Land Acquisition and Resettlement Due Diligence Report

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BHU: Secondary Towns Urban Development Project - Samdrup Jongkhar

Rehabilitation of Samdrup Jongkhar water supply system improvement project (Contract Package-SJM/WS/001);

Samdrup Jongkhar sanitation and sewerage Project (Contract Package-SJM/SST/003); and

Dewathang water supply augmentation Project (Contract Package-SJM/WS/002)

Prepared by the Department of Urban Development and Engineering Services, Ministry of Works & Human Settlement, Royal Government of Bhutan for the Asian Development Bank. The views expressed herein do not necessarily represent those of the ADB's Board of Directors, Management, or staff, and may be preliminary in nature.

CURRENCY EQUIVALENTS

as of 8 May 2018

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

ABBREVIATIONS

ADB BHU	=	Asian Development Bank 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 LAP	=	Local Area Grievance Committee
	=	local area plan 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 subprojects in Samdrup Jongkhar and Dewathang).

3. The Ministry of Works and Human Settlements (MOWHS) acting through its' 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 and Dewathang (part of Samdrup Jongkhar municipality). There are a total of three civil works packages which will be funded under STUDP in this town: (i) 2 in Samdrup Jongkhar; and (ii) 1 in Dewathang.

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. Package 3 (SJM/WS/002) Dewathang Water Supply Augmentation Project involves the construction of: (i) reinforced cement concrete (RCC) intake at Morong; (ii) reinforced concrete grit chamber near intake; (iii) 19 km transmission main from grit chamber to water treatment plant; (iv) 3 break pressure tanks with barbed wire fencing and gate; (v) compact water treatment plant (WTP) of 1.2 million litters a day (mld) capacity; (vi) repurposing the existing clean water reservoir as a collection tank for the WTP; (vii) 250 m³ clean water

reservoir (in Roshinangzor); (viii) 2 service reservoirs; and (ix) new water distribution mains from treatment plant to service reservoirs.

6. A due diligence process was conducted to examine land acquisition and resettlement issues for three sub-projects in Samdrup Jongkhar and Dewathang, 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/ or government owned land and no involuntary resettlement or land acquisition 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. However, 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.

7. 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.

III. OVERVIEW OF SAMDRUP JONGKHAR

8. SamdrupJongkhar 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 kilometre (km²) and population of 30,432. 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).

9. 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 had led to a weakening 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 2007and 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 ongoing 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

10. The town of Samdrup Jongkhar is located within a valley surrounded by steep slopes and teak forests. The river (DungsamChhu) 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 DungsamChhu and finally towards the Indian border.

11. Being 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. Dewathang is another satellite town under Samdrup Jongkhar municipality which is located at higher elevation on the hills, 18.0 km away from Samdrup Jongkhar town.

B. Demographics

12. The overall demographics of Samdrup Jongkhar town consists of 3,202 (53.80%) males and 2,750 (46.20%) females. The male literacy rate is higher than that of females at 83.95% compared with 60.74%.

Category		Total	
Gender	Male	3,202 (53.80%)	
	Female	2,750 (46.20%)	5,952 (100%)
Education			
Male	Literate	2,364 (83.95%)	
Female		1,493 (60.74%)	3,857
Male	Illiterate	452 (16.05%)	
Female		865 (39.26%)	1,317

 Table 1: Demographic Information

Source: Population and Housing Census of Bhutan, 2005. The 2017 census findings have not yet been released and actual population is expected to be higher. This excludes population in Dewathang which was only added to the municipal boundary in 2011.

C. Health and Education

13. Samdrup Jongkhar dzongkhag has one institute/ college, five Middle Secondary Schools (MSS), one Higher Secondary School (HSS), four Lower Secondary Schools (LSS), 18 Primary Schools, 74 Non-Formal Education (NFE) institutions, six Extended Class Rooms (ECR) and two Monastic schools. There are two hospitals, nine Basic Health Units (BHU), 36 out reach clinics (ORC) and three traditional medicine units.

D. Economic Opportunities

14. Presently, Samdrup Jongkhar municipality consists of two urban towns: (i) Samdrup Jongkhar, and Dewathang. 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. Dewathang has high tourism potential and the government has a scheme for developing Dewathang as a tourist spot in future.

15. 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 acre- at Motanga; and construction of the 600 MW Kholongchhu Hydroelectricity project in TrashiYangtse which will make SamdrupJongkhar town the main transit for project goods and services.¹

E. Use Pattern of the Surveyed Properties

16. 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. Samdrup Jongkhar Municipality now comprises the town of Dewathang and well as Samdrup Jongkhar town. Dewathang town is located about 18.0 km north of SamdrupJongkhar town and at much higher elevation.

17. SamdrupJongkhar 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. But the Dzongkhag administration in the past has invested far less in terms of urban infrastructure compared with Thimphu and Phuentsholing. This burdens the existing infrastructure of the town, which is rapidly expanding and has large growth potential, being a gateway to southeastern Bhutan. Water supply is identified in the Samdrup Jongkhar Structure Plan as the priority urban infrastructure need, especially so with the service being nonexistent in the extension area of Dewathang.² In the town proper, there is currently intermittent water supply due to an acute shortage of water.

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

19. With the annexation of the town of Dewathang 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.

20. The new municipality (created in March 2011) and 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

21. 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 of road network remains 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 catch up with such requirements.

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

23. 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

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

² Households in Dewathang are currently supplied from tapping of local streams.

Examination. There are several educational institutions in Samdrup Jongkhar, which include a private school, a primary school and a Middle Secondary School. Likewise, with the inclusion of Dewathang under the Samdrup Jongkhar Municipality, it now has a technical college providing higher education.

IV. ASSESSMENT OF LEGAL AND POLICY BACKGROUNDS

24. 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.

25. The Land Act of Bhutan 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."³ Also the subsequent section states that "upon acquisition, if the remaining parcel of land is less 10 decimal (almost 1 acre), such land both in Thromde and rural areas shall also be acquired."

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

27. 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 persons⁴ in real terms relative to pre-project levels; and improving the standards of living of the displaced poor and other vulnerable groups.

28. 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. Involuntary resettlement requirements apply to all three types of affected peoples.

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

³ Land Act of Bhutan, 2007, Sections 148 and 150.

⁴ 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.

Resettlement 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 whenever feasible.	Involuntary resettlement should be avoided where feasible.	 No difference. 	
2. Where population displacement is unavoidable, it should be minimized by providing viable livelihood options.	Not mentioned explicitly but followed in practice.	 Displacement is not envisaged under the project. 	
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.	 Full equivalence. 	
 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.	 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	 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	There are no provisions pertaining to consultation with affected persons other than permitting them to choose	 Equivalence with SPS in terms of actual practice. No land acquisition, involuntary settlement, 	

 Table 2: Comparison of the Royal Government of Bhutan' Land Act of 2007 and ADB

 Resettlement Policy

Royal Government of Bhutan's Policy (Land Act of 2007) between substitute land or cash	Compliance with ADB's Involuntary Resettlement Policy-Remarks economic or physical
compensation. But consultation is carried out in practice.	displacement are foreseen under the project.
to be based on PAVA rate and Bhutan Schedule of Rates which are revised from time to time.	 PAVA 2009 rates are much less than the market rates. However, the PAVA rates have been revised lately in 2017- the new rates are much closer to the market rates.
Policy does not mention this but compensation is made before the start of project	 In practice there is equivalence with SPS.
While poor and vulnerable groups are not excluded there are no provisions directly relating to these groups and towards improving the standards of living. 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.	 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)
No policy.	 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.
	Bhutan's Policy (Land Act of 2007) between substitute land or cash compensation. But consultation is carried out in practice. Policy states that compensation to be based on PAVA rate and Bhutan Schedule of Rates which are revised from time to time. Policy does not mention this but compensation is made before the start of project While poor and vulnerable groups are not excluded there are no provisions directly relating to these groups and towards improving the standards of living. 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.

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

30. 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).⁵

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

32. The 2816 rehabilitation covers four zones:



Figure 1: Schematic Diagram of the 2816 Samdrup Jongkhar Rehabilitation

Water zones	Zone 1	Zone 2	Zone 3	Zone 4
Proposed/	Proposed	Existing	Existing	Existing
Existing				
Location	Near Gup	Near Hospital	Near VIP Guest	Near 4Kilo
	Sonam's		Houses	
	residence			
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	408 m ³	414 m ³	83 m ³	240 m ³
capacity for 2048				
Recommendation	Proposal for new	Existing can serve	Existing can serve	Rehabilitation
	reservoir of	the requirement up to	the requirement up	required in
	410 m ³ capacity.	year 2046. Additional	to year 2046.	strengthening

⁵ UIP supports sustainable urban development in Thimphu, Phuentsholing, and SamdrupJongkhar 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.

Water zones	Zone 1	Zone 2	Zone 3	Zone 4
		14 m ³ to be	Additional 3 m ³ to be	its structural
		constructed in the year 2045.	constructed in the year 2045.	strength in order to utilize
		-	-	it up to 2048.

LAP, local area plan, masl = meters above sea level, m^3 = cubic meter.

33. 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 governmentowned 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.

B. Public Consultation

34. 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.

35. Specific questions were addressed by way of a supplementary survey questionnaire specific to the water project in Samdrup Jongkhar. The results of this questionnaire are in Appendix 1. ADB and PMU, MOWHS conducted consultation with elected leaders on 4 August 2017 to ascertain the needs of the communities and their willing ness 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.⁶ The thromde (municipality) has undertaken subsequent consultations with the towns people regarding project timelines and grievance redress mechanism has been set up for the project Notification for the same is provided in Appendix 2.

C. Awareness and Support of the Proposed Subproject

36. 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 on government-owned and/ or existing road right of ways as a result no private land and assets are found to be affected. The land is free from any encumbrances.

37. The minutes of the public consultation and findings are attached in Appendix 3. The public clearance is appended in Appendix 4.

D. Land Acquisition and Resettlement

38. 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 subproject will not impact any nontitleholders and no livelihood losses will be incurred. The field visits/ reconnaissance surveys and

⁶ Currently poor-quality water is supplied 204 hours per day.

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) or 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 (iii) the project will not require any involuntary resettlement or land acquisition. Based on these findings there is no need for further surveys or inventories of loss of assets to be prepared.

39. Land ownership certificate is attached as Appendix 5.

Table 4: Components and Status of Land

Component	Status of Land
i. Construction of 410 cubic meter (m ³) reservoir	government-owned land, refer to Appendix 5 certificate of land ownership, see Map 2
ii. Construction of 3.4 kilometers (km) transmission main from the Water Treatment Plant up to the reservoir.	government-owned land which is free of encumbrances. Line will traverse along shoulder of bypass road which is within the road right of way. Refer to Appendix 5 for certificate of land ownership; see Maps 3.4.5 and 6. The development of footpath near water intake at will not be undertaken under the project as it requires clearance from the Dzongkhag (district) administration.
iii. Construction of 17 km distribution system supply Zones 1-4	government-owned land, distribution pipelines will be laid within existing road right of ways which are free from encumbrances. See Appendix 5 and Map 1.

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



Source: PMU, STUDP: derived from Google earth.



Map 2: Samdrup Jongkhar Thromde- Location of 410m³ Clear Water Reservoir

Source: PMU, STUDP: derived from Google maps.



Map 3: 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 4: Samdrup Jongkhar Water Supply- Clear Water Transmission Main (overall alignment)

Source: PMU, STUDP- derived from Google maps.

40. 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.





Source: PMU, STUDP- derived from Google maps.



Map 6: Samdrup Jongkhar Water Supply-Transmission Main (Sectional Blow-ups)



E. Summary of Issues and Mitigations

41. A summary of issues and concerns is provided in the following table (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.

42. 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: Samdrup Jongkar Water Supply

Positive Impact of the Project

- 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.

Other Possible Impacts

- 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.

Suggestion from the Community Consultations

• Consider subsidized rates for vulnerable families.

F. Conclusion and Recommendations

43. 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 town enabling the residents to enjoy regular water supply throughout the year, both in terms of quality as well as quantity.

44. No 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 or government owned lands, which are free from encumbrances and are not used for any economic activities (formal or informal).⁷ There are no non-title holders along these stretches and there will be no livelihood losses because of the sub-project. 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,

⁷ No private land or assets will be affected.

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.

45. The DDR is based on detailed designs and will need to be updated by the PIU in case of any design changes or site changes, and 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. SANITATION AND SEWERAGE

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

46. 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 soakpits. Most properties are now connected to the sewerage system. The main reason some properties in the main town are not connected is adverse levels.

47. The WWTP is situated in southeast of LAP 1 near the DungsamChhu 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 greywater is still discharged to the surface drains.



Map 7: Satellite Image of Samdrup Jongkhar LAP 1

Source: TA- 8551, derived from Google maps.

48. The treated effluent is discharged directly to the DungsamChhu 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.





Source: TA- 8551.

49. A second sewerage system, including a WWTP, is being developed to serve the LAP 2 area and 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 that the contract for the WWTP has already been awarded. Maintenance will be provided by the supplier under contract.

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 been unable 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 8: 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:

- 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); and
- (ii) Construction of access roads, fencing, drainage, operator's quarters, etc.



Source: PMU, STUDP- derived from google maps.



Map 10: Sewage Treatment Plant, Operators Quarters, Access Road

Source: PMU,STUDP- derived from google maps.

B. Public Consultation

52. The public consultation was conducted on 7 March 2017 with 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, Samdrup Jongkhar. 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.

C. Awareness and Support of the Proposed subproject

54. 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.

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

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.

 Table 6:
 Summary of Topics Discussed during Consultation

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

D. Land Acquisition and Resettlement

56. 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. The land for the works are free of non-title holders and there will be no livelihood losses as a result of the sub-project. 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 or 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 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.

57. Land ownership status of various components is below:

Table 7: Components and Status of Land		
Component	Status of Land	
Construction of 4.5 kilometers 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)	Sewerage pipes will be laid along road right of ways of existing roads. See Map 9 and Appendix 5	
Construction of access roads, fencing, drainage, operator's quarters, etc	-Operator's quarters (including associated access roads, fencing) will be constructed on government land. See Appendix 5 and Map 10.	

Table 7: Components and Status of Land

E. Summary of Issues and Mitigations

58. 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

Positive Impact of the Project

- 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.

Current Condition

- 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;
- Odour and unpleasant environment; and
- Absence of vacuum tankers/ cesspool cleaners to empty septic tanks.

Suggestions from the Community Consultations*

- 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.

* Suggestions were considered and incorporated in the project design.

F. Conclusion and Recommendations

59. 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) (footnote 7). No non-title holders will be affected and there will be no livelihood loss because of the sub-project.

60. 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.

61. This DDR is based on detailed design and needs to be updated by the Samdrup Jongkhar PIU/ PMU in case of any alignment changes prior to construction. The updated DDR needs to be approved by the ADB prior to implementation of works. Updated DDR will be uploaded on the government and ADB websites.

VII. WATER SUPPLY – DEWATHANG

A. Project Description: Dewathang Water Supply Augmentation- Contract number SJM/WS/002

62. There is water supply shortage in Dewathang. According to the Urban Development Plan for Samdrup Jongkhar Thromde, unreliable water supply in Dewathang is one of the major concerns for future development of the settlement.

63. Dewathang is served by a rural water supply scheme. Current supply is mainly from two sources: (i) a spring at Lamsarong 12.0 km from Dewathang, and (ii) a spring at Zalakhe 4.0 km from the town. In both cases, water is supplied by gravity. The intake at Lamsarong is a temporary one and the flow is drastically reduced in the winter months. Moreover, the Army camp at Dewathang also draws water from the same stream and taps it on the upstream of the municipal intake, which greatly reduces the discharge. Water is supplied through high density polyethylene (HDPE) pipe which in many places are not joined properly. The pipes are laid along the highway without any kind of anchor/support. There is erratic water supply especially in summer when the pipes are affected by landslides. There are no air release valves and in many cases tiny holes are made to release air, which cause water leakages. As a temporary measure, the pipes are disjointed and the silt is removed in absence of scour valves. Water distribution system is rather ad hoc, as the town of Dewathang has many fragmented units. Army campus and the Polytechnic campus independently source and distribute water within their compounds. The civilian areas are scattered and do not have a planned water supply system. Surrounding springs and streams are tapped by the residents in the peripheral areas to collect water. While there is a need to have an integrated water supply system, according to the Thromde officials, the Army insists on having an independent supply. Hence, the sub-project under STUDP will exclude the army for the new scheme.

64. Water from the current intake location is not sufficient during the lean season. During the field visit in July 2016, Thromde officials recommended a separate source at Morong which is about 21 km from Dewathang, along the SamdrupJongkhar - Trashigang highway. It is a reliable source with sufficient discharge even in the lean period. In view of the acute shortage of water in Dewathang and in absence of alternative supply scheme, the intake at Morong will be developed under STUDP.

- 65. The components of the proposed subproject are:
 - (i) Construction of reinforced cement concrete (RCC) intake at Morong near the highway;
 - (ii) Construction of reinforced concrete grit chamber near intake;
 - (iii) Construction of 19 km transmission main from grit chamber to water treatment plant;
 - (iv) Construction of 3 break pressure tanks using ductile iron pipes and fittings with barbed wire fencing and gate;
 - (v) Construction of compact water treatment plant (1.2 mld), repurposing the existing clean water reservoir as a collection tank for the WTP;
 - (vi) Construction of a 250 m³ clean water reservoir (in Roshinangzor);

- (vii) Construction of 2 service reservoirs; and
- (viii) Rehabilitation and construction of new water distribution mains from treatment plant to service reservoirs.



Map 11: Proposed Dewathang Water Supply System- Overall

Source: TA-8551.

Photograph 2: Proposed Dewathang Intake SiteSource: TA: 8551



Source: TA: 8551.



Source: TA: 8551.

66. Due to limitation of budget under the project (STUDP), it is recommended that Thromde should explore other budget source for distribution network including installation of water meters and a revenue collection system.

Map 12: Dewathang Transmission Main Alignment (from Grit Chamber to Water Treatment Plant)



Source: PMU, ADB: derived from google earth.



Source: PMU, STUDP: derived from google maps

Map 14: Break Pressure Tank 2



Source: PMU, STUDP: derived from google maps.



Source: PMU, STUDP: derived from google maps.





Source: PMU, STUDP: derived from google maps.

Map 17: Dewathang Distribution Network Showing Proposed Reservoirs, Water Treatment Plant Location and Distribution Lines.



Source: PMU, STUDP: derived from google maps.

Map 18: Proposed Service Reservoir 1 (R4)



Source: PMU, STUDP: derived from google maps


Map 19: Service Reservoir 2 (R5)

Source: PMU, STUDP: derived from google maps.

Map 20: Site for 1.2 Million Liters per Day Water Treatment Plant and 250 Cubic Meter Reservoir



Source: PMU, STUDP: derived from google maps.

B. Public Consultation

67. The announcement for public meeting was circulated on 6 March 2017 via office order SJT/PIU-ADB/26/2016-2017/87. The public consultation was conducted on 7 March 2017 with 26 participants out of whom 17 were male and 9 were female. The welcome address and introduction on the project was highlighted by the Municipal Engineer, Samdrup Jongkhar and social consultant of PPTA team. Dewathang is an extended municipal area under direct supervision of SamdrupJongkhar Thromde/Municipal office.

C. Awareness and Support of the Proposed Subproject

68. The participants were briefed about the project and 75% of the participants were found to be aware of the project. All participants are in complete support of the project. The project sites had already been identified and visited by consultants and their team members a day before the public consultation. Subsequent visits were conducted by ADB missions. It was confirmed that the site identified for the construction of reservoir tank at Roshinangzor -about 1.0 km above the Dewathang-Trashigang highway near the Tashi cell tower, is government-owned forest land. No private lands and assets are affected and the site is free of encumbrances.

69. Minutes of the public consultation and findings are attached in Appendix 7. The public clearance is appended in Appendix 8.

D. Land Acquisition and Resettlement

70. 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 ROWs or government land; (ii) none of the ROWs or government lands are used in any productive manner or for business, and are free from encumbrances; and (iii) the project will not require any involuntary resettlement or land acquisition. Based on these findings there is no need for further surveys or inventories of loss of assets to be prepared.

Table 10: Component and Status of Land				
Component	Status of Land			
(i) Construction of RCC intake at Morong near the highway;	government-owned land, refer to Map 16 and Appendix 5.			
(ii) Construction of RCC grit chamber near intake	government-owned land, refer to Map16 and Appendix 5.			
 (iii) Construction of 19 km transmission main from grit chamber to WTP 	To be laid along road right of way (government-owned land), see Map 11 and 12 and Appendix 5.			
 (iv) Construction of 3 RCC Break pressure tanks with barbed wire fencing and gate 	government-owned land, see Map 13,14,15 and Appendix 5			
 (v) Construction of compact water treatment plant (1.2 mld), repurposing the existing clean water reservoir as a collection tank for the WTP; and 	government-owned land, see Map 20 and Appendix 5 and Appendix 10			
 (vi) Construction of a 250m³ clean water reservoir (Roshinangzor). 	government-owned land, see Map 20 and Appendix 5 and Appendix 10.			
(vii) Construction of 2 service reservoirs	Government-owned land; Refer Maps 18,19 and Appendix 5.			

Table 10: Component and Status of Land

Component	Status of Land
(viii) Rehabilitation and construction of water distribution mains	To be laid along road right of way
from treatment plant to reservoirs	(government-owned land), see Map
	17 and Appendix 5.

mld = million liters per day, m³ = cubic meter, RCC = reinforced cement concrete, WTP = water treatment plant

E. Summary of Issues and Mitigations

71. A summary of the details on issues and concerns specific to the subprojects is provided in Table 11. These were gathered during 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.

72. The participants view water as an important commodity for everyday needs and thus they give their full support to the project and signified their willingness to pay for water tariff.

Table 11: Summary of Social Issues and Mitigation: Dewathang Water Supply

Water Supply
Positive Impact of the Project
 Improvement on health and sanitation condition;
 Improvement on environmental condition;
 Sufficient supply of drinking water operating regularly (current supply operates for just over two hour a day);
Time savings
 Women could engage in other productive work to enhance income; Signified willingness to pay for water tariff; and,
Other Possible Impact Increase in water tariff
 Suggestions from Community Consultations Consider subsidized rate particularly for vulnerable families.

73. 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.

F. Conclusion and Recommendations

74. The overall benefit is seen to improve the existing water crisis faced by the residents of Dewathang. With construction of additional reservoir tank and service reservoirs, the water supply will be adequate for the residents throughout the year, irrespective of the seasonal variations.

75. No 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 existing right-of-way (roads) or government owned land, which are free from encumbrances and are not used for any economic activities (formal or informal) (footnote 7). There are no non-title holders along these stretches and there will be no livelihood loss because of the sub-project. The Samdrup Jongkhar PIU 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.

76. The DDR is based on feasibility study and will need to be updated by the PIU after completion of detailed designs. 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 disclosed on ADB website.

VIII. GRIEVANCE REDRESSAL MECHANISM

77. 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).

78. 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.

79. **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.

80. **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 be comprised 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.

81. 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.

82. **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 matter may be elevated by the aggrieved person 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.

83. **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.

84. **Costs.** All costs involved in resolving the complaints (meetings, consultations, communication, and information dissemination) will be borne by the municipalities (Dewathang/ Samdrup Jongkhar for this subproject) that will operate and maintain the water supply system.

85. 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.

86. In the event that the established GRM is not in a position to resolved 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

SURVEY RESULTS ON SAMDRUP JONGKHAR WATER SUPPLY

Date: 06.03.2017 Gewog/Thromde: **SamdrupJongkhar** Total Number of Respondents: 31 [16] Male = 51.6% [15] Female= 48.4%

Section A: Project Awareness	
 Heard about the water project before? [24=77.4%] yes [7=22.6%] No If yes, where did you hear it from? [√] If yes, when did you hear about it? Year 2015 Section B: Perception of Positive impacts and Benefits 	 3. Are you in favour of the project [100%] Yes [] No [] No Answer 4. If No, why not?
Section B. Perception of Positive impacts and benefits	
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)	 2. Increase opportunity for economic development 2.1 Promote urban development [18=58.1%] Most significant [13=41.9%]
1. Improvement on health	Significant [] Less significant
1.1Decrease incidence on health related sickness [20=64.5%] Most significant [11=35.5%] Significant [0%] Less significant	2.2. Promote industrialization[16=51.6%] Most significant[15=48.4%]Significant[] Less significant
1.2 Savings on time in collecting water [21=67.7%] Most significant [9=29.1%] Significant [1=3.2%] Less significant	 2.3 Increase in trade and business [5=16.1%] Most significant [24=77.4%] Significant [2=6.4%] Less significant
1.3Improved condition of women and children [21=67.7%] Most significant [9=29.1%] Significant [1=3.2%] Less significant	2.4 Increase potential for tourism industry[12=38.7%] Most significant [19=61.3%]Significant [] Less significant
1.4 Regular availability of water [20=64.5%] Most significant [11=35.5%] Significant[] Less significant	 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
	2.6.Increase in land value [13=41.9%] Most significant [17=54.9%] Significant [1=%3.2] Less significant

Section C: Issues and Concerns	
What are some of the problems or negative issues	
that you perceive in implementing this project?	2. Social impact
 1. Natural Environment and Pollution 1.1 Loss of natural resources (trees, vegetation, etc.) [1=3.2%] High impact [8=25.8%] less impact [22=71%] No impact 1.2. Impact on nature reserved/protected area conservation 0%] High impact [11=35.5%] less impact [20=%64.5] No impact 1.3 Pollution (Noise, and vibration) 0%] High impact [11=%35.5] less impact [20=64.5%] No impact 	 2.1 Land acquisition and resettlement [0%] High impact [12=38.7%] less impact [19=61.3%] No impact 2.2.Dispalcement of residential and business communities High impact [10=32.3%] less impact [21=67.7%] No impact 2.3 Impact on cultural properties/historical settings High impact [4=12.9%] less impact [27=87.1%] No impact 2.4 impact on Ethnic minorities High impact [5=16.1%] less impact[26=83.9%] No impact 2.5 Loss of livelihood (productive land) High impact [8=25.8%] less impact[23=74.2%] No
	impact
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
	[24=77.4%] Good [7=22.6%] Not good [] very bad
Perception on the quality of present water source?	
 Perception on the quality of present water source? Sickness related to water 	Specify sickness: Typhoid /Skin Rashes
	Specify sickness: Typhoid /Skin Rashes [9=29.1%]color not good [22=70.9%] smell is bad [] taste not good

GRIEVANCE REDRESS MECHANISM AND GRIEVANCE REDRESS CELL NOTIFICATION



ন্থন্থ স্থেন নের্বা বার্বে । র্বাশ্ব রিঁবা স্থেন নেবা 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 Secretary

Cc:

- 1. Dasho DzongdaTrashigang 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



Figure 1: Grievance Redress Mechanism, STUDP

Procedure and composition of GRM Committee

 The Project Grievance Redress Mechanism 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 stricture and composition has been provided by the Ministry of Works and Human Settlements (MOWHS)

). 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.

2. 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.

3. 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 be comprised of : (i) Dzongda (district administrator) or thrompon (mayor) as Chairman; (ii) municipal engineer (PIU Project managers) as Member secretary;(iii) District engineers; (iii) district/ municipal planning officer;(iv) district/ municipal legal officer; (v)district/ municipal environmental officer; (vi) district/ municipal land record officer, (vii) town representatives (elected); and (viii) gender focal person of PIUs; The aggrieved person / or the representative who filed the complaint will be called to present his 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.

4. 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.

5. 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; (viii) environmental officer, MOWHS; (ix) gender officer (MOWHS); (x) representatives from local NGOs;.It will be the responsibility of the Central 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 matter may be elevated by the aggrieved person 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.

Composition of Dizonakhag/ thromde Municipal Committee: Charman – Dizongda(district administrator)/ thrompon (mayor) Member – secretary- municipal engineer (PIU PMs) Other members - district engineers, planning afficer, legal officer, environmental officer, land record officer, town representative (elected), gender focal person.

Composition of central Grievance Redress Committee Chairman – Secretary, MOWHS Member secretary – Director, DES Other members-PMU, PM; Project coordinator; WSD chief, legal officer, environmental officer; gender officer (MOWHS) representatives from NCDs

Sample Grievance Redress Form

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 Registrat	on			
Contact Information	n/Personal Details					
Name			Gender	* Male * Female	Age	
Home Address						
Place						
Phone no.						
E-mail						
Complaint/Suggest grievance below:	ion/Comment/Questic	on Please provide the	details (who, w	hat, where, and	how) of you	ır
If included as attachr	nent/note/letter, please	e tick here:				
How do you want u	s to reach you for fee	dback or update on	your comment	/grievance?		

FOR OFFICIAL USE ONLY

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

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

DOCUMENTATION OF PUBLIC CONSULTATION HELD ON 08 MAR 2017 Youth Development Fund (YDF) Hall, SamdrupJongkhar

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

Brief Minutes of the Public Consultation

Opening/ Presentation:

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

The SamdrupJongkhar Municipal Engineer presented the detailed aspects of the proposed Project and the current status of the ongoing Project at SamdrupJongkhar town. He highlighted that the Project will not affect any private assets. Besides, the present water source located 4.0 Km away from SamdrupJongkhar 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 is proposed to 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 SamdrupJongkhar 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.

-	Table xx:	Summary	of consultations.
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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

SAMDRUP JONGKHAR PUBLIC CLEARANCE SIGNED BY ELECTED LEADER (THEUMI) AND HEAD OF BUSINESS COMMUNITY

	NO OBJECTION FI	ROM THE PUBLIC (SOCIAL C	LEARANCE)
This is	based on our experie	ence and presence in the publ	ic consultation held on
the prop	fy that the understand osed Project at $\varsigma_{,0}$, nd Human Settlements.	are fully aware and clearly under of the S.J Dzongkhag Adminis	stood the implications of stration, and Ministry of
undertak	ting of the said project a	rtify that there are no objection and the public are in favor of the public	ions whatsoever to the proposed project.
Done in	YDFHU S/J	ongkher., this day; 08/03/2017.	
	Printed Name	Position/Office	Signature
Tigae	Kugchuk	Honde Mueri Business	Jacquehan
Jas	L' Dorji	Business	Alma.

CERTIFICATE OF STATUS OF LAND FOR ALL SAMDRUP JONGKHAR AND DEWATHANG SUBPROJECTS



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

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SAMDRUP JONGKHAR

5	Construction of compact water treatment plant (1.2 mld),	Government land	
6	Construction of a 1 nos of 250m3 clean water reservoir (in Roshinangzor)		
7	Construction of 2 nos Service Reservoirs	Government land	
8	Rehabilitation/ new existing water distribution mains from treatment plant to service reservoirs		

(Therbum Phuntsho)

Offtg. Executive Secretary Samdrup Jongkhar Thromde

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SURVEY RESULTS ON SAMDRUP JONGKHAR SEWERAGE QUESTIONNAIRE

Date: 06.03.2017

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

Objective: The purpose of the questionnaire is to gather opinions regarding the proposed subproject 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

 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 	2. Do you own a toilet [29=93.5%] Yes [2=6.5%] No	 What type of facility? [21=67.7%] Indian type (squat)once [10=32.3%] pour flush, [] Others, specify
 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? 	 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 	

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 Thromde 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

MINUTES OF THE PUBLIC CONSULTATION FOR SOCIAL AND ENVIRONMENTAL SAFEGUARDS AND ASSESSMENT IN DEWATHANG (SAMDRUP JONGKAR THROMDE)

DOCUMENTATION OF PUBLIC CONSULTATION HELD ON 07 MARCH 2017 Outside Veterinary Hospital, Dewathang, Dewathang gewog, Samdrup Jongkhar, Bhutan

List of Participants Stakeholders/Participants

- Total of 26 participants from the public including Consultant and members were present at the meeting.
- MNI Kumar Rizal, Municipal Engineer
- Project preparatory technical assistance (PPTA) Consultants

Agenda

Registration	Secretariat
	Mr. Mani Kr. Rizal, Municipal Engineer,
Welcome Address	SamdrupJongkhar
	Mr. Mani Kr. Rizal and SangayWangdi, Social
Introduction of Participants	Assistant
Presentation of Proposed	
Subprojects at Dewathang	Mani Kr. Rizal, Municipal Engineer,
under SamdrupJongkhar	SamdrupJongkhar
	Mani Kr. Rizal, Rajesh Pradhan, SangayWangdi
Open Forum	and Environmental team member
Closing Remarks	Mani Kr. Rizal, ME, SamdrupJongkhar
	Welcome Address Introduction of Participants Presentation of Proposed Subprojects at Dewathang under SamdrupJongkhar

Brief Minutes of the Public Consultation

Opening/ Presentation

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

The SamdrupJongkhar Municipal Engineer presented the detailed aspects of the proposed Project and the current status of the Project at Dewathang town. He highlighted that the Project will not have an effect on any private assets which was confirmed. Besides, the present water source may not be adequate for future water supply therefore new water source has been identified at Morongchu under Orong Gewog. Very soon public consultation with the gewog head and people residing in Orong gewog shall be conducted by the ME and get their views on tapping water from Morongchu. Presently the planned program is under process and the detailed feedback shall be collated and presented during Detailed Design phase.

The Social and Environmental team thanked the participants and introduced the team members.

Comments, Views, Issues and Concerns:

All participants are aware of the Project and mentioned that they are in complete support of Project. The Project site had been visited by both the Social, Environment team members together with the water engineer guided by the Municipal staff. The proposed sites were visited one day earlier in order to prepare for the public consultation the next day. The Consultant team observed that the subproject will not have an adverse impact both socially and environmentally on any private assets. This was relayed to the participants during public consultation.

- It was also confirmed that the site identified was government-owned (Royal Bhutan Army) and as a result no private land and assets are affected. However, the participants are a little reluctant if in case the pipe layout will pass through private lands. In such case, the private land owners have to be consulted and get their approval during detailed design phase. This could have been done during the site visit but the proper pipe layout is not yet confirmed.
- In the event of any change on the alignment of the main trunk, the private land owners need to be informed and their consent obtained, which should be covered fully during the detailed design phase.
- Further, consultants asked the following questions and the discussions transpired as below.

Question	Response
Does 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 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 township	No such places of religious sacred sites exist.



List of Participants to the Dewathang Public Consultation



Photographs of the Dewathang Public Consultation

DEWATHANG PUBLIC ONSULTATION CONDUCTED BY PPTA

NO OBJECTION FROM THE PUBLIC (SOCIAL CLEARANCE) This is based on our experience and presence in the public consultation held on at Dewathen g We certify that the undersigned are fully aware and clearly understood the implications of the proposed Project at bf the Dzongkhag Administration, and Ministry of Works and Human Settlements. Hence, we the following certify that there are no objections whatsoever to the undertaking of the said project and the public are in favor of the proposed project. Done in, this day; 07/03/2017. Printed Name Position/Office Signature BCCT

REQUEST FOR GUP/GEORG ADMINISTRATION FOR PUBLIC CLEARANCE FOR TAPPING WATER FROM GEWOG ORONGCHU FOR DEWATHANG

र्ययाध्य तन्या यात्रा コペム、ション、デーション、「「シーシー」」 ROYAL GOVERNMENT OF BHUTAN SAMDRUP JONGKHAR DZONGKHAG ADMINISTRATION SDA/ADM-26/2016/ 4-796 23rd March, 2017 Gup/GAO Geog Administration, Orong Sub: No Objection Certificate/Public Clearance Dear Sir(s). The Samdrup Jongkhar Thromde Administration is coming up with urban infrastructures and development Project through ADB Loan No. 8551 and one of the main components of this Project is the water supply for Dewathang town and the peripheral area from Morongchu which will benefit public residing in the Thromde and in the Dzongkhag as well at large in near future. The Thromde Administration being Project Implementing Unit needs to prepare and complete all the ADB requirements before loan is sanctioned. Therefore, Dzongkhag Administration would like to request you to kindly obtain No Objection Certificate/Public Clearance from the public of Morong for the Dewathang Water Source from Morongchu at the earliest. Thanking you for your continued support and co-operation. Yours sincerely. (Wange Dorii) Offtg. Drongdag Copy to: Executive Secretary, Thromde Administration, Samdrup Jongkhar for kind mation. Office Copy.

CERTIFICATE OF LAND OWNERSHIP BY THE GOVERNMENT FOR THE PROPOSED WATER TREATMENT PLANT AND 250cum WATER RESERVOIR UNDER DEWATHANG WATER SUPPLY SCHEME

নথাপ্র নি ALAR.N THROMDE ADMINISTRATION SAMDRUP JONGKHAR SJT/PIU-ADB/29/2016-2017/116 Date: 12/05/2017 TO WHOM IT MAY CONCERN This is to inform that the propose location land is approve 2.5 km towards Trashigang side from Dewathang for construction of Water Treatment Plant (WTP) and water reservoir for Dewathang town under Samdrup Jongkhar Thromde in upcoming ADB project Loan No. BHU-8551 is identified in government land. Thank you. Mani Ku (Prøject PABX: +975 7 251616, 251619, 251629 Fax: +975 7 251305 Website: www.sjthromde.gov.bt

SURVEY RESULTS ON WATER SUPPLY, DEWATHANG

Date: 07.03.2017 Gewog/Thromde; **DEWATHANG** Total Number of Respondents: 8 [3] Male =37.5% [5] Female= 62.5%

Section A: Project Awareness		
 Heard about the water project before? [6=75%] yes [2=25%] No If yes, where did you hear it from? [√] If yes, when did you hear about it? Year 2016 by Thromde officials 	 3. Are you in favour of the project [8=100%] Yes No No Answer 4. If No, why not? 	
Section B: Perception of Positive impacts and Bene	fits	
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) 3. Improvement on health	 4. Increase opportunity for economic development 2.1 Promote urban development [8=100%] Most significant [] Significant [] Less significant 	
1.1Decrease incidence on health related sickness [4=50%] Most significant [3=37.5%] Significant [1=12.5%] Less significant	4.2. Promote industrialization [5=62.5%] Most significant [1=12.5%] Significant [2=25%] Less significant	
1.2 Savings on time in collecting water [5=62.5%] Most significant [2=25%] Significant [1=12.5%] Less significant	2.3 Increase in trade and business[4=50%] Most significant[3=37.5%]Significant[2=12.5%] Less significant	
1.3Improved condition of women and children [6=75%] Most significant [1=12.5%] Significant [1=12.5%] Less significant	2.4 Increase potential for tourism industry[5=62.5%] Most significant[2=25%]Significant[1=12.5] Less significant	
1.4 Regular availability of water [5=62.5%] Most significant [1=12.5%] Significant [2=12.5%] Less significant	 2.5 Provide employment for local labour during construction , operation and maintenance [6=75%] Most significant [1=12.5%] Significant [1=12.5%] Less significant 2.6.Increase in land value [6=75%] Most significant [1=12.5] Significant [1=12.5%] Less significant 	

Section C: Issues and Concerns		
What are some of the problems or negative issues		
that you perceive in implementing this project?	35. Social impact	
	2.1 Land acquisition and resettlement	
1. Natural Environment and Pollution	[0] High impact [3=37.5%] less impact	
1.1 Loss of natural resources (trees, vegetation, etc)	[5=62.5%] No impact	
[2=25%] High impact [2=25%] less impact [4=50%]		
No impact	2.2.Displacement of residential and business communities	
1.2. Impact on nature reserved/protected area conservation	[] High impact [5=62.5%] less impact [3=37.5%] No impact	
[1=12.5%] High impact [2.25%] less impact [5=62.5%]		
No impact	2.4 Impact on cultural properties/historical settings	
1.3 Pollution (Noise, and vibration)	[2=25%] High impact [2=25%] less impact	
[1=12.5%] High impact [4=50%] less impact [3=37.5%] No impact	[4=50%] No impact	
	2.4 impact on Ethnic minorities	
	[1=12.5%] High impact [2=25%] less impact	
	[5=62.5%] No impact	
	2.6 Loss of livelihood (productive land)	
	[] High impact [3=37.5%] less impact [5=62.5%] No impact	
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? 	[100%] yes []No	
 Average consumption of HHs in M3/month: 	20-30 cu m/month	
Current sources of Water?	[7=87.5%] Stream [] Spring [] River [1=12.5%] Others	
Distance to Water Source	[4=50%] Near [4=50%] Far if far specify distance	
Time or frequency/availability current source of	[] 2 hours per day [] more than 2 hours	
water per day.	per day	
	[100%] available all the time [] very irregular	
Who fetches water	[4=50%] Men [4=50%] Women [] Girl child [] Boy child	
 Perception on the quality of present water source? 	[100%] Good [] Not good [] very bad	
 Sickness related to water 	Specify sickness Allergy/ typhoid	
Problems on water	[$$] color not good [$$] smell is bad [$$]	
	taste not good	
Recommendations to improve your water services": Should be treated water as there are cases of an		
occurrence of allergy and typhoid.		
occurrence of allergy and typhola.		