

Environmental Monitoring Report

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Part I of IV

Nepal: South Asia Subregional Economic Cooperation Power System Expansion Project

Prepared by Nepal Electricity Authority for the Government of Nepal and the Asian Development Bank.

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CURRENCY EQUIVALENTS

31 December 2021

Currency unit	–	Nepalese Rupee (NRs)
NRs. 1.00	=	\$0.0082
US \$ 1.00	=	NRs122.22

NOTES

- (i) The fiscal year (FY) of the Government of Nepal and its agencies ends on 15 July. FY before a calendar year denotes the year in which the fiscal year ends, e.g., FY 2022 ends on 16 July 2023.
- (ii) In this report, "\$" refers to US dollars.

ACRONYMS AND ABBREVIATIONS

ACA	Annapurna Conservation Area
ADB	Asian Development Bank
AEPC	Alternative Energy Promotion Centre
AFO	Assistant Forest Officer
AP	Angle Point
ASM	Automated Safeguard Monitoring
BOQ	Bill of Quantity
CDC	Compensation Determination Committee
CF	Community forest
CFUG	Community Forest User Group
CPP	Compensatory Plantation Plan
CSR	Corporate Social Responsibility
DFCC	District Forest Coordination Committee
DFO	Division Forest Office
DKTLP	Dana-Kushma 220kV Transmission Line Project
DoED	Department of Electricity Development
DoFSC	Department of Forests and Soil Conservation
EA	Executive Agency
EHS	Environmental Health and Safety
EIA	Environmental Impact Assessment
EIB	European Investment Bank
EMP	Environment Management Plan
EOT	Extension of Time
EPA	Environmental Protection Act
EPR	Environmental Protection Rules
ESMU	Environmental and Social Management Unit
ESSD	Environment and Social Studies Department
GoN	Government of Nepal
GRC	Grievance Redress Committee
ha	Hectare
HH	Household
IEE	Initial Environmental Examination
KNBTLP	Kushma-New Butwal 220kV Transmission Line Project
kV	Kilo Volt
LF	Leasehold Forest
MCC	Millennium Challenge Cooperation
MKTLP	Marsyangdi-Kathmandu 220kV Transmission Line Project
MoEn	Ministry of Energy
MoEWRI	Ministry of Energy, Water Resources and Irrigation
MoFE	Ministry of Forests and Environment
MW	Mega Watt
NBBTLP	New Butwal–Bardaghat 220 kV Transmission Line Project
NEA	Nepal Electricity Authority
OHS	Occupation Health and Safety
PAF	Project Affected Family
PAN	Permanent Address Number

PAP	Project Affected People
PMD	Project Management Directorate
PMO	Project Management Office
PPE	Personal Protective Equipment
PSC	Project Supervision Consultant
PSEP	Power System Expansion Project
RCC	Reinforced Cement Concrete
RM	Rural Municipality
RoW	Right of Way
SASEC	South Asia Sub-Regional Economic Cooperation
SDFO	Sub-Divisional Forest Office
SPS	Safeguard Policy Statement
SS	Substation
TL	Transmission Line
UMBTLP	Udipur–Markichowk-Bharatpur 220kV Transmission Line Project

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1 INTRODUCTION

1.1 Background

Asian Development Bank (ADB) approved the South Asia Sub-Regional Economic Cooperation (SASEC) Power System Expansion Project (PSEP) on July 4, 2011, and signed the loan/grant/project agreement with the Government of Nepal (GoN) on July 11, 2014. Nepal Electricity Authority (NEA) has received financial assistance from the ADB with co-financing from Norway and a loan from the European Investment Bank (EIB) for the implementation of the above project. However, the safeguard implementation and monitoring cost shall be borne by NEA.

The project will contribute to Nepal's energy development objectives by (i) scaling up the on-grid and off-grid renewable energy supply, (ii) facilitating cross-border power exchange, (iii) increasing access to renewable energy in rural areas, (iv) building capacity for on-grid and off-grid power sector development, and (v) utility-scale solar photovoltaic project development. The project targets the strengthening and expansion of transmission and distribution systems that will enable Nepal to further benefit from power trading and the development of its abundant hydropower resources. Transmission network strengthening and expansion, in conjunction with current hydropower generation development, is a precondition to reducing load shedding and increased cross-border electricity trade.

The scope of this report is limited to the monitoring of NEA components under outputs A, B, and D.

Project Outputs

The Project has the following four outputs:

(A) Power transmission capacity expansion. This comprises of:

A-1-1: Dana-Kushma 220kV Transmission Line and Associated Substations at Dana and Kushma

A-1-2-1: Kushma-New Butwal 220kV Transmission Line

A-1-2-2: New Butwal Substation

A-1-3: New Butwal-Bardaghat 220kV Transmission Line

A-3: Marsyangdi-Kathmandu 220kV Transmission Line and Associated Substation at Markichowk and Matatirtha

A-5: Grid Substations Reinforcement

In addition, EIB provided parallel co-financing for:

A-2-1: Udipur-Markichowk Bay-Extension, Bharatpur 220kV transmission line, and substation at Udipur, Bay extension at Marki Chowk, and Bharatpur.

A-2-2: Manang-Khudi 220 kV transmission line, and associated substations at Manang and Khudi.

A-4: Samundratar -Trishuli 3B Hub 132kV Transmission Line and Samundratar Substation along with Bay-extension at Trishuli 3B Hub.

(B) Power distribution network augmentation:

Lot 1: Expansion of Distribution Network in the Eastern and Central Region of Nepal

Lot 2: Expansion of Distribution Network in the Western Region of Nepal

Lot 3: Distribution Network Improvement

(C) Mini-grid-based renewable energy systems in off-grid areas. This included the installation of up to a total of 4.3 MW of mini hydroelectric power plants and up to a total of 0.5 MW of mini-grid-based solar or solar/wind hybrid systems, in selected rural communities.

(D) Capacity development support to NEA and Alternative Energy Promotion Centre (AEPC). This included project management support, preparation support for distribution system/rural electrification master plan, and livelihood development activities in the project area.

NEA is the executing agency (EA) for Output A, B and D (on-grid components). AEPC is the EA for Output C (off-grid component). Both NEA and AEPC are EAs for Output D (capacity development component). The original completion date of the Project is 31 December 2021. Process is ongoing for the extension of the project till 31 Dec 2023.

Implementation Status

NEA has established a separate project management directorate (PMD) to expedite the decision-making process for the timely implementation of all ADB-funded projects under SASEC and other subsequent projects. PMD is headed by the Deputy Managing Director (DMD) responsible for the preparation, procurement, construction and supervision of ADB-funded projects.

A Project Supervision Consultant (PSC) is engaged to supervise the project during construction. The implementation status of the subprojects is as follows:

1.2 Physical Progress of the Project Activities

NEA's Environment and Social Studies Department (ESSD-NEA) has established the Social Safeguard and Environment Management Department (SSEMD) with Environment & Social Safeguard Officers in each subproject for day-to-day safeguard monitoring. The officers have collected the necessary information and field based data by consulting local affected families, CFUGs, Forest Official, project officials, representatives of the district, local Government authorized persons and contractors.

In this reporting period, the construction work slowly gaining the progress. Nevertheless, the progress made by the subprojects in this reporting period of July-December 2021 has been summarized below in **Table 1-1**.

Table 1-1: Project Components and Physical Progress

SN	Sub-Projects	Status of Project Activities	Physical Progress (%)
Kali Gandaki Corridor:			
1	Dana–Kushma 220kV Transmission Line and substations at Dana and Kushma	<u>Dana Substation</u> • Equipment Testing work has been Completed	99.5 %
		<u>Kushma Substation</u> • Equipment Testing work has been Completed	99.5 %
		<u>Dana-Kushma TL</u> • In DKTLP, total 110 tower foundation and 110 tower erections have been completed. Total 38.94 Kilometer of stringing work has been completed till this reporting period. • In Parbat District, 56 tower foundations and 56 tower erections have been completed. • In Myagdi District, 54 tower foundations and 54 tower erections have been completed. • DKTLP Transmission line project has been started and connected to national grid	100%
2		<u>New Butwal (Badera) Substation</u> • Equipment joining and testing work is successfully completed.	99.75 %

SN	Sub-Projects	Status of Project Activities	Physical Progress (%)
	Kushma– New Butwal 220kVTL	<ul style="list-style-type: none"> • 132 and 220kv switch yard erection and stringing work completed • Cable termination at 220 Kv switch yard and control panel work is in progress • 220Kv switch yard work under progress, • B type building internal finishing work is completed • C-type building construction & finishing work is completed, • D-type building construction & finishing work is completed • Pipeline laying and welding work is completed. • Electrical wiring at township welding completed, • Street light pole erection work completed. • Ground yard leveling and pcc work is ongoing. • Store building construction work is in progress • Boundary wall work & fencing is in progress. • Main gate work is in progress. <p>Some labors are currently working in substation regularly.</p> <p><u>Kushma-New Butwal TL</u></p> <ul style="list-style-type: none"> • In KNBTLP, total 153 tower foundations and 137 tower erections have been completed till this reporting period. • In Parbat 65 out of 70, in Syangja 25 out of 30, in Palpa 51 out of 65 & in Baglung 7 out of 15 tower foundation works have been completed. Likewise, 65, 17, 48 & 7 tower erection works have been completed in in Parbat, Syangja, Palpa and Baglung respectively. • Total 7 tower Erection works (AP 2/0, AP 3/0, AP 4B/0, AP 5C/0, AP 5D/0, AP 6/0, AP 7/0) have been completed in Baglung District. • Stringing work (7.57 Km) has been completed from AP 28/0 to AP 35/0 from Parbat side, AP 35/0 to AP 37C/0 and 21/0 to 24B/0 work in progress from Parbat side. • 1 tower foundation (77/0) completed and 77/A foundation work is ongoing • 3 taping (LILO) tower (132Kv) foundation and 3 erection work has been completed. • Butwal Bardaghat 132 Kv line joining LILO tower to New Butwal Substation and charging to 132kv and 220 Kv station has been done successfully at Sunawal Nawalparasi. • 4 tower foundation (77A/0, 78B/0, 78B/1 & 78B/2) completed and 5 tower foundation work (79/0, 79C/0, 79C/1, 79C/2 & 80/0) is ongoing forest area at Nawalparasi 	74%
3	New Butwal – Bardaghat 220kVtransmission line (length:21km)	<p><u>New Butwal – Bardaghat TL</u></p> <ul style="list-style-type: none"> • New Butwal – Bardaghat 220kVTransmission line (length: 21km) effective from 23rd June 2020. • The contractor M/S POWER CHINA SEPCO1 Electrical Power Construction Company Limited, China has just finished detail survey but report has not been approved. Check survey also has been finished and cadastral survey has been planned before the approval. 	12%

SN	Sub-Projects	Status of Project Activities	Physical Progress (%)
Marsyangdi–Kathmandu 220kV transmission line and substations at Matatirtha and Markichowk			
4	Marsyangdi Kathmandu 220kV Transmission Line and substations at Matatirtha and Markichowk	<u>Matatirtha Substation</u> <ul style="list-style-type: none"> Construction of share wall has been completed at transformer installation site Planning to start the remaining foundation work at Gantry point. Construction work of control building up to plinth level has been completed and construction of column work is in progress. Second floor slab construction work of D- type building has been completed. C type building's ground floor construction work up to plinth level has been completed. Construction of column work above plinth level has also been completed of C type building. Foundation work has been completed at water tank site. Construction of drainage system is in progress. 	7.5%
		<u>Markichowk Substation</u> <ul style="list-style-type: none"> China Machinery Engineering Corporation (CMEC) is working as contractor for construction of substation. Total 10 gantry tower foundation footing has been completed for 220 kV Total 6 gantry tower foundation footing has been completed for 132 kV First floor slab of C type building is completed & brick wall construction is ongoing. First-floor slab of D type building is completed & brick wall construction is ongoing. All main block of transformer completed. 28 number of 220kV Equipment foundation PCC work completed among which 21 number of 220kV Equipment foundation's footing is completed. 2nd floor slab of T-type building is completed <p>Construction of labor camp is completed</p>	7.5%
		<u>Marsyangdi Kathmandu TL</u> <ul style="list-style-type: none"> In MKTLP, total 230 tower foundations have been completed and 229 tower erection works have been completed till this reporting period. Total 80 km of stringing work has been completed till this reporting period. In Dhading District, 142 tower foundation and 141 tower erections have been completed. Stringing work has been completed in 49.6 km span till this reporting period. One tower foundation work of AP 24F/0 has been completed in Dhading District in December 2021 In Chitwan District, 29 tower foundations and 29 tower erections have been completed. Total 9.64km stringing work has been completed in Chitwan. In Gorkha District, 51 tower foundation and 51 tower erection have been completed. Total 17 km stringing work has been completed in Gorkha. In Tanahun District, 4 tower foundations and 4 tower erections have been completed. Total 900m stringing work has been completed in Tanahun. 	99%

SN	Sub-Projects	Status of Project Activities	Physical Progress (%)
		<ul style="list-style-type: none"> In Kathmandu District, 4 tower foundation and 4 tower erections have been completed. Stringing work has been completed in 1.69km span 	
Marsyangdi Corridor			
5	Udipur-Markichowk-Bharatpur 220kV TL)	<p><u>Udipur substation</u></p> <ul style="list-style-type: none"> L & T company ltd. Is working as a contractor for the substation. Boundary wall work is in progress Grading work is ongoing. 220/132/33 kV Fire wall construction work has been completed. Foundation work has been completed for Transformer installation. GIS building construction work is in progress. D type building construction work is in progress. Staff quarter building construction work is ongoing. Gantry construction work 220kV, 132kV and 33kV is in progress. Transit building ground and first floor slab concreting work completed. Fire Fighting pump house foundation work is ongoing 33kv transformer has arrived at the substation. Transformer base work is ongoing Store Building Construction work is ongoing Gym house construction work is ongoing Store building construction work is ongoing Community hall construction work is ongoing <p><u>Bharatpur substation</u></p> <ul style="list-style-type: none"> L & T company ltd. is working as a contractor for the substation. Transformation foundation work is in progress GIS building foundation is in progress Gantry tower foundation is in progress Equipment foundation is in progress Transit camp building is in progress C-type building is in progress Pump-house & water tank in progress Store building is in progress Labor camp management work is ongoing <p><u>Udipur-Markichowk-Bharatpur TL</u></p> <ul style="list-style-type: none"> In UMBTLP, total 41 tower foundations have been completed and 18 tower erection works have been completed till this reporting period In Lamjung, 36 tower foundation works have been completed and 3 tower foundation works are in progress till this reporting period. Total 18 tower erection work has been completed till this reporting period. In Lamjung, conductor stringing work has been started at AP 28A to AP 28B in this reporting month. In Tanahun, total 5 tower foundation work has been completed and 1 tower foundation work is ongoing till this reporting period. 	<p>35%</p> <p>38%</p> <p>38%</p>

SN	Sub-Projects	Status of Project Activities	Physical Progress (%)
6	Manang-Khudi-Udipur 220 KV Transmission Line Project	<u>Khudi substation</u> <ul style="list-style-type: none"> TBEA company ltd. China is working as a contractor for the substation. Labor camp and site offices have been constructed Boundary retaining wall work is in progress Grading and site leveling work is ongoing. Construction materials test has been completed. Retaining wall of section 7-8-9, 11-12, 26-24, 1-2-3, 91-95 and 79-80 work is in progress The construction of additional labor camp has been completed in khudi substation 	20%
		<u>Manang substation</u> <ul style="list-style-type: none"> TBEA company ltd. China is working as a contractor for the substation. Access road survey work has been completed. 	10%
		<u>Manang-Khudi-Udipur TL</u> <ul style="list-style-type: none"> Soil test investigation work is in progress and completed at AP-0, AP-4, AP-6, AP-7A, AP-10B, AP-11A, AP-13A, AP-15, AP-23A and AP-25 In MKUTLP tower pad work has not been started yet. Detailed survey of the MKUTLP has been completed. Cadastral survey is going on 	15%

This Semiannual Environmental Monitoring Report has been prepared to cover and evaluate the environmental activities conducted by the Environmental and Social Management Unit (ESMU) for the period of July-December 2021.

2 COMPLIANCE STATUS WITH ENVIRONMENTAL COVENANTS

Environmental safeguard-related project activities are in compliance with covenants as given in **Annexure 1**.

3 ENVIRONMENTAL SAFEGUARDS IN SASEC POWER SYSTEM EXPANSION PROJECT

3.1 Environmental Safeguards

According to Environmental Protection Act (EPA), 2019 and Environmental Protection Rules (EPR), 2020 of Government of Nepal (GoN) and ADB Safeguard Policy Statement (SPS), 2009, Initial Environmental Examination (IEE) is mandatory for the electricity transmission line projects. Moreover, considering the National Energy Crisis Alleviation and Electricity Development Decade concept note, the Ministry of Energy, Water Resources and Irrigation (MoEWRI) has issued "IEE and EIA Working Procedures for Hydropower and Transmission Line Project, 2016" effective from 20th October 2016 to simplify and expedite environmental assessment approval process by assigning authority to Department of Electricity Development (DoED).

3.2 Planning Status of Projects

Following **Error! Reference source not found.** is the status on forestry clearance to cut the trees and use forest land for sub-project construction and operation under SASEC PSEP. Preparation and approval of environmental assessment reports have discussed below and overall status related to environmental safeguard is summarized in **Annexure 2**.

1. Kaligandaki Corridor (Dana- Kushma) 220 kV Transmission Line Project – IEE report has already been approved by the Ministry of Energy, Water Resources and Irrigation (MoEWRI) (then the Ministry of Energy (MoEn)). Tree clearance approval has been obtained from the cabinet on 28th December 2017 (2074/09/13 B.S.). Division Forest Office (DFO) of Myagdi District released the tree cutting order on 3rd March 2019 after the initiation of the Jagga Sattabharna (replacement of forest land permanently acquired for construction process) whereas in Parbat District tree cutting permit has been issued by DFO, Parbat District on 23rd June 2019 after the completion of Jagga Sattabharna. The process of Jagga Sattabharna has been finalized in a Compensation Determination Committee (CDC) meeting which was held on 30th May 2019 at Myagdi District. CDC has finalized 20-14-3-1 *ropani* of land from Parbat District and 31-5-1-3 from Myagdi District. The price of land ranges between 1, 66,000 to 1, 70,000 NPR per *ropani*.

2. Kaligandaki Corridor (Kushma-New Butwal) 220 kV Transmission Line Project – The earlier approved IEE report has been updated/ revised to address the increment in tree number i.e. 16449 number and Revised-IEE (R-IEE) report approved by the DoED/MoEWRI on November 10, 2020 (2077/07/25 BS). The project has two packages i.e. Kushma-New Butwal 220 kV double circuit transmission line & New-Butwal Sub-station were Larsen & Turbo (L&T) Company Limited, India and TATA Project Limited (TPL), India has mobilized construction contractors respectively.

The Cabinet provide approval for forestland acquisition and tree clearance on 2078/02/03 BS (17 May 2021). The arrangement for land Sattavarna (land Replacement Equivalent) finalized and Ministry granted approval to process the Land Utilization/Use Agreement with DoFSC and finally agreement was done on 2078/06/25 BS (Oct 11, 2021 AD). The tree *Chappan* (Marking) process is in progress in Kushma-New Butwal TL.

At Palpa district tree marking has been started after receiving marking order from respective district forest office. Tree marking at Poshpakha CF (261), Kuber CF(141), Chilandi Bhairav CF(43), Bhawana CF(956), Mathagadi CF(457), Malauta Chaupari CF(1214), Taklaudi CF (146) and Gore danda CF(302), altogether 3520 no. has been completed. Erection work at syangja i.e 40B/0, 40C/0 and 41A/0 is in progress. Tree marking is continuing at Biskundanda CF. Foundation work is continuing at 41A/0 and 43A/0 (Syangja) and 72C/0 (Palpa).

Environmental and Social Management Unit (ESMU) Kushma has coordinated with DFOs of Parbat and Baglung for checking the tree chappan made at TL sections. The checking of tree marking has been done in Tallo Chaur Pathar Khola, Ikreni , Khabar Salyan and Bandare Khurkhure CFs of Parbat with the coordination with Project staff, contractor, chairmans of CFs and Forest officers. Only one CF named Tallochaur Patharkhola CF has 14 trees to be cut, the remaining have no trees to be cut. Till date the tree cutting order has not been released yet by DFOs.

The project has published a 7 days notice regarding the purchase of 80.2541 ha. of land for the Jagga Sattabharna on 9 December, 2021(2078/04/25) from the people or group of people of Parbat, Baglung, Syangja, Palpa, Rupandehi and Nawalparasi. ESMU Kushma coordinated with DFOs of Parbat and Baglung with project staff to get the land sale proposals. No hard copy of letter of intent on land sale was obtained from Baglung, Syanja and Palpa district whereas it was received from a group of 36 people for the sale of land area 152-4-3-2 in Parbat. The proposed price is 175,000 per ropani. The Jagga Satta Bharna is under process at the project office, Mirmi(Syangja). Forest Related Letters, Notices, Tree Marking and Cutting Summary Sheet other related documents are attached in **Annexure 4**

In Parbat, 65 out of 70 foundation and erection works were completed. 7.5 Km of stringing work has been completed from AP 35 to AP 28 and 5 Km of stringing works from AP 35 to AP 37C is going in Parbat District. In Baglung, 7 out of 15 foundation and erection works have been completed. Coordination with the local elected body and PAF has been completed in 2 districts for the private land tree cutting process except for few wards of Palpa district. While, in New-Butwal Substation 132 and 220kv switch yard erection and stringing work is completed. The equipment joining and testing work is successfully completed.

3. New Butwal- Bardaghat 220 kV Transmission Line Project (NBBTLP)- The EIA report has been approved on 5th March 2020 (2076/11/22 BS) by the MoFE. The contract of Design, Supply, Installation and Commissioning of New Butwal-Bardaghat 220 kV Double Circuit Transmission Line awarded to contractor M/S POWERCHINA SEPCO1 Electrical Power Construction Company Ltd, China effective from 23 June 2020.

The contractor has completed the field of detail survey work and submitted a survey, tower spotting and profile report. Tree counting has been completed along the alignment. The tree counting inventory report has been submitted to DFO. Due to varies in tree number with EIA document, the EMP update work is in progress. The copy of EMP update permission from concerned ministry is attached in Annexure 4. Necessary follow up and supplementary document will be arranged for the DFO forwarded *tippani* file for the use of forest land and tree clearance in concerned department DoFSC and MoFE.

4. Marsyangdi-Kathmandu 220 kV Transmission Line Project - IEE report has already been approved by the MoEWRI (then the MoEn). RoW clearance inside forest area is almost completed after cabinet decision and forest entry permit from respective division forest office of Kathmandu, Dhading, Gorkha and Chitwan district. Getting the forest entry permit from DFO of Gorkha District for tree cutting process in 8 community forest & 3 government forest plot, project authority has cleared ROW inside forest of Gorkha in coordination with forest user groups, divisional, subdivisional forest office. Likewise, getting permit from DFO of Chitwan district for 2 CF, 3 LF & government forest plots of Chitwan & Gorkha project has recruited contractor for RoW clearance inside Chitwan's forest. *Ghatghaddhi* work has been resumed for Gurung CF & Chepang CF of Chitwan which was halted due to first wave of COVID-19. All tower erection & stringing work in Gorkha, Chitwan & Tanahu have been erected & also stringing work has been completed in these districts. Contractor (China Machinery Engineering Corporation) has been awarded for construction of Markichowk SS & construction work has been resumed in site.

5. Marsyangdi Corridor (Udipur- Markichok- Bharatpur) 220 kV Transmission Line Project: IEE report has already been approved by the MoEWRI (then the MoEn). Tree marking inventory has been completed in Lamjung and Chitwan districts and it is ongoing in Gorkha district. Tree marking (Chappan) has been completed in Lamjung district in March 2021. An agreement has been done between the Department of Forest and Soil Conservation and Marsyangdi Corridor 220 kV Project on 21st November 2019 for the use of forest land and clearance of trees in Lamjung district concerning the cabinet decision held on 17th October 2019. The project has written a letter to Division Forest Office, Lamjung regarding cash deposit in the Forest Development Fund for the use of forest area and plantation cost in Lamjung district on 12th July 2020. Division Forest Office of Lamjung District has released the tree cutting order on 11th December 2020 for the trees at tower pads of AP 33E/1 and AP 33D in Jugepani CF. Division Forest Office of Lamjung District has provided a forest entry permit for the tree cutting process on 30th March 2021 for the trees along the RoW of TL in six CFs. Inventory of the number of private trees inside the RoW has been completed from AP27 to

AP34 in May 2021 in Lamjung district. An agreement has been done by the Project with Jugepani CFUG and Raniswara Sakharpakha CFUG respectively for clearance of trees along the RoW of TL inside the CFs in July 2021. An agreement has also been done by the Project with Nawajyoti CFUG and Marsyangdi CFUG respectively for the clearance of trees along the RoW of TL inside the CFs in September 2021. Consultation is ongoing with DFO, SDFOs, CFUGs and Project to start tree clearance work in other CFs in Lamjung district. Project has written to Division Forest Office of Lamjung District for time extension of forest entry permit for the tree cutting process on 31st August 2021 for the trees along the RoW of TL in six CFs. NEA has written letter to Department of Forest and Soil Conservation on 7th February 2021 for the commitment of IEE update due to the difference of forest area and tree data in the IEE and tree marking inventory data in Chitwan district. Project has written letter to ESSD on 12th September 2021 asking proposal for IEE update of Udipur-Bharatpur section of Marsyangdi Corridor 220 kV TLP due to the alignment shifting and change of forest area and tree data included in the IEE due to the social and technical issues in the alignment. Project has also written letter to Forest Department on 12th September 2021 for update of tree marking data and affected forest area on the TL route for IEE update process. Division Forest Office of Lamjung District has released the tree cutting order on 9th July-December 2021 for the trees at tower pad of AP 36A/1 in Marsyangdi Pakha CF. Division Forest Office of Lamjung District has also provided time extension of forest entry permit for the tree cutting process on 10th July-December 2021 for the trees along the RoW of TL in Raniswara Sakharpakha CF and Nawajyoti CF.

Tree clearance work is ongoing at Jugepani CF and Marsyangdi CF in Lamjung district in this reporting period. Tower foundation work is ongoing in Tanahun district & construction activities is ongoing in Bharatpur substation of Chitwan district. Tree numbering work has been started for Tanahu & is ongoing. Cadastral survey has been partially completed in Gorkha district. Tower foundation work and erection work is ongoing in Lamjung district. Conductor stringing work has been started between AP 28A and AP 28B in Lamjung district in this reporting period. Pinggao Group Co., Ltd. is working as a contractor for the construction activities of towers and transmission lines. The tender of Udipur substation and New Bharatpur substation which was awarded to Shenzhen Farad Electric Co., Ltd. has been canceled in May 2019 and it is now awarded to L&T Company Limited in June 2020. Construction activities are ongoing in Udipur substation.

6. Marsyangdi Corridor (Manang-Khudi-Udipur) 220 kV Transmission Line Project –

Since part of this transmission line project passes through Annapurna Conservation Area (ACA), EIA is a mandatory requirement for this project. EIA has been approved by the Ministry of Forests and Environment (MoFE) on 14 January 2019. As the preliminary work after the contract award, the detail survey of TL tower location has been completed. The contractor has already started the construction work in the Khudi substation. Where, site labelling and site grading, construction retaining wall has been in progress. In addition, the construction of water storage tank, construction of labor camp and construction of store yard at SS construction site has been completed. Work related to tree counting along the TL section has been already started. Soil test along the TL in Udipur-Khudi section has been in progress. The letters to get entry permit to the land for land parceling has been provided to some respective ward and municipality in Udipur-Khudi section. Boundary retaining wall work is in under progress. Grading and site leveling work is ongoing. Construction materials test has been completed. Retaining wall of section 7-8-9, 11-12, 26-24, 1-2-3, 91-95 and 79-80 work is in near about progress.

4 INSTITUTIONAL ARRANGEMENTS

4.1 Establishment of Safeguard Unit/ Safeguard Desk

The Office of Environmental and Social Management Unit (ESMU) has been established at Kushma, Parbat, (for DKTLTP), Aabukhaireni - Tanahun and Dharke - Dhading (for MKTLTP), Butwal and Syangja (for KNBTLP) and Phedikuna Lamjung (for UMBTLP) and Khudi Lamjung (for MKUTLP) for day to day environmental, social monitoring and monitoring of resettlement impact implementation. Two site-based Safeguard Officers (each in, DKTLTP-KNBTLP (Parbat and Baglung Section Only), and UMBTLP) have been mobilized from ESSD. Likewise, four site-based Safeguard Officers in MKTLTP have been mobilized for day-to-day environmental and social monitoring works. In addition to this, follow-up Grievance Redress Committee (GRC) meetings and discussions regarding the recorded issues and grievances are being held following the WHO guidelines.

Table 4-1: List of Environment Safeguard Experts of SASEC-PSEP

SN	Name of Expert	Designation	Remarks
Project Management Directorate (PMD)-SSEMD			
1	Rajan Rishi Kandel	Focal Person	
2	Meeta Acharya	Environmental	
Project Supervision Consultant (PSC)			
1	Dr. Rajeev Srivastav	Environmental Safeguard Expert (International)	
2	Resham Baniya	Environmental Safeguard Expert (National)	
ESSD Consultant (Site Monitoring Officer)			
1	Md. Jahangir Ali	Environmental Safeguard Officer	DKTLTP, KNBTLP
2	Chiranjivi Chaulagai	Environmental Safeguard Officer	KNBTLP
3	Krishna Timsina	Environmental Safeguard Officer	NBBTLP
4	Milan Baral	Environmental Safeguard Officer	UMBTLP, MKTLTP
5	Sanjiv Shrestha	Environmental Safeguard Officer	UMBTLP
6	Arjun Subedi	Environmental Safeguard Officer	MKUTLP
Contractor's Representative			
1	NA	Health Safety Officer	DKTLTP (No work in progress)
2	Gao you Liang	Health Safety Officer (CMEC)	MKTLTP
3	Ajay Kumar Patel	Health Safety Officer (TATA)	MKTLTP
4	Ram Bahadur Nirala	Health Safety Officer	KNBTLP
5	Pratik Bhandari	Health Safety Officer	NBBTLP
6	Pankaj Panwar	Health Safety Officer	UMBTLP
7	Qu Shunjang	Health Safety Officer	MKUTLP

4.2 Establishment of Grievance Redress Mechanism

DKTLP

Grievance Redress Committee (GRC) has been formed in all affected rural municipalities (RMs) and Municipalities of DKTLP. A total of 16 GRCs are functional in DKTLP. GRC meetings have been conducted at different locations. Most of the grievances are regarding the valuation and compensation of crops and land, implementation of the allocated Corporate Social Responsibility (CSR) budget.

MKTLP

GRC has been formed in all affected RMs and Municipalities of MKTLP. A total of 28 GRCs are functional in MKTLP. Collection of grievance letters from respective RM and follow-up meetings, discussions, regarding collected issues have been done regularly for recorded grievances. The most of the grievances were related to compensation of land, trees, crops; contractor's activities like debris management, local road maintainance.

KNBTLP

In KNBTLP, GRC has been formed in 26 different wards of RM and Municipalities of Baglung, Parbat, Syangja, Palpa, Rupendehi and Nawalparasi districts. Most of the grievances are regarding the valuation and compensation of crops and land and budget on associate sub-projects and Corporate Social Responsibility (CSR).

NBBTLP

The transmission line route passes through Sunawal Municipality Ward 11 and 13; Sarawal Ward no. 1; Bardaghat Ward no. 2, 4, 5 and 10 of Nawalparasi (Bardaghat –Susta West-BSW) district. All ward level GRC formation have been completed along the project section.

UMBTLP

GRC formation has been completed in Lamjung & Tanahu district. Altogether, 10 GRCs have been formed in Beshisahar Municipality-1, Beshisahar Municipality-11, Sundarbazar Municipality-7, Sundarbazar Municipality-8, Sundarbazar Municipality-9, Dordi Rural Municipality-1, Dordi Rural Municipality-2, Rainas Municipality-6, Rainas Municipality-7 and Rainas Municipality-8. Likewise, in Tanahu district GRCs has also been formed in Bhanu Municipality-9 & ward number 2, 3, 4 & 5 of Aabukhereni RM. The GRC will be formed in Gorkha district as land acquisition notice has been published. In Chitwan districts till the reporting period land acquisition notice has not been published yet and PAFs have not been identified so GRC will be formed latter. Most of the grievances are regarding the valuation and compensation of land, crops and trees.

Grievance Redress Committee for the workers has been formed at Udipur substation of Lamjung district for redressing the grievance issues if registered during the ongoing construction work. A grievance box has been installed at Udipur substation for the collection of grievances from the laborers.

MKUTLP

Since part of this transmission line project passes through Annapurna Conservation Area (ACA), EIA is a mandatory requirement for this project. EIA has been approved by the Ministry of Forests and Environment (MoFE) on 14th January 2019. GRC formation has been started into the lower section i.e. Khudi-Udipur section. GRC formation has been completed in ward 3, 4 and 8 of Marsyandi RM and ward 10 of Besishahar Municipality of Lamjung district. No GRC meeting has been conducted in this reporting period.

5 COMPLIANCE WITH ENVIRONMENTAL SAFEGUARD MEASURES**5.1 Environment Budget for the Implementation of Environmental Safeguard**

The environment budget for the implementation of the environmental safeguard has been allocated in the environment assessment documents for all the subprojects as the environment enhancement, environment mitigation and environment monitoring. The allocated budget is enough for the total tree enumeration, tree marking in contractor cost and the forest clearance process has been initiated by the project. Similarly, the contractor cost includes the implementation of the Occupational Health and Safety (OHS), construction of labors accommodations, slope stabilization and protection work for the towers.

Project has done the MoU with the Environmental and Social Studies Department of NEA for the implementation of Environmental Safeguard activities at the project site like arrangement of human resources; preparation of compensatory plantation plan; conduct skill training to project-affected households; implementation of awareness trainings, general trainings related to agriculture, NTFP trainings & distribution of species of non timber forest products (SNTFPs); support program under CSR; conduct regular consultations with the affected households etc.

5.2 Tree Marking and Tree Cutting Status

Based on legal provisions as stipulated in Forest Act, 2076 BS (2019), Forest Regulations, 2051 BS (1995), approved Work Procedure for Acquiring/Utilizing National Forest Land for National Priority Projects, 2076 BS (2019), the forest clearance, acquisition of national forest land and Government Land has to proceed from the GoN through Ministry of Forests and Environment (MoFE) to concerned ministry i.e. Ministry of Energy, Water Resource and Irrigation (MoEWRI). The corridor-wise detail on the status of forest clearance is presented below.

Total 53853 number of trees has to be cut down for which 14391 trees has been felled down till this reporting period in SASEC TL.

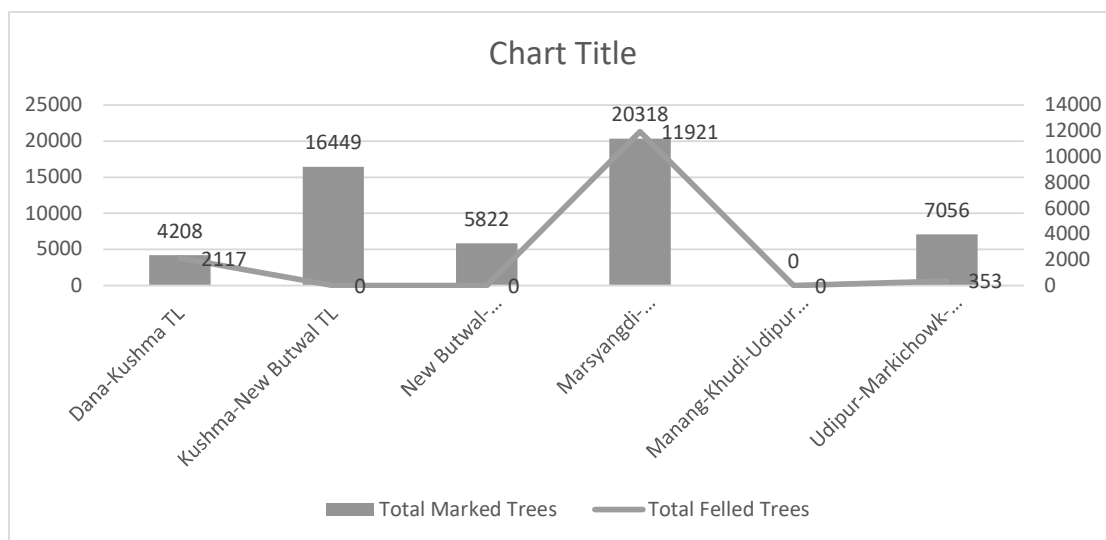
Table 5-1: Summary of Forest Clearance Status

SN	Project	Total Marked Trees	Total Felled Trees	Tree Log Management	Compensatory Plantation Status	Remarks
A	Kaligandaki Corridor					
A.1	Dana-Kushma TL	4208	2117	Completed but yet to receive plot clearance	As per "guideline with standard for use of national forest by national priority	

				letters from DFOs	projects,2076 Project is in process to deposit the cash in the Forest Development Fund to compensate the use of national forest area.	
A.2	Kushma-New Butwal TL	16449	0		Project is in process to deposit the cash in the Forest Development Fund to compensate the use of national forest area.	Agreement with Project and DoFSC completed. Tree Chappan process started, Tree-Cutting Consent not received yet.
A.3	New Butwal-Bardaghat TL	5822	0		Project is in process to deposit the cash in the Forest Development Fund to compensate the use of national forest area.	Tree Cutting order is not received yet.
B	Marsyangdi-Kathmandu TL	20318	11921	Completed	Project is in process to deposit the cash in the Forest Development Fund to compensate the use of national forest area.	Though handover work is completed but project has not obtained plot clearance letter from DFO of Chitwan & Gorkha to till date
C	Marsyangdi Corridor					
C.1	Manang-Khudi-Udipur TL	0	0		Project is in process to deposit the cash in the Forest Development Fund to compensate the use of national forest area.	Tree counting activities has been completed from AP 0 to AP 5 in ACAP area of Khudi-Udipur section. Tree marking (Forest inventory) activities has been started in Khudi-Udipur section. During this reporting period tree marking activities has been ongoing in Bhirkuna CF and Bandre LHF's of

						Marsyangdi RM-8, Lamjung
C.2	Udipur-Markichowk-Bharatpur TL	7056	353		Project has already deposited cash in the Forest Development Fund for the use of forest area and plantation cost in Lamjung district.	The tree Cutting order was received only for 6 CFs in Lamjung and it is under process for other districts.
Total		53853	14391			

Figure 5.1: Status of Trees to be cut and number of Trees Cut



Kali Gandaki Corridor [Dana – Kushma 220 kV TLP (DKTLP)]–

Total 4208 number of trees has to be cut down for which 2117 trees has been felled down in DKTLP. Tree marking (Chhapan) and cutting activities have been finished in DKTLP. The tree cutting has been completed in Myagdi CFs (Suwamai, Dihidemerbot, Kimlakhark, Mauwa, Gharamdi, Dossale, Bumebarah, Shirubari Thadikhoriya, Tusarepani and Raghughat Salleri) and Parbat CFs (Thulosalleri Bhirmuni, Dhulepalsing, Thulobhir Chiwrikhark, Bindabasini, Lasti Berneta, Koresophoksing and Naniswara national forest). The details of marked and felled trees number in CF wise of DKTLP has been attached in **Annexure 4.1**.

The tree cutting was not necessary for Gutako Pako and Naniswra CFs of Parbat district whereas they were partially removed in some CFs because of the availability of sufficient vertical clearances. The total number of felled trees was 2121 out of 4208 is enough to that of agreement between DoFSC and DKTLP. The tree handover process of felled trees in all above CFs has been completed. The Plot clearance letters are under process in both DFOs of Parbat and Myagdi.

Marsyangdi – Kathmandu 220 kV TLP (MKTLP) –

Total 20318 number of trees has to be cut down for which 11921 trees has been felled down in MKTLP. Tree marking and cutting activities have been finished in Gorkha & Chitwan district (Aabukhereni section) where some ghatgaddhi work is in progress in Gurung CF & Chepang CF of Chitwan. All affected community forests of Gorkha district (Kalikhola, Ganeshthan, Aaitabare Mahila, Banauti, Gairigaun, Rajdevi, Chitradevi, Majhuwa) had received payment from project office as per agreement after completing tree felling works and also trees have been felled inside government forest plot of Gorkha. Likewise, in Chitwan district's all leasehold forest user groups (Lasunepakha, Gauda & Bambai Aap) had received payment from the project office as per agreement after completing tree felling works and also trees have been felled inside the government forest plot of Chitwan. Since some ghatgaddhi work is in progress in the community forest of Chitwan (Gurung & Chepang), after the completion of all work final volume of felled trees will be handover to Chepang and Gurung community forest.

In total 2771 trees have been felled from 8 community forests and government forest of Gorkha and 1937 trees are felled from Chitwan's 6 forest plots (2 Community and 3 leasehold and 1 Government forests).

Though the cost estimation has been finalized for allocating compensation amount for permanent land acquired by project inside the forest of Gorkha & Chitwan no further progress has been made to till date so further progress will be updated in upcoming reports.

The DFO of Dhading district has approved the forest entry pass to all 28 CFs and government forests. Out of 28, 14 forests have fulfilled the contractual obligations and rests are in process. Till this reporting period, a total of 2992, 284 and 3384, trees have been cut down from Gajuri, Benighat and Baireni Sub-divisional Forests respectively. Till this reporting period, 13 CFs were unable to meet the contractual clauses so, PMO has decided to award contractual bidding for felling down of the trees. For the smooth continuation of work fronts, they were in close coordination with the district forest office of Dhading. From 13 CFs, around 2910 trees are to be felled. Regarding RoW's trees, *Jagga Sattabharna* and plantation PMO have circulated a letter on 8th Mangsir, 2076 (2019-11-24) for their royalty payment and also the department has requested additional time for remaining tree cutting. As per the progress of the T/L construction from the PMO and Contractor no more trees have to be felled down. However, due to contractual obligations i.e. lack of updated PAN and closing year issues, the progress of trees felled down in 13 CFs have been failed.

The details of marked and felled trees number in CF wise of Gorkha and Chitwan districts have been presented in **Annexure 4.2** whereas details of Dhading have been presented in **Annexure 4.3**.

Kushma – New Butwal 220 kV TLP (KNBTLP) –

Total 16449 number of trees has to be cut but no trees has been felled down till the date. The forest tree marking process in KNBTLP has been completed. Altogether, the transmission line passess through 23 community forest with National Forest and 16449 trees with poles have been marked in KNBTLP. Among them 10141 trees lie on alignment in Nawalparasi, 1216 in Rupandehi and 4785 in Palpa Districts, only bushes in Syangja, 16 in Parbat, and 291 in Baglung districts. detail of tree marking in KNBTLP has been attached in **Annexure 4.4**. The Cabinet has provided approval for forestland acquisition and tree clearance on 2078/02/03 BS

(17 May 2021). Agreement between Nepal electricity authority and Forest, soil conservation department regarding tree cutting has been submitted to respective District forest office. Tree marking (Chappan) process has been completed in Rupandehi and 4 CFUG area of Nawalparasi districts. The tree-cutting consent has not received yet.

New Butwal- Bardaghat 220 kV Transmission Line Project (NBBTLP)

Total 5822 number of trees has to be cut but no trees has been felled down till the date. The transmission line passes through 17 km of forestland with Chure area and 12 Community Forest User's Group namely Badera, Babagoriya, Dambarbhar, Kotahidevi, Basanta Hariyali, Hariyali, Shristi, Sansarkot Hariyali, Bansakti, Chisapani, Parijat and Sayapatri. As per approved EIA, an estimated 50.324 hectore of forest land & an estimated 22,025 trees including pole clearing require for project execution. While according to the latest tree census survey total of 5822 trees would be affected along the alignment and a summary of the inventory has been attached in **Annexure 4.5**. The construction activity has not been started yet.

Udipur – Markichowk – Bharatpur 220 kV TLP (UMBTLTLP) –

Total 7056 number of trees has to be cut down for which 353 trees has been felled down in UMBTLTLP. Tree marking inventory has been completed in Lamjung & Chitwan districts and ongoing in Gorkha district. Tree numbering work has been started by contractor from November, 2021 for Tanahu district in consultation & coordination with DFO, SDFOs, CFUGs & Project office. During this reporting period tree numbering work has been postponed & will be resumed in coordination with Sub division forest office of Bandipur, Tanahu. Tree marking (Chhapan) has been completed in Lamjung district in March 2021. In Lamjung district, a total of 2950 trees and poles have been marked and recorded in twelve CF's. An extra number of trees and poles should be cut down at Fulbari CF and Marsyangdi Pakha CF excluding the number of trees and poles marked during Tree marking (Chappan). The tree marking data of an extra number of trees and poles of Fulbari CF and Marsyangdi Pakha CF have been submitted to DFO Lamjung. An agreement has been done between the Department of Forest and Soil Conservation and Marsyangdi Corridor 220 kV Project on 21th November 2019 for the use of forest land and clearance of trees in Lamjung district concerning the cabinet decision held on 17th October 2019. According to the agreement, a total of 3195 trees and poles are estimated in the Lamjung district. Division Forest Office of Lamjung District has released the tree cutting order on 11th December 2020 for 47 trees at tower pads of AP 33E/1 and AP 33D in Jugepani CF. Division Forest Office of Lamjung District has provided a forest entry permit for the tree cutting process on 30th March 2021 for the trees along the RoW of TL in six CFs. Inventory of the number of private trees inside the RoW has been completed from AP27 to AP34 in May 2021 in Lamjung district. An agreement has been done by the Project with Jugepani CFUG and Raniswara Sakharpakha CFUG respectively for clearance of trees along the RoW of TL inside the CFs in July 2021. An agreement has also been done by the Project with Nawajyoti CFUG and Marsyangdi CFUG respectively for the clearance of trees along the RoW of TL inside the CFs in September 2021. Consultation is ongoing with DFO, SDFOs, CFUGs and Project to start tree clearance work in other CFs in Lamjung district. Project has written to Division Forest Office of Lamjung District for time extension of forest entry permit for the tree cutting process on 31st August 2021 for the trees along the RoW of TL in six CFs. NEA has written letter to Department of Forest and Soil Conservation on 7th February 2021 for the commitment of IEE update due to the difference of forest area and tree data in the IEE and tree marking inventory data in Chitwan district. Project has written letter to ESSD on 12th September 2021 asking proposal for IEE update of Udipur-Bharatpur section of Marsyangdi

Corridor 220 kV TLP due to the alignment shifting and change of forest area and tree data included in the IEE due to the social and technical issues in the alignment. Project has also written letter to Forest Department on 12th September 2021 for update of tree marking data and affected forest area on the TL route for IEE update process.

Division Forest Office of Lamjung District has released the tree cutting order on 9th December 2021 for 25 trees at tower pad of AP 36A/1 in Marsyangdi Pakha CF. Division Forest Office of Lamjung District has also provided time extension of forest entry permit for the tree cutting process on 10th December 2021 for the trees along the RoW of TL in Raniswara Sakharpakha CF and Nawajwoti CF. Tree clearance work is ongoing at Jugepani CF and Marsyangdi CF in Lamjung district in this month. Total 353 trees has been felled down in Jugepani CF by the CFUG. Dordi Subdivision Forest Office has written letter to Division Forest Office Lamjung regarding tree clearance in Jugepani CF on 17th December 2021. Project has also written letter to Division Forest Office Lamjung regarding completion of tree cutting as well as handover of Timber and Fuel wood in Jugepani CF on 23rd December 2021. The details of letters regarding tree clearance in Jugepani CF have been attached in **Annexure 3** whereas the details of tree marking and tree felling have been attached in **Annexure 4**.

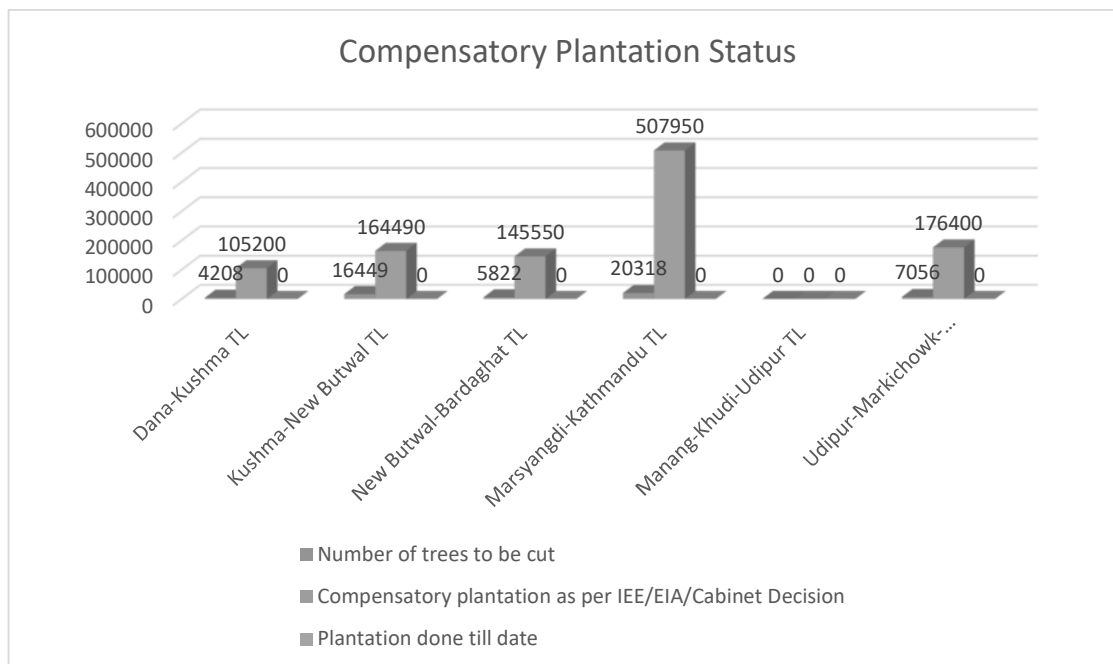
Manang – Khudi – Udipur 220 kV TLP (MKUTLP) –

Tree counting activities has been completed from AP 0 to AP 5 in ACAP area of Khudi-Udipur section. During this reporting period, tree inventory (Counting & Numbering) activities has been started on 24th December, 2021 in Khudi-Udipur TL section. Tree inventory activities is ongoing in Bhirkuna community forest and Bandre leasehold forest of Marshyangdi RM-8 in Lamjung district. In addition, the tree clearance process for the trees that lies within the SS construction site is in progress.

5.3 Status of Compensatory Plantation

From the beginning of the implementation of SASEC-PSEP all projects of NEA have prepared the compensatory plantation plan (CPP). As Government of Nepal formulated the Forest Act, 2076 section 42 (5) with provisions to implement the compensatory plantation by the project itself or to make the cash deposit in the Forest Development Fund to compensate the use of national forest area. All the projects are ready for the cash compensation by depositing the compensation amount in the Forest Development Fund.

Figure 5.2: Status Compensatory Plantation



The SASEC-PSEP need to compensate a total of 1099590 number trees. Till date no compensatory plantation has been made in all the projects and are ready to make cash compensation. The UMBTLP has already deposited cash in the Forest Development Fund for the use of forest area and plantation cost. Guidelines for utilizing the Forest Development Fund has not been finalized yet by the Ministry of Forests and Environment (MoFE). Once the guideline with fund flow to District forest offices will made the plantation program will be implemented by the district forest offices.

The KNBTL uses the national forest of 6 districts. For the loss of trees the project has planned for compensatory plantation but was not able to get the enough land for the plantation activity. Finally the project requested to GoN to make provision to deposit compensatory amount in the Forest Development Fund. As per the Nepal Government decision made on 2078-6-11, the direction has been provided to KNBTL to make agreement with the Department of forests and soil conservation and deposit the compensatory plantation (1:10 ratio) amount in single installment under the forest development fund.

5.4 Consultation with Community

In DKTLP, MKTLP and KNBTLP consultation with the community has been regularly carried out. Detail description of the consultation about environmental issues carried out in different sub-projects has been described below.

DKTLP

ESSD Kushma Unit is regularly coordinating with Project, CFUGs, AFOs and DFOs of Parbat and Myagdi regarding the plot clearance letters and CPP.

MKTLP

During this reporting period, period one consultation meeting has been conducted on 20th July-September 2021 with project affected people in Thumki village of Aabukhereni RM-2, Tanahu regarding the resettlement impact on livelihood of resettled people. Beside consultation, informal meeting & communication was carried out during this month with project authority, ESSD, contractor & community forest user groups.

During consultation participants were advised to learn skills in training by following safety measures in order to prevent infection risk of COVID-19 by maintaining personal hygiene and proper use of Mask, Sanitizer etc. In this reporting period at Dharke concerned stakeholders' of community forest user groups were consulted for distribution of seedlings of NTFPs to respective 26 CFs.

In this reporting period at Dharke concerned stakeholders of community forest user groups of 27 CFs and 2 Government Forests were consulted for distribution of seedlings of NTFPs. At Benighat sub-division forest office's five forests- two government and three CFs demand will be addressed by concerned sub-division forest office as allocation of NTFPs were very few almost 500 only. NTFPs plants distribution list were finalized by the bidder- Gautum Nursery Kausaltaar, Bhaktapur with ESSD and it will be distributed next month to the respective CFGUs. The details of the consultation meeting minutes have been attached in **Annexure 5**.

KNBTLP

The project has made regular consultation and facilitation with the community and other stakeholders. The informal consultations were done with the landowner while assessing the loss inventory (Structure, tree, crops, fruits, fodder) in RoW of TL in a private land of Parbat, Shyangja, & Palpa district. Formal/informal interaction, coordination with local people, GRC, DFO has been started for tree cutting (in RoW) process in private land coordinating with PAFs and ward office of Syangja district with minutes had been completed for tree cutting process. Similarly, consultation meeting with concerned sub-division forest office and CFUGs were held for *Chappan* (Tree Marking) in Rupandehi and Nawalparasi districts. The detail of the minutes has been attached in **Annexure 5**.

NBBTLP

Formal and informal consultations were conducted for consent from CFUGs and representative of CFUGs. Consultation with divisional forest office, sub-divisional forest offices and CFUGs done regarding the project, project alignment and tree numbering and tree inventory in the alignment.

UMBTLP

During this reporting period, total 23 public consultation meetings have been conducted. In the month of July, seven formal consultation meetings have been conducted. Two consultation meetings have been conducted at Rainas Municipality-8, Lamjung along with Assistant CDO, Project, Ward representatives, PAFs and local people on 26th June 2021 regarding the discussion of RoW compensation. Similarly, consultation meeting has been done at Rainas Municipality-6, Lamjung along with Assistant CDO, Project, Ward representatives, PAFs and local people on 26th June 2021 regarding the discussion of RoW compensation. Consultation meeting has been conducted at Beshisaha Municipality-1, Lamjung along with Project, Ward representatives and PAFs on 7th July-September 2021 regarding the discussion of current issues of PAFs during project implementation. Another consultation meeting has been

conducted at Udipur substation, Lamjung along with Contractor and GESI on 16th July-September 2021 regarding the increment of female labors and other GESI issues in the substation. Consultation meeting has also been conducted at Beshisahar Municipality-1, Lamjung along with GESI, Ward representatives and PAFs of tower pads on 17th July-September 2021 regarding the selection of participants for skill development trainings. One more consultation meeting has been conducted at Dordi RM-2, Lamjung along with Project, Contractor, Ward representatives, PAFs and local people on 18th July-September 2021 regarding the issue of debris management at AP 33.

Likewise, in August, five formal consultation meetings have been conducted. Consultation meeting has been conducted at Sundarbazar Municipality-7, Lamjung along with Project, Ward representatives, PAFs, local people and Contractor on 29th July 2021 regarding the handover of construction materials to Karmada Nadika Shivaji Temple under CSR. Similarly, consultation meeting has been done at Dordi RM-1, Lamjung along with Project, CFUG, Dordi Sub-division Forest Office and Contractor on 5th August 2021 regarding the procedures for tree clearance at Jugepani CF. Consultation meeting has been conducted at Sundarbazar Municipality-7, Lamjung along with GESI officer and Contractor on 9th August 2021 regarding the involvement of local labors and female labors in the construction of TL. Another consultation meeting has been conducted at Dordi RM-1, Lamjung along with Project, CFUG, Dordi Sub-division Forest Office, Contractor, Ward representatives, PAFs and local people on 16th August 2021 regarding the discussion of tree cutting process at Jugepani CF and private trees compensation under RoW.

One consultation meeting has been done on 28th July, 2021 at Aabukhereni RM-2, Tanahu with project affected people, sub contractor regarding the construction of tower in AP OB, grievance mechanism & compensation procedures.

Similarly, in September One formal consultation meeting has been done with project affected people at Aklang village of Aabukhereni RM-4, Tanahu on 19th September 2021 regarding the land acquisition process; possible losses during tower foundation, erection & stringing works; possible impacts on community during mobilization of contractor's labor & workers in village.

Likewise, 1 Knowledge Sharing Program on Stakeholder Engagement Plan has been conducted on 30th September 2021 which was organized by EIB and Project at Project office, Phedikuna, Lamjung and the participants were Project staffs, PSC, ESMU-Khudi and ESMU-Phedikuna.

One on 4th December 2021 with Gaulitar CFUG and Women Group along with Project at Rainas Municipality-6 regarding CSR implementation and tree cutting activities in Lamjung district.

Likewise, another consultation meetings has been conducted with project affected people including project authority, contractor representatives, ESMU officers on 16th December, 2021 at Jyamsera village of Aabukhereni RM-3, Tanahu regarding the compensation related issue of Mr. Gokul Ale, grievance recording processes & community support/ role during construction activities.

Similarly, next consultation meeting has been conducted on 19th December, 2021 with contractor representatives (L&T) & their workers including ESMU officers at Bharatpur substation of Chitwan regarding the Health & safety, PPE & its uses, possible risk of wild animal attack to workers in camp & construction premises, camp & construction site management with dustbin & lightening, installation of code of conduct in construction premises.

During november, 4 consultations have been conducted. First on 22nd November 2021 with PAFs of tower pad along with Project and Compensation Determination Sub-committee at Palungtar Municipality regarding land compensation determination in Gorkha district. Likewise, on 23rd November, 2021 another public consultation meeting has been conducted with PAFs of tower pad along with Project and Compensation Determination Sub-committee at Gorkha Municipality-14, Yangkot regarding land compensation determination in Gorkha district. Likewise, one formal consultation meetings has been conducted on 17th November, 2021 with project affected families of AP7 in presence of contractor representative & ESMU officers at Jyamsira village of Aabukhereni RM-3, Tanahu regarding the losses during construction works & compensation procedures. Similarly, another consultation meeting has been conducted on 28th November, 2021 with project affected families of AP10A at Dharapani village of Aabukhereni RM-3, Tanahu regarding the private tree losses during construction works & compensation procedures.

During October, one formal consultation meetings have been conducted on 1st October, 2021 with contractor in presence of project representatives, PSC, ESMU officers at Bharatpur substation regarding the waste management & sanitation in labor camp, possible animal attack & fire incident in substation. During the consultation, the requirement of regular training for labor in Bharatpur SS regarding health & safety is discussed.

Informal public consultations related to environmental issues and discussions have also been carried out regularly with the affected households and concerned stakeholders. The details of the program minutes have been attached in **Annexure 5**.

MKUTLP

During this reporting period seven 10 public consultations has been conducted. Informal public consultations related to environmental issues and discussions have also been carried out regularly with the affected households and concerned stakeholders. The details of consultation meeting minutes have been attached in **Annexure 5**.

5.5 Implementation of Mitigation Measures

At DKTLTP, ESMU Beni has successfully conducted 11 NTFP's (2019), 3 Forest and Wildlife Conservation (2018) and 2 Capacity Building Trainings (2018) for the user groups of CFs in Myagdi and Parbat districts as per IEE. The process of Jagga Satta Bharna was also completed in 2019, however, the compensatory plantation has not been started yet. It is under process.

In MKTLTP after contractor was mobilized, ESSD has implemented Social Awareness Program (1 day) in 10 different project affected area & after that hoarding board installation program was done in 28 location throughout the alignment.

During construction phase, ESSD has implemented different trainings & other programs to CFUGs of Gorkha & Chitwan like Awareness training program on forest & wildlife (2 Days); NTFP trainings (3 Days); 10,334 SNTFPs distribution to affected CFUGs.

ESSD has also implemented other general trainings related to agriculture to project affected families like Agriculture Intensification Training (7 Days); Seasonal & Off seasonal vegetable farming training (7 Days).

Furthermore, as per mentioned in IEE, ESSD has successfully implemented skill development trainings like Driving (1 Month), Tailoring (2 Month), Beautician (1 Month), Computer (2 Month) to 210 project affected people of MKTLTP.

At KNBTLP, ESMU Butwal has Conducted OHS Training for a construction worker in different 5 events of construction sites. Altogether, 118 workers with four females participated in the training program. Similarly, ESMU has conducted one event of two days Forest and wildlife awareness program for the member of CFUGs and locals of project affected areas of Nawalprasi and Rupandehhi in Sunawal Nawalparai on March 9 and 10 (2077/11/25 & 26 BS). The program was inaugurated by the Chief Guest, Divisional Forest Officer Mr. Sankar Prasad Gupta in presence of a Project manager from NEA, a Forest expert, an Assistant Forest Officer, ESMU, a Ward Chairman and Spoke Person from Sunawal Municipality and other 34 participants including 13 females.

At MKUTLP, Skill Enhancement training need assessment has been done for the affected HH to Khudi SS at Dhagain Gau settlement at MCTLP Khudi SS.

At UMBTLP, Two days "Forest Wildlife and Bio-Diversity Awareness Programme" has been conducted by ESSD for 12 Project affected Community Forest User Groups of Lamjung district in September 2021. Total three programs have been organized. First program has been conducted at Sundarbazar Municipality-8, Bhotedar from 27th September 2021 to 28th September 2021 for Mandali CFUG, Kalika CFUG, Raniswara Sakharpakha CFUG and Jugepani CFUG. Second program has been conducted at Sundarbazar Municipality-9, Paire from 28th September 2021 to 29th September 2021 for Fulbari CFUG, Marsyangdi Pakha CFUG, Marsyangdi CFUG and Nawajyoti CFUG. Third program has been conducted at Rainas Municipality-6, Dhamilikuwa from 29th September 2021 to 30th September 2021 for Gaulitar CFUG, Simalchour Naringhat CFUG, Garambeshi CFUG and Champawoti CFUG. Total 60 participants including 29 females; 5 from each CFUGs participated in the program. Project and ESMU Phedikuna also coordinated the program. The participants were happy to be involved in the program and they suggested that such programs should happen in future also.

One day "HIV- AIDS and Human Trafficking Awareness Programme" has been conducted by the Contractor at Udipur substation for the labors on 30th October 2021. Another training event for 39 workers (all men) of Bharatpur substation has been conducted by contractor (L&T) on 29th October, 2021 regarding HIV/AIDS and Human Trafficking. The 3 hours training was organised with two session where two hours session was delivered about HIV/AIDS and one hour session about human trafficking. The training was delivered by Mrs. Chandrakala Subedi (Lecturer of nursing College).

5.6 Effectiveness of Training

While implementing safeguard activities as per IEE, ESSD has already conducted NTFP training (3 days) for 8 CF of Gorkha district, 2 CF & 3 LF of Chitwan district. NTFP training was implemented while ROW clearance work in forest areas was ongoing. Now all community forests had cleared ROW. While carrying out monitoring works ESSD had monitored the effectiveness of NTFP training by consulting with CF representatives. Inorder to effectively implement the NTFP program 10,334 saplings of SNTFPs has been distributed to 12 forest user group of Gorkha & Chitwan & user groups are motivated to plant saplings under ROW of affected forest & also in parcel land inside forest area.

Likewise, ESSD has already conducted "Forest Wildlife and Bio-Diversity Awareness Programme" (2 days) for 12 CFUGs of Lamjung district. The programme helped to enhance the knowledge of the CFUGs. The participants were happy to be involved in the program and they suggested that such programs should happen in future also.

The training on HIV/AIDS & Human trafficking has also been organized for the workers of Bharatpur substation and Udipur substation by contractor (L&T) in October, 2021. The training has enhanced knowledge of workers on Sexually transmitted diseases like HIV/AIDS and this sessions would be very important for workers in their life where they could use their knowledge in daily life too.

5.7 Establishment of Labor camps/Campsite management

Labor camps have been established at Dana substation and Kusma substation sites for DKTLTP, at Markichowk substation and Matatirtha substation sites for MKTLTP and New Butwal substation for KNBTLP. The camps management of each project has been described separately as below.

In DKTLTP, the drainage management and other civil works inside the substations (Dana and Kushma) are in progress. The disposed mock was partially removed and rest was managed with bioengineering at the western edge of the Kushma substation. The mudflow is under control and no complaint has been recorded from the people of Naya Pul in this month of December, 2021.

In TL, the contractor said the construction of protection walls was completed in all towers affected by last year's heavy rainfall, however final checking (ongoing) may recommend some protection walls and drainage management in some tower locations.

In MKTLTP, contractor (China Machinery Engineering Corporation) has been mobilized in construction site of Markichowk SS. Contractor has constructed labor camp with seven rooms, three toilets & one bathroom. Site engineers, supervisor, security guards & safety officer are found in site during this reporting month (December, 2021). Site labeling work is still ongoing & separate recreation zone near labor camp is constructed for residing labor & workers. Labor are provided with safe drinking water, LPG for cooking & electricity is supplied in labor camp. First aid box is made available near labor camp and contractor has updated safety box with appropriate medicine but still they are advised to maintain safety box properly with cramp & guage bandage, painkiller, cetamole, etc. Sanitation inside & outside labor camp is maintained after regular advisory but dustbin in appropriate places for biodegradable & non biodegradable waste is yet to be kept. The contractor has been advised to organize regular health checkup and OSH related training for workers working for substation. During construction activities, emergency vehicle is advised to contractor for treatment of labor workers if any injuries occurred.

Similarly, contractor for TL works (TATA) has finished foundation, erection & stringing work in Gorkha & Chitwan so no any temporary labor camps is in site.

Till this reporting period, the camp at Dhading TL was found to be satisfactory. At Dhading workers are residing at nearby rental houses with all the facilities. Recently at Matatirtha SS contractor's halted work so in near future the work will be functioning smoothly.

In KNBTLP, the contractor provided satisfactory arrangements and basic accommodation in rental houses. While the contractor (TATA Project Limited) of New-Butwal SS have arranged labor camps with minimum basic accommodation facility. Labour Camp at 55B/0, Palpa has been found not satisfactory. L&T has been Instructed/ Advice to maintain the labour camp with basic arrangements and accommodation.

The facilities of the labor camps in Palpa and Syangja sections are satisfactory. The contractor has rented a house for the laborers. The campsites are provided with LP Gas for cooking and use of the firewood has been strictly forbidden. The laborers were instructed to put forward

the complaints in case the contractor doesn't fulfill the facilities as promised. At the same time, the contractor has been regularly advised to make proper arrangements for the labor and solve problems regarding drinking water and sanitation, if any, for the betterment of labor's health and sanitation. The contractor was also instructed to ensure the insurance of all new laborers before they start their work. The contractor has also been advised to check the temperatures of each labor on regular basis and make arrangements for sanitizers and hand wash and also keep informative signboards in the camp facilities.

In UMBTLP's Udipur-Markichowk section, the contractor of TL has managed labor camps to provide accommodation for laborers. Labor camps have been set up near the tower pads. Some laborers are staying at a Storage yard in Bhansar, Tanahun. Houses have been rented for labor camps by the contractor whereas construction of labor camps has been done by using Tripal where there are no appropriate rental houses. Toilet, drinking water and electricity facility has been provided by the house owner in the rental house. Temporary toilets have been constructed by the contractor at the constructed labor camps whereas drinking water and electricity facilities have been provided by the nearby houses. Basic accommodation facility has been provided by the contractor. The contractor of Substation has constructed labor camp at Udipur substation to provide accommodation to labors working in the substation. Toilet and bathroom have been constructed. Toilets are separated for male and female labors. Drinking water has been supplied from the nearby house as per the concession of the house owner. Electricity has been supplied directly from NEA. First aid kit with necessary medicines is maintained at the labor camp. Dust bins are kept at the labor camp and the wastes has been segregated as bio-degradable and non-bio-degradable by using separate bins. The contractor has also provided accommodation to some labors of Udipur substation in rental houses outside the substation. Toilet, drinking water and electricity facility has been provided by the house owner in the rental house. Basic accommodation facility has been provided by the contractor. The contractors of TL and substation have been advised to take necessary precautions for COVID-19 at the labor camps.

In UMBTLP's Markichowk-Bharatpur section contractor (Pinggao group co. ltd) has completed tower foundation works in AP5A & started foundation work of AP 14 during this reporting period. Sub contractor (Royal construction) has made temporary camp near construction site. Though site incharge & supervisor are present in site, the safety officer is not found in site during construction work so contractor has been advised to recruit safety officer as per HSE plan. During monitoring of AP 5A works drinking water was managed properly but toilet facilities was not managed properly near AP 5. Contractor has been advised to manage temporary toilet near tower foundation location. While monitoring labor camp for TL works proper drinking water & toilet facilities was managed properly and for the waste management necessary dustbin in appropriate location is suggested for contractor. The electricity facilities is managed properly & LPG gas is found for cooking purposes for labor camp . The labor camp near Jyamsera village of Aabukhereni RM-3 where labors (19) & operators (4) working for TL works are kept was periodically monitored during this reporting period & found basic facilities like lightning, drinking water, toilets, sleeping room in satisfactory conditions. During winter season contractor has been advised to manage proper accommodation with necessary quilts inside labor camp. Contractor has been advised to prohibit child labor & firewood in any construction site & labor camp.

In Bharatpur, Chitwan contractor (L&T) has been working for construction work of Bharatpur SS & they have build labor camp within premises of NEA and during this reporting period contractor has added room for labors and have been managing basic requirements in camp

area. During monitoring of construction site & labor camp, contractor (L&T) has been advised to manage solid wastes by keeping dustbin in appropriate places, to manage proper light facilities around camp area, to manage rooms for labors with good conditioned doors for better security, to fix fencing near labor camp, to display code of conduct inside construction premises, to update safety box with required medicines in sufficient amount in proportionate to worker number. All toilets & bathroom were used but contractor has been advised to maintain proper sanitation in toilets. The potable drinking water is provided to labor of labor camp & site area. The basic facilities like electricity, water for cleaning purposes & LPG gas has been managed inside labor camp by contractor & child labor is prohibited in camp/site by contractor.

Due to existing risk of covid, contractors (Pinggao, L&T) has been also advised to take necessary precautions for COVID-19 at the labor camps & construction area by maintaining proper sanitation inside & outside labor camp. The contractor has been advised to maintain isolation room in labor camps so that if any worker is found with sickness can be treated by maintaining appropriate precautions.

In MKUTLP the contractor of SS has managed labor camp for the accommodation and other facility at the Khudi SS. During this monitoring period construction of additional labor camp has been completed.

The detailed employment data record from different sub-projects has been described in **Table 5-2** below.

Table 5-2: Employment data record for this Reporting Period (July-December 2021)

Reporting Period July- December, 2021	Reporting station/TL	Total No. of labor (Men & women)	No. of local labor	No. of local men labor	No. of local women labor	Type of labor for women, skilled/ unskilled	
						Skilled	Unskilled
July, 2021	Dana Substation	2	2	2	0	0	0
	Khurkot Substation	40	40	39	1		1
	DKTLP-TL	-	-	-	-	-	-
	MKTLP-TL	5	5	5	0	0	0
	Matatirtha Substation	0	0	0	0	0	0
	Markichowk Substation	0	0	0	0	0	0
	New-Butwal SS	32	32	18	14	0	14
	KNBTLP -TL	43	30	30	0	0	0
	NBBTLP	0	0	0	0	0	0
	Udipur Substation	120	100	100	0	0	0
	New Bharatpur Substation	-	-	-	-	-	-
	UMBTLT-TL	64	0	0	0	0	0
	Khudi Subsation	15	2	-	2	2	-
	August, 2021	Dana Substation	0	0	0	0	0
Khurkot Substation		33	33	33	0	0	0
DKTLP-TL		-	-	-	-	-	-
MKTLP-TL		0	0	0	0	0	0
Matatirtha Substation		0	0	0	0	0	0
Markichowk Substation		0	0	0	0	0	0
New-Butwal SS		34	34	18	16	0	16
KNBTLP -TL		21	21	17	4	1	3
NBBTLP		0	0	0	0	0	0
Udipur Substation		120	80	80	0	0	0
New Bharatpur Substation		9	0	0	0	0	0
UMBTLT-TL		62	0	0	0	0	0
Khudi Subsation		30	2	-	2	2	-
September, 2021		Dana Substation	0	0	0	0	0
	Khurkot Substation	40	40	38	2	0	2
	DKTLP-TL	0	0	0	0	0	0
	MKTLP-TL	0	0	0	0	0	0
	Matatirtha Substation	0	0	0	0	0	0
	Markichowk Substation	23	13	9	4	0	4
	New-Butwal SS	42	30	22	8	0	8
	KNBTLP -TL	66	15	15	0	0	0
	NBBTLP	0	0	0	0	0	0
	Udipur Substation	120	100	100	0	0	0

Reporting Period July-December, 2021	Reporting station/TL	Total No. of labor (Men & women)	No. of local labor	No. of local men labor	No. of local women labor	Type of labor for women, skilled/ unskilled	
						Skilled	Unskilled
July-December, 2021	New Bharatpur Substation	43	0	0	0	0	0
	UMBTLT-TL	85	0	0	0	0	0
	Khudi Subsation	28	3	1	2	2	0
October, 2021	Dana Substation	0	0	0	0	0	0
	Khurkot Substation	9	9	7	2	0	2
	DKTLP-TL	0	0	0	0	0	0
	MKTLP-TL	0	0	0	0	0	0
	Matatirtha Substation	0	0	0	0	0	0
	Markichowk Substation	18	12	10	2	0	2
	New-Butwal SS	32	32	24	8	0	8
	KNBTLP -TL	85	20	20	0	0	0
	NBBTLP	0	0	0	0	0	0
	Udipur Substation	45	30	30	0	0	0
	New Bharatpur Substation	44	8	8	0	0	0
	UMBTLT-TL	19	0	0	0	0	0
	Khudi Subsation	NA	NA	NA	NA	NA	NA
November, 2021	Dana Substation	0	0	0	0	0	0
	Khurkot Substation	9	9	9	0	0	0
	DKTLP-TL	0	0	0	0	0	0
	MKTLP-TL	0	0	0	0	0	0
	Matatirtha Substation	0	0	0	0	0	0
	Markichowk Substation	23	10	10	0	0	0
	New-Butwal SS	32	32	24	8	0	8
	KNBTLP-TL	114	32	32	0	0	0
	NBBTLP	0	0	0	0	0	0
	Udipur Substation	120	90	89	1	0	1
	New Bharatpur Substation	75	6	6	0	0	0
	UMBTLT-TL	47	0	0	0	0	0
	Khudi Subsation	38	4	2	2	1	1
December, 2021	Dana Substation	0	0	0	0	0	0
	Khurkot Substation	8	8	8	0	0	0
	DKTLP-TL	0	0	0	0	0	0
	MKTLP-TL	17	17	17	0	0	0
	Matatirtha Substation	70	70	70	0	0	0
	Markichowk Substation	46	10	10	0	0	0
	New-Butwal SS	24	24	20	4	0	4
	KNBTLP-TL	176	33	24	9	0	9

Reporting Period July-December, 2021	Reporting station/TL	Total No. of labor (Men & women)	No. of local labor	No. of local men labor	No. of local women labor	Type of labor for women, skilled/ unskilled	
						Skilled	Unskilled
	NBBTLP	0	0	0	0	0	0
	Udipur Substation	75	45	44	1	0	1
	New Bharatpur Substation	64	41	41	0	0	0
	UMBTLP-TL	69	10	10	0	0	0
	Khudi Subsation	92	24	24	0	0	0
Total		2428	1158	1066	92	8	84
Percentage			48%	92%	8%	9%	91%

5.8 Occupational Health and Safety Measures and Constructional Approach

Health and Safety Officers have been recruited by all the contractors to ensure compliance with applicable Health & Safety regulations and to prevent potential harm to workers during construction activities and provide regular training concerning occupational health and safety, use of PPEs and Health and Sanitation to the construction workers. First aid kit boxes have been arranged at sites. The monitoring of labor camps in each project has been described separately as below.

In DKTLP, civil works are going on at Kushma sub stations. The RCC Dhalan of approach road from Armadi to Khurkot (in front of Mr. Narayan Subedi's house) has also been completed and the slope maintenance along with drainage works are going on. Occupation Health and Safety (OHS) conditions are satisfactory in both Kushma and Dana substations. However, the contractor should focus more on PPE and waste management at labour camps.

The contractor has provided the orientation to the Labors regarding the COVID-19. The temperature of workers and visitors is being regularly checked at Kushma substations. The masks and sanitizers are also provided to the Labors by the contractor. The Labors are well aware of social distancing as well.

In MKTLP's Markichowk SS, contractor (CMEC) has been advised to recruit safety officer for regular monitoring of OHS condition of labor, labor camps & labor related activities during construction of Markichowk SS & made available in site as construction work has been started. First aid kit box have been arranged at SS but advised to update regularly. PPE is provided to labor & staffs but contractor & contractor has provided sfety shoe & required PPE in adequate number for labor working for SS. In TL section contractor (TATA) has not deployed any labor in Gorkha, Tanahu & Chitwan's site so no any issues are left regarding PPE & health & safety.

At Dhading TL, till this reporting period, the concerned stakeholders have improved the occupational health and safety at sites and camps. 75% of workforces were provided PPE at the sites. Dhading sites labors reside at the private house Naubise Regarding health and sanitation every morning labors, have toolbox talk sessions and respective safety officers guide them for constructional health and safety issues at the sites and respective safety officers guide them for constructional health and safety issues at the sites.

In KNBTLP, the contractor has recruited Environment Health and Safety (EHS) Officers in both packages (TL & SS) and Safety Officers in each Site (Foundation and Tower Erection).

Similarly, the project has assigned a focal person for facilitating Standard Operating Procedure (SOP) for COVID-19 Risk Management and Workplace & Public Safety.

While the contractor's effort to ensure Occupational Health and Safety Measures were satisfactory in the construction area of TL in this reporting period. The PPE's like safety jackets, boots helmets etc. were also satisfactory but first aid kits were incomplete in some work sites.

In the case of New-Butwal SS, work is done following **Occupational Health and Safety in COVID-19 & Site Safety Plan** such as the proper use of PPE's and barricading was observed in the worksite. The labor camps were also in satisfactory condition. The construction area is restricted for the entry of unauthorized people. The proper use of PPE's was observed, sanitizer, masks were provided.

In NBBTLP, the contractor has submitted the Environment, Health and Safety (EHS) plan for environmentally friendly execution of the project which has not been approved yet.

In Udipur-Markichowk section of UMBTLP, the contractor of T/L (Pinggao Group Co., Ltd.) has provided adequate PPEs to the labors. Helmets, reflecting jackets, boots, belts and gloves have been provided by the contractor. The labors have been instructed not to work without the use of PPEs. The contractor has also been advised to give proper training to labors for the use of PPEs. First aid kit has been maintained at the construction site but there are no adequate medicines. The contractor has been advised to maintain the first aid kit properly in camp & construction area. The contractors of TL has been advised to take necessary precautions for COVID-19 at the construction sites & camp area. Labors are using the toilet of nearby houses and are using a local source of drinking water as per the concession of the house owner. Barricading is done with reflective rope. There are no signboards at the construction sites for which the contractor has been advised to keep enough signboards at the construction sites. The contractor has not given OHS training programs to the laborers yet and the contractor has been advised to provide OHS training programs as soon as possible. In case of an emergency medical situation, there is a stand-by vehicle that takes the labor to the nearest hospital for further treatment. The contractor has prepared Environment, Health and Safety Management (EHSM) Plan.

The contractor of Substations (L&T Company Limited) has provided adequate PPEs to the laborers working in Udipur substation. Helmets, reflecting jackets, boots, belts, gloves and masks have been provided by the contractor in Udipur substation. The first aid kit has been maintained at the Substation. Toilets are constructed at the Udipur substation. Drinking water is supplied from the nearby house as per the concession of the house owner. Barricading is done with reflective rope. Some hoarding boards have been installed by the contractor regarding the OHS. ESSD has also installed hoarding boards regarding the OHS previously in the substation. Some hoarding boards related to COVID-19 have also been installed by the contractor in the substation premises. The contractor has installed Fire extinguishers in the substation. The temperature of laborers and visitors is checked by using an infrared thermometer by the Security Guard before entering the Substation premises. Disinfectant has been sprayed in the substation premises frequently. In case of emergency medical situation, there is a stand by vehicle that takes the labor to the nearest hospital for further treatment. Contractor has forwarded Environment, Health and Safety (EHS) Plan to the Project for

review. Due to the COVID-19 pandemic, unauthorized people have been restricted to enter the construction sites of TL and substation. The contractors of both TL and substation have been advised to take necessary precautions for COVID-19 at the construction sites.

In Markichowk-Bharatpur section of UMBTLP, the contractor (Pinggao Group Co. Ltd) of TL work has not recruited safety officer for site till this reporting period so for compliance of same, contractor has been regularly advised. While monitoring excavation work in AP 5A, contractor was advised to provide PPE (Reflective jackets, Boots/Shoes, Gloves) to all workers & same site was monitored again while concreting work was ongoing. In recent visit PPE (Hard Hats, boots, Reflective Jackets, Gloves) was provided to all labors but still need of safety officer is found in site. Though PPE is provided to labor due to lack of orientation the labor were found not using PPE while working & also first aid box was not available in site. The contractor has been advised to keep first aid box with appropriate medicines in sufficient amount for labor working in construction site & labor camp. The labors have been instructed not to work without the use of PPEs. The contractor has also been advised to give proper training to labors for the use of PPEs. The contractor has not given OHS training programs to the labors yet and the contractor has been advised to provide OHS training programs as soon as possible. In case of an emergency medical situation, there should be vehicle that takes the labor to the nearest hospital for further treatment & the same is advised to contractor. The contractor has prepared Environment, Health and Safety Management (EHSM) Plan & they have been advised to comply the safety environment as per their EHSM plan.

The contractor of Bharatpur Substations (L&T Company Limited) has manage labor camp inside Bharatpur SS premises. L&T has been advised to provided adequate number of PPEs to the laborers working in Bharatpur substation. During recent site monitoing PPE compliance was satisfactory where Helmets, mask, boots, glass was provided to all & reflective jackets have been partially provided by the contractor in substation. Proper barricading is done with reflective rope. ESSD has also installed a hoarding board regarding the OHS previously in the substation. In case of emergency medical situation, there is a stand by vehicle that takes the labor to the nearest hospital for further treatment. Contractor has forwarded Environment, Health and Safety (EHS) Plan to the Project for review. The contractor has been advised to install code of conduct in Bharatpur SS premises & update first aid box in construction site with appropriate medicines. The contractor (L&T) have been also advised to take necessary precautions for COVID-19 at the construction sites.

In MKUTLP the contractor of Substations (TBEA Company Limited) has provided adequate PPEs to the laborers working in Khudi substation. Helmets, reflecting jackets, boots, belts and gloves have been provided by the contractor in Khudi substation. Toilets are constructed at the Substation. Drinking water is supplied from nearby spring sources at the ss site. The contractor has also installed few hoarding boards regarding the OHS previously in the substation however been advised to put OHS informative boards inadequate and in Nepali languages also. In MKUTLP the contractor of SS has managed labor camps for the accommodation and other facilities at the Khudi SS. The construction of additional labor camp has been completed. During this reporting period, labor gangs properly used personal protective equipments (PPEs) during construction time but the usage of gloves was found unsatisfactory.

The detailed safeguard compliance status and issues along with corrective actions for all the sub-projects have been described in the following **Table 5-3** and the safeguard compliance

status and issues along with corrective actions for all the sub-projects are presented in **Annexure 7.**

Table 5-3: Compliance Monitoring Status in terms of Safety Facilities Available to Labors

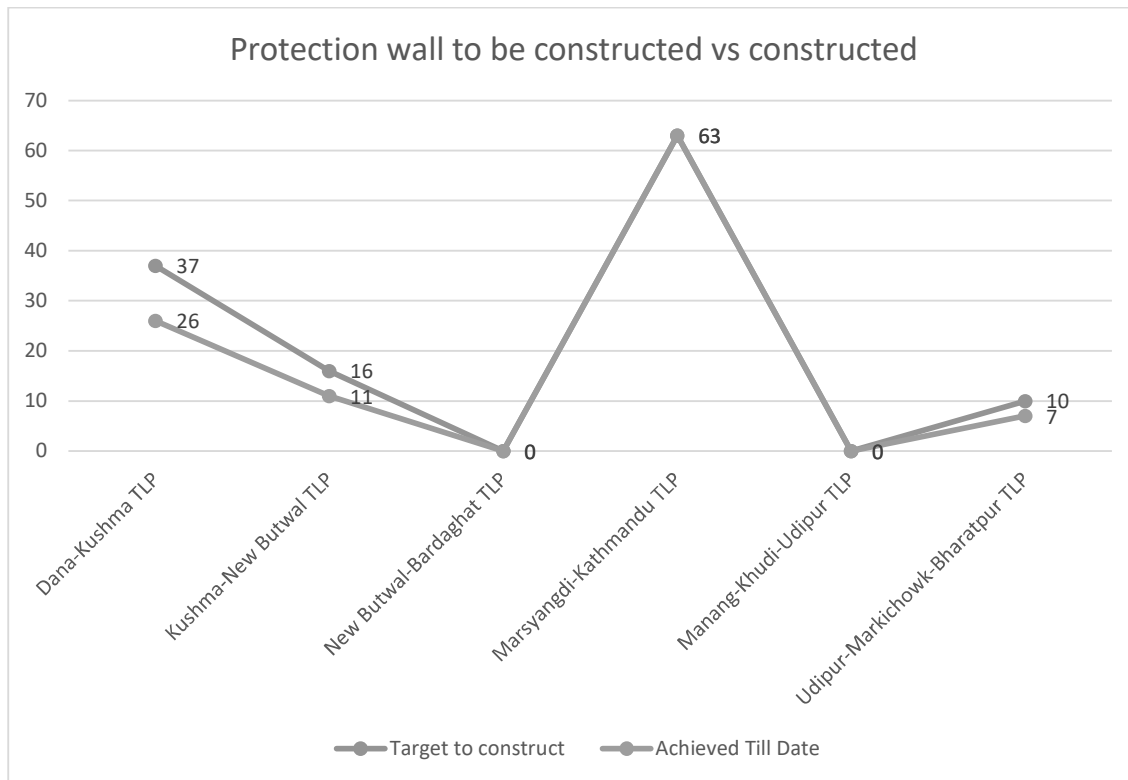
S.N	Project Components	Availability of Safety Kits						Presence/Absence Status of Other Facilities					
		Helmet	Boots/Shoes	Gloves	Belts	Glass	Mask	First Aid Kit	Toilet	Drinking Water facility	Child Labor		
DKTLP													
1	Kusma Substation	S	S	U	U- foundation activity S- tower erection works	S- for welding works	S	P (satisfactory level= 80%)	P (satisfactory level= 40%)	P(local drinking water available, (satisfactory level= 60%)	A		
2	Dana Substation	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
3	TL	In DKTLP- TL Section, No labor has worked in June,2021 because all the works have finished except some drainage and protection works											
MKTLP													
1	TL work (Gorkha, Chitwan, Tanahu)	No labor mobilization in this month											
2	Markichowk SS	S	U (Partially provided)	S	NA	P	U (Partially provided)	P (Advised to update)	P (Satisfactory)	A			
KNBTLP													
1	New Butwal substation	S	Partially (90%)	Partially	S	NP	S	S	S	S	A		
2	Nawalparasi and Rupandehi	S	Partially	U	S	NP	S	S	U	S	A		
3	Syangja and Palpa TL	S	S	U	S	U	S	S	U	S	A		
4	Baglung and Parbat Section -TL (Stringing and erection works - TL KNBTLP)	S	S	Partially	S	NA	Partially	S	S	S	A		
NBBTLP													
1	No field work	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		

S.N	Project Components	Availability of Safety Kits					Presence/Absence Status of Other Facilities				
		Helmet	Boots/Shoes	Gloves	Belts	Glass	Mask	First Aid Kit	Toilet	Drinking Water facility	Child Labor
UMBTLP											
1	Udipur Substation	S	S	S	S	NP	U	P	P	S (local drinking water available)	A
2	New Bharatpur Substation	S	S	S	S	S	S	P (not in satisfactory condition)	P (not in satisfactory condition)	P (Improved than previous month)	A
3	Foundation work (AP 5A, AP 6)	S (Provided but partially used)	S (Provided but partially used)	S (Provided but partially used)	NA	S	S	P (not in satisfactory condition)	P (not in satisfactory condition)	P (local drinking water available)	A
4	Foundation work at Udipur-Markichowk section (AP 48A, AP 38, AP 37B)	S	S	S	NA	NP	NP	P (not in satisfactory condition)	U (nearby houses were used)	S (local drinking water available)	A
5	Erection work at Udipur-Markichowk section	S	S	S	S	NP	NP	P (not in satisfactory condition)	U (nearby houses were used)	S (local drinking water available)	A
6	Conductor stringing at Udipur-Markichowk section	S	S	S	S	NP	NP	P (not in satisfactory condition)	U (nearby houses were used)	S (local drinking water available)	A
MKUTLP											
1	Khudi Substation	S	S	U	NP	U	U	P (not in satisfactory condition)	S	S (Available of local drinking water)	A
<p>Remarks: Safety shoes/gloves have been provided to the Contractor's personnel, however they were found to be used partially during the monitoring.</p> <p>Action: Safety shoes/gloves and mask, glass need to wear during the work time and same is notified during the monitoring to the worker, supervisor of contractor and project too.</p> <p>Note*: S-Satisfactory, NA-Not-applicable, U: Unsatisfactory, P: Provided, NP: Not Provided, P: Present, A: Absent</p>											

5.9 Slope stabilization and Bio-engineering Work

Slope stabilization works have been carried out in the landslide-prone areas and unstable land areas in the tower foundation sites of DKTLP, MKTLP, KNBTLP and UMBTLP as per the requirement and nature of the site.

Figure 5.3: Status of Protection wall to be constructed vs constructed till date



Although Slope stabilization work has been regularly carried out in the landslide-prone areas and unstable land areas in the tower foundation sites of DKTLP, some of the towers (AP 14A, AP 16, AP 16A, AP 24 A, AP 27 B, AP 39B, AP 41B, AP 42 B, AP 43, AP 47A and AP 51) are highly affected because of landslide, heavy rainfall and overflowing in Kali Gandaki River). Final checking may recommend some more slope stabilization works.

In DKTLP, Bio-engineering is needed at AP 11, AP 47 A, AP 33, AP 33 A, AP 31. AP 43, AP 42 B and AP 8A for the slope stabilization whereas protection walls are needed at AP 14, AP 16, AP 16A, AP 24A, AP 27 A, AP 28 AP 39D, AP 41B, AP 42B, AP 47A and AP 51.

Water logging has been seen outside and inside the northern wall of Kushma Substation in this month of December, 2021. The contractor has removed the debris inside the northern wall of Kushma substation. But, no control measure has been initiated for outside water logging of the northern wall as it was advised by ADB mission. As the disposed mock was partially removed and plantation has done, no mudflow from the western edge of Kushma substation towards Naya Pul has been seen in July-December 2021.

In MKTLP, though any slope stabilization work has been carried out in this reporting period in erosion & landslide-prone areas and unstable land areas nearby tower foundation sites, the contractor has already completed protection wall in 24 tower location of Chitwan, 20 tower location of Gorkha and 2 tower location of Tanahu. Though protection wall construction work

was completed in AP 57B, a rainfall-induced landslide of 16 June had damaged the protection wall near AP 57B and also contractor & project team have completed an inspection of the tower area on 22 June for further protection of the tower. NEA is planning for tower protection work in necessary towers after inspection & will be updated after publication of procurement notice. The detail of tower name with location and status is presented in table 3.

In KNBTL, special precaution and special measures are adopted for the protection of foundations of towers located in mountainous, rough and steep terrain. Till now, two sites nearby AP 49 and AP 52 need slope stabilizing structures and no other threats were observed in the construction site. In case if protection is required, in consultation with the Project office and contractor will be advised to be built in such location.

In UMBTL, slope stabilization work with the construction of retaining wall and gabion wall have been completed at 7 tower pads to protect the tower footings from landslide and soil erosion. Construction of slope protection wall is ongoing in this month at AP 48A before starting the excavation work as there is risk to low lying houses during excavation work. Construction of slope protection wall at AP 33D is also ongoing where a landslide has occurred causing risk to Karmodaya Primary School lying at the upper land area above the tower pad. Construction of slope protection wall at AP 38 is ongoing to protect the tower footings and above lying house at the tower pad. At Udipur substation, slope stabilization work is ongoing with the construction of a retaining wall. The status of protection of tower footing/protection wall construction has been presented in **Table 5-4** below.

Table 5-4: Protection of tower /protection wall construction status

Tower Name		Protection of Tower Footing/Protection wall construction status
DKTLP		
AP-37/0, AP-36/0, AP-35B/0, AP-17A/O, AP-17/0, AP-14/0, AP-50/0, AP-9/0, AP-4/0, AP-11/0, AP-25 B/0, AP-44A/0, AP-44/0, AP-27B/0, AP-15/0, AP-10/0, AP-49/0, AP-6/0, AP32/0 , AP 13 A , AP 32 and AP 26, AP 8A, AP 39 B, AP 14		Completed
AP43/0, AP 42B and AP 24 A		partially done
AP 10, AP 27 A, AP 16, AP 16 A, AP 24 A, AP 41 B, AP47 A and AP 51		Under Process
MKTLP		
District	Tower Name	Completed
Gorkha	AP 37B, AP 37C, AP 37D, AP 60A, AP 61/1, AP 61A, AP 64/0, AP 66/0, AP 70A, AP 72B, AP 73/0, AP 73A, AP 74/0, AP 36, AP 65A, AP 41/0, AP42/0, AP 65B, AP 68/0, AP 72	

Tower Name		Protection of Tower Footing/Protection wall construction status
Chitwan	AP 49/0, AP 49A, AP 50/0, AP 50A, AP 51A, AP 51B, AP 52/0, AP 52B, AP 53/0, AP 54B, AP 54C, AP 56/0, AP 57/0, AP 57C, AP 58A, AP58B, AP 58C, AP60, AP 55/0, AP 59, AP 56A, AP 57A, AP 52A, AP 57B	Completed
Tanahu	AP 75B, AP 76	Completed
Dhading	AP 2B/0 , AP 7/0, AP7D/2, AP7C/0 , 8B AP21C, AP 1/0 , AP2/0, AP16/0 ,AP 24G/0 AP 2B, AP19C, AP7, AP16A, AP20D, AP23, AP24, AP6	Completed
KNBTLP		
Palpa	AP 53/0, AP 54A/0, AP 56A/0, 52B/0, 52/0, 60A/061/0, 62/0, 63/0	Completed
	AP 63A/0	Completed
	AP 49	Ongoing
Syanja	46B/0	Completed
	46A/0, 44/0,41B/0,43B	Completed
	43A/0, 44A/0	Ongoing
Nawalparasi	LILO Tower	Design for protection wall to protect from river scouring submitted, not approved yet.
UMBTLP		
Lamjung	AP 27A, AP 33B, AP 33A, AP 37, AP 28A, AP 28	Completed
	AP 36	Completed to replace existing road
	AP 33 D	Ongoing
	AP 38	Ongoing
	AP 48A	Ongoing

5.10 Debris Management

Debris and spoil due to excavation for the tower foundation have been partially managed in the project areas. Slope stabilization and management work have been regularly carried at different locations. The contractors are also regularly advised to manage safe spoil dumping sites with no adverse environmental and social effects. The same issues have been discussed in GRC meeting before the site visit on the affected land plot.

In DKTLTP, some excavated soil remained to be managed in some locations of TL and Kushma substation.

In MKTLP, Debris has been managed properly within Markichowk substation premises till this monitoring period. The debris generated while carrying excavation work in SS is found to be backfilled in low land areas for maintaining the slope of the site area. The muck and debris generated from transmission line tower foundation work and excavation work are found to be used for backfilling work in the pit and the remaining volume is distributed equally near the site area by assessing the geological condition of the place.

At Matatirtha SS and Dhading TL sections debris generated at AP27A, AP29, AP 29A and AP 29B have been compacted and filled up by benching for regaining original land label at all the ongoing construction sites as per the requirements.

In KNBTLP, debris and spoil due to excavation for the tower foundation have been managed in the safe spoil areas. The contractors are also regularly advised to manage safe spoil dumping sites with no adverse environmental and social effect and confine construction activities with proper safety procedure and muck/spoil management measures within acquired land areas or make consent with other landowners (if additional required) with proper compensation. Similarly, the contractors have been advised to recover and reinstate the site after completion of construction work.

In UMBTLP, debris generated during excavation work has been backfilled and compacted in the pits of tower pad after the completion of foundation work. The level of the ground is found to be uniform after backfilling. The debris generated during excavation work is dumped inside the tower pad area as much as possible. In some tower pads, the debris is dumped in nearby land as per the concession of the landowner. The contractor of TL has also been advised to manage the debris properly at all the construction sites. In both the substations, debris generated during excavation work for construction activities are compacted for needy land parcels. The contractor of SS has been advised to manage the debris properly generated during the construction work.

5.11 Drainage Management

Drainage structures are being provided to minimize interference and impact on the natural drainage pattern of the area. It is under control inside the Kusma substation as well; however, it has not done so for the outer rainwater along the northern wall of Kusma Substation. It is under discussion at the project office. A drainage structure is also needed at AP 27A and 42 B.

In MKTLP no drainage issues have been recorded till the date of monitoring.

In KNBTLP, most of the tower pads are located at the top of subdued hillocks, on the ridges and flat agricultural land, so the interference with drainage patterns due to the construction of the tower pads seems minimal. The contractor was requested to take necessary precautions and safeguard measures while excavation, trail construction for material transportation and access road construction with minimal impact and vegetation removal/loss. The construction of the drainage structure and its outlet to nearby stream is in progress in New-Butwal SS.

In Syangja and Parbat districts, there are no issues regarding drainages in the newly started location. However, the contractor has been requested to take necessary precautions and safeguard measures while excavation, trail construction for material transportation and access road construction with minimal impact and minimal vegetation removal/loss.

In Udipur-Markichowk section of UMBTLP, irrigation canal construction has been completed at AP 50 and drainage construction at AP 36 has also been completed. In Udipur substation, the construction of drainage structures are ongoing.

In Markichowk- Bharatpur section's TL works no any impact on natural drainage system is observed to till date. The construction work in the the Bharatpur substation is ongoing and contractor has been advised to properly manage natural drainange with appropriate structures.

In MKUTLP, the drainage structures are to be constructed in the Khudi substation.

5.12 Storage of Construction Materials

Construction materials at different construction sites are not properly stored. The contractors are regularly advised for proper storage of these materials at the designated sites. **Table 5-5** presented below, describes the status of construction materials storage at different locations.

Table 5-5: Status of Construction Materials Storage

Transmission Line	Construction Material	Storage Type	Condition
DKTLP	Cement	Cement storage rooms are available at Kushma substation.	It is Safe at Kushma substation
	Sand	Open storage	Direct piling on grassland, no waterproof layer, foreign material restriction facility not provided, not enough separation distance from aggregate, not satisfactory condition
	Aggregate	Open storage	Direct piling on grassland, no waterproof layer, foreign material restriction facility not provided, not enough separation distance from sand, not a satisfactory condition
	Reinforcement Bars	Open-air storage	Storage provided without sufficient clearance from the ground, no waterproofing layer, not a satisfactory condition.
MKTLP	Cement	Inside Container (Markichowk SS)	Cement bags were kept inside the container and good in condition
		Open-air storage and inside houses (Chitwan, Gorkha Transmission Line)	Private houses area were used for piling cement bags and in some cases open-air storage as well.
		Open and inside houses (Dhading, Chitwan Transmission Line)	Temporary cottages and private houses were used for piling cement bags.
	Sand	Open storage (Both substations) (Markichowk SS and Transmission line) &	Direct piling on grassland, no waterproof layer, foreign material restriction facility not provided, not enough separation distance from aggregate, not satisfactory condition

Transmission Line	Construction Material	Storage Type	Condition
		Matatirtha Substation and Dhading TL)	
	Aggregate	Open storage (Both substations) (Markichowk SS and Transmission line) & Matatirtha Substation and Dhading TL)	Direct piling on grassland, no waterproof layer, foreign material restriction facility not provided, not enough separation distance from sand, not a satisfactory condition
	Reinforcement Bars	Open Storage (Markichowk Substation) & Matatirtha Substation and Dhading TL)	Bars were kept inside the construction area of Markichowk and Matatirtha substation with some ground clearance but not in a shaded place and stored in the open place. Storage did not comply with the basic criterion storage was provided without sufficient clearance from the ground, no waterproofing layer at all the sites.
		Open Storage (Transmission line's Erection work)	For TL works, bars storage did not comply with the basic criterion as storage of bars was provided without sufficient clearance from the ground, no waterproofing layer at all the sites.
KNBTLP	Cement/rod/ steel	Leased or rented land with temporary structure (camps)- In Bastari Palpa (KNBTLP TL)	The compound has been surrounding/fenced by a barbed-wire fence and guarded by a security guard in leased land. The cement store in storeroom, reinforcement rod/ steel is store in open space with minimum ground clearance. The toilets and other safety procedures were found to be satisfactory. The safety sign needs to be written in local languages.
		Storeroom and/with open space –in Substations KNBTLP SS) Store camps and/or open space	The cement store in storeroom, reinforcement rod/ steel is store in open space with minimum ground clearance.
	Cement in Construction site	Open-air storage covered by Plastic Tent	The cement is placed in a wooden plane covering by the plastic tent, will not be suitable for a long time and rainy time, need to improve and special precaution for moisture contact (need to improve ground clearance and cover) in Palpa. In Syangja and Parbat cement are stored covered by plastic near the site with proper reflective barricading and in some cement are stacked on the side of the road with plastic covering, so satisfactory.
	Sand	Open storage	Direct piling on grassland, no waterproof layer, and foreign material restriction facility

Transmission Line	Construction Material	Storage Type	Condition
			not provided, not enough separation distance from aggregate, not a satisfactory condition in Palpa. Whereas it is satisfactory in Syangja and Parbat.
	Aggregate	Open storage	Direct piling on grassland, no waterproof layer, foreign material restriction facility not provided, not enough separation distance from sand, not a satisfactory condition in Palpa. Whereas it is satisfactory in Syangja.
	Cement steel/Bars	Open-air storage	Storage provided without minimum clearance from the ground, no waterproofing layer and covering. Whereas it is satisfactory in Syangja & Parbat.
	Reinforcement Bars	Open storage	Storage provided with minimum clearance from the ground, satisfactory condition in Palpa, Syangja and Parbat districts.
UMBTLP	Cement	No storage at TL	Cement bags are supplied in fresh condition.
		Inside container at both the substations	Cement bags are stored inside the container and are satisfactory in condition.
	Sand	Open storage at both TL and substations	Direct piling on the ground, no water proof layer, foreign material restriction facility not provided, condition not satisfactory
	Aggregate	Open storage at both TL and substations	Direct piling on the ground, no water proof layer, foreign material restriction facility not provided, condition not satisfactory
	Reinforcement Bars	Open air storage at TL	Stored inside the compound fenced by barbed wire and guarded by security guard in leased land, minimum clearance from ground not provided for storage, not in satisfactory condition
		Open air storage at both substations	Stored inside the substation compound and guarded by security guard, sufficient clearance from ground provided for storage, satisfactory in condition
MKUTLP (SS)	Cement steel/Bars	Inside container at Khudi substation	Cement bags are stored inside the container and are in satisfactory condition

6 SAFETY ASSURANCE AS PER THE CONTRACTOR'S SAFETY PLAN

The Safety Assurance as per the contractor's safety plan has been presented in **Annexure 8**. The objectives of the contractor's safety plan are as follow:

- To ensure compliance with applicable legal requirements and other requirements related to environmental aspects of its operations.
- To conduct all activities consistent with applicable EHS Policies.
- To prevent injury to anyone and to safeguard human lives, property and the environment.
- To promote and establish the highest standards of safety to benefit through prevention of accidents and thereby promote increased productivity, reduced schedule disruptions and mitigate the effects of any accidents/ incidents.
- To increase safety consciousness and awareness among employees by uplifting the safety standards and setting the trend in safety excellence through established goals and objectives, training programs, audits and motivations.
- To ensure that all engaged in these works commit to these same Quality & EHS principles and shall establish and utilize programs that ensure the requirements are achieved.

The contractor is committed to achieving EHS performance through the following policy:

- Compliance with applicable Environmental, Occupational Health, Safety legislation and regulations
- Providing a safe and healthy environment for all employees including those employed by a subcontractor.
- Establishing procedures to recognize, implement, evaluate and monitor EHS performance.
- Continual improvement of EHS performance through setting objectives and targets and prevent pollution.
- Periodical review to ensure that the policy continues to be relevant and appropriate to the organization.
- Safe upkeep of all tools and plants and conservation of natural resources.
- The appropriate level of EHS training.

7 AUTOMATED SAFEGUARD MONITORING (ASM) SYSTEM

Automated Safeguard Monitoring (ASM) System has been customized. The safeguard implementation performances of the project have been collected from the field level safeguard team and uploaded in the automated system quarterly. For the regular input in the application the safeguard unit and the field level team will be oriented with the automated application. ASM of environmental safeguard implementation performances of the sub-project will be presented in every quarterly report. For this Semiannual period of July-December 2021, the updated ASM has been attached in **Annexure 9**.

8 ISSUES AND FOLLOW UP ACTIONS

The following **Table 8-1** shows the main environmental issues and follow-up actions for the effective implementation of environmental safeguard measures for this reporting period.

Table 8-1: Major Issues and Follow up Actions

S. No.	Major Issues	Follow up Action
DKTLP		
1	Charging status of Dana Kushma 220 kV Transmission Line Project	220 kV Kushma Substation was charged on 21st January 2021, followed by charge of 220 kV transmission line from Dana to Kushma on 22nd January 2021, and finally 220 kV Dana Substation was charged on 24th January 2021. An inauguration ceremony of Dana-Kushma 220 kV was held on 4 Feb, 2021 at Kushma substation.
2	Tree cutting Activity and tree handover process	Tree cutting activity was finished and trees were handed over to all CFs.
3	Plot Clearance letter from Parbat and Myagdi DFOs	ESSD Benit is coordinating with Forest Offices for the plot clearance letters and other official documents
4	CPP	The reviewed CPP has been submitted.
5	NTFP plant distribution to the CFs of DKTLP	ESSD has distributed 5550 plants of different species of NTFPs to the CFs of Parbat and Myagdi in the month of August, 2021.
MKTLP		
1	Restoration of Chautari Near AP 61A, AP 68 and AP 71	Chautaro construction as per GRC meeting has been completed in AP 71 & AP 68 but still remaining near AP61A. Project's civil engineer has been informed for the remaining restoration work.
2	Landslide near AP 57B	Landslide had occurred near AP 57B and protection wall has been damaged on 16 June 2021. Technical inspection has been completed by project team & contractor for further protection of tower.
3	Ghatgaddhi work of Gurung CF & Chepang CF	Contractor had left ghatgaddhi work by 2020 due to first wave of covid-19 & now ghatgaddhi works has been finished & now handover work is remained.
KNBTLP		
1.	Forest Clearance	About 27 km length of TL lie in forest area but couldn't started construction work due to tree cutting procedural delay, forest clearance administrative work, project deputed a dedicated official for this activity.
2.	Erosion and landslide (45 B and 44B)	The contractor has been well informed about erosion and landslide due to access road. Consultation meeting had been conducted in presence of NEA, Contractor, PAPs, Local elected body's representatives respectively.
3.	Erosion and landslide (46 C, 46 D)	The contractor has been well informed about erosion and landslide due to access road. Consultation meeting had been conducted in presence of NEA, Contractor, PAPs, Local elected body's representatives respectively.
4.	Compensation for losses	The project affected families has been demanding payment for losses made. The valuation for private trees has been made as per governmental norms and given to the project for further proceedings. Meeting with Contractor, NEA team, Local elected body and PAPs was conducted at Kaligandakai RM 5 and 6.

S. No.	Major Issues	Follow up Action
5.	Reconstruction site and proper muck management.	The contractor has been well informed and advised to make note of muck generated and quantify the muck details and properly manage the surplus muck after backfilling and to ensure no losses are made to surrounding areas.
6.	Personnel Protective Equipment (PPE) shortage in market	The PPE's availability is satisfactory.
7.	The construction of retaining wall halted in AP 49 with widening of alongside shrinking-rural road.	The changed design approved and construction has not started yet.
8.	Site safety Signboards and barricades	The contractor of TL has been advised to put enough signboards and barricades at the construction site
9.	Jagga Sattabharna	The Project has published a notice on 9 December, 2021 to get the land sale proposals from the people or group of people from Parbat, Baglung, Syangja, Palpa, Rupandehi and Nawal Parasi. A group of 36 people submitted a land sale proposal at DFO, Parbat whereas not received in Baglung, Syangja, Palpa Rupandehi and Nawalparasi.
10.	First Aid Kit	Contractor has been instructed to maintain First Aid Kit
11.	Labour Camp	Labour Camp at 55B/0 was found not satisfactory. Contractor has been Instructed/advice to maintain Properly
UMBTLP		
1.	PPEs compliance	The contractor of TL has been advised that the labors should wear the PPEs compulsorily at the site.
2.	Safety officer recruitment in TL works	Contractor (Pinggao) has been regularly advised to recruit dedicated safety officer but not being complied to till date.
3.	OHS training programs	The contractor of TL has been advised to give OHS training programs to the labor as soon as possible.
4.	Signboards	The contractor of TL has been advised to put enough signboards at the construction site.
5.	Debris management	The contractors of TL and SS have been advised to manage the debris properly.
6.	First aid kit	The contractor of TL and substations have been advised to maintain the first aid kit properly.
7.	Slope protection wall at AP 33D	Construction of slope protection wall is ongoing where landslide has occurred causing risk to Karmodaya Primary School lying at the upper land area above the tower pad.
8.	Risk to towers due to soil erosion at AP 33E	Project has been informed about the issue and discussions are ongoing.
9.	Toilet, sanitation & security in labor camp of Bharatpur SS	The contractor has been advised to fix problems with labor camp doors, toilets; manage proper sanitation inside & outside camp.
MKUTLP		
1.	Signboard	The contractor of SS has been advised to put the signboards related to project, OHS information, Social conduct at construction site and with other required information. However, few signboards have been kept at SS construction site with OHS, which is in English language so contractor of

S. No.	Major Issues	Follow up Action
		SS have been advised to put the information signboard in proper understandable way including in Nepali language.
2	Retaining wall to protect the settlement toward the upper section of the substation	The slope has been formed due to the cutting of land for the retaining wall; however, construction of retaining wall has not been completed yet. The contractor of SS has been advised to construction of necessary protection to the area as soon as possible.
3	Labor camp management (Reconstruction)	MKUTLP the contractor of SS has managed labor camp for the accommodation and other facility at the Khudi SS. However, in the current situation the labor camp has been affected by the landslide caused by heavy rainfall in Lamjung district by this ongoing monsoon. And therefore, all the labors have been displaced temporarily in to the safer area through the labor camp where all the facility of accommodation and other utilities has been made available to labors. The contractor has been advised to reconstruction the affected labor camp as soon as possible in safer area.

9 PROPOSED MAJOR ITEM OF FOCUS FOR NEXT REPORT

Following activities are proposed for the next period of monitoring in the sub-project sites and enlisted in the table below:

Table 9-1: Major Items focused for Next report

Subprojects	General items of focus for next report	Specific items of focus for next report	Achievement / Outstanding work in this reporting period
DKTLP	<ul style="list-style-type: none"> Monitoring of construction activities using monitoring log sheet as per EMP (OHS, labor conditions, sanitation, labor camp inspection, first aid) in TL section and substation area PPE monitoring at all the construction sites (TL and SS) Monitoring of environmental components regarding landslide, debris fall, Mock disposal soil loss, health and safety of labors, sanitation, and first aid and labor site conditions etc. 	<ul style="list-style-type: none"> Monitoring of health, hygiene and safety issues of labor camps of substations and TL Coordination and consultation for the drainage canals at TL and substations Coordination with project for tree cutting and other activities of CFs in Parbat and Myagdi. Consultation meeting with PAFs, contractors, community and project authorities whenever required Implementation of remaining training. Demand collection of NTFP Plant distribution 	<ul style="list-style-type: none"> 220 kV Kushma Substation was charged on 21st January 2021, followed by charge of 220 kV transmission line from Dana to Kushma on 22nd January 2021, and finally 220 kV Dana Substation was charged on 24th January 2021. Accumulated debris along the northern wall of Kushma Substation has been removed.
MKTLP	<ul style="list-style-type: none"> Monitoring of construction activities using monitoring log sheet as per EMP (OHS, labor conditions, sanitation, labor camp inspection, first aid) in TL section and substation area PPE monitoring at all the construction sites (TL and SS) Monitor tree cutting process as per contract between project office and forest user groups, contractor in Chitwan and Gorkha district in coordination of subdivision forest forests (Munglin and Barhakilo). Consultation meeting with PAFs, contractors, CFUGs, Project authorities, local representatives and other stakeholders (Government bodies) whenever required 	<ul style="list-style-type: none"> Monitoring of Labor camp & construction site of Markichowk SS Follow up of chautaro restoration process near AP 61A, Sahidlakhn RM, Gorkha Coordinate with ESSD, Project authority and forest expert regarding compensatory plantation works. Closely coordinate with contractor and project office regarding health and safety issues while mobilization of staffs and labor during pandemic situation caused by COVID-19. 	<ul style="list-style-type: none"> Firsr floor slab of Markichowk SS is completed & stair house column is ongoing Site visit in Markichowk SS & monitoring of site & labor camp works Transformer foundation work is ongoing

<p>KNBTLP</p>	<ul style="list-style-type: none"> Field visit for monitoring of construction activities in New-Butwal SS & TL regarding debris management, muck/spoil management and site restoration, OHS, labor conditions, labor camp sanitation, accommodation facility, first aid etc. Consultation meeting and facilitation with PAFs, contractors, community and project authorities whenever required Sensitize and Monitor COVID-19, work safety and public health safety standard and precaution Private land tree cutting at syangja district Tree marking of Remaining Community forest and National forest 	<ul style="list-style-type: none"> Coordination and regular follow up meetings with DFO, CFUG for land acquisition and tree clearance in forest area and related work until approval from cabinet. Data collection of loss and damage of crops, trees in tower pad/RoW Facilitation for tree <i>Chappan</i> and tree clearance capacity of CFUGs Facilitation for tree <i>Chappan</i> and tree verification in Jogreni CF, Baglung. Planning to coordinate Forest and Wildlife Conservation Training for the CF members of Baglung and Parbat Facilitation for Tree Cutting in Tallochaur Patharkhola CF, Parbat. 	<ul style="list-style-type: none"> Conductor Stringing work has been started Agreement for Use of Forest Land done with DoFSC Tree marking (Chappan) completed in Rupandehi and 4 CF area (3516 trees) in Nawalparasi The Chappan (Marking) checking process is in progress in Rupandehi and Nawalparasi. Tower foundation work completed in 4 location and underprogress in 4 location in Nawalparasi , in the location without tree Coordinated with the DFOs of Baglung and Parbat for the tree cutting process 7.5 Km stringing works from AP 35 to AP 28 (Parbat) were finished in the month of December,2021
<p>NBBTLP</p>	<ul style="list-style-type: none"> Consultation meeting with PAFs, contractors, community, CFUGs and project authorities whenever required. Sensitize and Monitor COVID-19, work safety and public health safety standard and precaution 	<ul style="list-style-type: none"> Facilitation and monitoring of check survey, tree marking/inventory and cadastral survey activities. GRC formation in project affected ward Coordination meetings with DFO, SFO, CFUG for land acquisition and tree numbering in forest area and related work Conduction of forest and wildlife awareness training 	<ul style="list-style-type: none"> Detail tree counting and inventory report submitted in DFO for the TL alignment. The tippani file for use of forest land and tree clearance forwarded to DoFSC and MoFE by DFO Nawalparasi and MoFE granted permission for EMP update work.
<p>UMBTLP</p>	<ul style="list-style-type: none"> EMP compliance monitoring of the construction site and labor camps at regular basis Field visit to different sites and facilitate to solve the project related issues Tree numbering work monitoring Coordination & consultation meeting with PAF, Local representative 	<ul style="list-style-type: none"> GRC formation in Gorkha Tree marking and tree cutting activities Coordination and consultation with concerned authorities and PAFs Follow up and monitoring of health and safety issues of labors Coordination & consultation meeting with PAF, Local representative 	<ul style="list-style-type: none"> Tree clearance work is ongoing at Jugepani CF and Marsyangdi CF in Lamjung district in this reporting period. Construction of slope protection wall is ongoing at AP 33D, AP 38 and AP 48A. Tree marking inventory ongoing at Gorkha district. Construction work in Udiapur SS and TL sites are ongoing so compliance monitoring of PPE, labor camps & sites has been done. Division Forest Office of Lamjung District has released the tree cutting order on 9th December 2021 for 25 trees at tower pad of AP_36A/1 in Marsyangdi Pakha CF.

	<ul style="list-style-type: none"> Monitoring of construction activities using monitoring log sheet as per EMP (OHS, labor conditions, sanitation, labor camp inspection, first aid) in substation area PPE monitoring at all the construction sites (SS) Monitoring of ongoing forest inventory (tree marking & numbering) activities Field visit to project affected sites and proper facilitate to solve the project related issues 		<ul style="list-style-type: none"> Division Forest Office of Lamjung District has also provided time extension of forest entry permit for the tree cutting process on 10th December 2021 for the trees along the RoW of TL in Raniswara Sakharpakha CF and Nawajwoti CF. Total 353 trees has been felled down in Jugepani CF by the CFUG. Public consultation meeting has been conducted on 4th December 2021 with Gaulitar CFUG and Women Group along with Project at Rainas Municipality-6 regarding CSR implementation and tree cutting activities in Lamjung district. Two Consultation meeting with PAF, Contractor, Project Authority/Construction of AP 6 foundation work is completed Construction of AP 5A has been completed Visited Bharatpur SS & TL site for compliance monitoring of PPE & labor camps Construction of AP 14 has been started & is ongoing
<p>MKUTLP</p>		<ul style="list-style-type: none"> Involved in tree inventory (marking & numbering) activities Compliance monitoring of health, hygiene and safety issues of labor camps of substation Coordination and consultation with concerned authorities and PAFs Coordination and consultation for the drainage canals at substations GRC formation in project affected ward 	<ul style="list-style-type: none"> Consultation meeting about the TL related issues has been conducted on 5th December, 2021 at <i>Tnapa samaj bhawan</i>, Besisahar municipality-10, Lamjung with the presence of Mayor, Local elected representative, member of political parties, TL affected peoples, Project team, Contractor representative, ESMU officers and others. During this reporting period, tree inventory (Counting & Numbering) activities has been started on 24th December, 2021 in Khudi-Ujipur TL section. Tree inventory activities is ongoing in Bhirkuna community forest and Bandre leasehold forest of Marshyangdi RM-8 in Lamjung district. Visited Khudi SS for the environmental and social compliance monitoring of PPEs & labor camps of TL. . Construction activities like retaining wall, excavation work, grading and site leveling work is ongoing in khudi SS. The construction of additional labor camp is completed at khudi substation.

10 ENVIRONMENTAL SAFEGUARD IN DISTRIBUTION SYSTEM

To encompass the distribution system package (Lot 1 Expansion of distribution network in eastern Nepal and Lot 2 Expansion of distribution network in western Nepal) into the environmental safeguards implementation, regular monitoring and reporting mechanism have been set from November 2018. As preparatory work for setting up the environmental safeguard mechanism for the distribution system, orientation programs have been conducted in Butwal for Lot 2 on 27th October 2018 and in Biratnagar for Lot 1 on 29th October 2018 with the active participation of around hundreds of participants from Supervision Consultant, site staff of Employer and Contractors. Furthermore, two focal persons at site levels have been assigned for regular monitoring and reporting of the environmental safeguard implementation. Environmental monitoring checklists have been provided to the focal persons for regular monitoring of the activities at site levels. Continuous follow-up for the proper functioning of environmental monitoring and reporting activities and continuous advice and instruction to the contractors for the adoption of environmental safeguards measures in the distribution system shall be required.

11 IMPACTS OF COVID-19 IN THE PROJECT IMPLEMENTATION

The checklist used at the site in regards to monitoring safety precautions against COVID-19 is given below.

Table 11-1: Monitoring of COVID-19 safety precautions

Q. No.	Questions	Options	Response	Remarks subjective response
1	Name of Project	South Asia Sub-Regional Economic Cooperation Power System Expansion Project		
2	Name of Contractor/ Package No.	TATA, L & T		
3	After lockdown is there continuation of work?	Yes- with <25 workers		
		Yes- with 25-50 workers		
		Yes - with 51-100 workers		
		Yes - with >100 workers		
		No - there is complete stop of work		
4	What is accommodation arrangement of the workers?	Staying at contractor's labor camp inside the project area		
		Contractor arranged rented building in the community		

Q. No.	Questions	Options	Response	Remarks subjective response
		Outside workers staying at rented room with self-arrangement		
		Local workers staying at their house with family		
5	In case of mixed arrangement provide distribution of workers by percentage?	Staying at contractor's labor camp inside the project area	20	
		Contractor arranged rented building in the community	50	
		Outside workers staying at rented room with self-arrangement	20	
		Local workers staying at their house with family	10	
6	What is food supply arrangement for the workers?	Procured by the contractor - bulk supply to the worker group		
		Shop arranged by the contractor - workers collect from the shop		
		No arrangement from the contractor - workers buy from different local shops		
		No arrangement from the contractor - workers buy from fixed shop		
		Self-accommodated workers - go for shopping in community		
7	Does the contractor submitted updated OHS plan to IA?	Yes- already approved		
		Yes- but working on updating		
		No- existing OHS plan is sufficient to response COVID 19 risk		
		No- Not yet initiated		
8	Does the project prepared project specific standard operating procedure for	Yes- already approved		
		Yes- but under preparation		
		No- but following available instruction and guideline from government		

Q. No.	Questions	Options	Response	Remarks subjective response
	COVID 19 risk management?	No- Not yet initiated		
9	What is an arrangement of the workplace for the EA's supervision staff?	Workplace management plan prepared		
		Plan shared with staff and oriented		
		Staff are following the protocol		
		No arrangement set to date		
10	What is an arrangement of the workplace for the consultant's supervision staff?	Workplace management plan prepared		
		Plan shared with staff and oriented		
		Staff are following the protocol		
		No arrangement set to date		
11	What is an arrangement of the workplace for the contractor's executive staff?	Workplace management plan prepared		
		Plan shared with staff and oriented		
		Staff are following the protocol		
		No arrangement set to date		
12	How executive staff arrange transportation from residence to work area and vis-versa	Project arranged vehicle (individual)		
		Project arranged vehicle (in the group)		
		Above arrangement only for partial staff		
		Own arrangement private		
		Own arrangement public		
13	What is fooding arrangement of executive staff?	Cooked in office in mess		
		Individual cooking		
		Outside from restaurants/shops		
		No explicit arrangement		
14	What is accommodation arrangement of	Office arranged (inside camp)		
		Office arranged (rented building outside camp)		

Q. No.	Questions	Options	Response	Remarks subjective response
	executive staffs?	Individually arranged		
		No explicit arrangement		
15	In near future - How many workers are expected to work at a time in an area?	<25		
		25-50		
		51-100		
		>100		
16	Can you provide tentative time of work resumption?	After one week		Work has been resumed
		After lockdown is over		
		Two weeks after lockdown is over		
		No plan to resume work		
17	Can you please explain type of preparedness for resumption of work?	SOP prepared and approved		
		OHS plan updated and approved		
		PPE, screening kits, labor camps ready		
		No preparedness- No response		
18	What type of measures planned to ensure OHS plan and SOP are implemented?	Screening and detection mechanism established		
		Routine orientation/awareness raising to the workforce on COVID 19		
		Established coordination with medical centers prescribed for COVID 19		
		Routine monitoring and feedback mechanism established		
19	How do you evaluate existing capacity of EA/IA or contractor to prevent COVID risk to the workforce?	Poor		
		Fair		
		Good		
		Excellent		
20	What type of support do you	Support on preparing SOP		

Q. No.	Questions	Options	Response	Remarks subjective response
	expect from ADB to resume work?	OHS plan update review and fine tuning		
		Training and orientation on SOP		
		No support is needed we are fully capable		

ANNEXURE

Annexure 1: Status of Compliance with Loan and Grant Covenants

Annexure 1: Status of Compliance with Loan and Grant Covenants

Schedule	Para no.	Description	Current Status	Responsibility	Remarks
4	7	<p>Conditions for Award of Contract</p> <p>The Borrower shall ensure that no Works contract for Parts 1 and 2, which involves environmental impacts is award until:</p> <p>a) Ministry of Energy or the Ministry of Population and Environment, as appropriate, has granted the final approval of the IEE, or EIA, as applicable, for Parts 1 and 2; and</p> <p>b) NEA has incorporated the relevant provisions from the EMP into the Works contract.</p>	Complied	NEA	
4	8	<p>The Borrower shall ensure that no Works contract for Part 3, which involves environmental impacts is award until:</p> <p>a) Ministry of Energy or the Ministry of Population and Environment, as appropriate, has granted the final approval of the IEE, or EIA, as applicable, for Part 3; and</p> <p>b) AEPC has incorporated the relevant provisions from the EMP into the Works contract</p>	Being complied	AEPC	As per GoN Environment Act, only hydropower plants 1 MW to 50 MW has to endorse IEE. Currently, no works contract has been awarded.
5	11	The Borrower shall ensure, or cause NEA or AEPC, as applicable, to ensure, that the preparation, design, construction, implementation, operation and decommissioning of the Project, each Sub-project, and all Project facilities comply with (a) all applicable laws and regulations of the Borrowers relating to environment, health, and safety; (b) the Environmental Safeguards; (c) the EARF (for subprojects); and (d) all measures and requirements set forth in the respective IEE and EMP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report.	Being complied	NEA/ AEPC	
5	16	The Borrower shall make available, or cause NEA and AEPC to make available necessary budgetary and human resources to fully implement the EMP and the RIPP.	Being complied	NEA/ AEPC	
5	17	Safeguards – Related Provisions in Bidding Documents and Works Contracts : The Borrower shall ensure, or cause NEA and AEPC to ensure, that all bidding documents and contracts for Works contain provisions that require contractors to:	Complied	NEA/ AEPC	

Schedule	Para no.	Description	Current Status	Responsibility	Remarks
5	18	<p>(a) comply with the measures and requirements relevant to the contractor set forth in the IEE, the EMP, the RIPP and the IPP (to the extent they concern impacts on affected people during construction), and any corrective or preventative actions set out in a Safeguards Monitoring Report;</p> <p>(b) make available a budget for all such environmental and social measures; and</p> <p>(c) provide the Borrower with a written notice of any unanticipated environmental, resettlement or indigenous peoples risks or impacts that arise during construction, implementation or operation of the Project that were not considered in the IEE, the EMP, the RIPP</p> <p>(d) adequately record the condition of roads, agricultural land and other infrastructure prior to starting to transport materials and construction; and</p> <p>(e) reinstate pathways, other local infrastructure and agricultural land at least their pre-project condition upon the completion of construction.</p> <p>Safeguards Monitoring and Reporting</p> <p>The Borrower shall do the following or shall cause NEA and AEPC to do the following:</p> <p>(a) submit semiannual Safeguards Monitoring Reports to ADB and disclose relevant information from such reports to affected persons promptly upon submission;</p> <p>(b) if any unanticipated environmental and/or social risks and impacts arise during construction, implementation or operation of the Project that were not considered in the IEE, the EMP, or the RIPP, promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan; and</p> <p>(c) Report any actual or potential breach of compliance with the measures and requirements set forth in the EMP, or the RIPP promptly after becoming aware of the breach.</p>	Being complied	NEA/ AEPC	

**Annexure 2:
Environmental Safeguard Planning Status
&
Status of Environmental Compliance for
SASEC PSEP**

Annexure 2.1: Environmental Safeguard Planning Status for SASEC PSEP

S. N.	Name of Project or Subproject	Environmental screening is carried out? (Yes or No)	Environment category of the project / subproject (A/B/C/FI)	EIA/IEE/DDR with EMP is prepared (Yes/No)	ADB approved EIA/IEE with EMP (Yes / Under Review / Not Yet Due)	Government approved EIA/IEE with EMP (Yes / Under Review / Not Yet Submitted)	Safeguard monitoring and coordination mechanism established (Yes/No)	GRC is established (Yes/No)	Automated safeguard monitoring system	EMP cost as approved in environment document is included in the project cost (Yes/No)	Remarks
1	Dana-Kushma 220 kV Transmission Line Project (DKTLP)	Yes	B	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
2	Masyangdi-Kathmandu 220 kV Transmission Line Project (MKTLP)	Yes	B	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
3	Kushma-New Butwal 220 kV TLP (KNBTLP)	Yes	B	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Cost in built in items
4	New-Butwal-Bardaghat 220 kV TLP (NBBTLP)	Yes	A	Yes	Yes	Yes	Yes	No	Yes	Yes	Cost inbuilt item
5	Udipur – Markichowk – Bharatpur 220 kV TLP– (UMBTLTP)	Yes	B	Yes	Yes	Yes	Yes	Yes (Partially)	Yes	Yes	Cost in built in items
6	Manang – Khudi - Udipur 220 kV TLP (MKUTLP)	Yes	A	Yes							

Note: EIA- Environmental Impact Assessment; IEE- Initial Environmental Examination; DDR- Due Diligence Report; EMP- Environmental Management Plan; GRC- Grievance Redress Committee; BOQ- Bill of Quantity

Annexure 2.2: Status of Environmental Compliance for SASEC PSEP

Name of Subproject	Compliance to Environmental Management Plan*										Grievances			Remarks												
	Physical					Socio-economic					Local Employment, Wages Work (No)	No. of grievances documented	No of grievances resolved		No of grievances under processing											
	Spill Management compliance in %)**	Landslide protection with Bio-engineering (compliance in %)**	Drainage Management (compliance in %)	Incorporation of IEE Recommendations and Budgeting for	Clean-up and reinstatement of the project area %	Compensatory Plantation Target (Nos.)	Compensatory Plantation Replanted (Nos.)	Firewood is used for cooking and heating (Y/N)	Distance in Biodiversity and Land use & Land Cover Change	Safety Gears are sufficient and used (Y/N)						Labors are insured (Y/N)	Labor and work camps are healthy and have sanitary facilities (Y/N)	Public Utilities	Structures are reconstructed (progress in % of estimated work)***	Community Structure 1	Community	Land/property acquisition procedures	Consultation, Prior Informed &			
Dana-Kushma 220 kV TL Project (DKTLP)	80	5	80	90	90	90	2117	0	N	N	N	Y	0	1	Temp le between AP 41 and AP 41 A	0	Y	Y	0	0	0	0	Y	Y	Y	All the Issues have been solved but missed in updating the report
Marsyangdi-Kaithmandu 220 kV TL Project	90	0	100	90	90	1192	0	N	N	N	Y	Y	0	2	Chautaro restored	0	Y	Y	0	0	0	0	Y	Y	Y	As per marking detail 14831 trees has been

