

NEPAL ELECTRICITY AUTHORITY
(GOVERNMENT OF NEPAL UNDERTAKING)
DISTRIBUTION AND CONSUMER SERVICES DIRECTORATE
GRID SOLAR AND ENERGY EFFICIENCY PROJECT



Nepal Electricity Authority
Nepal

**Environmental and Social Screenings Report of 11 kV Distribution system expansion in
Three District**
(Kavre, Nuwakot and Dhading)

Project: GSEEP/W/ICB-10 Design, Supply, Installation/Erection, Testing and
Commissioning of 11/0.4 KV Distribution System.

Submitted by: Grid Solar Energy Efficiency Project (GSEEP/W/ICB-10)

March 2021(Revised)

Table of Contents

1. Background	3
2. Objectives	3
3. Methodology	4
4. Site Description	4
5. Findings	6
5.1 Environmental Screening: Key Issues and Findings	6
5.2 Social Screening: Key Issues and Findings	9
6. Conclusion	11
7. Recommendations	11
7.1 Environmental recommendations	11
7.2 Social recommendations	12
Annex 1: List of community forest user Group	15
Annex 2: Google map showing the alignment	18
Annex 3: Environmental Safeguard Checklist for substation/distribution line 11kV	24
Annex 4: Assurance letter for No tree felling	37

1. Background

This project involving Design, Supply, Installation/Erection, Testing and Commissioning of 11/0.4 kilo Voltage (kV) Distribution System is a project under the Grid Solar and Energy Efficiency Project (GSEEP) implemented through Nepal Electricity Authority (NEA). This project is expanding new power supply lines in three districts, i.e. Kavre, Nuwakot and Dhading. The Project covers 213 km high tension line (HT) and 800 KM low tension line (LT) in total. The scope also includes installing of 421 nos. new distribution transformers. This projects plans to electrify 13 Wards of three (3) Rural Municipality of Kavre, 1 (partially) wards of one (1) Rural municipality of Nuwakot and 14 wards of three(3) Rural Municipality of Dhading. The project will use covered type conductor (All Aluminum Alloy Conductor (AAAC) for 11 kV lines and for 0.4 kV lines, Arial Bundled Cable (ABC) will be used. Since both conductors to be used at different voltage levels are covered type, which means conductor covered with insulating materials; it has high value of safety. In addition, these conductors helps to reduce the non-technical losses and also enhance the efficiency and reliability of the power supply in the project area. Use of such type of conductor will have negligible effect on environment as the electricity carrying part remains inside the insulating cover making the electricity carrying part no exposed to the environment. Hence, these conductors can be used in forest areas and also in a dense settlement where ROW (Right of Way) is less then usual standards (Ref. Environmental Safeguard Check List).

This report is prepared based on the findings of environment and social screening carried out under the contract number GSEEP/W/ICB-10.

2. Objectives

Environmental and Social Screening and its objectives: The site screening report has been prepared in line with the procedures for risks screening as outlined in the e ESMF of the GSEEP project Based on preliminary field assessment/screenings the 11 kV and 0.4 kV distribution lines have no significant adverse impacts to human settlements, people and surrounding environment as these are utilization voltages which serves the people. Based on the screening findings, the environmental and social screening reports will help identify any adverse impacts caused by power supply lines as well as recommend appropriate mitigation measures. The major objective of environment and social screening is to assess the suitability of the project as per the applicable acts/policies and guidelines of the Government of Nepal and those of the World Bank.

The specific objectives of Screenings are:

- To identify and provide scope for potential environmental and social issues/risks caused by the 11 kV/ 0.4 kV lines in the project area and take appropriate mitigation measures for their management,
- To determine the need to carry out further risks/impact assessment prior to formulating plans for managing Environmental and Social impacts, e.g. Environment and Social

Management Plans ESMPs), Resettlement Action Plan (RAP), Vulnerable Community Development Plans (VCDP).

3. Methodology

The environmental and social screening checklist (see Annex 3) was used for information collection. Contractor engineer, site in charge and NEA project engineer jointly applied the checklist for the sites identified and prepared the summary report.

4. Site Description

This project consists of Installation/Erection of 11KV and 0.4 KV line across different area of three districts as described in Table 1.

S. N.	Site Description	Districts	HT line (ckt-Km)	LT line (ckt-Km)	Size and No. of poles		No. of Transformer	Remarks
					11 m	8 m		
1.	1. Mahabharat R.M 2. Khanikhola R.M 3. Roshi R.M	Kavre	150.382	580.195	3012 Nos.	11146 Nos.	91	
2.	1. Kakani R.M	Nuwakot	10		200			
3.	1. Rubby Valley R.M 2. Ganga Jamuna R.M 3. Benighat Rorang R.M	Dhading	52.273	199.227	1572 Nos.	5828 Nos.	34	
	Total	3 districts	212.655	779.422	4784	16974	125	

4.1 Kavre District

The project consists of Installation/Erection of 143.487 ckt- Km of 11 kV and 580.195 Km of 0.4 kV line in area of Mahabharat Rural Municipality, Khanikhola Rural Municipality and Roshi Rural Municipality of Kavre district. The number of poles are 14158 and altogether 91 nos. new transformers will be installed in this project. The project consists of new line alignment only and almost all the lines are designed to pass through the existing right of way of the national/rural roads in order to avoid the forest and private lands. Nevertheless, some sections of the line pass through

the forest area and private agricultural land. New transformers will be installed at new load centers. Brief description of line alignment is listed as below.

Table 2: Description of line alignment in Kavre district

S.N	Site Location	District	Length(c kt-km)	No. of Poles	Feeder	Municipality (M)/Rural municipality (R.M)
1	Mangaltar – chasyngtar	Kavre	15.077	297	Bhakunde feeder	Roshi R.M
2	Kholmadanda - Khjauli	Kavre	8.300	169	From new feeder	Khanikhola R.M
3	Taldhunga – Kholamdanda- Dhable	Kavre	8.67	175	From new feeder	Khanikhola R.M
4	Dandagaun– Latheni	Kavre	13.78	284	From new feeder	Khanikhola R.M
5	Jagthali– Taldhunga	Kavre	16.23	309	From new feeder	Khanikhola R.M
6	Gumbadanda – Janterati Ghat	Kavre	10.19	206	From new feeder	Khanikhola R.M
7	Gokule – Chisapanitar	Kavre	20.07	402	From new feeder	Mahabharat R.M
8	Solabhangyang- Thulopokhara	Kavre	7	192	From new feeder	Mahabharat R.M
9	Solabhangyang – Ghartichhap	Kavre	14.45	278	From new feeder	Mahabharat R.M
10	Sanopokhara –Budhakhani	Kavre	12.45	346	From new feeder/Bhakunde feeder	Mahabharat R.M
11	Ghartichhap- Bankhuchour	Kavre	17.27	354	From new feeder	Mahabharat R.M
	Total		143.487	3012		

4.2 Dhading

The project consists of Installation/Erection of 52.273 ckt-Km of 11 kV and 199.227 Km of 0.4 kV line in area of Ruby Valley Rural Municipality, Ganga Jamuna Rural Municipality, Gajuri Rural Municipality Benighat Rorang Municipality of Dhading district. The number of poles are 5244 and altogether 34 nos. new transformers will be installed in this project. The project consists of new line alignment only and almost all the lines are designed to pass through the existing right of way of the national/rural roads in order to avoid the forest and private lands. Nevertheless, some

sections of the line pass through the forest area and private agricultural land. New transformers will be installed at new load centers. Brief description of line alignment is listed below.

Table 3: Description of line alignment in Dhading district

S. N.	Site Location	District	Length(km)	No. of Poles	Feeder	Municipality (M)/Rural municipality (R.M)
1	Jharlang – Ree- 3	Dhading	14.105	290	Samari feeder	Ganga jamuna R.M
2	jharlang - Borang	Dhading	13.494	285	Samari feeder	Ruby Valley R.M
3	Jyamarebhanjyang-Bhandara	Dhading	24.674	551	Gajuri feeder	Gajuri R.M
4	Jurung- Mangtar	Dhading	10.265	271	Gajuri feeder	Benighat Rorang R.M
	Total		62.898	1397		

4.3 Nuwakot

The project consists of Installation/Erection of 10 km of 11 kV line only in area of Kakani Rural Municipality of Nuwakot district. The number of poles are 200 and no transformers will be installed in this project. The project consists of new line alignment only this line will be constructed for the feeder out purpose from 33/11 Kv substation which will be constructed at Kakani. All the lines are designed to pass through the existing right of way of the national/rural roads in order to avoid the forest and private lands.

4. Environmental Screenings: Key Issues and Findings

There are several stretches where distribution expansion works will be carried out in three districts. Separate screenings were carried out for each site of the project in three districts. The screening exercise reveals that majority of line will be constructed along the flanks of road (table 2 and 3) the electrification works in the proposed scope do not cause significant adverse environmental impacts. Insulated cover conductor is being used which is considered as safety. Cable stringing work will maintain government clearance standards therefore cable stringing alignment would not have impact on nearby houses/residential areas. There would be no need

for demolition/rehab of individual or properties in residential areas. There will be no tree felling along the 11kV/0.4kV alignment passing through forests. Trimming of branches of trees, if needed, will be done in consultations and coordination with the respective forest authority and community forests groups. Documentation of consultation with forest user group/forest office in all districts will be recorded and maintained by contractor/Project. The key environmental issues identified through screenings are as follows;

4.1 Kavre District:

Environmental screening reveals that electrification works in the proposed scope do not cause significant adverse environmental impacts in 6 stretches out of 11 stretches. The remaining 5 stretches have some issues identified which required some attention and due diligence during construction time.

- a. First, the stretch from Ghartichhap – Bankhuchour (17.27 km) needs attention. This stretch pass through Kulungpakha Community Forest, Ramite Community Forest, Murchuke Community Forest, Katandada Community Forest and Salleni Community Forest. In this stretch all about 2 km consists of some forest (poor wood species). So that trimming of branches is required. Local Government representatives and Community people was consulted on November, 2019 and they have agreed to trim the tress branches and support the project.
- b. Second, Gokule – chasipanitar (20.07 km) stretch which required little attention during construction. This segment is started from 33/11kV substation in Gokule and follow the road. Some parts of this stretch (about 1 Km) consists of some forest area (poor woods species). The line might also touch some branches of tall trees. Hence, trimming of branches is required. Local Government representatives and Community people was consulted on November, 2019 and they have agreed to trim the tress branches and support the project.
- c. Third, the stretch from Solabhangyang – Thulopokhara (7 kM) needs attention. In this stretch line alignment goes along the road side. But after 3 km from TO (Solamdanda) it consists of some forest. So that trimming of branches is required. Local Government representatives and Community people has agreed to trim the tress branches.
- d. Forth, the stretch from Jagthali – Taldhunga (16.23 km) needs attention. This stretch pass through Gadgade Community Forest, Saurya Pakha Community Forest and Darbardanda Community Forest. In this stretch all about 2 km consists of some forest (poor wood species). So that trimming of branches is required. Local Government representatives and Community people was consulted on November, 2019 and they have agreed to trim the tress branches and support the project.
- e. Fift, the stretch from Taldhunga – Kholamdanda- Dhable (8.67 km) needs attention. This stretch pass through Sura Danda Pakdol Community Forest. There is no accessibility of road in this stretch, line alignment goes along foot trail and in somewhere it pass through private land. In this stretch all about 1 km consists of some forest (poor wood species). So

that trimming of branches is required. During the installation period attention is required so that value of land should not be decrease.

Table-4: Alignment passing through Community Forest

SN	Name of Community Forest	Dominant tree/species	Location	Number of poles	Distance (km)
1.	Gadgade Community Forest	Poor wood species	Khanikhola-5	26	1.3 Km
2	Saurya Pakha Community Forest	Poor wood species	Khanikhola-5	20	1Km
3	Sura Danda Pakdol Community Forest	Shorea Robusta	Khanikhola Milche	15	0.75Km
4	Salleni Community Forest	Shorea Robusta	Mahabharat-6 Bankhu	12	0.6 Km
5	Murchuke Community Forest	Shorea Robusta	Mahabharat-6 Bankhu	9	0.5 Km
6	Ramite Community Forest	Shorea Robusta	Mahabharat-7 Bankhu	8	0.4 Km
7	Thumki Pakha Community Forest	Poor wood species	Khanikhola-5	12	0.6 Km
8	Darbar Danda Community Fore	Poor wood species	Khanikhola-5	16	0.8 Km

5.1.2 Dhading District

There are no significant impact to environment, some stretches pass through community forest area, might have some concern regarding trees.

- a. In Rubbey valley, Taping for Borang about 1km HT line, from chalis to Naved and Hindung about 1.5 Km line passes through community forest. This stretch pass through Mangthali Community Forest and Largang community forest. Deviation towards the straightness of the line has to be done at the time of construction in order to avoid tree felling. Tree trimming is required to clear the right of way for the line. There would be no need of felling down the trees as insulated covered conductor is being used.
- b. In Ganga Jamuna from Ree-2 to Ree-3 about .5 Km line passes through the community forest along the right of way of the road built inside the forest. Alignment of the line and stringing of the conductor shall be done in such a way that there will be minimum impact to the environment.

- c. In Gajuri from Gajuri -3 jyamare to gajuri -3 gyanrang about 0.9km line pass through Kalika Community community forest and Panchaling Community Forest along the right of way of the road built inside the forest. Alignment of the line and stringing of the conductor shall be done in such a way that there will be minimum impact to the environment.

Table-5: Alignment passing through Community Forest

SN	Name of Community Forest	Dominant tree/species	Location	Number of poles	Distance (km)
1	Langrang Community Forest	Poor wood species	Rubby Dhading	18	0.9 Km
2	Mangthali Community Forest	Poor wood species	Rubby Dhading	27	1.3 Km
3	Kalika/Pachaling Community Forest	Poor wood species	Gajuri-3 Dhading	18	0.9 Km

5.1. Nuwakot District

In Nuwakot district, the project will construct 11Kv (10km) line only. Such 11kv line will be started from the new 33/11kV substation. This line start from the substation and connect to the near by existing 11 kv line. The line passes through road side and no alignment pass through forest so there are no significant impact to environment.

- reduce the non-technical losses like minimizing sparkle from wire, electricity loss by hooking etc. and
- Increase the reliability of the distribution system.

Project team will ensure contractors that the workers will be equipped with adequate safety gears viz safety belts, helmets, gloves etc. while working in the sites.

5.2 Social Screening: Key Issues and Findings

Social screening reveals that the installation of 11 kV and 0.4 kV poles and lines in the area do not cause major adverse impacts to the households. The distribution line in the vicinity provides reliable and limitless source of electrical power for communities and will encourage the starting of small industries. Based on consultations beneficiary communities are excited about the opportunity to get connected to reliable power supply. Reliable power supply is expected to benefit not only the consumers but also to small and medium entrepreneurs in operating micro enterprises.

Key issues identified through social screenings are as follows.

- Installation of poles and stringing lines could lead to crop damages in agricultural lands. In order to avoid crop damage, the affected families will be consulted and given advance notice to harvest crops.
- It seems that the project area has presence of Indigenous Peoples (IP). Screening indicates that the IP community will not be affected adversely due to construction of the TL since the line alignment works avoid the private land. Instead, all the people of the area including IPs are the beneficiaries of the TL.
- The screening findings clearly reveal that the project will extend full supports to the project as it provides reliable power supply to the rural communities. Because of these benefits, local people will permit the contractors/ workers to erect the poles even in their private land.

5.2.1 Kavre District

- The site screening of the 11kV/ 0.4 kV lines revealed that limited sections of some stretches (Mangaltar – chasyngtar LC, Gokule-chasipanitar, Jagthali- taldhunga, solamdanda - sanopokhara and Sanopokhara –Budhakhani) in Kavre district may pass through private/ agricultural land. It is important for the Project staff and construction workers to take full precaution while installing the poles and stringing the lines to avoid any kind of damage to the land owners.
- In Kavre District, most of the poles and distribution lines are designed to pass through the road sides. However, in case of poles falling in the private /agricultural land, the owners will be consulted and the poles will be installed along the edges/ bonds and borders of the parcels to avoid the potential loss of land value.

5.1.2 Dhading District

- In Gajuri Rural Municipality of Dhading district, most of the poles and distribution lines are designed to pass through the road sides. In case of private/agricultural land, the owners will be consulted ahead of the work and the pole will be installed along the edge/ bonds and borders of the parcels to avoid the potential loss of the land value.

5.1.3 Nuwakot District

- In Kakani Rural Municipality of Nuwakot district, most of the poles and distribution lines are designed to pass through the road sides. In case of private/agricultural land, the owners will be consulted ahead of the work and the pole will be installed along the edge/ bonds and borders of the parcels to avoid the potential loss of the land value.

Conclusion

The screening results show that 11 kV poles and lines alignment may cause minimal or no environmental issues and impacts to the project sites. However, it is crucial for the route alignment passing through community forest area, where some part of the line are blocked by trees. Little deviation of the line is done to avoid these sort of problem in the forest. Tree trimming is required to clear the right of way for the line. The Project needs to make sure that no tree will be cut down. Project needs to consult with the Community Forest User group for trimming the trees and make proper agreement with user's group committee for periodic trimming and compensatory planation management if required in the sites.

The project will have no major social impacts as there lies no public/private land, the line route/poles are not proposed to close to any touristic viewpoints, wetlands, and sites of cultural / religious / archeological / historic significance and locations of poles falling in any landslide & erosion prone/ risk spot. All the survey and design of distribution line maintains minimum GON/NEA clearance standards. The nature of project is covered conductor and Arial Bundled Cable (ABC). It has high value of safety to people benefitted by 11KV lines.

The screening results show no major safeguards issues resulting in major impacts to the people/communities. Due to the execution of project, All the people will be getting electricity for the first time from INPS (Integrated Nepal power system). With the construction of these lines, the beneficiaries will benefit from reliable power supply. There will be no adverse effect to the people and the environment.

Recommendations

Environmental recommendations

The ongoing construction of 11 kV/0.4 kV lines is an important rural electrification activity benefiting the local people directly. In order to carry out the erection of poles and stringing of cables smoothly, the Project needs to implement the works with proper planning and due diligence as follows.

- Proper Survey and high attention for the stretches passing through Community Forest which require tree trimming activities. Community Forest User Group will be consulted and for tree trimming activities if require and permission will be taken from Community Forest User Group.
- Avoid stretches and pole erections in religious area/playgrounds/close to any touristic view points, wetlands, and sites of cultural / religious / archeological / historic significance if any apply alternative route selection. Tree felling will be strictly avoided (Annex-4). Alignments and poles in the section (stretches) will be adjusted/shifted to ensure that tree felling is avoided.
- Avoid locations of poles falling in any landslide & erosion prone/ risk spot.

- Maintain minimum GON/NEA clearance standards during the survey and design of distribution line (Annex-3)
- Project should ensure that there is no adverse impact to environment during construction.
- All the workers will be provided personal safety equipment like boots, belts, helmets, gloves etc. to work in the sites. The workers will be facilitated with hygienic labor camps and sanitation. Construction activities will fully comply with the health and safety norms/standards issues by the government in the context of COVID-19 Pandemic.
- The Project is recommended to make joint planning in consultations with the local communities and leaders to avoid any potential adverse impacts during the erection of poles and cable stringing in private land.
- The contractors are required to work in close coordination with the local people/beneficiaries and carry out the construction works as per agreed schedule/norms. Any kind of losses viz crop/tree/orchard etc should be avoided to the extent possible. In case of such losses, the Project/contractors should provide due compensation.
- Any consultations/agreed actions with the locals will be documented properly.

7.2 Social recommendations

Significant adverse social impacts are not expected. However, the project is recommended to take following measures to avoid and minimize any adverse impacts to the community:

- The design and installation of distribution lines will be done as to avoid/minimize any losses due to construction of TL. In case of poles falling in the private /agricultural land, the owners will be consulted, and the poles will be installed along the edges/ bonds and borders of the parcels to avoid the potential loss of land value.
- The affected family will be consulted and given advance notice to harvest crops. In case of any damage to crops, the affected family will be compensated as per the Resettlement Policy Framework prepared by the Project.
- In case of the presence of indigenous communities, the project will carry out free, prior and informed consultations with the concerned communities. Information to the concerned community and other stakeholders of the project activities will be provided in local language through different media – public hearing, notice, etc.
- The Project team and the contractors will work closely in consultation with respective Municipality staff and local people so that any issues/disputes raised in the sites will be resolved locally.
- The Project will establish grievance redress mechanism for the project and inform the local communities and other stakeholders about the mechanism. The Project will ensure timely response to any complaints received.

- In case of issues/disputes occurred during pole installation/stringing in private land or village and markets, the contractor will not work in the field until the resolution of issues through joint consensus. Such problems should be resolved in consultation with the affected party, concerned community people, local government representative.
- Discussions and decision taken in consultation with the affected family and local community decision should be documented along with photographs.
- Project will pay full attention to ensure that the lines do not pass through the cultural and religious sites (temples/gumbas and heritages).

Annex 1

Annex 1: List of community forest user Group

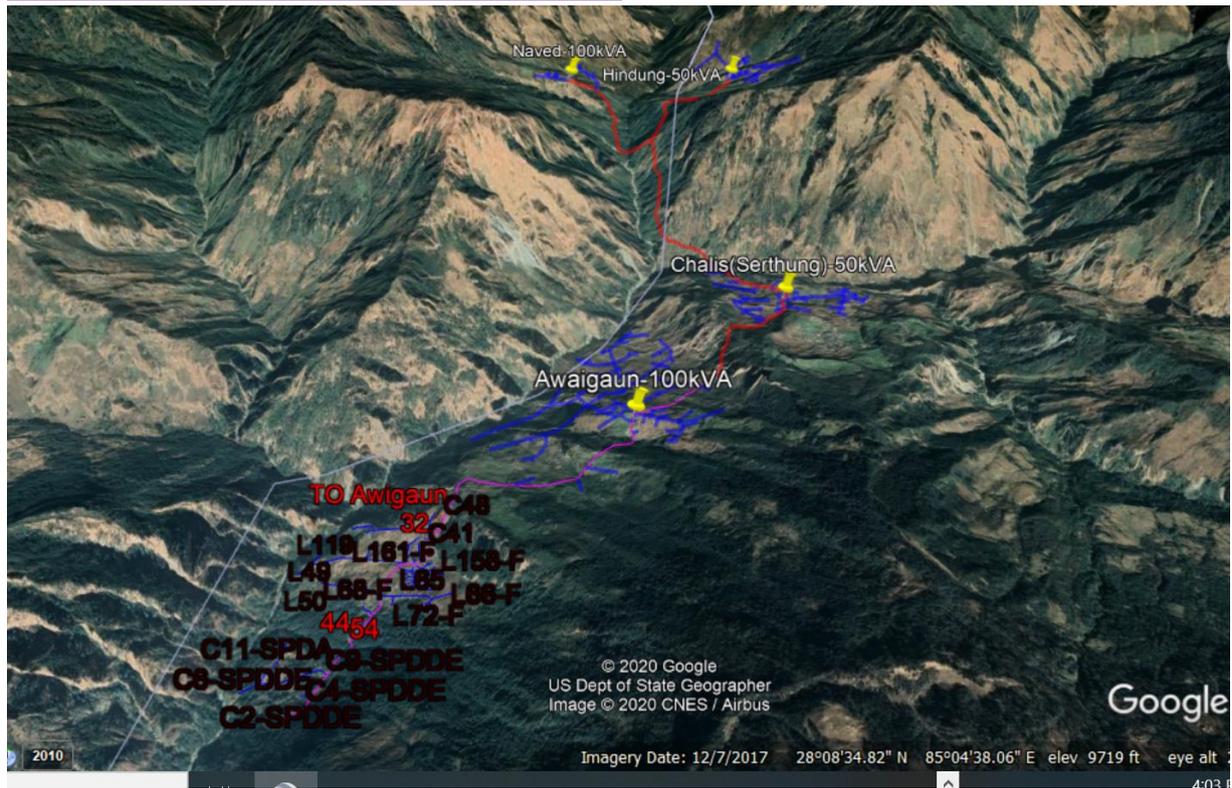
S.N	Chair person of CFUG	Name of forest
1.	Tisha Tamang (9843511236)	Mangthali Community Forest, Borang Dhading
2.	Saakpo Tamang(9840396651)	Largang community forest, Borang Dhading.
3.	Kuber timalsina (9851207208)	Basghari Community Forest, Khani Khola RM, Milche Kavre
4.	Nabin Ghasing (9851209708)	Simkhori Community Forest, Khani Khola RM, Milche Kavre
5.	Jaya Bahadur Tamang	Shehaale Community Forest, Balting Kavre.
6.	Sarkiman Ghyaba (9849348914)	Bhagbhairab Community Forest, Khani Khola RM, Milche Kavre
8.	Amber Ale (9860551211)	Kalika Community Forest, Gajuri 3 Dhading
9.	Bir Bahadur Tamang (9840484678)	Panchaling Community Forest, Gajuri 3 Dhading
10.	Man Bahadur Rana (9866663639)	Kulungpakha Community Forest, Mahabharat-7 Kavre
11.	Indra Bahadur Lo (9860430304)	Ramite Community Forest, Mahabharat-7 Kavre
12.	Ratna Bdr. Timalsina	Gadgade Community Forest, Khani Khola RM – 5 Kavre
13	Bayan singh Lama	Saurya Pakha Community Forest, Khani Khola RM – 5 Kavre
14	Bir Bdr. Waiba	Darbar Danda Community Forest, , Khani Khola RM – 5 Kavre
15	Indra Bdr. Thing	Thumki Pakha Community Forest, Khani Khola RM – 2 Kavre
16.	Purna Bahadur Moktan(9861615020)	Sura Danda Pakdol Community Forest, Khanikhola RM, Milche
17.	Amrit Dhoj(9840280974)	Murchuke Community Forest, Mahabharat-6 Kavre
18.	Puspa (9869253997)	Katandada Community Forest, Mahabharat-6, Kavre
19.	Kumar Theeng(9864482292)	Salleni Community Forest, Mahabharat-6 Kavre

Annex 1 : List of people consulted/key informant's name/photographs

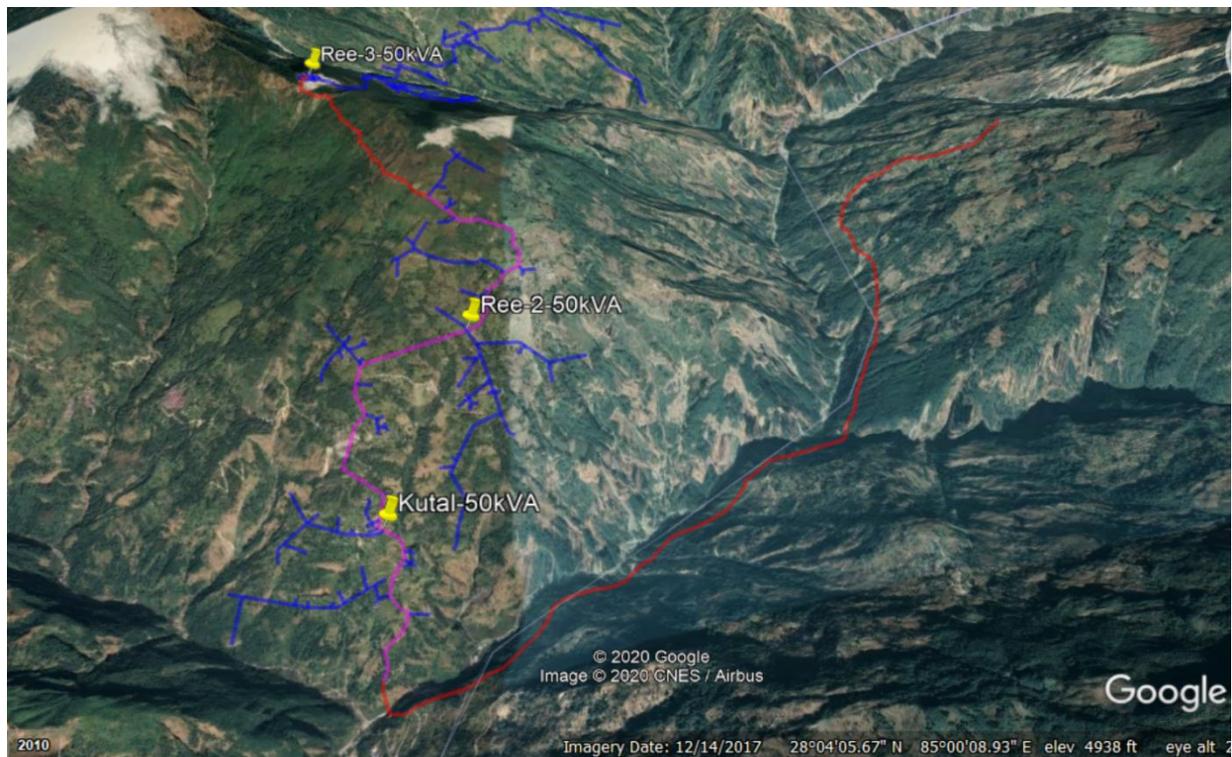
S.N	Name of Local Representatives	Name of Manucipality / Rural Manucipality
1.	Kanchalal Jimba-Chair person	Mahavarat Rural municipality
2.	Kanchaman Jimba	Mahavarat Rural municipality -1 chair person
3.	Rabin Moktan	Mahavarat Rural municipality -5 chair person
4.	Durga Timalisina	Khanikhola Rural municipality-5 chair person
5.	Dudh Raj Tamang	Roshi Rural municipality-10, chair person
6.	Reshilal Shrestha	Gajuri Rural municipality-03, chair person
7.	Surendra Chepang	Gajuri Rural municipality-04, chair person
8.	Jiban Tamang	Benighat Rorang Rural municipality, chair person

Annex 2

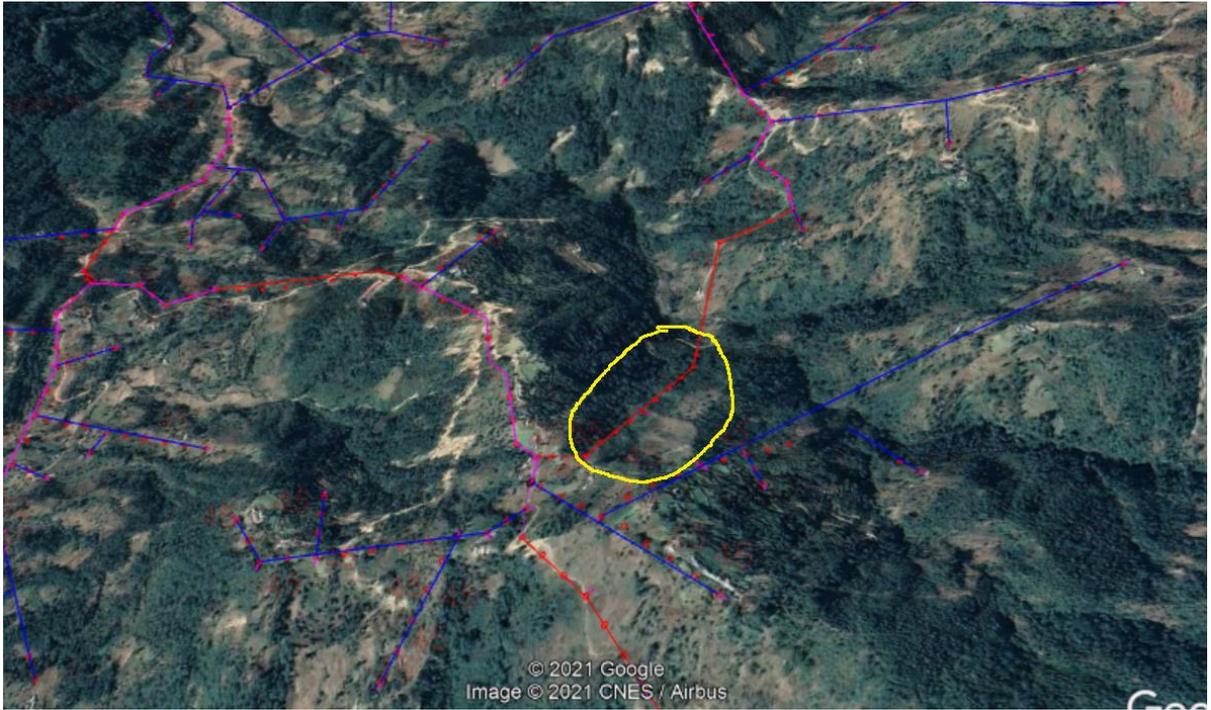
Annex 2: Google map showing the alignment



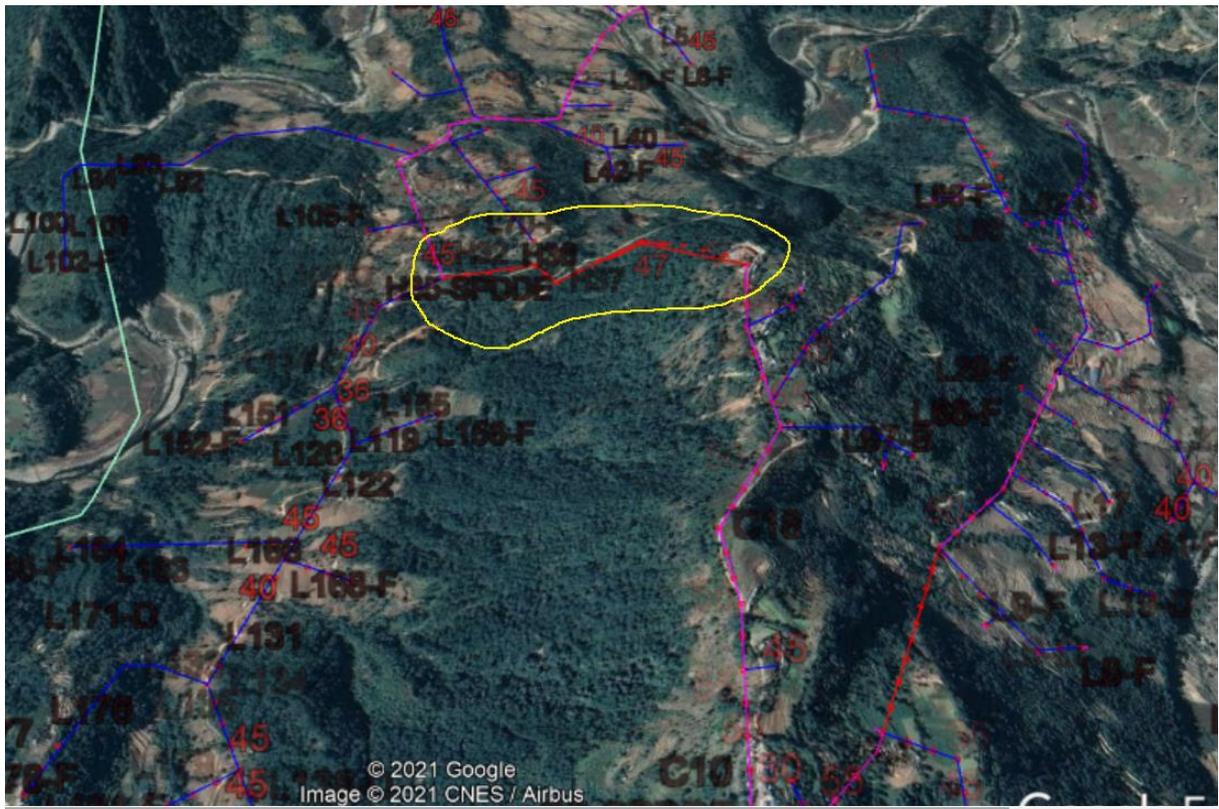
Map of Rubby Valley, Dhading



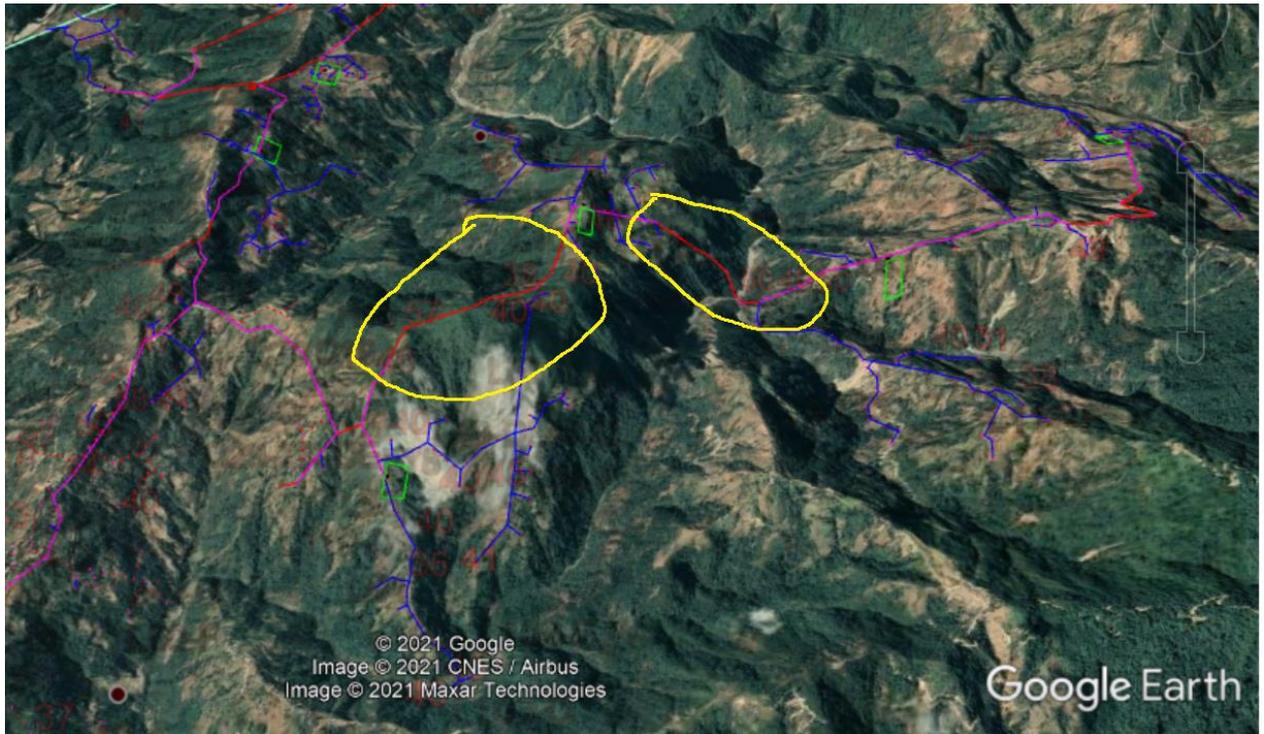
Map of Ganga jamuna, Dhading



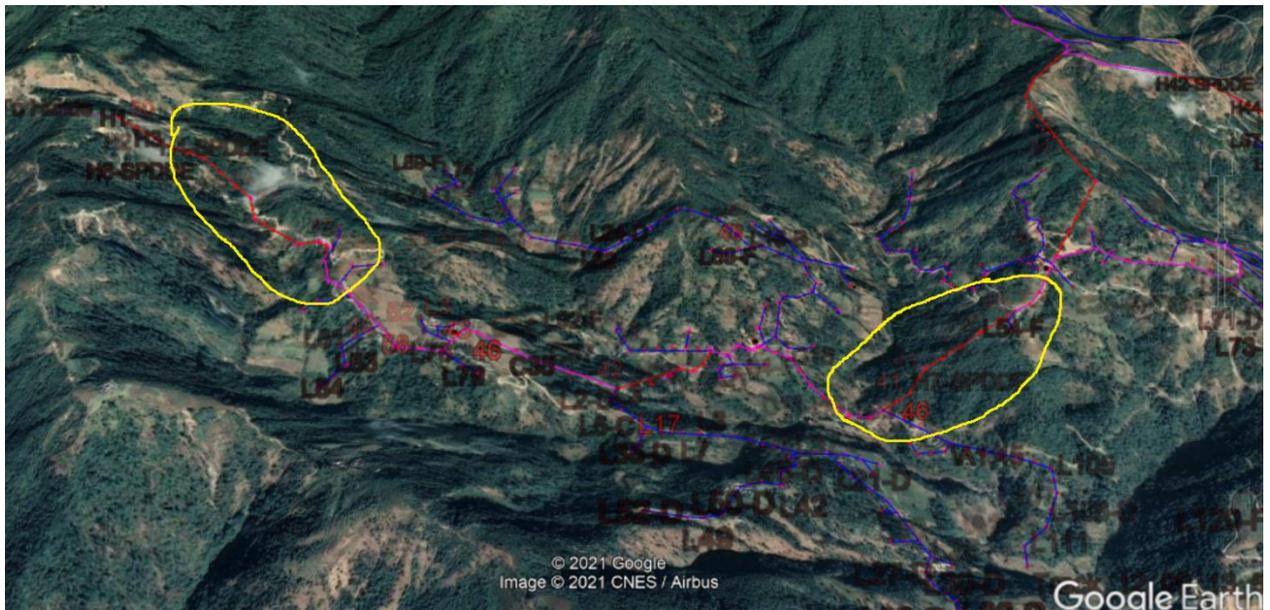
Map showing portion of HT line going through community forest from Magartol Bankhu to Alibas, Mahabharat-7, Bankhu, Kavre



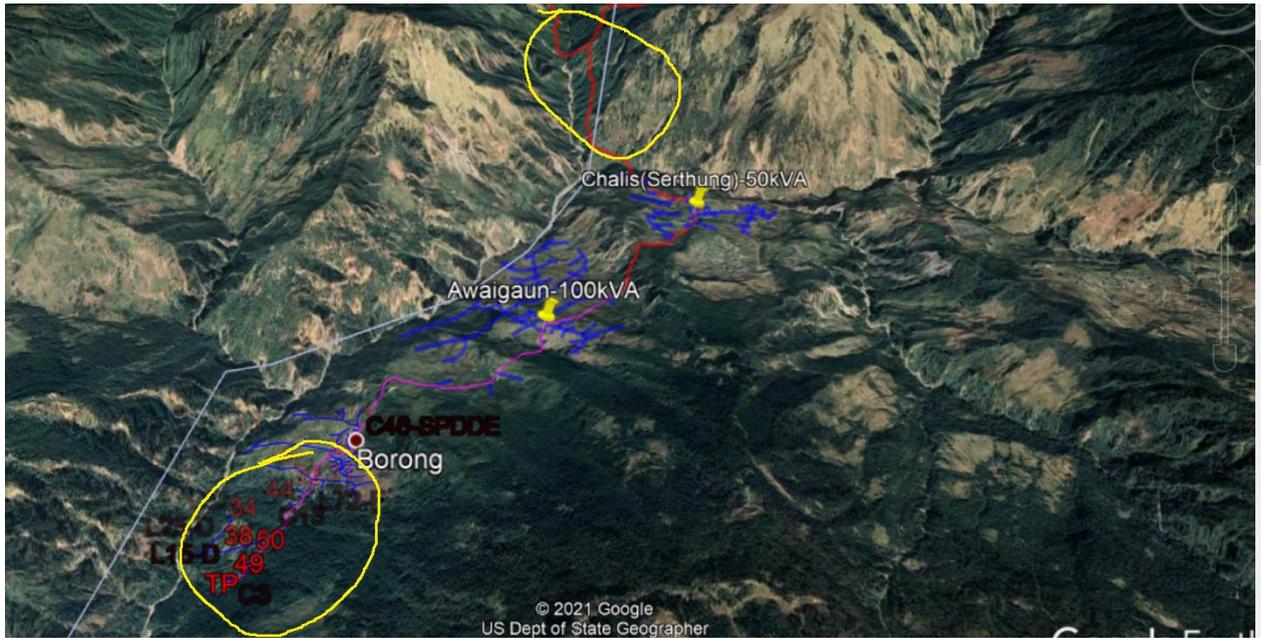
Map showing portion of HT line going through community forest from Devitar, Bankhu to Waibatole, Bankhu-6, Kavre



Map showing portion of HT line going through community forest from Solabhangyang to Muktantole, Kupintar, Mahabharat 2 Gokule, Kavre



Map showing portion of HT line going through community forest from Solabhangyang to Foksingtar-Sanopokhara, Mahabharat 4 Foksingtar, Kavre



Map showing portion of HT line going through community forest from Jharlang to Borong- Naved, Rubby valley, Dhading.

Annex 3

Annex 3: Environmental Safeguard Checklist for substation/distribution line 11kV

Project: Grid Solar and Energy efficiency Project (GSEEP) Comp-3(Kavre, Nuwakot and Dhading)

A. District : **Kavre**, (**Mahabharat Rural Municipality**)

B. Name of Sites: Solabhangyang – Ghartichhap (14.45 km HT 11kV)

C. Total number of poles to be erected : 278 (11m)

D. General Information:

SN	Particulars	Yes/No	Total km and number of poles covering areas if response is “Yes”	Remarks (Please specify relevant information to supplement the response)
D1.	Does the distribution line passes through Forest area, protected area or area already proposed for protection.	NO	-	All the poles are along side of road.
D2.	Does the distribution route as well as locations of poles (supports) and transformers cross diagonally playground/ common property.	NO	-	All poles are along side of roads and avoided to cross all type of property.
D3.	Does distribution line rout/poles are proposed to close to any touristic view points, wetlands, and sites of cultural / religious / archeological / historic significance.	NO	-	All poles are erected along the road side and there is no any such type of place in this roots.
D4.	Does the distribution line/ route and locations of poles are falling in any landslide & erosion prone/ risk spot where geological avoidance is not feasible.	NO	-	Area being fully hilly but solid land. No steep hills to cause landslide& erosion
D5.	Does the distribution line passing through areas specially known for herbs and non-forest timber products (NTPF) and/or known habitat or migration / movement route of protected rare and endangered species	NO	-	No any herbs are known.

D6.	Has the survey and design of distribution line maintained minimum Clearance (11KV) : (check as per government/NEA standard if applicable)		
D6.1	Normal ground and trails for pedestrian only	5.5 m	All the poles are erected according to the NEA standard.
D6.2	Residential area	5.8 m	
D6.3	Highway, Road and streets	5.8 m	
D6.4	Horizontal distance from building or structure upon which human may stand	1.25 m	
D6.5	Power lines or telephone lines (above or below)	1.2 m	
7.	Other if any		

E. Mitigation measures:

	Particulars	Mitigation measures	Responsibility	Remarks
E1.	If route passes through forest area and tree cutting is required.	NA		No any forest or trees falls under the line alignment because we avoid the tree to fall under the line alignment.
E2.	If the distribution line/ route and locations of poles are falling in any landslide & erosion prone/ risk spot where geological avoidance is not feasible.	NA		Line passes through roadside. No such problems seen.
E3.	To maintain minimum clearance as per government/NEA standard.	NA		All poles are within standard
E4.	If existing transformers are replaced with new one. How to manage to those replaced one	NA		There is no any scope to replace the existing transformer. All line is new.
E5.	Occupational health and safety measures of the works during the	Helmets, gloves and Safety belts are used. Proper Shelter and	Contractor	Workers are facilitated with proper house within the site

	erection/installation of poles/cables	sanitation facilities are also provided		along with safety instruments.
E6.	Issues related to influx of labor/labor camp and sanitation	NA		No any such issues are encountered
E7.	Other if any			

Conclusion and Recommendation:

This site does not consist of forest tree that needed to be cut down. The work route is along the accessible road. This site is fully new line alignment so the community is very joyful to help the project if needed. Since this project is electrifying the villages, the community is helpful too. In any cases, branches cutting are needed, branches trimming can be done in the presence of local committee officers/representatives. Documentation of consultation with forest user group/forest office will be recorded and maintained by contractor/project Also this project is of covered conductor and Arial Bundled Cable (ABC) cable it has high value of safety to people benefitted by these lines.

Information compiled by:

Name: Hikmat Bdr. B.C. Designation: Asst. Engineer Date: 15 jan 2020

Verified /endorsed by:

Name: Prakash Raut Designation: Project Chief Date: 15 jan 2020

Environmental Safeguard Checklist for substation/distribution line 11kV

Project: Grid Solar and Energy efficiency Project (GSEEP) Comp-3(Kavre, Nuwakot and Dhading)

- A. District : **Kavre**, (Khanikhola Rural Municipality)
- B. Name of Sites : Taldhunga-Kholmadanda-Dhable (8.67km HT11kV)
- C. Total number of poles to be erected :175 (11m)
- D. General Information:

SN	Particulars	Yes/No	Total km and number of poles covering areas if response is "Yes"	Remarks (Please specify relevant information to supplement the response)
D1.	Does the distribution line passes through Forest area, protected area or area already proposed for protection.	Yes	-	All the poles are along side of road. In some place Site consists of very few trees along side of road.
D2.	Does the distribution route as well as locations of poles (supports) and transformers cross diagonally playground/ common property.	NO	-	All poles are along side of roads and avoided to cross all type of property.
D3.	Does distribution line rout/poles are proposed to close to any touristic view points, wetlands, and sites of cultural / religious / archeological / historic significance.	NO	-	All poles are erected along the road side and there is no any such type of place in this roots.
D4.	Does the distribution line/ route and locations of poles are falling in any landslide & erosion prone/ risk spot where geological avoidance is not feasible.	NO	-	Area being fully hilly but solid land. No steep hills to cause landslide & erosion
D5.	Does the distribution line passing through areas specially known for herbs and non-forest timber products (NTPF) and/or known habitat or migration / movement route of protected rare and endangered species	NO	-	No any herbs are known.

D6.	Has the survey and design of distribution line maintained minimum Clearance (11KV) : (check as per government/NEA standard if applicable)			
D6.1	Normal ground and trails for pedestrian only	5.5 m		All the poles are erected according to the NEA standard.
D6.2	Residential area	5.8 m		
D6.3	Highway, Road and streets	5.8 m		
D6.4	Horizontal distance from building or structure upon which human may stand	1.25 m		
D6.5	Power lines or telephone lines (above or below)	1.2 m		
7.	Other if any			

E. Mitigation measures:

	Particulars	Mitigation measures	Responsibility	Remarks
E1.	If route passes through forest area and tree cutting is required.	NA		No any forest or trees falls under the line alignment
E2.	If the distribution line/ route and locations of poles are falling in any landslide & erosion prone/ risk spot where geological avoidance is not feasible.	NA		Line passes through roadside. No such problems seen.
E3.	To maintain minimum clearance as per government/NEA standard.	NA		All poles are within standard
E4.	If existing transformers are replaced with new one. How to manage to those replaced one	NA		There is no any scope to replace the existing transformer. All line is new.
E5.	Occupational health and safety measures of the works during the erection/installation of poles/cables	Helmets, gloves and Safety belts are used. Proper Shelter and sanitation facilities are also provided	Contractor	Workers are facilitated with proper house within the site along with safety instruments.

E6.	Issues related to influx of labor/labor camp and sanitation	NA		No any such issues are encountered
E7.	Other if any			

Conclusion and Recommendation:

This site does not consist of forest tree that needed to be cut down. The work route is along the accessible road. This site is fully new line alignment so the community is very joyful to help the project if needed. Since this project is electrifying the villages, the community is helpful too. In any cases, branches cutting are needed, branches trimming can be done in the presence of local committee officers/representatives. Documentation of consultation with forest user group/forest office will be recorded and maintained by contractor/project. Also this project is of covered conductor and Arial Bundled Cable (ABC) cable it has high value of safety to people benefitted by these lines.

Information compiled by:

Name: Hikmat Bdr. B.C.

Designation: Asst. Engineer Date: 15 Jan 2020

Verified /endorsed by:

Name: Prakash Raut

Designation: Project Chief Date: 15 Jan 2020

Social Screening Checklist: 11 kV Transmission Line, Grid Solar Project

Project Screening Site: Dandagaun- Latheni (13.78km HT11kV)

District: Kavre, (Khanikhola Rural Municipality)

S.No.	Particulars	Response (Yes/No)	Remarks (Please specify relevant information to supplement the response)
1	Does the transmission line involve physical/ construction works?	No	Only distribution poles (11m) are erected
2	Does the TL pass through private land and settlements? If yes, specify. Also prepare a sketch of the stretch in separate page where the TL passes.	No	Lines passes along the road
3	How many poles are installed in this subproject in total?	284	11 m poles are erected
4	How many poles are installed in private land?	No	Lines passes along the roadside
5	Specify the type of private land where the TL passes (agri land, barren land, urban/rural)	Agri land	Very few poles passes through agri land.
6	Is the TL alignment free from encroachers/squatters?	Yes	No any Encroachers/squatters noticed
7	Does the TL affect the land value?	No	Poles are erected at end point of land
8	Does the TL damage any private house/structure? If yes, specify the details in separate page (owner, type of damage, value of land, house/structure)	No	No any private house or structure is affected.
8	Are people happy to contribute the land free of cost(donation) for TL construction in private land?	Yes	Usually poles are erected at edge of land,so people will let us erect pole at their land free of cost.
9	Or do they have any expectations in leu of their lands being used for poles installation and TL stringing? If yes, get more information.	No	People are delighted of being electrified community
10	Does the construction work damage standing crops/ fruit trees/ other trees? If yes, what is the value?	No	Usually erection is done at harvesting time.

11	Does the line damage public properties/ resources/utilities? If yes, get more information.	No	Poles are erected alongside road, so no any public properties damaged.
12	Does the TL affect private land temporarily during construction? If yes, get more information.	No	Lands are affect only while erecting the poles , which requires very less area land
13	Are the hhs going to getelectricity from the TL?	Yes	
14	Are people ready to cooperate the construction of lines?	Yes	
16	What other benefits are locals getting from the TL (electricity, employment etc)?		Local people are getting electricity after finishing the TL construction and Get employment during construction.
16	Other issues, if any?		
	Indigenous People/Vulnerable Ethnic Group		
16	Are any vulnerable households including Janaatis/ dalits affected directly by TL?	No	No any households are affected
17	If yes, how many and where? Please get more information separately? Also specify the IP/ethnic groups affected.	NA	
18	What are the income and livelihood sources of the IPs/ ethnic groups and Dalits?	NA	
19	Are the IPs/Dalits informed about the TL construction?	Yes	Every people in community knows about the project.
20	Are they ready to contribute /donate the land for poles installation?	Yes	If needed they will allow are willing the project to erect the pole on their land
21	Are they involved in construction works?	Yes	Some are working as labors.
22	If yes, how much wage do they get on daily basis?	Yes	As per regulation of country
23	Are these people getting electricity from this TL?	Yes	Whole Community is getting electricity.
24	Are local women also involved as workers? If yes, how many? How much is their wage?	No	
25	Other information		

Screening result

While screening this stretch no any adverse effect on the society is seen. Since the villages are going to be electrified, the peoples are very optimistic about the project. They are willing to help the project. Very few poles might passes through the agri-land and the owners are supportive and letting the project to erect the poles. Poles are erected at the edge of the land so that its value does not decrease/affect. Community is ready to help as they can.

Recommended Social Plans as revealed by Screening (Simple Social Management Plan, RAP, IPDP/VCDP, Cash assistance, No plan required etc.)

No any cash assistance is required.

Also the conductor is covered type, it is safe for the local peoples.

People are happy to be electrified so theyare very supportive in nature.

Poles are erected in harvesting time, so cash assistance for crops are not needed.

Prepared by: Hikmat Bahadur B.C.

Date: 15-Jan-2020

Social Screening Checklist: 11 kV Transmission Line, Grid Solar Project

Project Screening Site: Mangaltar – chasyngtar LC (15.07 km HT11kV)

District: Kavre, (Roshi Rural Municipality)

S.No.	Particulars	Response (Yes/No)	Remarks (Please specify relevant information to supplement the response)
1	Does the transmission line involve physical/ construction works?	No	Only distribution poles (11m) are erected
2	Does the TL pass through private land and settlements? If yes, specify. Also prepare a sketch of the stretch in separate page where the TL passes.	No	Lines passes along the road
3	How many poles are installed in this subproject in total?	305	11 m poles are erected
4	How many poles are installed in private land?	No	Lines passes along the roadside
5	Specify the type of private land where the TL passes (agri land, barren land, urban/rural)	Agri land	Very few poles passes through agri land.
6	Is the TL alignment free from encroachers/squatters?	Yes	No any Encroachers/squatters noticed
7	Does the TL affect the land value?	No	Poles are erected at end point of land
8	Does the TL damage any private house/structure? If yes, specify the details in separate page (owner, type of damage, value of land, house/structure)	No	No any private house or structure is affected.
8	Are people happy to contribute the land free of cost(donation) for TL construction in private land?	Yes	Usually poles are erected at edge of land,so people will let us erect pole at their land free of cost.
9	Or do they have any expectations in leu of their lands being used for poles installation and TL stringing? If yes, get more information.	No	People are delighted of being electrified community
10	Does the construction work damage standing crops/ fruit trees/ other trees? If yes, what is the value?	No	Usually erection is done at harvesting time.

11	Does the line damage public properties/ resources/utilities? If yes, get more information.	No	Poles are erected alongside road, so no any public properties damaged.
12	Does the TL affect private land temporarily during construction? If yes, get more information.	No	Lands are affect only while erecting the poles , which requires very less area land
13	Are the hhs going to get electricity from the TL?	Yes	
14	Are people ready to cooperate the construction of lines?	Yes	
16	What other benefits are locals getting from the TL (electricity, employment etc)?		Local people are getting electricity after finishing the TL construction and Get employment during construction.
16	Other issues, if any?		
	Indigenous People/Vulnerable Ethnic Group		
16	Are any vulnerable households including Janaatis/ dalits affected directly by TL?	No	No any households are affected
17	If yes, how many and where? Please get more information separately? Also specify the IP/ethnic groups affected.	NA	
18	What are the income and livelihood sources of the IPs/ ethnic groups and Dalits?	NA	
19	Are the IPs/Dalits informed about the TL construction?	Yes	Every people in community knows about the project.
20	Are they ready to contribute /donate the land for poles installation?	Yes	If needed they will allow are willing the project to erect the pole on their land
21	Are they involved in construction works?	Yes	Some are working as labors.
22	If yes, how much wage do they get on daily basis?	Yes	As per regulation of country
23	Are these people getting electricity from this TL?	Yes	Whole Community is getting electricity.
24	Are local women also involved as workers? If yes, how many? How much is their wage?	No	
25	Other information		

Screening result

While screening this stretch no any adverse effect on the society is seen. Since the villages are going to be electrified, the peoples are very optimistic about the project. They are willing to help the project. Very few poles might passes through the agri-land and the owners are supportive and letting the project to erect the poles. Poles are erected at the edge of the land so that its value does not decrease/affect. Community is ready to help as they can.

Recommended Social Plans as revealed by Screening (Simple Social Management Plan, RAP, IPDP/VCDP, Cash assistance, No plan required etc.)

No any cash assistance is required.

Also the conductor is covered type, it is safe for the local peoples.

People are happy to be electrified so they are very supportive in nature.

Poles are erected in harvesting time, so cash assistance for crops are not needed.

Prepared by: Hikmat Bahadur B.C.

Date: 15-Jan-2020

Annex 4

Annex 4: Assurance letter for No tree felling



NEPAL ELECTRICITY AUTHORITY

(A Government of Nepal Undertaking)

Distribution & Consumer Service Directorate
Grid Solar And Energy Efficiency Project



Ref: 2076/77 - 652

Date: May 4, 2020

To,
World Bank Office
Yak and Yeti Hotel, Kathmandu

Reference: GSEEP/W/ICB-10: Design, Supply, Installation/Erection, Testing and Commissioning of 11/0.4 kV Distribution System.

Subject: Avoiding tree felling along the 11 kV Line.

Dear Sir,
During the Environmental and Social Screening process, we have discussed environmental and social aspects of 11kV distribution lines. Planning and Design of the 11kV DLs have been revisited in recognition of the potential impacts on the forests and loss of trees. As a result, it has been decided that All Aluminum Alloy Conductor (AAAC) will be used in the 11kV DLs, and the poles of the DLs will be adjusted to avoid the need of tree felling. Trimming of branches of trees, if needed, will be done in consultations and coordination with the respective forest authority and community forests groups. This will be strictly enforced. The bimonthly compliance monitoring report will be shared with the World Bank.

Thanking you.

Sincerely yours,



(Prakash Raut)
Project Manager

CC:
The Project Coordinator, GSEEP