be served by this system because it is too low-lying; also the Thromde has failed to acquire land for an additional WWTP.⁹ This area is a mix of institutional and residential properties. The former includes a depot and a building intended to be a slaughterhouse, on Government land, near the India border. The latter includes several National Housing Development Corporation apartment properties. These buildings have on-site sanitation systems. A large surface water drain runs north - south through the area to the river and the border, near the slaughterhouse. Currently, it carries a lot of the area's kitchen wastewater, as well as storm runoff.

⁸ 2011. *Report and Recommendation of the President to the Board of Directors: Proposed loan to the Kingdom of Bhutan: Urban Infrastructure Project*. Manila.

⁹ The estimated population of LAP 3 population that will not be served with sewerage following the completion of LAPs 2 and 3 sewerage system, is around 400 – 500 people based on average household size of 4.3

Map 10: Satellite image of Samdrup Jongkhar LAPs 2 and 3



Source: TA- 8551, derived from Google maps

51. STUDP will support the expansion of the sewerage system to connect LAP 2 and areas of LAP 3 to the newly constructed WWTP. The components of the proposed subproject to be funded under STUDP are:

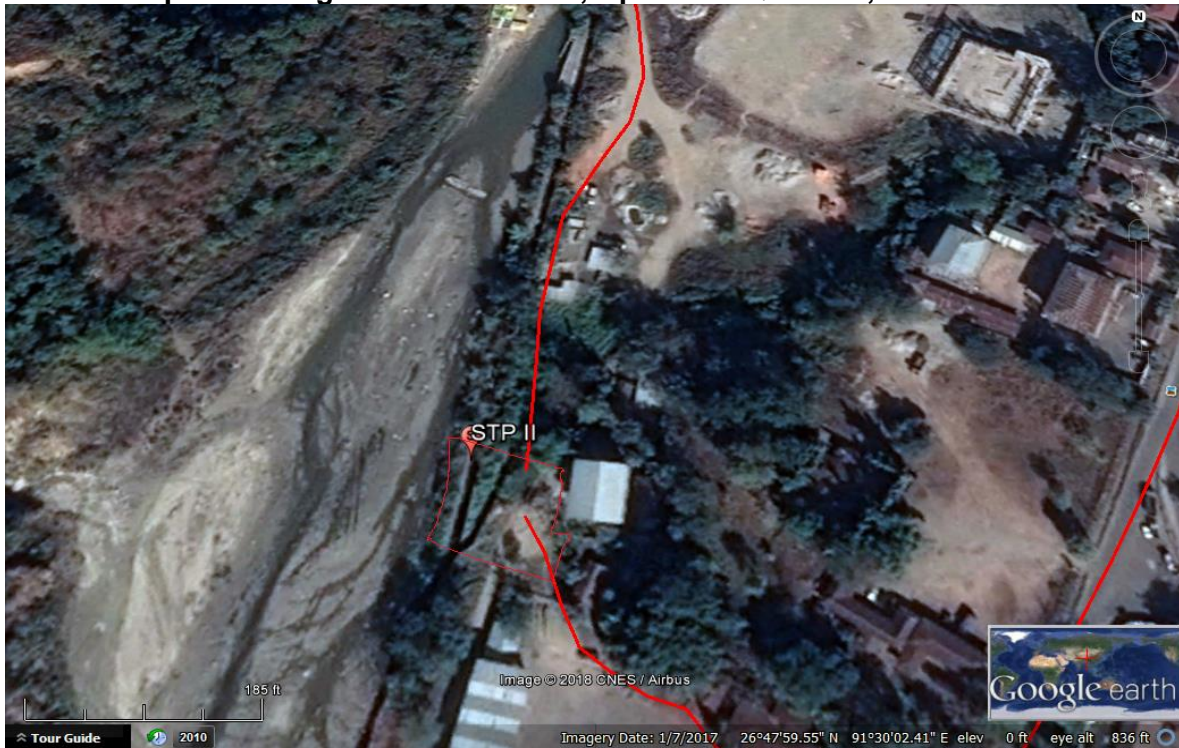
- (i) Construction of 4.5 km length sewerage network with manholes, etc. to connect 210 households and 40 institutions to the proposed WWTP (to serve LAP 2 and 3). Please see map 10; and
- (ii) Construction of access roads, fencing, drainage, operator's quarters, etc.

Map 11: Sewerage System Layout (Local Action Plan 2 and 3)



Source: PMU, STUDP- derived from google maps.

Map 12: Sewage Treatment Plant, Operators Quarters, Access Road



Source: PMU,STUDP- derived from google maps.

B. Public Consultation and Survey Results

52. Public consultation was conducted on 8 March 2017 with 25 participants out of whom 13 were male and 12 were female. The Municipal Engineer, Samdrup Jongkhar welcomed and introduced the Project. The minutes of the public consultation and findings are attached in Appendix 3, while public clearance is appended in Appendix 4.

53. Specific questions were addressed by way of a supplementary survey questionnaire specific to the sewerage project, the results of which are presented in Appendix 6. These were collated and analysed and presented in Table 5 which illustrates the wide range of benefits focusing on immediate effects such as water sufficiency but also outcomes like better health and sanitation, time savings used for exchange (income generation) and incentive to pay for water. However, there were also concerns on water tariff and in-affordability by low income groups and diversion of enhanced water available to agriculture, construction work among others. A recommendation which emerged was subsidized water tariff for vulnerable groups.

54. The Project Implementation Unit (PIU) conducted consultations on 22 May 2019 mainly to inform land and property owners about the project and to discuss the costs of sewerage connections. The meeting of 7 May was called off due to insufficient participants. In the meeting of 22 May 2019, the landowners agreed to share the costs but highlighted the need to be informed of the costs worked out per owner and also emphasized that quality of construction must be closely monitored. The minutes are presented in Appendix 3. There were 34 participants in the meeting of 22 May 2019 of whom 17 were male and 17 were female. The person (female) under serial number 35 is a PIU official.

C. Awareness and Support of the Proposed subproject

55. The participants were briefed about the project and 80% of the participants were found to be aware of the project. All participants were in complete support of the project. The project site had already been identified and visited by PPTA team members a day before the public consultation.

56. The consultation also confirmed that the sites identified were government-owned land and free from encumbrances and no private land and assets are affected.

Table 6: Summary of Topics Discussed during Consultation

Question	Response
Do the local person support the proposed Project?	All participants pledged to give their full support for the said Project for everybody's welfare.
Any critical issue or concern by the local people regarding the Project?	None.
Any loss of residential or commercial structures due to the Project?	None.
Any loss of Community life (like market place, public playground) or Community Activities that will be affected?	None
Would there be land acquisition that would result in resettlement, or would affect parks, forest, etc.?	None
Will the Project location adversely affect water resources?	No issues or concerns are foreseen.
Any other issues you want to share (security, cooperation from local communities)?	The participants are happy to collaborate and contribute.
Any Cultural or Sacred sites in the proposed township	No such places of religious sacred sites exist.

Note: During Public Consultation, Male participants: 17 and Female: 9 were present.

D. Land Acquisition and Resettlement

57. It is confirmed that the subproject will not impact or affect any private assets as assured by the Thromde officials and validated by the PPTA and project teams. There are no reported non-title holders and there will be no livelihood losses, permanent or temporarily, as a result of the subproject. The land acquisition and resettlement impact was studied based on the field inspections and consultations with various stakeholders. The field visits/reconnaissance surveys and discussions with the Thromde, residents of the local areas and Department of Engineering Services of the MOWHS helped establish that: (i) all works are restricted to the ROWs and government land; (ii) none of the ROWs or government land are used in any productive manner or source of business, and are free from encumbrances; and (iii) the project will not require any involuntary resettlement or private land acquisition. This DDR is prepared based on the final detailed design. Based on these findings there is no need for further surveys or inventories of loss of assets to be prepared.

58. Land ownership status of various components is below:

Table 7: Subproject Components and Status of Land Ownership

Component	Status of Land Ownership
Construction of 4.5 kilometres length sewerage system with manholes, etc. to connect 210 households and 40 institutions to the proposed wastewater treatment plant (to serve Local Area Plan 2 and 3)	Proposed site is a within ROW and government owned land. No impacts to structure, livelihood losses or any other uses is recorded. Therefore, no involuntary resettlement impacts are anticipated. Please refer to Appendix 5 for the certificate of land ownership.
Construction of access roads, fencing, drainage, operator's quarters, etc	Proposed subproject will be constructed in available and vacant government land. No public or private structure exists on the site and no other use is observed. Therefore, no involuntary resettlement impacts are anticipated. The municipality has provided certificate of ownership in Appendix 5.

E. Summary of Issues and Mitigations

59. The perceived benefits and impacts due to sewerage improvements have been articulated during consultations, focus group discussions and interviews and are reflected in the following tables below. The impacts during construction (such as dust noise etc.) will be mitigated through measures outlined in the environmental management plan, which is a contractual obligation of the contractor. This has been communicated to the residents.

Table 8: Summary of Social Issues and Mitigation: Samdrup Jongkhar Sewerage

Positive Benefits	% Yes	Negative Impact	% Yes
-clean surroundings	100%	- Will experience temporary disturbance during construction	100%
-improve sanitation	100%	- Noise and pollution during construction	100%
-improve health Improvements need to be made to benefit the area	100%		

Notes: % of participants who confirmed yes, they are aware of these issues.

Table 9: Summary of Social Issues and Mitigation

<p>Positive Impact of the Project</p> <ul style="list-style-type: none"> • Piped sewerage system within the town area with safe disposal of treated effluent; • Avoid individual septic tanks and soakage pits; • Avoid overflow/spills of the septic tanks; • Maintain safe and sanitary conditions; and, • Protect public health and environment. <p>Current Condition</p> <ul style="list-style-type: none"> • Lack of land space to build individual septic tanks within plot boundary; • Sewage spills from septic tanks and inefficiency of soak pits; • Contamination of storm drains and finally the receiving water bodies such as rivers/streams with septic tank effluent; • Odor and unpleasant environment; and • Absence of vacuum tankers/ cesspool cleaners to empty septic tanks. <p>Suggestions from the Community Consultations*</p> <ul style="list-style-type: none"> • Build wastewater treatment plant (WWTP) at suitable location with appropriate process technology; • Build piped sewer network within the town connecting all individual properties; • Make available cesspool cleaners to empty septic tanks where laying of sewers is not technically feasible; • Awareness campaigns for the beneficiaries; and • Capacity building of engineers/ technicians responsible for operation and maintenance of the WWTP. <p><i>* Suggestions were considered and incorporated in the project design.</i></p>

F. Conclusion and Recommendations

60. The STUDP will support the construction of the sewer network to connect the LAP 2 and 3 area. The due diligence report is based on detailed engineering designs prepared by MOWHS. Due diligence confirms that the sewer pipes will be laid in the road right of ways and the operators quarters and other associated facilities will be constructed on government land. All sites are free from encumbrances and are not used for any economic activities (formal or informal). No non-title holders will be affected and there will be no livelihood loss because of the sub-project. 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), full or partial, permanent or temporary, is anticipated.

61. The implementing agency (Samdrup Jongkhar Thromde) will ensure that there is minimal to no disruption of access and service to residents during the project implementation and that services and access (wherever affected) will be reinstated promptly through adequate consultation with the affected communities. The environmental management plan (which is legally binding for the contractor to implement) will ensure that mitigation measures associated with temporary construction impacts (dust, noise, access restrictions) will be adequately addressed. The EMP incorporates measures like leaving spaces for access between mounds of soil, providing walkways and metal sheets to maintain access across trenches for people and vehicles where required; increased workforce to finish work in areas with impacts on access; timing of works to reduce disruption during business hours; phased construction schedule; and working

one segment at a time and one side of the road at a time. It is critical for the works to be completed as per schedule to minimize disturbances to the communities near the project sites.

62. The DDR is based on detailed designs and will need to be updated by the PIU in case of any design or site changes. The updated DDR needs to be approved by the ADB prior to implementation of works. Updated DDR will be verified by the project team and uploaded on the ADB website.

VII. GRIEVANCE REDRESSAL MECHANISM

63. Local grievance redress mechanism is important in the implementation of the proposed subproject since any complaint and concern of the affected people must be addressed promptly at no cost to the complainant and without retribution. This mechanism shall be disclosed in public consultations during detailed design and in meetings during the construction phase. Complaints about environmental performance of projects during the construction phase can best be handled by an ad-hoc committee at the local level where the subproject is located for expeditious resolutions to the complaints. Complaints during the operation phase can be brought to the attention of the MOWHS or National Environmental Commission Secretariat (NECS).

64. The project grievance redress mechanism (GRM) follows a tiered system, starting at the local level. The GRM structure has been agreed with the concerned agencies and a notification of the GRM structure as shown in Figure 3 and the grievance redress committee (GRC) composition have been provided by MOWHS. See government notification in Appendix 2. The GRM will ensure that grievances and complaints regarding land acquisition, compensation and resettlement or other social and environmental issues will be addressed in a timely and satisfactory manner. People in the towns will be made aware of their rights and the detailed procedures for filing of grievances. PIUs will be undertaking outreach activities to make people aware of the GRM and will be published on the thromde/dzongkhag and MOWHS websites. GRM will also be displayed at notice boards in the PIU offices.

65. **First level of GRM.** Aggrieved persons may first approach the contractor's site representative/ project manager in case of complaints related to construction related nuisances. The complaint must be recorded in the site register and contractor should provide a resolution to the complaint within 2 days. In case, the complaint is not resolved at this level, the aggrieved persons can then file a complaint with the PIU office. Aggrieved persons are entitled to lodge complaints regarding any aspect of the land acquisition, entitlements, benefits or rates of payment as well as any project related social or environmental issues. Complaints can be made verbally or in written form. Complaints made to the PIU should be resolved within 3 days. All complaints must be recorded by the PIU, including actions taken to resolve the complaint. Complaints, their nature and resolution should be mentioned in the quarterly progress reports. A sample grievance registration form is appended as Appendix 2.

66. **2nd level of GRM:** At this level, the PIU Manager/ Municipal level will coordinate with the Dzongkhag/Thromde Municipal Committee which should be in place prior to project implementation. This Committee will comprise of: (i) Dzongda (district administrator) or thrompon (mayor) as Chairman; (ii) municipal engineer (PIU Project managers) as Member Secretary; (iii) District engineers; (iv) district/ municipal planning officer; (v) district/ municipal legal officer; (vi) district/ municipal environmental officer; (vii) district/ municipal land record officer, (viii) town representatives (elected); and (ix) gender focal person of PIUs. The aggrieved person who filed the complaint (or representative/s from the affected household/s) will be called to present his/ her

case and deliberation on the case will be done through proper hearing or mediation. It will be the responsibility of the dzongkhag/ thromde committee to resolve the issue within 15 days from the date the complaint is received. Minutes of meeting of the Dzongkhag/ thromde committee meeting will be kept and resolution provided will be recorded for purposes of project monitoring.

67. If the complaint is unresolved at this level, the PMU, PIU or the District Administrator will inform the aggrieved person accordingly and assist them in elevating the complaint to the PMU/ Central Grievance Committee.

68. **3rd level of GRM.** Grievances not redressed at the Dzongkhag/Thromde municipal committee within 15 days will be brought to the Central Grievance Redress Committee at MOWHS level. The Central Grievance Redress Committee will comprise of: (i) Secretary, MOWHS (Chairman); (ii) Director, DES (Member secretary); (iii) Project manager, PMU; (iv) Project coordinator, PMU; (v) Water and Sanitation Division Chief; (vi) Legal Officer, MOWHS; (vii) Environmental Officer, MOWHS; (viii) Gender Officer (MOWHS); and (ix) representatives from local NGOs. It will be the responsibility of the Dzongkhag/ Thromde Committee to resolve the issue within 10 days from the date the complaint is received. In the event, the grievance is still not resolved; the aggrieved person may elevate the matter to an appropriate court of law. The court will have the final authority to approve or reject the case. Aggrieved persons may seek recourse through legal system at any stage of the GRM process.

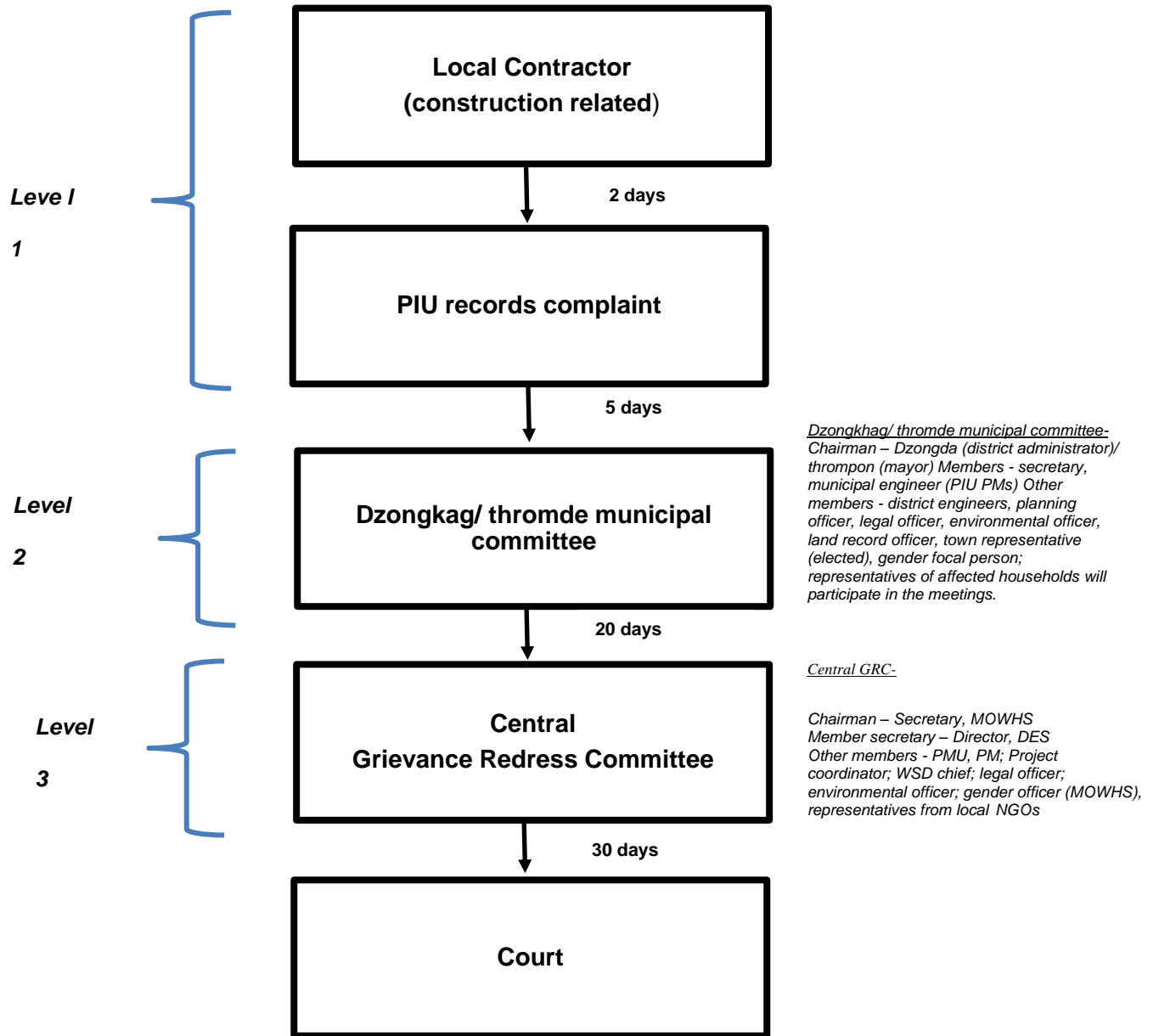
69. **Recordkeeping.** Records will be kept by the PIU of all grievances received, including contact details of complainant, date the complaint was received, nature of grievance, agreed corrective actions and the date these were effected, and final outcome. The grievance register will also be made available at Contractor's work site. Besides, a grievance or suggestion box will also be installed at an accessible location for community members to drop in suggestions or complaints.

70. **Costs.** All costs involved in resolving the complaints (meetings, consultations, communication, and information dissemination) will be borne by the Samdrup Jongkhar subproject.

71. The GRM notwithstanding, an aggrieved person shall have access to the country's legal system at any stage. This can run parallel to accessing the GRM and is not dependent on the negative outcome of the GRM.

72. In the event that the established GRM is not in a position to resolve the issue, the affected persons can also use the ADB Accountability Mechanism through directly contacting (in writing) the Complaint Receiving Officer at ADB headquarters. The complaint can be submitted in any of the official languages of ADB's Developing Member Countries. The ADB Accountability Mechanism information will be included in the Project Information Document to be distributed to the affected communities, as part of the project GRM.

Figure 3: Grievance Redress Process



Appendix-1: Survey Results on Samdrup Jongkhar Water Supply

SURVEY RESULTS ON SAMDRUP JONGKHAR WATER SUPPLY

Date: 06.03.2017

Gewog/Thromde: **Samdrup Jongkhar**

Total Number of Respondents: 31 [16] Male = 51.6% [15] Female= 48.4%

Section A: Project Awareness	
<p>1. Heard about the water project before? [24=77.4%] yes [7=22.6%] No</p> <p>2. If yes, where did you hear it from? [✓] If yes, when did you hear about it? Year 2015</p>	<p>3. Are you in favour of the project [100%] Yes [] No [] No Answer</p> <p>4. If No, why not?</p>
Section B: Perception of Positive impacts and Benefits	
<p><i>What do you think are the benefits or positive impacts for having an improved water project in your Thromde? (please check the box below as appropriate)</i></p> <p>1. Improvement on health</p> <p>1.1 Decrease incidence on health related sickness [20=64.5%] Most significant [11=35.5%] Significant [0%] Less significant</p> <p>1.2 Savings on time in collecting water [21=67.7%] Most significant [9=29.1%] Significant [1=3.2%] Less significant</p> <p>1.3 Improved condition of women and children [21=67.7%] Most significant [9=29.1%] Significant [1=3.2%] Less significant</p> <p>1.4 Regular availability of water [20=64.5%] Most significant [11=35.5%] Significant [] Less significant</p>	<p>2. Increase opportunity for economic development</p> <p>2.1 Promote urban development [18=58.1%] Most significant [13=41.9%] Significant [] Less significant</p> <p>2.2. Promote industrialization [16=51.6%] Most significant [15=48.4%] Significant [] Less significant</p> <p>2.3 Increase in trade and business [5=16.1%] Most significant [24=77.4%] Significant [2=6.4%] Less significant</p> <p>2.4 Increase potential for tourism industry [12=38.7%] Most significant [19=61.3%] Significant [] Less significant</p> <p>2.5 Provide employment for local labour during construction , operation and maintenance [15=48.4%] Most significant [13=41.9%] Significant [3=9.7%] Less significant</p> <p>2.6. Increase in land value [13=41.9%] Most significant [17=54.9%] Significant [1=%3.2] Less significant</p>

Section C: Issues and Concerns	
<p>What are some of the problems or negative issues that you perceive in implementing this project?</p> <p>1. Natural Environment and Pollution</p> <p>1.1 Loss of natural resources (trees, vegetation, etc.) [1=3.2%] High impact [8=25.8%] less impact [22=71%] No impact</p> <p>1.2. Impact on nature reserved/protected area conservation [0%] High impact [11=35.5%] less impact [20=64.5%] No impact</p> <p>1.3 Pollution (Noise, and vibration) [0%] High impact [11=35.5%] less impact [20=64.5%] No impact</p>	<p>2. Social impact</p> <p>2.1 Land acquisition and resettlement [0%] High impact [12=38.7%] less impact [19=61.3%] No impact</p> <p>2.2. Displacement of residential and business communities [] High impact [10=32.3%] less impact [21=67.7%] No impact</p> <p>2.3 Impact on cultural properties/historical settings [] High impact [4=12.9%] less impact [27=87.1%] No impact</p> <p>2.4 impact on Ethnic minorities [] High impact [5=16.1%] less impact [26=83.9%] No impact</p> <p>2.5 Loss of livelihood (productive land) [] High impact [8=25.8%] less impact [23=74.2%] No impact</p>
Section E: Information on Current Water situation	
• Present cost of water in /per cubic meter:	Nu.3.5 – 4.0 per cu. m
• Is this affordable?	[31=100%] yes [] No
• Average consumption of HHs in M3/month:	20-30 cu m/month
• Current sources of Water?	[20=64.5%] Stream [3=9.7%] Spring [8=25.8%] River [] Others
• Distance to Water Source	[16=51.6%] Near [15=48.4%] Far if far specify distance [50%]_
• Time or frequency/availability current source of water per day.	[6=19.3%] 2 hours per day [19=61.4%] more than 2 hours per day [] available all the time [6=19.3%] very irregular
• Who fetches water	[31=100%] Men [] Women [] Girl child [] Boy child
• Perception on the quality of present water source?	[24=77.4%] Good [7=22.6%] Not good [] very bad
• Sickness related to water	Specify sickness: Typhoid /Skin Rashes
• Problems on water	[9=29.1%] color not good [22=70.9%] smell is bad [] taste not good
Recommendations to improve your water services"- 24 hours clean water supply	

**Appendix-2: Grievance Redress Mechanism and Grievance Redress Cell Notification
& nomination of GRM members by Thromde**

GRIEVANCE REDRESS MECHANISM AND GRIEVANCE REDRESS CELL NOTIFICATION



དཔལ་ལྷན་འགྲུག་གཞུང་། རབ་མ་རྟོག་ལྷན་ཁག་།

ROYAL GOVERNMENT OF BHUTAN
MINISTRY OF WORKS & HUMAN SETTLEMENT
DEPARTMENT ENGINEERING SERVICES
THIMPHU: BHUTAN

“Construction Industry: Solutions through innovation and improved technology”

DES/PMU/ ADB-8551/8 195

4.12. 2017

The Director,
Urban Development and Water Division,
South Asia Department,
Asian Development Bank
6 ADB Avenue, Mandaluyong City
1550 Metro Manila, Philippines

Sub: **Grievance Redress Mechanism**

Dear Sir,

The Ministry of Works and Human Settlement would like to inform that the Grievance Redress Mechanism (GRM) has been established in the Ministry and in the Project Implementation Units. The objective of the establishment of the GRM is to redress the social, environmental and other grievances of the aggrieved persons during the implementation of the Secondary Towns Urban Development Project (STUDP) BHU-8551. The flow chart, structure of the GRM committee, the procedure that would be followed is attached.

This is as per the agreement reached with the ADB during the mission from 13th November to 17th November 2017.

Thank you,

Yours sincerely,


(Phuntsho Wangdi)
Secretary

Cc:

1. Dasho Dzongda Trashigang and Sarpang Dzongkhag
2. The Executive Secretary Samdrup Jongkhar Thromde, Samdrup Jongkhar
3. Director, Department of Engineering Services, MoWHS, Thimphu
4. Shinjini Mehta, Urban Development Specialist, SAUW, ADB, Manila, Philippines.
5. Chief Engineer, WSD, DES
6. Project Manager, ADB-8551, WSD, DES

Sample Grievance Redress Form

(To be made available in local language(s) during project implementation)
 The _____ Project welcomes complaints, suggestions, queries, and comments regarding project implementation. We encourage persons with grievance to provide their name and contact information to enable us to get in touch with you for clarification and feedback.

Should you choose to include your personal details but want that information to remain confidential, please inform us by writing/typing *(CONFIDENTIAL)* above your name. Thank you.

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

FOR OFFICIAL USE ONLY

Registered by: (Name of Official registering grievance)	
Mode of communication: Note/Letter E-mail Verbal/Telephonic	
Reviewed by: (Names/Positions of Officials Reviewing Grievance)	
Action Taken:	
Whether Action Taken Disclosed:	Yes No
Means of Disclosure:	



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**THROMDE ADMINISTRATION
SAMDRUP JONGKHAR**



SJT/IDD/20/2018-19/1954

Dated: 02/04/2019

OFFICE ORDER


It has been decided to constitute a committee comprising of the following Officers as **“Grievance Redressal Committees”** (GRM) for the ADB Project – 3674 – Secondary Town Urban Development Project for Samdrup Jongkhar Thromde required as per PAM;

Chairman – Dasho Thrompon, Karma Sherab Thobgyal

Member Secretary – Project Manager, Pema Chokey

Other members

- Nima Dorji, Executive Engineer
- Cheda Jamtsho, Planning Officer
- Tshering Chopel, Legal Officer
- Sonam Choden, Environment Officer
- Namgay Wangdi, Land Record Officer
- Respective Theumis will represent as per LAPs.


(Tougay Choedup)
Executive Secretary

Copy to:

1. Dasho Thrompon, SJT for kind information
2. The Project Manager, WDS, PMU, ADB 3674, DES, MoWHS for information
3. All members for information
4. Office Copy

Appendix-3: Minutes of the Public Consultation for Social and Environmental Safeguards and Assessment in Samdrup Jongkhar (07 March 2017) & Consultation of 22 May 2019)

MINUTES OF THE PUBLIC CONSULTATION FOR SOCIAL AND ENVIRONMENT SAFEGUARDS AND ASSESSMENT IN SAMDRUP JONGKHAR

**DOCUMENTATION OF PUBLIC CONSULTATION HELD ON 07 MAR 2017
Youth Development Fund (YDF) Hall, Samdrup Jongkhar**

List of Participants Stakeholders/Participants

- Total of 25 participants from the public including Consultants and members were present at the meeting
- Mani Kumar Rizal, Municipal Engineer
- Consultants from PRCS/Lahmeyer (project preparatory technical assistance team)

Agenda

9:15 – 10: 00 A.M	Registration	Secretariat
10:00 – 10:30 A.M	Welcome Address	Mr. Mani Kr. Rizal, Municipal Engineer, Samdrup Jongkhar
10:30 – 10:45 A.M	Introduction of Participants	Mr. Mani Kr. Rizal and Sangay Wangdi, Social Assistant
10:45 – 11:30 A.M	Presentation of Proposed Subprojects at Dewathang under Samdrup Jongkhar	Mani Kr. Rizal, Municipal Engineer, Samdrup Jongkhar
11:30 – 12:00 A.M	Open Forum	Mani Kr. Rizal, Rajesh Pradhan, Sangay Wangdi and Environmental team members
12:00 – 12:30 A.M	Closing Remarks	Mani Kr. Rizal, ME, Samdrup Jongkhar

Brief Minutes of the Public Consultation

Opening/ Presentation:

The public consultation/meeting started at 10:00 A.M. Mr. Mani Kr. Rizal, Municipal Engineer, Samdrup Jongkhar welcomed the participants and thanked them for positively responding to the Dzongkhag's invitation.

The Samdrup Jongkhar Municipal Engineer presented the detailed aspects of the proposed Project and the current status of the ongoing Project at Samdrup Jongkhar town. He highlighted that the Project will not affect any private assets. Besides, the present water source located 4.0 Km away from Samdrup Jongkhar en route to Trashigang is identified and construction of intake weir is underway. The construction work of Water Treatment Plant (WTP) under Package 1 of the ADB funded Project 2816 is ongoing. The trunk main lay out will be laid along the bypass highway and the land is confirmed as Thromde (RGoB) owned. The pipes will be laid along the existing right of ways, which are free from encumbrances. Once the construction of WTP is complete Samdrup Jongkhar town will receive adequate water supply. Further, the rehabilitation of the current reservoir tanks (3) are also funded by ADB. The Sewage Treatment Plant (STP) being undertaken by the municipality is under progress. The land for the construction of STP shall be

on identified government land. Currently the planned program is under process and will be further looked into during detailed design phase.

The Social and Environmental team thanked the participants and introduced the team members. The team explained the possible social and environmental impacts the projects could have on the community. The team confirmed that no private assets were affected and no possible environmental issues were foreseen, the Project will not have any likely adverse impacts on any privately-owned assets.

Comments, Views, Issues and Concerns:

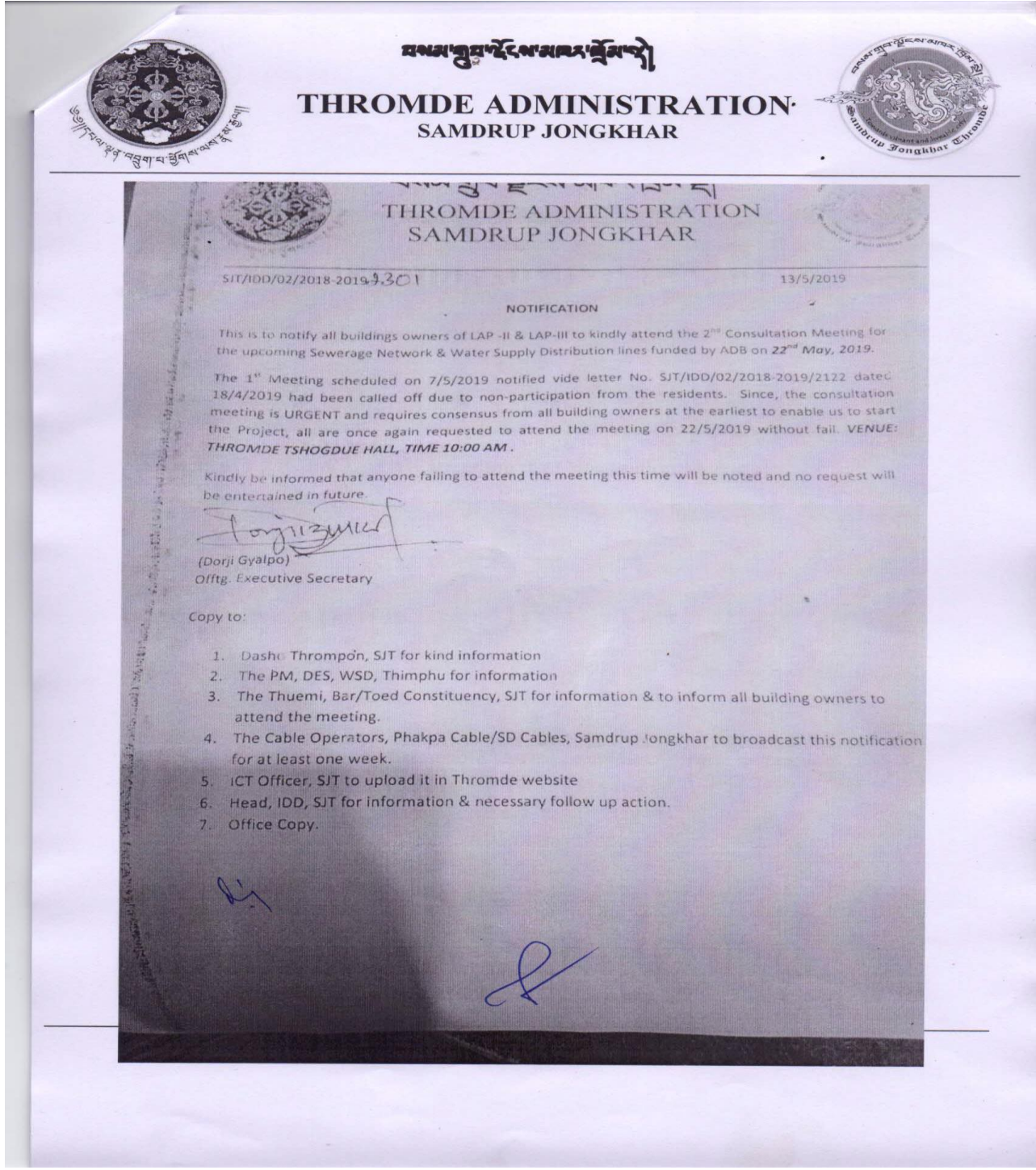
- 80% participants were aware of the Project and all the participants present at the meeting expressed complete support of the Project. The Project site had been visited by both the Social and Environment team members guided by the Municipal engineer's staff. The proposed sites were visited one day before the public consultation. The consultant team observed that the sub-project will not have any adverse social or environmental impact on any private assets. This was relayed to the participants during public consultation.
- Community representatives also provided their support and commitment to the Project and did not raise any negative issues pertaining to the proposed Project.
- Summary of consultations.

Question	Response
Does the local person support the proposed Project?	All participants pledged their full support for the said Project.
Any critical issue or concern by the local people regarding the Project?	No issues or concerns.
Any loss of residential or commercial structures due to the Project?	None
Any loss of Community life (like market place, public playground) or Community Activities that will be affected?	None
Would there be land acquisition that would result in resettlement, or would affect parks, forest, etc.?	None
Will the Project location adversely affect water resources?	No issues or concerns are foreseen.
Any other issues you want to share (security, cooperation from local communities)?	The participants are happy to collaborate and contribute.
Any Cultural or Sacred sites in the proposed site	None

Photographs of Samdrup Jongkhar Public Consultation



MINUTES OF CONSULTATIONS WITH LAND AND PROPERTY OWNERS FOR SAMDRUP JONGKHAR SUB-PROJECTS (22 MAY 2019)





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**THROMDE ADMINISTRATION,
SAMDRUP JONGKHAR**



1.	Rehabilitation of Samdrup Jongkhar Water Supply System	79.04	1.216.	Estimates under preparation
2.	Dewathang Water Supply	79.95	1.230	
3	Samdrup Jongkhar Sewerage	66.56	1.024	
		225.55	3.47	

➤ **The advantage of having a sewerage connection was explained to the floor and then went ahead with detail explanation of the household connection.**

It was made clear that the sewerage connection is a one-time investment and the cost to have sewer connection of any building will depends on the following factors:

- The size and number of the buildings and number of wastewater outlets (Kitchen, bathroom, wash basin, laundry, toilet etc)
- It also depends on the layout of the outlets, whether they all fall in one face of the building or on each face of the building. Unlike water supply pipelines, chambers are required for every change in horizontal or vertical alignment in sewerage connections and for every inlet point if they are scattered.
- It also depends on the pipe diameter of the sewer. As per the existing norms, all pipes carrying grey water are provided with minimum of 4PN (4kg/cm² pressure rating) 110mm diameter pipes and should not be laid flatter than 1:100. While those pipes carrying toilet waste (fecal matters) are provided with minimum diameter of 4PN 160mm. The pressure rating should be increased to 6PN if the pipes are expected to carry vehicular load (falling in road alignment).
- It also depends on the location of the building and the distance to the nearest sewerage chamber provided by the project. While every effort would be exercised by the project to provide at least one chamber in the compound of the building for connection, sometimes, for technical issues, it may not be possible to provide individually and a group of

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Fax: +975 7 251305

Website: www.sjthromde.gov.bt



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THROMDE ADMINISTRATION.
SAMDRUP JONGKHAR



houses may have common chamber where the distance may vary as per site conditions.

- The cost also depends on the number of septic tanks and old chambers to be demolished and backfilled....as during the survey, it was found that some buildings have two septic tanks.
- The cost also varies on the fact whether the plinth protection needs to be reinstated or not. This is because, sometimes due to space problem, the plinth protection needs to be cut open, trenched and pipe laid, and the top surface needs to be reinstated back to the original state.

Therefore, depending on the factors stated above, sewerage house connections can vary from Nu. 50,000/- to Nu. 150,000/-.

After deliberate discussion the floor accepted the household connection to be executed on Contract as proposed by the project however subject to the following conditions;

- Request for approximate cost per household upon which the Payment/installment cost would be understood. It was suggested that depending on the cost the mode of payment can be worked out by respective building owners.(eg. Say a building owner lands up paying Nu.1,50,000/- for the connection , he/she can work how much they pay annually or monthly.)
- The time line for payment – when should they start paying?
- How do vacant land owner/those without buildings pay?
- The residents of LAP-III whose buildings are left out in this project due to alignment difference requested for a separate sewerage connection too.

The residents also raised concerns on the quality of the work since most contractors are bidding abnormally low and compromising with quality of works. The question was who is going to monitor the quality of construction.

The other point raised by the residents was the connection to sewerage from the old structures standing now but they have proposals for construction of multi-story. Are they required to connect now or they do that in future?

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Fax: +975 7 251305

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**THROMDE ADMINISTRATION
SAMDRUP JONGKHAR**

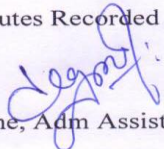


➤ **Consensus on the use of land for the upcoming sewerage and water supply projects.**

It was explained that the network for sewerage and water supply will be mostly on state land but at certain intervals it will be through private plots for which a clearance is required from all residents. Discussions were on compensations if any for affected structures/fruit trees. On this the PM explained that if any structures falling within registered area is affected due to sewerage and water supply project the affected persons will be compensated. To this all agreed on the land use for the upcoming project.

The meeting ended with vote of thanks.

Minutes Recorded By:


Jigme, Adm Assistant, PIU, SJ



Attached: List of Participants and Photographs of the meeting



समसामुदायिक नगरपालिका

THROMDE ADMINISTRATION
SAMDRUP JONGKHAR



Consultation meeting for the upcoming Project- Sewerage network connection and water supply
Date :22.05.2019

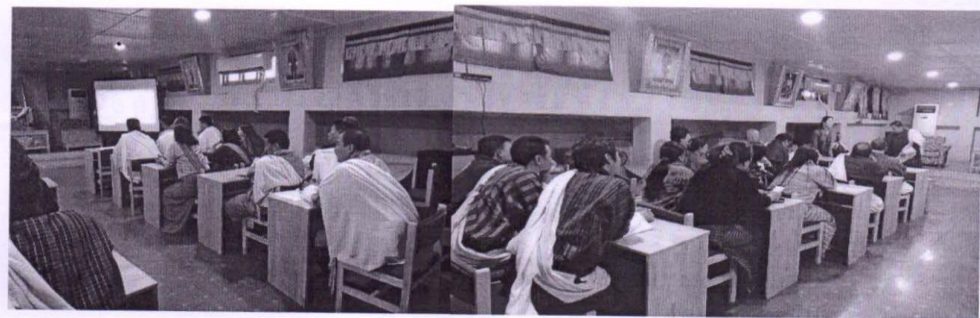
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2	Tshering Dema	17582755		
3	Kinlen Dema	17544112		
4	Tashi Dema	171762987		
5	Sangay Chumo	17433560		
6	Phelopa	97785003		
7	Sondam Dema	17280364		
8	P Wangchi	17619947		
9	Nangay Wangcham	17666521		
10	Wangdi Wangchen	1728118		
11	Pema Wangcham	17600006		
12	Tenzin Wangdi	1767117		
13	Burama	1720059		
14	Sigme Choden	17292488		
15	Jamte Dorje	17509964		
16	Phurpa	17208697		
17	Lunzhen	17190101		
18	Gezal Basanta	17665157		
19	Dorchen Wangmo	17113632		
20	Lepa Wangdi	1760000		
21	Chodup Chogyi (New Top)	1761970		
22	Phel Wangchen	17110112		
23	Nguen Pasjar	97420361		
24	Omi Pradham Dewichia	17584934		
25	Saldon	1715500		
26	Yachay Tyre	17584734		
27	Debon	17615937		
28	Subang Choden	17213747		
29	Wangyal Paldon	17615667		
30	Lizabeta Khama	17710710		
31	Lewa Yangzom	17691785		
32	Shacha King	17954914		
33	Shane Wangchuk	17738130		
34	Shirab Wangchen	17748810		
35	Pema Choki			
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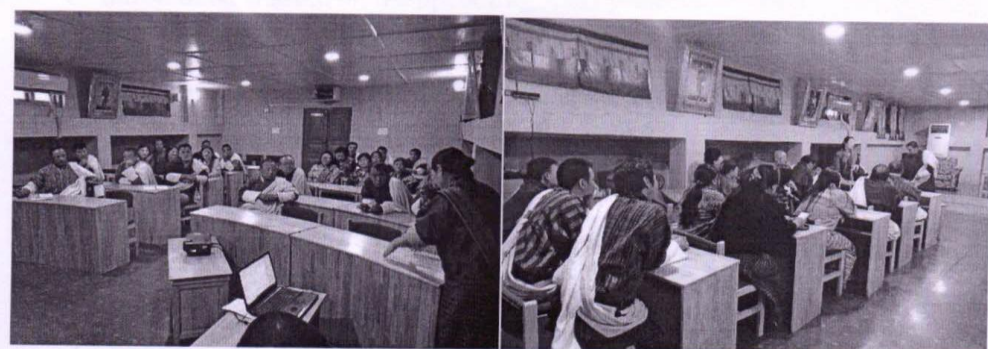
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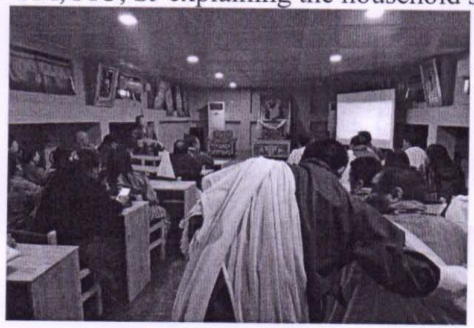
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THROMDE ADMINISTRATION
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Residents of LAP-II & LAP-III attending the Consultation Meeting



PM, PIU, SJ explaining the household sewerage connection and discussion



PABX: +975 7 251616, 251619, 251629

Fax: +975 7 251305

Website: www.sjthromde.gov.bt

Appendix-5: Certificate of Status of Land for all Samdrup Jongkhar Subproject

CERTIFICATE OF STATUS OF LAND FOR ALL SAMDRUP JONGKHAR



THROMDE ADMINISTRATION SAMDRUP JONGKHAR



SJT/IDD/08/2017-2018/1509

Date: 24/01/2018

Sub: Certificate on the status of Land

This is to certify that the status of the land for Water Rehabilitation of Samdrup Jongkhar Water Supply system, Samdrup Jongkhar sewerage and Dewathang water supply sub-projects in Samdrup Jongkhar Thromde (Town) funded under ADB, Secondary Towns Urban Development Project (STUDP) is as follows:

Rehabilitation of Samdrup Jongkhar Water supply System

S. No	Sub-component	Status of Land
1	Construction of 410 m ³ reservoir tank	Government land
2	Providing & Laying of Raw Water main of 3.40 km from Water Treatment Plant to reservoir	Government land
3	Water distribution system of 17.00 km (for supply to Zones 1-4)	Government land

Samdrup Jongkhar Sewerage

S. No	Sub-component	Status of Land
1	Construction of sewer network of 4.50 km with manholes, etc. to connect 250 households to thromde WWTP (to serve LAP 2 and 3)	Government land
2	Construction of access roads, fencing, drainage, operator's quarters, etc	Government land

Dewathang water supply

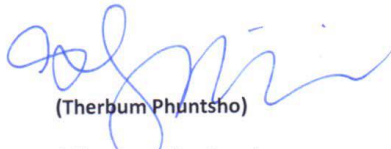
S. No	Sub-component	Status of Land
1	Construction of 1 nos of reinforced concrete (RCC) intake at Morong near the highway	Government land
2	Construction of 1 nos of reinforced concrete (RCC) grit chamber near intake	Government land
3	Construction of 19.00 km of transmission main from Grit Chamber to Water Treatment Plant	Government land
4	Construction of 3 nos of RCC Break Pressure Tank using DI Pipes & Fittings with Barbed Wire Fencing and Gate	Government land



SAMDRUP JONGKHAR



5	Construction of compact water treatment plant (1.2 mld),	Government land
6	Construction of a 1 nos of 250m ³ clean water reservoir (in Roshinangzor)	Government land
7	Construction of 2 nos Service Reservoirs	
8	Rehabilitation/ new existing water distribution mains from treatment plant to service reservoirs	



(Therbum Phuntscho)

Offtg. Executive Secretary

Samdrup Jongkhar Thromde

Appendix-6: Survey Results on Samdrup Jongkhar Sewerage Questionnaire

SURVEY RESULTS ON SAMDRUP JONGKHAR SEWERAGE QUESTIONNAIRE

Date: 06.03.2017

Name of province: **SAMDRUP JONGKHAR** Gender [16=51.6%] Male [15=48.4%] Female

Objective: The purpose of the questionnaire is to gather opinions regarding the proposed sub-project which are considered as priority sections. The valuable opinions and recommendations will contribute to an effective planning of the proposed project.

1. Experience on Flooding

<p>1. How long have you owned or lived in this location? [4=12.9%] 1-5 year [3=9.7%] 5-10 years [24=77.4%] Over 10 years</p>	<p>2. Do you own a toilet [29=93.5%] Yes [2=6.5%] No</p>	<p>2. What type of facility? [21=67.7%] Indian type (squat)once [10=32.3%] pour flush, [] Others, specify</p>
<p>3. Do you have a septic tank? [23=74.2%] Yes [8=25.8%] No If no, why not: Not affordable If yes, how often do you have your septic tank dislodged?</p>	<p>4. Are you connected to sewerage? [23=74.2%] yes [8=25.8%] No If yes, How much you pay for connection to sewerage? NU _____ [√] don't know</p>	

2. Awareness of, and support to the Project

2.1 Awareness of the Project?	[15=48.4%] yes [16=51.6%] No	If yes, Sources of information Friends, neighbours and Thomde staff
2.2 Do you Support the project	[31=100%] yes [] No	If no, why not?
2.3 Are you in favour of the sewerage project in your area?	[31=100%] yes [] No	If no why not?
2.4 If the sewerage will be established in your place, it will require civil works to be done causing temporary disturbance, do you have problem with that? [2=6.5%] Yes [29=93.5%] No	If yes, what do you recommend to avoid disturbance? Immediate restoration work should be in place.	Are you willing to connect to sewer line? [28=90.3%] yes [3=9.7%] No If yes, how much are you willing to pay for connection? Don't know