Bnet for Communications and Advanced Technology

Fiber Optics (FTTH) for Rural Areas

Jenin & Tubas Governorates

West Bank, Palestine

Environmental and Social Management Guidelines

Prepared By: Eng. Faisal Kilani

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Abbreviations and Acronyms

ADSL	Asymmetric Digital Subscriber Line
BP	Bank Procedure
CAPEX	Capital Expenditure
CoC	Code of Conduct
CSO	Civil Society Organizations
Db	Decibels
DSL	Digital Subscriber Line
EA	Environmental Assessment
EHS	Environmental Health and Safety
EQA	Environment Quality Authority
ERP	Emergency Response Procedures
ESF	Environmental and Social Framework
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
FCV	Fragility, Conflict, Violence
F4J	Finance for Jobs Project
FTTH	Fiber to the Home
GBV	Gender Based Violence
GDP	Gross Domestic Product
GEDCO	Gaza Electricity Distribution Company
GIIP	Good International Industry Practice
GIS	Geographic Information System
GPON	Gigabit Passive Optical Networks
GRM	Grievance Redress Mechanism
HCP	House Connection Points
ICF	Investment Co-Financing Facility
IEC	Israeli Electrical Corporation
IEE	Initial Environmental Evaluation

IFC	International Finance Corporation
IP	Internet Protocol
IPF	Investment Policy Financing
IPOE	Internet Protocol over Ethernet
ISP	Internet Service Provider
JSC	Joint Services Council
MoF	Ministry of Finance
MoH	Ministry of Health
MoLG	Ministry of Local Governance
MoNE	Ministry of National Economy
MOTA	Ministry of Tourism and Antiques
MTIT	Ministry of Telecom and Information Technology
NEDCO	Northern Electricity Distribution Company
OHS	Occupational Health and Safety
ONT	Optical Network Terminal
ONU	Optical Network Unit
OP	Operational Policy
OSHA	Occupational Safety and Health Administration
PAP	Project Affected Parties
PCBS	Palestinian Central Bureau of Statistics
PCR	physical cultural resources
PEAP	Palestinian Environmental Assessment Policy
PEL	Palestinian Environmental Law
PLL	Palestinian Labor Law
PPE	Personal Protective Equipment
PPOE	Point-to-Point Protocol over Ethernet
PS (IFC PS)	International Finance Corporation Performance Standards
PS	Palestinian Standard

PSI	Palestinian Standards Institution
SEA	Sexual Exploitation and Abuse
SH	Sexual Harassment
TEDCO	Tubas Electricity Distribution Company
TOR	Terms of Reference
USD	United Stated Dollar
VPN	Virtual Private Network
WB	World Bank
WBG	World Bank Group
WHO	World Health Organization

Executive Summary

1. Introduction

The telecommunications sector in Palestine has seen significant advancements, with a 92% household internet access rate as reported by the Palestinian Central Bureau of Statistics in 2023. The shift towards Fiber to the Home (FTTH) technology, particularly post-Covid-19, is diminishing the reliance on traditional fixed phone lines and ADSL connections. This shift is pronounced in the Jenin and Tubas governorates, where Bnet Co. is spearheading the "Fiber Optics (FTTH) for Rural Areas" project to lay approximately 1,100 km of FTTH network, primarily using overhead electricity infrastructure, with 150 km to be deployed using company-owned infrastructure through the installation of poles particularly in Jenin City. This initiative is driven by the unmet demand for high-speed internet in rural areas overlooked by other telecom companies. As such, and due to the relatively large investment cost needed to realize the project, Bnet Co. has applied for a grant from the Finance for Jobs II (F4JII) Project .The F4J II project is a 4-year project, implemented by a Project Implementing Agency (PIA), i.e., DAI global, LLC (DAI) on behalf of the Ministry of Finance (MoF) and funded by the World Bank, with the overarching objective of mobilizing private investments and creating employment opportunities in the West Bank and Gaza. Bnet FTTH project is supported under Component 2 of the F4J II, “Investment Co-Financing Facility (ICF)”.

Based on the due diligence conducted by the F4JII’s PIA, the project meets the F4JII objectives of job creation, and is within the Information Technology and Telecommunications (ICT) sector which is one of the priority sectors of the F4J II project. Further details regarding the F4JII project’s objectives is available in the Environmental and Social Management Framework (ESMF) available through the following link: https://www.f4j.ps/cached_uploads/download/2021/01/17/environmental-and-socialmanagement-framework-1610875245.pdf

1.1. Subproject Beneficiaries

The subproject by Bnet Co. is set to benefit a population of approximately 314,290 in the targeted areas of Jenin and Tubas governorates, with a household market size for FTTH services projected to exceed 66,000 in 2023. Beneficiaries include rural households, local businesses, and educational institutions, which will have access to high-speed internet facilitating communication, education, and economic activities. Healthcare, agriculture, and governance sectors will also benefit indirectly. Bnet Co. has identified three main customer segments: 50-55% are low to very low income, 35-45% are medium income, and 5-10% are high income. Accordingly, the company has tailored a pricing strategy to cater to the diverse financial capabilities within these governorates.

1.2. Justification for the Environmental and Social Management Guidelines

As Bnet Co.'s FTTH project is supported by the F4JII Project which is funded by the World Bank. The FTTH project is subject to the World Bank Group's Operational Policies (O.Ps) for environmental and social safeguards. The company has appointed Eng. Faisal Kilani to develop Environmental and Social Management Guidelines that comply with both national legislation and these policies. Due to uncertainties in the FTTH routes and potential changes based on local council agreements, a Generic/Checklist Environmental and Social Management Plan (ESMP) has been recommended. This decision is based on the subproject's low to moderate environmental and social risks and its categorization as "B" per O.P 4.01. The ESMP is designed to be user-friendly, offering pragmatic good practices while satisfying the World Bank's Environmental Assessment requirements. The subproject's Environmental & Social Screening and Audit Reports, which focus on low to moderate generic risks, are crucial and available for review at the following link:

https://drive.google.com/drive/folders/1MJCM1Uacanu8VvWDC058RzRYFsPnUMWY?usp=drive_link.

1.3. The Environmental and Social Management Guidelines Scope and Objectives

The World Bank's adoption of the Environmental and Social Framework (ESF) on August 4, 2016, marked a significant shift from the previous Operational Policies (O.Ps). However, the F4J II project, approved on July 27, 2017, continues to operate under the O.Ps, as the ESF applies only to projects initiated after its effective date of October 1, 2018. Bnet Co. will use the Environmental and Social Management Guidelines and its screening form (Annex I) through its Environmental & Social Officer (ESO) to assess risks before commencing work in each location. These guidelines are designed to identify and mitigate potential negative impacts on the physical and social environments during the installation and operation of the Fiber Optics (FTTH) project in Jenin and Tubas. This approach is in line with the dynamic nature of the project's implementation, ensuring that each location's specific risks are evaluated and managed accordingly, with updates to the management plans as required.

2. Project Description

Bnet Co. was established in 2010 by BCI Group as its data communications and Internet arm. Bnet is a quality Internet Service Provider (ISP, providing a wide variety of broadband & Internet services in Palestine. Through initiating the FTTH for Rural Areas project, the company is addressing the need for improved internet services in rural Palestine by constructing a 1,100 km Fiber Optic network across around 30 villages within the Jenin and Tubas governorates, the localities are still being identified and negotiated with, where till the moment the number of final localities is not yet available. This subproject aims to enhance the stability, security, speed, and affordability of internet connectivity. So far, Bnet Co. has established 170 km of this network, gaining 960 new subscribers. The project will utilize two business models for its operations. In Jenin city, Bnet Co. will build the infrastructure independently through the deployment of poles and laying over the fiber cables, while in other localities, it will deploy fiber cables using existing municipal electricity networks, an approach that reduces investment costs and allows the company to offer more competitive FTTH prices.

The project, with an estimated investment of USD 8.37 million—USD 7.17 million from Bnet Co. as equity and a potential USD 1.2 million grant from F4JII-ICF that shall be used to partially cover the material costs of aerial fiber optic cables, wooden poles, and GPON OLT cards, which are collectively estimated to cost USD 1.45 Million, from which the F4JII will contribute 1.2. Specifically the grant will be used to purchase the 144F (61,124 m), 48F (65,984 m), 24F (96,590 m), 12F Aerial Fiber Optic Cables (802,806 m), GPON OLT Cards- 16 ports (63 units), and 7 Meter Wooden Poles (3,208 units).

Up to the date of drafting this document, Bnet Co. has completed the main FTTH networks in Burqeen and Aqabba, in addition to 50% of the installation in Qabatya. In these localities, the company conducted the installations through utilizing the existing electricity infrastructure. Additionally, the company has completed 50% of the installation works in areas of Jenin City through installing fiber cables over company-owned telecom poles through an agreement with the municipality.

For the completed activities, an E&S audit has been conducted, with a set of corrective actions established to ensure that the company has adequate management of their E&S commitments and to ensure compliance with the World Bank’s Safeguard Policies (O.Ps), as well as national laws and legislations. The E&S Audit for installed localities is available through the following link, where also the E&S corrective action plan is available in Annex III.

E&S Audit: https://docs.google.com/document/d/1SgIiPvipSXE97WDYrF0I7W2b0bDfmpnO/edit?usp=sharing&ouid=100271865350480565775&rtpof=true&sd=true

Up to date, the company has signed agreements with 24 localities; 20 in Jenin governorate and 4 in Tubas governorate. Hence, to realize the project, the company expects the following phases;

I. Planning and Design Phase:

During the planning phase of the FTTH project, Bnet Co. has secured the necessary licenses from MTIT , identified project locations, and is in the process of finalizing agreements with municipalities and electricity distribution companies for network installation. The company shall also conduct site-specific environmental and social screenings, and engage in detailed site surveying for network design. Concurrently, Bnet Co. is preparing safety protocols, updating the management plan, selecting contractors, recruiting operational staff, and procuring the necessary equipment.

II. Construction and Installation Phase:

This phase entails excavation for pole installations, enhancement of existing infrastructure, and installation of the FTTH network, details of which are in section 2.5 of the guidelines. This is followed by main network testing to validate connectivity, preparation for building connections, and, finally, comprehensive testing and monitoring to ensure reliable service delivery.

III. Operational Phase:

In the operational phase, Bnet Co. will commence the provision of FTTH services, focusing on sales and the connection of homes and businesses. The company will transition to full commercial operations, conducting post-connection monitoring for customer feedback. Ongoing activities will include network monitoring and management, customer support, and regular maintenance and repairs to ensure quality assurance. Additionally, Bnet Co. will continue to expand the network, incorporate upgrades and technological advancements, adhere to compliance and regulations, and engage with the community to ensure the service meets the evolving needs and expectations of its customers.

Additionally, the project is expected to result in 255 job opportunities, 20% are expected to be women. 150 construction full-time equivalent jobs will be required to finish the construction and installation phase activities, with 75 permanent full-time jobs are needed to run the operational phase.

3. Applicable Legislations and Policies

Environmental and Social legislations and regulations are vital tools to protect public health and the environment and give consideration to sustainable development. The project is guided by the national laws set by the Palestinian Authority along with the World Bank Operational Policies, namely O.P 4.01. Further description is provided in the F4JII ESMF.

4. Baseline Conditions

- **Land Use:** Jenin and Tubas governorates, located in the northern and northeastern parts of the West Bank, are distinguished by their rich agricultural heritage and significant land area, constituting 10% and 23.3% of the cultivated land in the West Bank, respectively. Jenin, with its primary administrative center in Jenin City, boasts a

varied landscape of grasslands, olive groves, and agricultural lands, while Tubas features fertile soils and a warm climate favorable for agriculture and grazing. Both regions have a mix of municipalities, villages, and a refugee camp, with Tubas recognized for its diverse plant crops and Jenin as an agriculturally dominant region with fertile soils in the Marj Ibn Amer Valley. However, Israeli colonies and military bases occupy a portion of Tubas Governorate, contrasting with the smaller Palestinian built-up and industrial areas.

- **Protected Areas:** Jenin Governorate has three protected areas transferred to the Palestinian Authority after the Oslo Accords: Umm at Tut (El Marj), Siris (El Miksar), and Fahmeh (Dhahrat Hayis), alongside two newer reserves, Jabal Al Aqra' and Um Ar-Rihan. In Tubas Governorate, three main reserves are identified: Shubash, El Muzawqa, and Ras Jadir. Bnet Co.'s FTTH project is not expected to impact these protected regions as installations are planned along existing built-up infrastructure, and the project will not pass through or near the reserves in Tubas, especially due to restrictions in Area C under Israeli civil and military control, where installations are not feasible, and telecommunication relies on mobile data services from external providers. The company is committed to ensuring the avoidance of natural reserves and implementing adequate mitigation measures where necessary.
- **Topography:** Jenin Governorate features varied topography, with elevations ranging from 90 to 750 meters above sea level, where the lowest and highest points are near the Al Mukhaba area and Jabal Hureish, respectively. Its topography is divided into three areas: eastern slopes with steep inclines and wadis, the mountain crests that act as a watershed line, and western slopes that are more gently inclined. Tubas Governorate, on the other hand, presents a mix of plains, highlands, and hills, with a maximum elevation of 550 meters in the Tammoun area and fertile agricultural plains like the Al-Baqi'a Plain, with the region gradually descending eastward towards the Jordan River.
- **Climate:** The climate in Jenin Governorate is typically Mediterranean, with moderate, rainy winters and hot, dry summers, influenced by its eastern Mediterranean position. The region has seen varying rainfall patterns, with annual averages around 450 mm, though this has fluctuated significantly from year to year. The western slopes tend to receive more rain, reflecting climatic similarities with the internal hills of the West Bank due to their exposure to sea winds. Temperature trends in Jenin have slightly deviated from those in other West Bank governorates, with a minor decrease in maximum temperatures and an increase in minimum temperatures. In contrast, Tubas Governorate, lacking its own meteorological data, shares a moderate climate with Jenin but experiences hotter, drier conditions and less rainfall as one approaches the Jordan Valley, indicative of more extreme weather patterns in that area.
- **Soil:** The Jenin Governorate is distinguished for its rich, fertile soils, classified into four main types: Terra Rossa, Brown Rendzinas, and Pale Rendzinas cover the largest area with significant rock exposure; Brown Rendzinas and Pale Rendzinas also feature rock outcrops; Pale Rendzinas, found in a smaller area south of Ya'bad, are shallow and primarily used for grazing; and Grumusols, present in flat topographies, are derived from fine-textured alluvial or aeolian sediments. In Tubas Governorate, Terra Rossa soil predominates, characterized by its heavy, clay-rich composition with a strong reddish hue and a foundation of hard dolomite and limestone, influencing its formation. The soil's alkalinity and salinity are high, with the water table at an estimated depth of 250 meters, providing substantial groundwater protection. Terra Rossa soils in Tubas are typically rocky.
- **Electricity Infrastrucutre:** In the West Bank's northern region, the Northern Electricity Distribution Company (NEDCO) is designated to supply electricity, covering areas including Salfeet, Nablus, Jenin, Tubas, Tulkarem, and Qalqilya. However, the reality differs with many local councils obtaining electricity directly from the Israel Electrical

Corporation (IEC), where electricity grids are managed by various local entities. In Tubas Governorate, the electricity infrastructure is provided by the IEC through a 33 KV overhead transmission line, with Tubas having its own distribution network (TDECO). Despite these provisions, Palestine lacks a unified power system; it relies on low voltage local distribution networks connected to the IEC, with about 97% of consumed energy still supplied by the IEC.

- **Socioeconomic Situation:** Jenin Governorate has a population distributed across 96 centers, projected to grow from 312,135 in 2017 to 374,041 by 2026. With a high urbanization rate, its demographics have shifted significantly since 1996, with the urban population now at 61.2%. The governorate faces a 20% unemployment rate and has seen a decline in agriculture's contribution to GDP, partly due to urbanization and risks in agriculture, while stone quarries rise in economic significance. Tubas Governorate, with a lower population density and a 1.9% annual growth rate, shows a concentration of its population in urban clusters and a 12.4% unemployment rate. The governorate is composed of diverse localities, with a notable portion of its population living in urban areas and a significant 7.5% illiteracy rate among those aged 10 and above.
- **Historical and Cultural Heritage:** The Jenin and Tubas Governorates in Palestine are rich with historical, archaeological, and natural sites. Jenin is known for the Burqin Church, Grand Mosque, Bal'aama Tunnel, Tel Al-Hafeerah, Abdul Hadi Palaces, Saraya, and Sanur Castle, along with the Iraqi Soldiers Martyrs' Cemetery and the German Memorial. It also features the natural wonder of Araba Cave. Tubas houses Tell Al-Fara'h, Al-Fara'h Tower, Ain Al-Beida, Al-Malih, and various mosques and the Holy Trinity Orthodox Church. Important archaeological sites include Khirbet Yirza, Khirbet Jabaris, and Salhab. Both governorates contain many other historical and archaeological treasures, documented in maps 16 and 17. Companies operating in these areas are urged to avoid historical sites during installations, or to implement stringent mitigation measures in coordination with relevant authorities.
- **Healthcare:** In the healthcare sector, the Jenin Governorate is served by three main governmental hospitals: Khalil Sleiman, Ibn Sina, and Al Razi, alongside one private hospital. Additionally, there are 56 primary healthcare clinics managed by the Ministry of Health (MoH), 7 non-governmental clinics, 6 operated by the United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA), and one military medical services health center. Meanwhile, the Tubas Governorate has a single governmental hospital, the Tubas Turkish Hospital, 12 primary health care centers also managed by MoH, 2 private clinics, 1 UNRWA clinic, and one military medical service health center, which is the smallest number of healthcare facilities among the Palestinian governorates.
- **Construction and Demolition Waste:** The Jenin and Tubas Governorates share the Zahret Al Finjan landfill for solid waste management, serving several West Bank governorates. While Jenin's waste collection covers 93.4% of its population, Tubas sends all its waste to Zahret Al Finjan via a transfer station. Construction and demolition waste, typically not accepted at West Bank municipal landfills, is disposed of irregularly or at specific sites approved by local municipalities, with Zahret Al Finjan accepting such waste only in exceptional cases for designated projects.

5. Institutional Arrangement and Site-Specific Screening

Bnet Co. has appointed an Environmental and Social Officer (ESO) to oversee the Environmental and Social Management Guidelines (ESMG. The ESMG, with its site-specific screening in Annex I, is being prepared to assess each location's unique conditions within Tubas and Jenin once finalized. The ESO will evaluate the proposed sites using the Annex I form, coordinate with the PIA, and upon approval, ensure compliance with all mitigation

measures during installation. Sites and routes will be excluded if they meet any exclusion criteria such as falling within protected areas, cultural heritage sites, high biodiversity zones, or if they involve encroachment on private land, impact livelihoods, necessitate resettlement, lead to loss of crops or infrastructure, or significantly affect public infrastructure. Alternative sites will be considered in such cases.

Bnet Co. is accountable for critical roles throughout the FTTH project's lifecycle. In the installation phase, they supervise the safe and efficient execution of the project, managing contractors, installation activities, and environmental and social impacts. During the operational phase, Bnet Co. ensures the continuous delivery of services, which includes network monitoring, maintenance, and adherence to regulatory standards. The appointment of an Environmental and Social Officer (ESO), detailed in Annex II.

Contractors are responsible for aligning with the Environmental and Social Management Guidelines (ESMG) during the installation of the project, including managing health and safety risks and adhering to standard operating procedures (SOPs). They must ensure the safe working conditions of their workforce and the public, in line with the clauses integrated into bidding documents, and understand that non-compliance constitutes a breach of contract. The ESO from Bnet Co. will monitor contractors' adherence to ESMG and its management plans, which encompass a range of responsibilities from traffic management to incident reporting, and ensure labor rights are consistent with national laws and the ESMG.

6. Environmental and Social Risks and Mitigation measures

The following tables summarize the E&S management matrix which denote all E&S risks, mitigation measures, responsibilities of implementation, monitoring activities, monitoring responsibilities, success indicators, and relevant budget. Further details are available in Chapters 6: Potential E&S impacts and proposed mitigation measures, and Chapter 7: E&S Management Matrix.

The table for the preparation and design phase provides a checklist style guidance for the ESO to implement the E&S mitigation measures in preparation for the construction and installation phase, the table provides actions to be conducted for each site based on the outcome of filling the screening form in Annex I.

Parameters and Impacts	Action
DESIGN AND PLANNING PHASE	
Environmental and Social Assessment ➢ Lack of identification of site-specific conditions	☐ Conduct Site specific E&S assessment in line with Annex I Screening form for each new locality / route /segment ☐ Update the E&S Management Matrix as needed based on the results of the Screening ☐ Include this E&S management guidelines into bidding documents of contractors
Pollution prevention ➢ Poor planning could result in increasing the magnitude of noise and nuisance to adjacent communities and noise sensitive receptors. ➢ Poor planning could result in exacerbating the magnitude of traffic risks	☐ Incorporate noise mitigation measures and relevant standards from chapter 3 into contractor bidding documents. ☐ Ensure contractor compliance with the Palestinian Standards for Ambient Noise in equipment procurement to keep noise within acceptable limits. ☐ During screening and planning in each locality, determine the distance between residential areas and proposed pole erection sites to ensure appropriate application of noise mitigation measures. ☐ Include the obligation to prepare traffic management plans in the bidding documents and contracts for contractors. ☐ Depending on the screening outcome, confirm that the contractor has developed a traffic management plan to mitigate the impact on traffic from excavation or fiber cable installation activities, especially on intra-urban roads.

Parameters and Impacts	Action
DESIGN AND PLANNING PHASE	
Existing Utilities and Public Services	☐ Ensure that the technical team has revised the engineering plans of municipalities and have planned the routes in accordance to avoid any impacts on utility infrastructure
Occupational Health and Safety ➢ Lack of adequate planning or preparation before installation could result in lack of PPES and institutional capacity within contractors and workers to manage OHS and labor aspects.	☐ Ensure that all safety equipment are provided including PPEs, first aid kits, hats, and drinking water source prior to beginning installation works. ☐ Ensure that the Workers' Grievance Mechanism is functional prior to the installation phase, especially at the contractor's level. ☐
Working conditions	☐ Conduct capacity building to direct and contracted workers particularly on Occupational Health and Safety (OHS) and E&S measures stated in the ESMG . ☐ Review new recruitment to ensure that all workers to be hired have contracts that adhere to the PLL, this shall apply as well to contractors who shall adhere to the PLL, Ministerial Decisions on OHS, and the Minimum Wage requirements. ☐ Promote fair employment practices, including non-discrimination, equal opportunity, and respect for worker rights. ☐ Whenever feasible, prioritize hiring local labor, which can benefit the local economy and reduce the environmental impact associated with worker commutes.
Community Health and Safety	☐ Conduct stakeholder consultations with targeted localities and capture PAPs , OIPs , and vulnerable groups feedback into the design and planning process ☐ Ensure circulating the GM to project stakeholders and that it is accessible to them
Land and Livelihood impact ➢ Risk of poorly planned installations and encroaching privately owned land ➢ Poor planning resulting in needing to install poles over owned property.	☐ Bnet ESO to Verify that Bnet Co. has signed all necessary agreements with local councils before starting installation. ☐ Check that the agreements explicitly state the rights and responsibilities of both Bnet Co. and the council. ☐ Ensure that the designated installation areas fall within the municipal right of way for infrastructure, in cases involving pole installations. ☐ Confirm that the agreements include specific provisions for the use of electricity infrastructure where installations will occur alongside it.
Cultural heritage	☐ Include Chance Find procedures in bidding documents ☐ If encountered, ensure that the contractor commits to the Chance Find Procedures available in Annex VIII.

Parameters and Impacts	Mitigation Measures
CONSTRUCTION AND INSTALLATION PHASE	
Air Quality / Emissions ➢ Fugitive dust emissions from excavation works. ➢ Vehicular emissions and dust from unpaved roads ➢ Piling of excavation and construction debris. ➢ Disposal of construction waste in random dumping sites.	➢ Excavation dirt shall be used to backfill the holes made for the installation of poles as much as possible given that the material is according to backfilling standards. Where any non-conforming excavation waste shall be collected and transported to authorized dumping site. ➢ Apply dust control procedure, this includes trucks hauling material to utilize covers, daily collection of waste, and control of vehicles speed. ➢ Ensure all construction equipment and vehicles used during the project meet emission standards and are well-maintained to minimize exhaust emissions. Encourage the use of electric or low-emission equipment where feasible. ➢ Proper housekeeping to ensure that no debris or waste material remain on site that could propagate overnight. ➢ Provide workers with facemasks and adequate PPEs. ➢ Proper activity scheduling; this includes working hours and days and limit the activities to daytime. Ensure checking weather conditions every day to avoid activities that could result in dust generation on windy days. ➢ Using maintained and new construction and transportation vehicles as appropriate and maintain in accordance with the manufacturer's maintenance schedule, this can be ensured by requesting and checking the vehicles licenses, logs, and registration from the contractor.

Parameters and Impacts	Mitigation Measures
CONSTRUCTION AND INSTALLATION PHASE	
Nuisance (Noise / vibration) ➢ Noise from equipment and machinery ➢ Working beyond designated and permissible working hours ➢ Vehicular traffic ➢ Exacerbated noise impacts due to installation locations (e.g., sensitive noise receptors)	➢ Restrict excavation, drilling and other noise generating activities to daytime only. ➢ Use modern construction equipment that meets noise emission standards. ➢ Maintain construction equipment regularly to reduce noise generated by engine, hydraulic, and mechanical components. ➢ Encourage the use of quieter equipment and machinery where feasible. ➢ For workers safety, ensure workers utilize hearing protection equipment as needed. ➢ Coordinate with sensitive receptors when installations are close to their premises and in liaison with the local councils (e.g., hospitals, schools, mosques). ➢ Ensure that noise levels do not exceed the recommended guidelines. Where some activities inevitably produce noise levels that are higher (drilling), these must be short duration and not exceed the NIOSH recommendations and OSHA 1910.95 (a)&(b) regarding exposure periods to different noise level. ➢ Ensure that heavy machinery or any noise producing activities are prohibited after 7PM till 7AM and all-day during Fridays and any public and local holiday, unless an approval has been obtained by the local authorities.
Biota (Flora / Fauna) ➢ Habitat Disruption. ➢ Vegetation Removal.	➢ Avoid areas designated as areas of high biodiversity or areas of natural reserves and seek alternative routes as applicable and feasible. In cases of erection of poles, and if no other routing options exist, ensure maintaining the infrastructure to the right of way and preferably erect poles on paved areas so to minimize impact on the biodiversity. Minimize vegetation removal by carefully planning the route of the fiber network. Ensure carefully selecting the location for each pole to minimize impact on vegetation. ➢ Ensure that the E&S Screening is conducted for each route, particular attention on biodiversity matters should be ensured for localities that will be connected through the erection of company owned poles, as this risk is nearly negligible for localities that will be connected through utilizing the existing infrastructure. ➢ Avoid natural reserves and biodiversity areas through the use of existing utility and transport corridors. ➢ Ensure the contractor's commitment to the E&S management guidelines and the recommended mitigation measures. ➢ Limit working activities for the installation works during daytime.
Traffic and Vehicular Movements ➢ Traffic congestion ➢ Detours and road closures. ➢ Pedestrian safety. ➢ Obstructing access. ➢ Risk of accidents due to improper driving practices, speeding, overloading vehicles, and utilizing unmaintained vehicles	➢ Provide clear and visible signage to inform drivers of construction zones, detours, and speed limits. ➢ Ensure that traffic controllers are present with the installation teams. ➢ Ensure that vehicles are continuously maintained in accordance with the manufacturer's recommendations. ➢ Apply strict measures on safe driving practices, signaling, fastening safety belts, and adhering to speed limits. ➢ Implement measures to ensure pedestrian safety, such as designated walkways and crossings. ➢ Regularly inspect and maintain road surfaces to prevent damage caused by construction vehicles. ➢ Coordinate with emergency services to ensure uninterrupted access during construction activities.
Visual Impacts ➢ Aesthetical disruptions of local environment ➢ Skyline alterations ➢ Cable cluttering ➢ Equipment and cabinets	➢ Invest in aesthetically pleasing design for above-ground infrastructure, such as wooden utility poles and cabinets, to blend with the surroundings. ➢ Ensure good workmanship when installing cables and poles. ➢ Repave the streetside after finishing the works. ➢ Incorporate landscaping and vegetation restoration efforts to compensate for any vegetation removal and improve the visual appeal of the area. ➢ Continuous and daily housekeeping of site during all project phases. ➢ Waste to be collected after finishing each site, no open laying waste should be left on site. ➢ Incorporate public art, beautification projects, or community enhancements in conjunction with fiber network installations to contribute positively to the visual environment. This could include painting cabins or planting vegetation around poles and cabins.
Solid Waste and E-Waste ➢ Waste from excavation and erection of poles ➢ Cable deployment ➢ Random disposal of waste.	➢ All waste shall be collected from each installation site, adequate housekeeping measures shall be implemented. ➢ Backfill debris when erecting poles rather than disposal of waste ➢ Implement segregation practices, reuse, and recycling. Carboard and plastic wrappings, if existent, can be collected and the company should explore options and agreements with recycling companies.
Underground Utilities and Infrastructure ➢ Damages to underground infrastructure including water and wastewater networks	➢ Conduct thorough pre-construction surveys to identify the location of existing water and wastewater infrastructure. This information can help avoid accidental damage during excavation and pole installation. ➢ Coordinate with the municipality to ensure that underground wastewater infrastructure is protected during installation activities. ➢ include cases of accidental damage to wastewater infrastructure during construction or maintenance activities in the Emergency Response Plan. Ensure prompt reporting and repair of any damage.
Labor and Working Conditions (Incl. OHS)	➢ The contractor shall conduct Toolbox talks/meetings regularly with workers to ensure compliance with OHS requirements. ➢ Inspections will be conducted to ensure commitment to PPEs.

Parameters and Impacts	Mitigation Measures
CONSTRUCTION AND INSTALLATION PHASE	
➢ Working hours ➢ Safe working conditions. ➢ OHS; workplace injuries, noncompliance to PPEs, hazardous work conditions on site. ➢ Risks relevant to working with fiber cables and laser	➢ Periodic housekeeping, removal of unused equipment, existence of first aid kits, fire extinguishers shall be ensured on site. ➢ For working at heights, working on connections, in the vicinity of the electrical grid, and operating heavy and rotatory machinery, only skilled workers will be allowed on the vicinity of works. ➢ Workers are to be provided with adequate periods of rest due to the nature of work and its mobility. Contractors are encouraged to provide facilities for workers to have their lunch-breaks such as foldable chairs, tables, and shade umbrellas. ➢ Train workers on lifting and material handling during loading/ unloading activities. ➢ Contractors are to prepare their own Occupational Health and Safety Plan (OHS Plan) in accordance with the mitigation measures stated in the ESMG and the OHS Plan requirements. ➢ Working rights, terms of employment, working conditions, OHS, and emergency response trainings will be required by the contractor to be provided to their workers. ➢ Contractors shall develop a Workers' Grievance Mechanism with appropriate uptake channels with supervision from the project owner and in accordance with the Project's Workers' GRM. The Contractor's Workers' GRM shall contain effective uptake channels and clearly defined resolution and review timelines with monthly reporting to be provided to the project owner. ➢ OHS topics, grievance redress, and other labor rights topics must be covered in the progress reports to be submitted by contractors and monitored by the company's ESO. ➢ Provide first aid kits on the site, ensure that kits are provided in adequate number per workers and that they are always accessible, and in good condition at all times. ➢ Ensuring clear zone for loading / unloading of wire rolls, and other components. ➢ Establish an incident reporting log in line with the ERP. ➢ Worker training on specific hazards associated with laser lights, including the various classes of low and high-power laser lights, and fiber management. ➢ Switching off laser lights prior to work initiation, when feasible ➢ Use of laser safety glasses during live optical fiber systems installation ➢ Prohibition of intentionally looking into the laser of fiber end or pointing it at another person ➢ Avoiding exposure to fibers through use of protective clothing and separation of work and eating areas.
Socio-economy and Employment ➢ Payment of wages below the minimum requirements ➢ Unequal employment opportunities	➢ Develop programs to ensure that internet services are accessible and affordable to all residents, regardless of income or location. ➢ Collaborate with local organizations, schools, and government agencies to maximize the educational and economic benefits of improved internet access. ➢ Establish project-level grievance mechanism and uptake channels for the public to raise any concerns they might have due to the project.
Community Health ➢ Risk of inadequate public and stakeholder engagement ➢ Nuisance creation and waste disposal risks due to traffic or random dumping of waste ➢ Air quality risks from dust ➢ gender-based violence (gbv), sexual exploitation and abuse (sea), and child abuse/exploitation (CEA) ➢ General construction site risks such as open holes and unsafe environment ➢ Obstruction of access to lands and property	➢ Ensure adequate stakeholder engagement and community awareness regarding the project. Conduct a second engagement meeting with the community and stakeholders prior to the operational phase and conduct any necessary engagement later on based on need and if there are changes or updates that concern the public. The outcome, concerns, and recommendations of the consultation activities shall be documented and reviewed to include in the project's operations. ➢ Establish an open communication channel with the public to lodge their concerns and complaints. ➢ Ensure continuous liaison with the local authorities and the community to announce ➢ Include specific measures for handling GBV Grievances in the GRM ➢ Employ mitigation measures stated for air quality, noise, nuisance, waste, traffic, and other parameters as identified in this ESMG. ➢ Ensure that code of conduct is circulated to all contracted project workers and that it is covered within their training. ➢ Workers must read and sign the Code of Conduct. The CoC contains the required conduct expected from workers, their rights, occupational health and safety requirements, reporting, GBV prevention, and penalties in cases of breaching the CoC. ➢ Provide workers with orientation workshop on the CoC, GRM, GBV prevention measures to ensure their awareness for community's health and safety.
Cultural Heritage ➢ archaeological findings	➢ If unexpected or buried archaeology is discovered during excavation works, the F4J II Project's Chance Find Procedures will be implemented. ➢ Work activities will be stopped immediately, and the responsible competent authority (Ministry of Tourism and Antiques - MoTA) needs to be contacted ➢ Work will not be allowed to proceed without a written approval from the relevant agencies.

Parameters and Impacts	Mitigation Measures
OPERATIONAL PHASE	
Air Quality / Emissions ➢ Fugitive dust	➢ Excavation dirt shall be used to backfill the holes made for the installation of poles as much as possible given that the material is according to backfilling standards. Where any non-conforming excavation waste shall be collected and transported to authorized dumping site ➢ Ensure all construction equipment and vehicles used during the project meet emission standards and are well-maintained to minimize exhaust emissions. Encourage the use of electric or low-emission equipment where feasible.
Nuisance (Noise / vibration) ➢ Noise from works of connecting costumer residences the network.	➢ Optimize the use of machinery that generate noise (e.g., driller) ➢ Continuous maintenance of used tools and equipment, is in accordance with the manufacturer's recommendations. ➢ Limit the use of noise generating machinery to daytime only. ➢ Good communication with the surrounding buildings, to inform them about the activities and the working hours. ➢ Restrict working hours to daytime only. ➢ Optimize the use of machinery (i.e., turn off when idle) ➢ Keep an open grievance mechanism, keep close coordination with the municipality and community representatives
Traffic and Vehicular Movements ➢ pedestrian safety	➢ Ensure safe pedestrian pathways and crossings during construction. Install proper signage and barriers to protect pedestrians
Visual Impacts ➢ Skyline alterations and aesthetical disruptions	➢ Incorporate public art, beautification projects, or community enhancements in conjunction with fiber network installations to contribute positively to the visual environment. This could include painting cabins or planting vegetation around poles and cabins. ➢ Ensure continuous maintenance of infrastructure and equipment such as cabins especially their paint and overall structure to avoid negative visual impacts.
Solid Waste and E-Waste ➢ Electronic waste ➢ maintenance waste	➢ Implement a proactive maintenance schedule to extend the lifespan of network equipment, reducing the need for premature replacements and minimizing waste. ➢ Electric and electronic components during maintenance and replacement shall be collected and disposed of in accordance with the instructions of EQA in terms of E-waste management and disposal.
Labor and Working Conditions (Incl. COVID-19 & OHS) ➢ Non-compliance to labor rights in accordance with the PLL on wages, overtime, OHS, leaves and other aspects ➢ OHS; workplace injuries, noncompliance to PPEs, hazardous work conditions on site ➢ Lack of a functioning Workers' GM and not providing workers with uptake channels to voice their grievances. ➢ Gender Based Violence (GBV) Including Sexual Exploitation and Abuse (SEA) And Sexual Harassment (SH)	➢ Wages shall be in accordance with the PLL and the minimum wage act No.4 of 2021. The company shall provide the F4J II with workers' contracts with clearly defined wages, the E&S consultant during monitoring visits and reports will obtain samples and interview some of the workers to ensure the company's adherence to the minimum wage act. ➢ Provide workers with gloves, boots, hardhats, and other PPEs as appropriate. ➢ The Project Workers shall receive an E&S orientation training prior to the commencement of the operations phase, covering the CoC, GRM, OHS, ERP, and the ESMG overall. ➢ All workers must read and sign the code of conduct. The code of conduct to be used for this project is the one recommended by the F4J, available in the F4J Project ESMF . The CoC contains the required conduct expected from workers, their rights, occupational health and safety requirements, reporting, GBV prevention, and penalties in cases of breaching the CoC. ➢ Ongoing operation, maintenance, and network connection may require skilled technicians and engineers. Ensuring that workers have the necessary skills and training contributes to job satisfaction and the quality of service. ➢ The company shall prepare and implement an Occupational Health and Safety (OHS) Plan. ➢ The Company shall implement the Emergency Response Procedures (ERP) in accordance with the Annex VII. ➢ Establish an incident reporting log in line with the ERP. ➢ For maintenance or connection works at height, and operating heavy and rotatory machinery, only skilled workers will be allowed on the vicinity of works. ➢ Working rights, OHS, grievance mechanism, CoC, GBV (SEA/SH) and emergency response trainings will be part of the onboarding process upon the recruitment of new workers. ➢ A workers' Grievance Mechanism shall be established. Uptake channels shall be disseminated to workers including setting up a complaint box on site. ➢ Provide first aid kits on the site, ensure that kits are provided in adequate number per workers and that they are always accessible, and in good condition at all times.

7. Reporting and Monitoring

The Reporting and Monitoring chapter outlines the protocols for maintaining records from the planning phase, including the use of an E&S Screening form and implementation records from the ESMG, to ensure integrity and accessibility. Reporting responsibilities are divided among contractors, who must submit monthly progress reports, and the Bnet Co. ESO, who will conduct field investigations, maintain monthly progress, and share reports with the F4J team. The PIA's F4J E&S Specialist or Consultant will monitor and produce monthly or quarterly

reports. Monitoring involves continuous oversight of OHS aspects by Bnet's ESO, including all aspects of mitigation measures, grievances, and incidents. The PIA will conduct site visits to ensure compliance with ESMG, with reports to include visual evidence and address any persistent or new environmental and social issues, supplemented by worker and staff interviews.

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9. Grievance Mechanism

The Grievance mechanism is part of the E&S management guidelines, its purpose is to facilitate the communication between the stakeholders and the project management, and to resolve issues affecting the stakeholders promptly and effectively. Moreover, the grievance mechanism helps the project team to identify environmental and social issues resulting from the operation of the project and take actions to resolve such issues accordingly. The grievance mechanism shall be announced along with the project description through relevant means of media, whether through newspapers, social media, or radio announcements. Complaints received through the grievance forms and mechanisms shall be screened to the ESMP Matrix in order to define whether the issue is an anticipated issue or is a new issue that needs to be included in the new revision of the ESMP. The GM will be included in the training provided to workers and will be available on the company's Facebook page and on their website. More details are available in the GM in Annex II of this EMSP.

10. Stakeholder Engagement

On September 21st, 2023, a public consultation meeting was held at Haddad Recreational Village Meeting halls in Al Zababdeh-Jenin Governorate. The location was strategically selected between Tubas and Jenin Governorates to facilitate the attendance of stakeholders from both areas. Over 70 stakeholders including community members, local councils, NGOs, public and private sectors, and civil organizations were invited to discuss the FTTH project introduced by Bnet Co. The objectives were to present the project, discuss anticipated environmental and social impacts, and pinpoint additional requirements or concerns for the E&S management guidelines. Bnet Co. arranged the meeting with a consultant, and representatives from various sectors, including government ministries, chambers of commerce, and academic institutions were present.

The session involved presentations by Bnet Co.'s commercial manager, project manager, and an E&S consultant, followed by a Q&A session. Although the attendance sheet recorded 56 participants, the actual number was higher due to late arrivals. Key issues raised included the nature of agreements with local councils, internet service quality, pricing concerns, technical specifications for fiber installation, employment for local youth, and infrastructure aesthetics. Bnet Co. representatives addressed these concerns, explaining the non-binding nature of agreements, commitment to competitive pricing, technical feasibility of underground

installations, and the monitoring system to ensure service quality. They also reassured that local employment and coordination with councils on infrastructure placement were priorities. Feedback from this meeting is to be considered in Bnet's planning for new localities.

11. Budgetary Requirements

The majority of the mitigation measures outlined don't necessitate additional expenditures. However, to ensure the effective implementation of the project and to mitigate potential negative impacts, certain activities will incur costs.

Capacity needs are stipulated in the salary of the ESO hired by the company, while capacity building costs revolve around OHS trainings for both Bnet Co. and contractors, as well as E&S orientation sessions. For the construction and installation phase, additional expenses are anticipated for noise monitoring equipment, and PPEs. The estimated cost for this phase ranges from approximately $34,950 – 49,950$.

During the operational phase, costs will be associated with capacity building, and the salary of the ESO. Total annual cost for E&S mitigation measures are estimated to range between 12,000$ and 24,000$.

1. Introduction

1.1. Background

The telecommunications sector in Palestine has undergone significant development in recent years, with increasing access to mobile and internet services. According to the Palestinian Central Bureau of Statistics (PCBS, 2023), 92% of Palestinian households stated that they or one of their household members have access to internet services at home[1]. Moreover, the Ministry of Telecom and Information Technology (MTIT) in their joint report with PCBS have noted that there is a decrease in the number of fixed telephone lines due to the launching of internet services via optical fiber technology, or the Fiber to the Home (FTTH) in 2022 compared to 2021, where FTTH does not require a fixed telephone line in contrast to the internet service via the copper network, i.e., the Asymmetric Digital Subscriber Line (ADSL).

Fiber optic technology has played a crucial role in this growth, providing faster and more reliable internet connectivity. However, there are still challenges in expanding the fiber optic network to reach all areas of the country, particularly in remote and underserved regions. Where until a few years ago, most of the demand for the internet was mainly in the suburb and central cities. Thus, Internet Service Providers (ISPs) heavily invested in urban areas. In the last few years, and most noticeably after the Covid-19 pandemic, the demand increased in rural areas.

The Cities of Jenin and Tubas and their respective governorates are among the major localities seeking to bring high-speed broadband connectivity to their communities. As such, Bnet for Communications and Advanced Technology, commercially known as Bnet, has initiated their “Fiber Optics (FTTH) for Rural Areas” project (the Subproject) that aims to provide localities within Tubas and Jenin governorates with FTTH internet services. The subproject aims to install around 1,100 Km of FTTH network within these two governorates with the majority of installation method to utilize the existing aerial (overhead) electricity infrastructure, with second method of installation pertaining to localities where electricity infrastructure cannot be utilized and where the company will be installing their own FTTH infrastructure over company-owned poles, involving 150 kms of needed infrastructure particularly in Jenin City. Further details are available in chapter 2.

Bnet Co.’s choice of the governorates of Jenin and Tubas comes in light of the need of these two governorates of high-speed internet, given that the competition between telecom companies have revolved around major urban cities and have not yet focused on towns and villages in the same manner Bnet Co. is planning. In accordance with the company’s feasibility study, the FTTH market within the localities of Jenin and Tubas governorate provide a high potential for the company.

Hence, Bnet Co. with the relatively large investment cost needed to realize this project has applied for a grant from the Finance for Jobs II (F4JII) Project. The F4J II project is a 4-year project, implemented by a Project Implementing Agency (PIA), i.e., DAI global, LLC (DAI) on behalf of the Ministry of Finance (MoF) and funded by the World Bank, with the overarching objective of mobilizing private investments and creating employment opportunities in the West Bank and Gaza. Bnet FTTH project is supported under Component 2 of the F4J II, “Investment

[1] PCBS, 2023: https://www.pcbs.gov.ps/portals/_pcbs/PressRelease/Press_En_WICTDay2023E.pdf

Co-Financing Facility (ICF)". The ICF is a risk-sharing, grant financed support for commercially sound job-creating private sector investment that may otherwise not be considered viable due to market and institutional failures and other Fragile Conflict Violent (FCV) risk considerations.

Based on the due diligence conducted by the F4JII's PIA, the project meets the F4JII objectives of job creation, and is within the Information Technology and Telecommunications (ICT) sector which is one of the priority sectors of the F4J II project. Further details regarding the F4JII project's objectives is available in the Environmental and Social Management Framework (ESMF) available through the following link: https://www.f4j.ps/cached_uploads/download/2021/01/17/environmental-and-socialmanagement-framework-1610875245.pdf

1.2. Subproject Beneficiaries

According to PCBS, the total population in targeted areas amounts to around 314,290, with an estimated 3% annual growth[23]. Considering the average family size of 4.7 persons in the West Bank, Bnet estimates that the household market size for FTTH services will exceed 66,000 in 2023.

The subproject beneficiaries include the populations of the localities targeted within the subproject, which up to the moment of preparation of this guidelines include the localities detailed in table 1 below. Primary beneficiaries include rural households, local businesses, and educational institutions, which will gain access to high-speed internet for communication, education, and economic opportunities. Indirect beneficiaries encompass healthcare services, the agricultural sector, and local governance, who will benefit from enhanced internet services in their localities.

Bnet Co. has segmented its beneficiaries (costumers) into 3 main categories. The following is according the company's feasibility study;

- low to very low income : Representing 50-55% of the market.

- medium income: Representing 35-45% of the market.

- high income: representing 5-10% of the market.

As such, the company has developed a comprehensive pricing list that meets the needs and capabilities of the different segments within the targeted market of Jenin and Tubas governorates.

1.3. Justification for the Environmental and Social Management Guidelines

As Bnet Co. has applied for a grant from the F4JII project, and as the F4J II is supported and funded by the World Bank, the WBG's Operational Policies (O.Ps), otherwise known as environmental and social safeguard policies, apply to this investment project. Hence, the company has assigned Eng. Faisal Kilani to prepare an Environmental and Social

[2] Jenin Governorate Population (PCBS 2021): https://www.pcbs.gov.ps/statisticsIndicatorsTables.aspx?lang=ar&table_id=695

[3] Tubas Governorate Population (PCBS 2021): https://www.pcbs.gov.ps/statisticsIndicatorsTables.aspx?lang=ar&table_id=696

Management Guidelines in accordance with national legislations and the World Bank Safeguard Policies. Due to the lack of information and uncertainty regarding the exact routes of the FTTH infrastructure in the targeted rural areas, and as different localities are added or replaced depending on agreements with local councils, the screening report for this subproject has recommended to prepare a Generic / Checklist ESMP, given as well the low to moderate E&S risks associated with the subproject and as it has been assigned a category “B” in line with O.P 4.01. Therefore, this Environmental and Social Management Guidelines have been prepared to guide the E&S aspects of the subproject’s implementation.

A project's environmental and social management plan consists of the set of mitigation monitoring, and institutional responsibility measures to be taken during implementation and operation to eliminate adverse environmental and social impacts, offset them, or reduce them to acceptable levels. this document is a key element of an EA report for all Category B subprojects. Nevertheless, as the project’s screening process has identified low to moderate generic risks that are associated with the laying of the FTTH infrastructure, and as the project is not site specific, it has been proposed to use a generic ESMP type format, / checklist to provide "pragmatic good practice" and designed to be user friendly and compatible with safeguard requirements. This format provides the key elements of an Environmental and Social Management Plan to meet Environmental Assessment requirements of the World Bank (under OP/BP 4.01) which has been identified as the only O.P applicable to the project. The Project’s E&S Screening and Audit Reports can be accessed through the following link:

https://drive.google.com/drive/folders/1MJCM1Uacanu8VvWDC058RzRYFsPnUMWY?usp=drive_link

1.4. The Environmental and Social Management Guidelines Scope and Objectives

On August 4th, 2016, the World Bank’s Board approved the adoption of the “Environmental and Social Framework (ESF)” to replace the previous Operational Policies – O.Ps (which are currently implemented by the F4J II Project). The ESF makes important advances in areas such as labor, non-discrimination, climate change mitigation and adaptation, biodiversity, community health and safety, and stakeholder engagement – including expanding the role of public participation and grievance mechanisms. Where the ESF became effective on October 1st, 2018, and is being applied to all Investment Policy Financing (IPF) Projects initiated after this date. As the F4J II project has been approved on July 27th, 2017, it still applies the Operational Policies (O.Ps) of the World Bank.

The E&S management guidelines along with its route screening form (Annex I) will be used by the Bnet's E&S Officer (ESO) before launching the works in each location. And accordingly, the E&S management guidelines (ESMG) shall provide adequate mitigation measures corresponding to the nature, scale, and magnitude of these risks. This will translate in terms of avoidance measures, and where not possible minimizing and mitigating their impacts. Hence, decreasing the anticipated and predicted negative impacts on the physical and social environments of the project during its installation and operation.

In agreement with the Term of Reference (ToR) of this assignment, the Consultant has prepared the E&S Management Guidelines for Bnet’s Fiber Optics (FTTH) for Rural Areas in Jenin and Tubas governorates. The process of implementing this guidelines document is a dynamic one, where this document will be used to investigate the potential E&S risks in each project location, before launching the works in each locality, so it will contribute to generate a specific and the most optimum mitigation measures, considering the specifications of each location, then the ESO will update the attached management plans.

2. Project Description

2.1. Bnet Company

Bnet was established in 2010 by BCI Group as its data communications and Internet arm. Bnet is a quality Internet Service Provider (ISP, providing a wide variety of broadband & Internet services in Palestine. Bnet's service portfolio includes narrow-band and broadband Internet access, managed dedicated Internet access, IP VPN connectivity, and global connectivity.

Bnet for Communication and Advanced Tech was registered at the Ministry of National Economy (MoNE) Ramallah City in 2010 under the registration number (562505909) as a partnership between BCI Company and Mr. Said Baransi.

The Company has additionally obtained the required licensed needed to commercially operate, install FTTH infrastructure, and sell the service. Bnet obtained the Broadband license from MTIT with a number (A7089) valid from January 1st 2022 until December 31st 2024. Additionally, the company has the Ramallah Chamber of Commerce and Industry member ship number (RAM9656), and a Work license from MoF. While the company has its main office in Ramallah in BCI building, Al-Irsal, it also has a field operations office for this project in the North located in Jenin.

Moreover, for the targeted localities under this project in Jenin and Tubas governorates, the company has signed infrastructure leasing agreements with the different cities, villages, and councils in these governorates. According to the company, Bnet holds 6% of the total market size of the ADSL internet service. Bnet seeks to gain a market share of 20% of the total addressable market in the selected Market within five years of the project's lifetime.

2.2. Project Outline and Financing Rationale

In light of the increasing demand for better, safer, and affordable internet connectivity to sustain economic growth in Palestine, Bnet Co. intends to expand service offerings by establishing a 1,100 km of Fiber Optic network across 30 rural villages within the governorates of Jenin and Tubas, in order to ease access to, and improve quality (stability, security, and speed) and affordability of internet services.

The company has already commenced a new expansion project that consists of establishing and operating a Fiber Optic network spanning over 1,100 km, where installations are to be aerial (overhead). Where to date, Bnet Co. has deployed network infrastructure covering 170 km (in two areas) of the planned 1,100 km network and has 960 new subscribers.

The expansion project sought by Bnet Co. will operate through two distinct business models, both of which are overhead. The first model will only apply to project operations within a total radius of 150 km in Jenin city where Bnet Co. will carry out all activities pertaining construction of required infrastructure, including the poles required to install and connect the cables. Here, Bnet Co. will be responsible for ensuring that the infrastructure is of the highest quality and meets its customers' needs. Under the second model, Bnet Co. has signed lease agreements with various municipalities in targeted localities to utilize their existing electricity networks' infrastructure in installing and connecting fiber cables. Bnet Co. will leverage the leased infrastructure to deliver its services of Fiber-To-The-Home (FTTH). This approach will enable Bnet Co. to promote development for additional localities and expand services to a broader customer base.

Bnet Co. will benefit from; (i) the opportunity of less Investment in the infrastructure because using the municipalities' existing infrastructure (electricity grid) will reduce the investment expenditure required compared with building a complete 950 km from scratch through installing telecom poles; (ii) The provision of the internet directly to customers without a third-party company, which is the status quo leading to lower FTTH prices compared to double invoicing, and (iii) pioneering FTTH in rural areas.

The project's implementation will help promote equal opportunities to residents of the governorates. Furthermore, FTTH connectivity in rural areas can have a profound impact on different aspects of life, including education, healthcare, and business. By providing high-speed and reliable internet access, the project can support distance learning initiatives in schools and enable remote healthcare services, especially in times of crisis. It can facilitate online commerce, enabling businesses to access a broader market and increase their competitiveness, which can ultimately promote economic development in rural areas.

The proposed investment for his subproject is approximately USD 8.37 Million, including USD 7.17 Millions of sponsor equity (Bnet Co.), and a proposed F4JII-ICF grant of USD 1.2 Million. The proposed F4JII-ICF grant would be used to partially cover the material costs of aerial fiber optic cables, wooden poles, and GPON OLT cards, which are collectively estimated to cost USD 1.45 Million, from which the F4JII will contribute 1.2. Specifically the grant will be used to purchase the 144F (61,124 m), 48F (65,984 m), 24F (96,590 m), 12F Aerial Fiber Optic Cables (802,806 m), GPON OLT Cards- 16 ports (63 units), and 7 Meter Wooden Poles (3,208 units).

2.3. Completed Activities Under the Project

Up to the date of drafting this document, Bnet Co. has completed the main FTTH networks in Burqeen and Aqabba, in addition to 50% of the installation in Qabatya. In these localities, the company conducted the installations through utilizing the existing electricity infrastructure.

Additionally, the company has completed 50% of the installation works in areas of Jenin City through installing fiber cables over company-owned telecom poles through an agreement with the municipality, the electricity infrastructure in Jenin city was not utilized as the agreement for its use was not reached with the municipality.

For the completed activities, an E&S audit has been conducted, with a set of corrective actions established to ensure that the company has adequate management of their E&S commitments and to ensure compliance with the World Bank's Safeguard Policies (O.Ps), as well as national laws and legislations. The E&S Audit for installed localities is available through the following link, where also the E&S corrective action plan is available in Annex III.

E&S Audit:
https://docs.google.com/document/d/1SgIiPvipSXE97WDYrF0I7W2b0bDfmpnO/edit?usp=sharing&ouid=100271865350480565775&rtpof=true&sd=true

Additional completed activities under the project included the acquisition of required licenses, these particularly include the Broadband license from MTIT as well as Ministry of Economy registration and Chamber of Commerce license. Moreover, Bnet has been approaching local authorities in both Jenin and Tubas governorates to sign service agreements for the installation of FTTH network, where the company has signed, by the time of preparing this report, agreements with 24 local authorities, and is working on reaching agreements with around 10 more localities.

The company has also started with their network planning and Geographic Information System (GIS) mapping for targeted and signed localities to install the infrastructure.


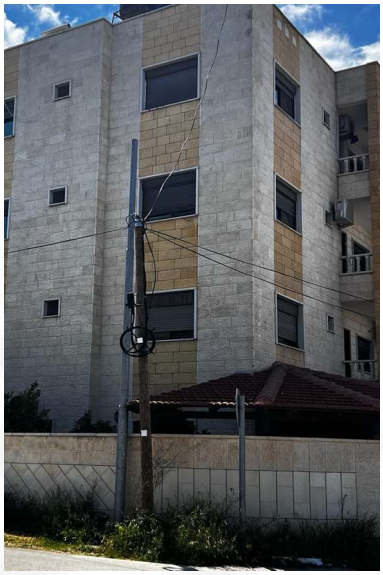

Figure 1: Installed Fiber Infrastructure through Poles in Jenin City

The table below includes localities already signed with as of November 2023, and localities that are targeted to have agreements signed with;

Table 1: Localities Bnet Have Agreements with (As of November 2023) & Localities Targetted

No.	Locality	No.	Locality
SIGNED			
JENIN GOVERNORATE		TUBAS GOVERNORATE	
1	Jalbon	1	Tubas City
2	Fandaqomeye	2	Wadi Al Fara’
3	Al Shohada	3	Tammoun
4	Silet Al Hartheye	4	Aqqaba
5	Kferet		
6	Zababdeh		
7	Sanour		
8	Arraba		

9	Ya'bad		
10	Raba		
11	Jenin City		
12	Burqeen		
13	Qabatya		
14	Deir Ghazaleh		
15	Jalqamous		
16	Mughaier		
17	Jalama		
18	Deir Abu Deif		
19	Taybeh		
20	Zabobeh		
TARGETTED / PENDING			
1	Araqa		
2	Beit Qad		
3	Arrana		
4	Rommaneh		
5	Ajja		
6	Faqqo'a		
7	Kfr Qod		
8	Sir		
9	Arabona		
10	Kofr Ra'i		
11	Silet Al thahr		
12	Al Jdedeh		
13	Methalon		
14	Jaba'		
15	Al Yamoun		
16	Siris		

2.4. Process Description

Bnet Co. uses a combination of business models to expand their network. The first model involves building its own infrastructure, which includes developing fiber network equipment and erecting poles to hold them. This model is being used primarily in areas where Bnet Co. cannot lease existing infrastructure from municipalities. The second model involves leasing existing infrastructure from municipalities and using it to set up its fiber network. Nonetheless, when constructing its own infrastructure, the company still pays lease fees to the municipalities for the use of land where the poles and equipment are installed. This allows them to be flexible in their approach and adapt to the unique challenges of each locality.

The utilization of fiber optic technology allows to provide end-users with high-speed and reliable internet connectivity where this technology transmits information as pulses of light through strands of fiber made of glass or plastic, depending on the type of cables, over long distances. Hence, the technology is not impacted by the electricity infrastructure and Electromagnetic interferences as it relies on transmitting light through the cables, unlike the older copper wire technology used for the ADSL which is prone to such interferences.

Whether through the existing electricity infrastructure, or through deploying poles in limited areas (i.e., Jenin city), Bnet will establish its network through an aerial connection model as shown in the Figure below. This technical solution involves attaching fiber optic cables to poles and utilizing them to connect individual households to the network. This approach allows for a more efficient and cost-effective network setup compared to the underground option, and through this approach, the cables are connected to poles and then extended to individual households through House Connection Points (HCP).

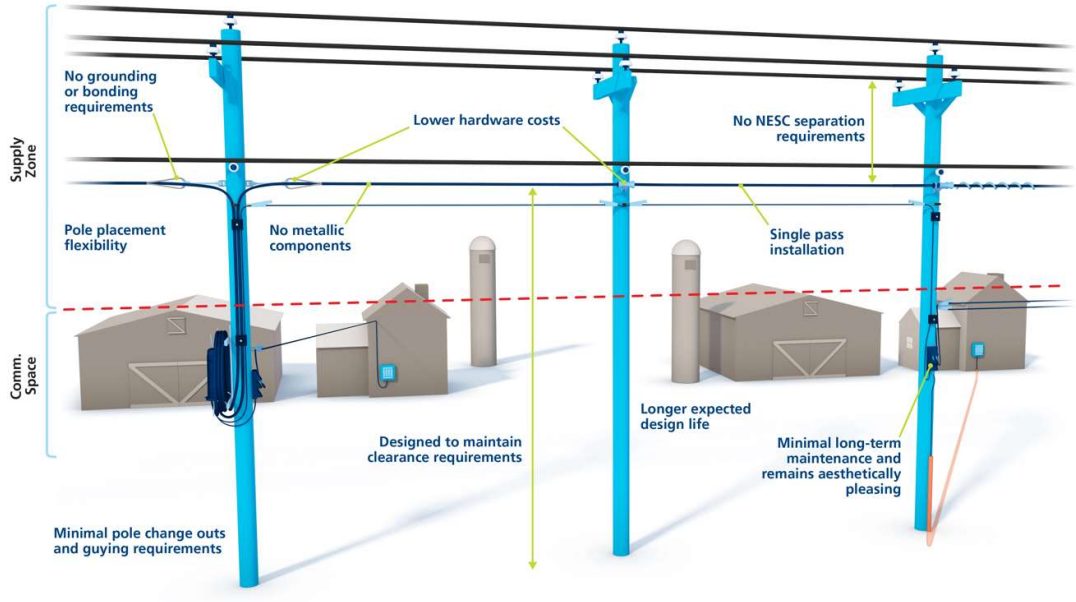

Figure 2: FTTH Network Connectivity Model Over Electricity Infrastructure

Bnet Co.'s Fiber to The Home (FTTH) infrastructure will provide access to communication signals over optical Fiber, directly connecting the operator's switching equipment to homes and buildings. FTTH connectivity is processed through Gigabit Passive Optical Networks (GPON) technology, and the GPON network includes shared equipment in the central office

Optical Line Terminal (OLT) and a dedicated optical unit at each subscriber location “Optical Network Unit (ONU)/Optical Network Terminal (ONT)” which are combined in Optical Distribution Frames (ODFs). Where in the middle, it's all fiber.

The figure Below is a sample graph denoting the model that will be used for the GPON network:

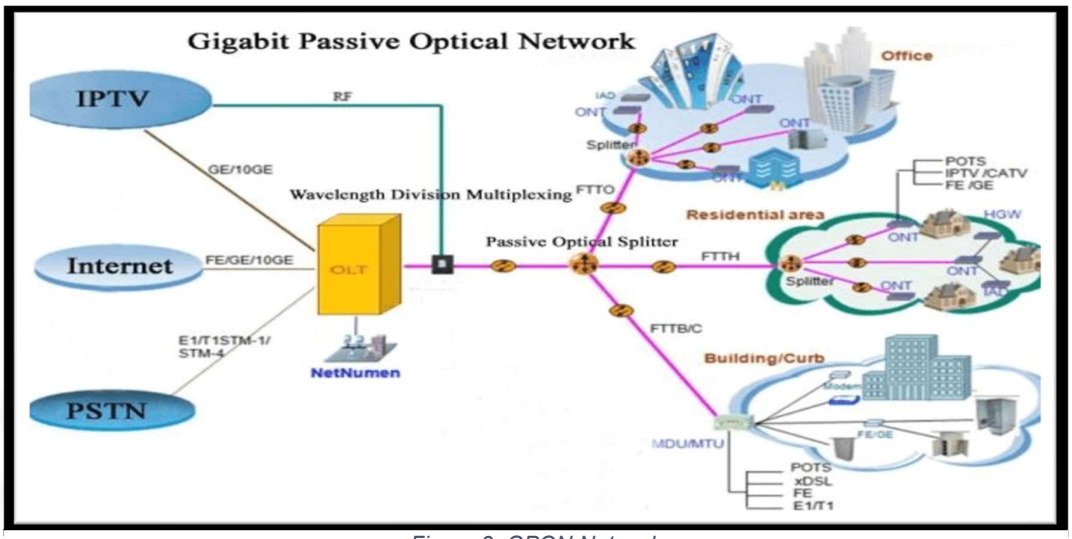

Figure 3: GPON Network

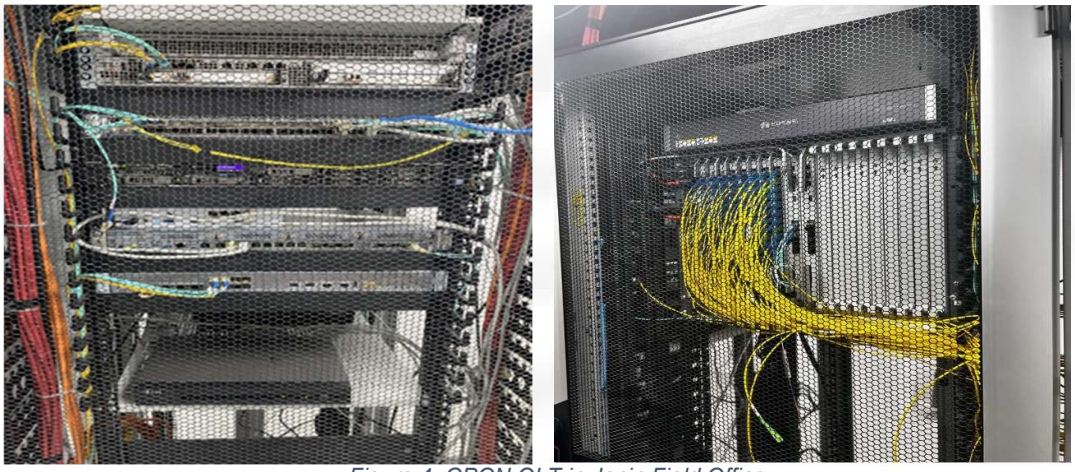

Figure 4: GPON OLT in Jenin Field Office

2.5. Project Installation Phase Description

The subproject entails two methods as described; 1. Installing company owned poles and extending the FTTH network over them (150 Km in Jenin City) ; and 2. Installing the FTTH network through utilizing the existing electricity infrastructure in the remaining localities, i.e., 950 Kms. As such, the below describe the associated installation activities for each method.

1. The establishment of Bnet’s own 150 km of FTTH infrastructure entails the installation of telecom poles in the municipal right of way. This includes the required excavation works to install the poles, improvements to current infrastructure and the FTTH network

installation works. Setup and installation works will be contracted to specialized local contractors who are contracted by telecom companies, like Bnet Co. to conduct the field installation works.

The following activities are included in the deployment of own infrastructure over telecom poles;

- Installation of wooden poles (7-meter length, 120 cm depth).
- Installation of wooden poles (8-meter length, 140 cm depth).
    - All poles shall be Southern Yellow Pine.
    - All poles shall conform in all respects to the latest revision of the American National Standard Association (ANSA) specification 05.1 titled specifications and dimensions for wood poles.
    - All poles shall be machine turned. Turning, and roofing shall be done before
    - Poles shall be cured and have all manufacturing processes completed prior to treatment. Poles shall be cured and treated full length in accordance with the latest revision of the American Wood Preservers Association (AWPA) guidelines as published in the latest revision of their Book of Standards.
    - Treatment shall be accomplished using Chromated Copper Arsenate, with methods, preparation and solvents as directed in the A WA Book of Standards.

- Street side tunneling (20 cm width, which include pipe installation, closing and covering with sand and concrete).
- Street side tunneling (40 cm width, which include pipe installation, closing and covering with sand and concrete).
- Re-paving sidewalks both stone and concrete.

2. For the second method, utilizing the existing overhead electricity infrastructure for the installation of the FTTH network, the following activities will take place;

- Using existing manholes to install fiber cables (incl. cutting and trimming of pipes and plaster works for restoration of manholes).
- Fixing and installation of manhole covers (quantity around 34)
- Installation of concrete circular manholes with covers (1 m diameter, quantity around 34)
- Enhancing the existing infrastructure that typically include, as needed and when needed; pole reinforcement and upgrading attachments hardware.

3. In terms of laying the fiber cables for both methods. the following activities are expected;

- Laying fiber cables (~1,000 Km);
    - These include 4FM and12F SM unitube ADSS lite optical fiber cables-40m span, single jacket
    - 24 F SM, 48 F SM, 96 F SM, 144 F SM multitude single sheet ADSS-lite optical fiber cables, with 50-meter span, single jacket.
- Installation of iron-base plates
- Installation of “U-Guard” on pillars or walls for cable protection
- Supply and installation of galvanized cover sheets around pillars (1mx1m) and 0.5mm thickness
- Installation of FTTH network boxes (Optic Network Terminals -ONT)
- Installation of 15 street cabinets.

2.6. Operational Phase Activities

During the operational phase, Bnet Co. will ensure efficient and effective functioning of the newly established FTTH network. Activities within this phase include;

- Monitoring and managing the FTTH network to ensure network and service performance
- Quality assurance with regular assessments and adjustments made to the network based on real-time data and feedback.
- Costumer support addressing inquiries and connectivity issues as well as resolving any E&S grievances received.
- maintenance and repairs, keeping the infrastructure in optimal condition and swiftly addressing any physical or technical problems.
- Connecting new costumers and providing FTTH services to their premises through providing them with routers and needed customer premises equipment (CPEs).
- Periodic update of licenses and agreements in line with national requirements particularly of MTIT and agreement validity with municipalities.
- Actively engaging with the community, to align the network's growth with local interests and needs ,in line with this E&S management guidelines.

2.7. Overview of Project Labor

The staffing of the company is represented through the following managerial model.

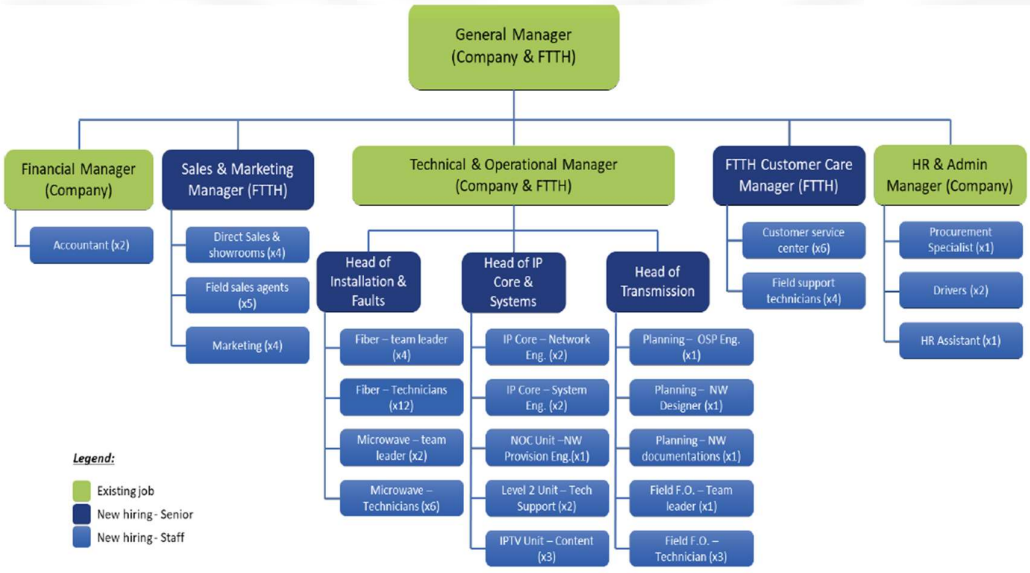

Figure 5: Bnet FTTH Project Managerial Model

Table 2: Number of Employment Requirements

Job Title	Existing / New	No.
General Manager	Existing	1
Financial Manager	Existing	1

Technical and Operational Manager	Existing	1
HR and Admin Manager	Existing	1
Accountant	New	2
Environmental and Social Officer*	New	1
Head of Installation and Faults Department	New	1
Fiber Installation Team	New	16
Microwave Installation Team	New	8
Head of Core I.P and Systems Department	New	1
Core I.P and systems Team	New	10
Head of Transmission Department	New	1
Transmission Team	New	7
Sales and Marketing Manager	New	1
Direct Sales and Showroom Staff	New	4
Sales Agents	New	5
Marketing Team	New	4
Costumer Care Management	New	1
Customer Service Center	New	6
Field Support Technicians	New	4
HR and Admin Assistant	New	1
Procurement Specialist	New	1
Driver	New	2
TOTAL	75	

* *The Environmental and Social Officer (ESO) has been hired as of November 2023 to assist in the implementation of this E&S management guidelines specific to the FTTH project.*

It is expected that the project will provide jobs to 255 persons, about 20% are expected to be women. 150 construction full-time equivalent jobs are required to finish installation works for the project within a 10-month duration. While 75 permanent direct jobs are needed to run the operation and administration processes.

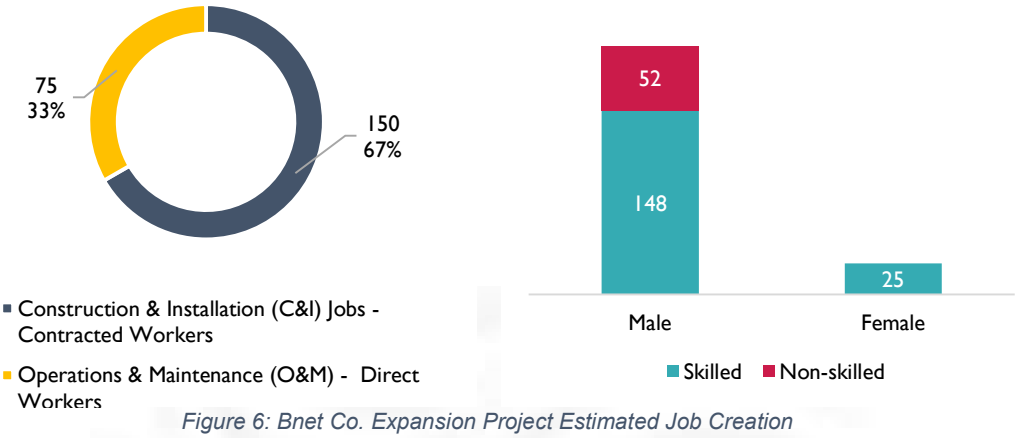

Figure 6: Bnet Co. Expansion Project Estimated Job Creation

2.8. Project Phases

In order to continue the FTTH for Rural Areas Project, the company will undergo the following stages to reach successful operations;

I- Planning Phase (Bnet Co. Responsibility):

1. The company has completed the process of obtaining necessary FTTH installation and operation licenses from MTIT with a number (A7089) valid from January 1st 2022 until December 31st 2024.
2. Identifying subproject locations and targeted localities.
3. The installation of FTTH infrastructure requires Signing remaining agreements with municipalities for the installation of the Fiber Network if they own the electricity network, as well as with electricity distribution companies (Mainly Northern Electricity Distribution Company – NEDCO and Tubas Electricity Distribution Company (TEDCO) in their areas of concession). Agreements with municipalities cover the right of way approval.
4. Application for an environmental permit from EQA.**
5. Site-specific E&S screening of the proposed routes in accordance with the screening form available in Annex I, and obtaining the PIA non-objection for the E&S screening form.***
6. Site Surveying, mapping, and network design
7. Determining the scope of installation and civil works' needs.
8. Preparation of safety protocols and updating the environmental and social management plan
9. Selection of Contractors
10. Recruitment of the new staff needed for the operational phase of the project
11. Procurement of Equipment

II- Installation Phase (Contractors Responsibility with Supervision from Bnet Co.):

1. Excavation works in Jenin city (the only current locality where Bnet Co., will install its infrastructure through poles).
2. Improving existing infrastructure (as detailed in section 2.5)
3. FTTH network installation (as detailed in section 2.5)
4. Main network testing and connectivity validation
5. Connectivity to buildings preparation
6. Final connectivity testing and monitoring

III- **Operations Phase (Bnet Co. Responsibility)**

1. Service Provision
2. FTTH sales and connectivity of homes and businesses
3. Full commercial implementation
4. Post connectivity monitoring and feedback
5. Network Monitoring and Management
6. Customer Support
7. Maintenance and Repairs
8. Quality Assurance
9. Network Expansion
10. Upgrades and Technology Advancements
11. Compliance and Regulations
12. Community Engagement.

*** EQA has been consulted in this regard, they stated that their requirements do not extend to FTTH projects in the telecommunication sector, where environmental approvals are required for telecom towers only.*

****Once the agreements are finalized, the routes have been selected, and the activities under the planning phase are implemented, then site specific screening is to be conducted by the ESO.*

3. Policies, Legal, and Regulatory Frameworks

Environmental legislation and regulations are vital tools to protect public health and the environment and give consideration to sustainable development. The project is guided by the World Bank safeguard policies, World Bank Environment, Health and Safety (EHS) Guidelines, both the general and industry-specific, along with the national laws and regulations.

3.1. Palestinian National Laws and Legislations

The F4J II ESMF contains a gap analysis between the E&S relevant laws and legislations and the World Bank's Operational Procedures (O.Ps), particularly in relevance to the F4JII Project; The gap analysis of the Palestinian Environmental legislations against the World Bank standards identifies several areas for improvement, particularly in the ESIA process, where clearer criteria for screening, inclusion of 'without project' scenarios, and a defined process for analyzing induced impacts are needed. To align with World Bank standards, adjustments will be made to exclude 'Type A' projects with significant impacts from financing and enhance the oversight of projects that do not require a full ESIA. Additionally, measures are needed to strengthen public participation and ensure accountability, such as mandating consultations and developing a Stakeholder Engagement Plan (SEP) and a Grievance Redress Mechanism (GRM), while incorporating World Bank EHS Guidelines and into the F4J II ESMF. Although the Palestinian Environmental Quality Authority (EQA) staff possess strong EIA skills, there is a need for greater familiarity with ESMFs and improved application of screening checklists and monitoring to fully integrate environmental and social management into project planning and execution.

In line with the aforementioned, the following national laws and legislations have been identified to be relevant to the project. For further details on the applicable national laws and legislations as well as relevance to the project, please refer to the F4J II Project's ESMF: https://www.f4j.ps/cached_uploads/download/2021/01/17/environmental-and-socialmanagement-framework-1610875245.pdf

I. The Palestinian Environment Law (PEL)
II. Palestinian Environmental Assessment Policy (PEAP)
III. The Palestinian Public Health Law
IV. The Palestinian Communication and IT Law
V. The Palestinian Labor Law (PLL)
VI. Cabinet of Ministers and Ministerial Decisions on Occupational Health and Safety (OHS) as issued in the addendums of the PLL.
VII. Decree on Minimum Wage No.4 of 2021
VIII. The resolution of the Palestinian Cabinet No. 8 of 2016 on the Regulation of Complaints
IX. the Palestinian Standards Institution (PSI) Outdoor Noise Standards (PS 840-2005)

3.2. World Bank Operational Policies and Bank Procedures

On August 4th, 2016, the World Bank's Board approved the adoption of the "Environmental and Social Framework (ESF)" to replace the previous Operational Policies (OPs). The ESF makes important advances in areas such as labor, non-discrimination, climate change mitigation and adaptation, biodiversity, community health and safety, and stakeholder engagement – including expanding the role of public participation and grievance mechanisms. Where the ESF became effective on October 1st, 2018 and is being applied to all Investment

Policy Financing (IPF) Projects initiated after this date. As the F4J II project has been approved on July 27th, 2017, it still applies the Operational Policies (OPs) of the World Bank.

The WB has ten environmental and social operational policies referred to as the Bank's "Safeguard Policies" that should be considered in its financed projects. As Bnet Co. is to obtain a grant from the F4J project, which is implemented by the DAI and financed by the World Bank, the Ops are relevant to this project.

Based on the information to be collected of each project, the environmental initial assessment for each project is addressed through:

- Reviewing the safeguard policies and ensuring that the proposed project does not trigger a safeguard policy that makes it ineligible.
- Describing any safeguard issues and impacts associated with the construction of the project. Identifying and describe any potential large scale, significant and/or irreversible impacts.
- Describing any potential indirect and/or long-term impacts due to anticipated future activities in the project area.
- Describing measures taken to address safeguard policy issues. Provide an assessment of project proponent capacity to plan and implement the measures described.
- Identifying the key stakeholders and describing the mechanisms for consultation and disclosure of safeguard policies, with an emphasis on potentially affected people.

The World Bank classifies projects into four distinctive categories, depending on the type, location, sensitivity, and scale of the project, including the nature and magnitude of its potential environmental impacts. These categories are as follows:

Category A: This list is limited to those projects with significant environmental and social impacts, which require a full detailed EIA.

Category B: A proposed project is classified as Category B if its potential adverse environmental impacts on human populations or environmentally important areas including wetlands, forests, grasslands, and other natural habitats are less adverse than those of Category A projects. These impacts are site-specific, reversible, and in most cases easily remediable than for Category A projects.

Category C: These are projects, which have no adverse environmental impacts, and accordingly will not require any environmental assessment or follow-up.

Categories B and C projects require Initial Environmental Examination, limited environmental management plan (EMP), and/or Environmental Screening (ES).

Category FI: A proposed project is categorized FI (Financial Intermediary) if it involves investment of Bank funds through a financial intermediary, in subprojects that may result in adverse environmental and social impacts. Environmental screening is applied to FI projects to determine the level of Environmental Assessment (EA) to be required.

Under the World Bank's operational policies, there are ten environmental and social policies referred to as the Bank's "safeguard policies". The Bank's environmental assessment policy and procedures in light of these ten safeguard policies are well described in the Operational Policy/Bank Procedures (OP/BP).

Based on the screening of the applicable Policies, only O.P 4.01 is relevant to the project.

3.3. World Bank OP/BP 4.01 on Environmental Assessment

The screening of applicable World Bank social and environmental safeguards policies indicated that, among these policies, OP/BP 4.01 on Environmental Assessment is the only safeguards policy triggered by this project. The overall objective of the OP/BP 4.01 is to help ensure the environmental and social soundness and sustainability of investment projects. As per this policy, environmental assessment is required by the World Bank for projects proposed for WB financing to help ensure that they are environmentally sound and sustainable, and thus to improve decision making.

The World Bank's Operational Policy 4.01 (1999) provides guidance on the types of assessments that should be performed for different types of projects, and on the scope and content of those assessments. According to Operational Directive 4.01, FTTH project is classified as Category (B) projects, and require an ESMP- the scope of which may vary from project to project but is narrower than the EIA required for Category (A) projects.

Moreover, the Consultation Process for this subproject has been designed in accordance with World Bank Guidance for the Preparation of a Consultation and Disclosure Plan; Consideration has also been given to the operation of the subproject facilities. Permits will be required from the relevant Competent Administrative Authorities.

According to this policy, the WB undertakes environmental screening of each proposed project to determine the appropriate extent and type of EA. The WB classifies the proposed project into one of four categories, depending on the type, location, sensitivity, and scale of the project and the nature and magnitude of its potential environmental impacts. Based on the screening of this project, the project is classified as category B given that the potential negative impacts are of low to moderate risk rating and are neither unprecedented nor are they as critical as those of Category A. I.e., the potential negative impacts on human populations and environment are site specific; and the mitigation measures are easily designed and implemented. The screening report can be accessed through the following link: https://drive.google.com/drive/folders/1MJCM1Uacanu8VvWDC058RzRYFsPnUMWY?usp=drive_link

3.4. Environment, Health, and Safety Guidelines

3.4.1. General EHS Guidelines

The World Bank Group Environment, Health, and Safety (EHS) guidelines are technical reference documents with general and industry-specific examples of Good International Industry Practice (GIIP). They define acceptable pollution prevention and abatement measures and emission levels in World Bank financed projects.

The project will apply the General Guidelines including (i) Environmental, (ii) Occupational Health and Safety, (iii) Community Health and Safety, and (iv) Construction and Decommissioning.

The EHS General Guidelines can be accessed through: https://documents1.worldbank.org/curated/en/157871484635724258/pdf/112110-WP-Final-General-EHS-Guidelines.pdf

3.4.2. Industry-Specific EHS Guidelines

the World Bank Group has specialized guidelines for industries which include guidance on potential risks and their appropriate mitigation measures. The World Bank Group, through their set of EHS Guidelines, have specific EHS Guidelines for the Telecommunications sector. The EHS Guidelines for Telecommunications are applicable to telecommunications infrastructure such as fixed line and wireless voice and data transmission infrastructure, including long distance terrestrial and submarine cables (e.g., fiber optic cables), as well as radio and television broadcasting, and associated telecommunications and broadcasting installations and equipment. Therefore, the project will ensure to consider in its operations and mitigation measures the guidelines relevant to terrestrial installations. The EHS Guidelines for Telecommunications can be accessed through the following link:

https://www.ifc.org/content/dam/ifc/doc/2000/2007-telecommunications-ehs-guidelines-en.pdf

4. Environmental and Social Baseline

This section introduces and determines pertinent initial information about both Jenin and Tubas governorates relevant to the implementation of the project. As the activities of the project as described in chapter 2 extend to over 30 localities, part of which are still not confirmed, the chapter will introduce main characteristics of both governorates and will highlight parameters that need to be considered during site selection and installation works, including biodiversity areas, natural reserves, and historical heritage locations within both governorates. The information included within this chapter are as observed during site-visits, discussions with stakeholders, examination of project documents, and review of research and studies pertaining to the project area.

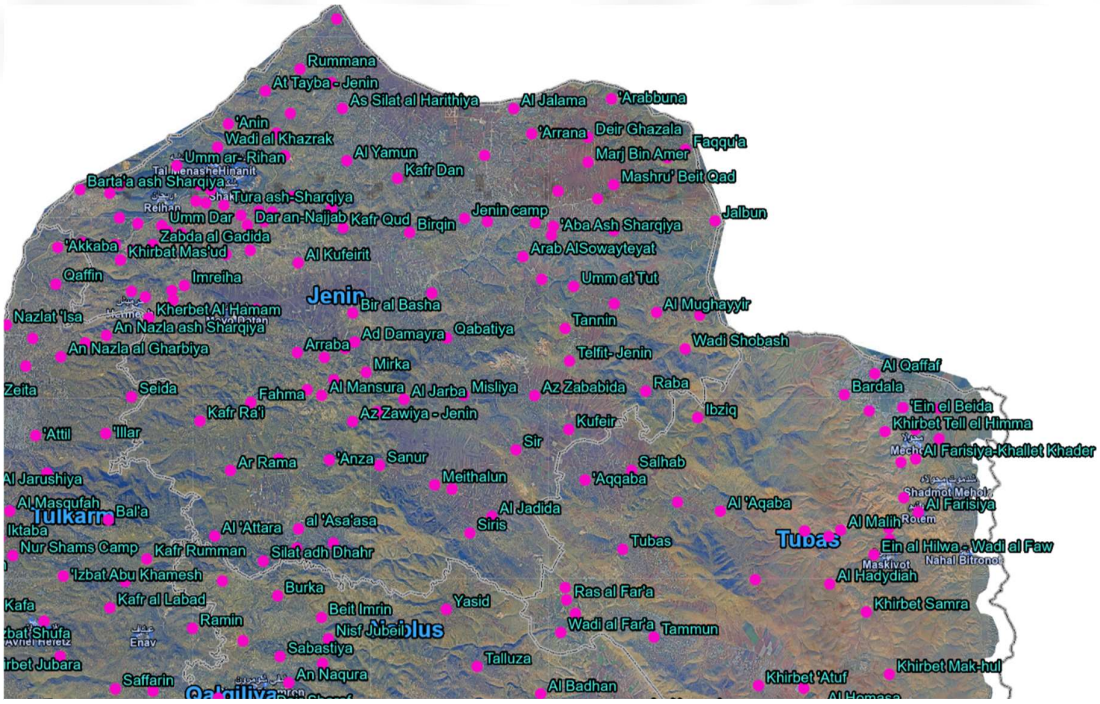

Figure 7: Communities and Localities in Jenin and Tubas Governorates

4.1. Land Use

4.1.1. Jenin Governorate

Jenin Governorate is situated in the northern part of West Bank, in the central part of historical Palestine. The Governorate has an area of about 583 square kilometers and constitutes about 10% of the total West Bank land area. The Governorate is bounded by Tulkarem Governorate from southwest, Nablus Governorate from south, Tubas Governorate from southeast, and by 1948 cease-fire line from all other directions.

Jenin City serves as the primary administrative center and largest city within the governorate, accompanied by 12 significant municipalities. In addition, the governorate encompasses around 60 smaller villages. The dominant land cover in Jenin governorate includes natural grass land, olive groves, agricultural lands with natural vegetation, non-irrigated complex cultivations, non-irrigated arable land, and forests. The governorate is primarily characterized as an agricultural region, with agriculture serving as the main source of livelihood for the rural areas. Situated within the Marj Ibn Amer Valley, the region boasts fertile soils that are deep, heavy, and rich in organic matter.

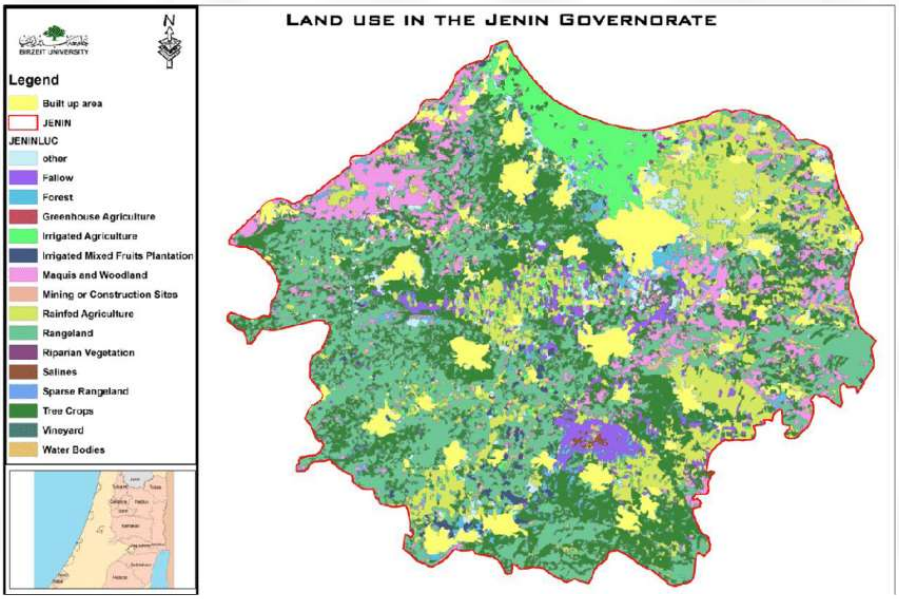

Figure 8: Jenin Governorate Land Use (Birzeit University)

4.1.2. Tubas Governorate

Tubas Governorate is located in the northeastern part of the West Bank; it is bordered by Jenin Governorate and Armistice Line (1948 borders) to the north, Nablus and Jericho Governorates to the west and south, and Jordan valley to the east. Tubas Governorate extends on high plain area that slides eastward towards the Jordan Valley. It is located west of Jordan River and south of Bissan plain; the area is also rich in springs and flood streams. Tubas is one of the main agricultural areas in the West Bank and significant source for animal grazing due to soil fertility, water availability and the relatively warm weather.

Based on the Palestinian Ministry of Local Government classification, Tubas governorate comprises of 23 localities, of which 3 localities are managed by municipality councils, 6 localities by village councils and the rest are managed by committees in addition to one

refugee camp. The largest locality in Tubas Governorate by area is Tubas city, which extends over 295,123 dunums, followed by Tammun, which extends over 81,000 dunums. The smallest locality by area is El Far'a Camp with 225 dunums followed by Khirbet Kardala with 800 dunums.

Generally, Tubas Governorate is recognized as an agricultural area. Out of the total area of Tubas Governorate about 85,172 dunums (23.3 %) are cultivated with different types of crops. It has fertile soil and a suitable climate for agriculture and benefit from the warm temperatures and high rates of rainfall in the region, which has increased the productivity and diversity of plant crops in the Governorate.

Agricultural lands constitute 46.9% of the Governorate area and 36.7% are forests, pastures and natural vegetations. On the other hand, the Israeli colonies and Military bases occupy 6.4% of the Governorate area compared with only 1.72% devoted to the Palestinian built up area and Palestinian industrial areas[4].

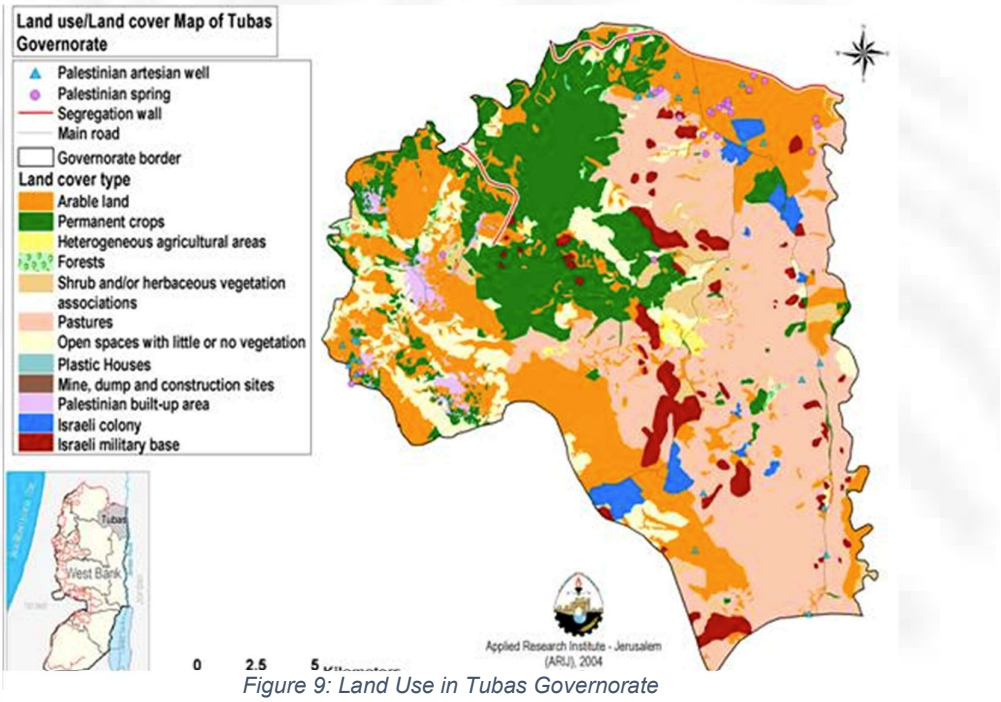

Figure 9: Land Use in Tubas Governorate

[4] http://vprofile.arij.org/tubas/static/factsheet/newsletter1.pdf

4.2. Protected Areas

4.2.1. Jenin Governorate

Three out of the five proposed reserves in Jenin were transferred to the Palestinian Authority (PA) following the Oslo Accords. These reserves are Umm at Tut, also known as El Marj protected area, Siris, also known as El Miksar protected area, and Fahmeh, known as Dhahrat Hayis protected area. The remaining two protected areas are recent additions to the conservation network, namely Jabal Al Aqra' and Um Ar-Rihan[5].

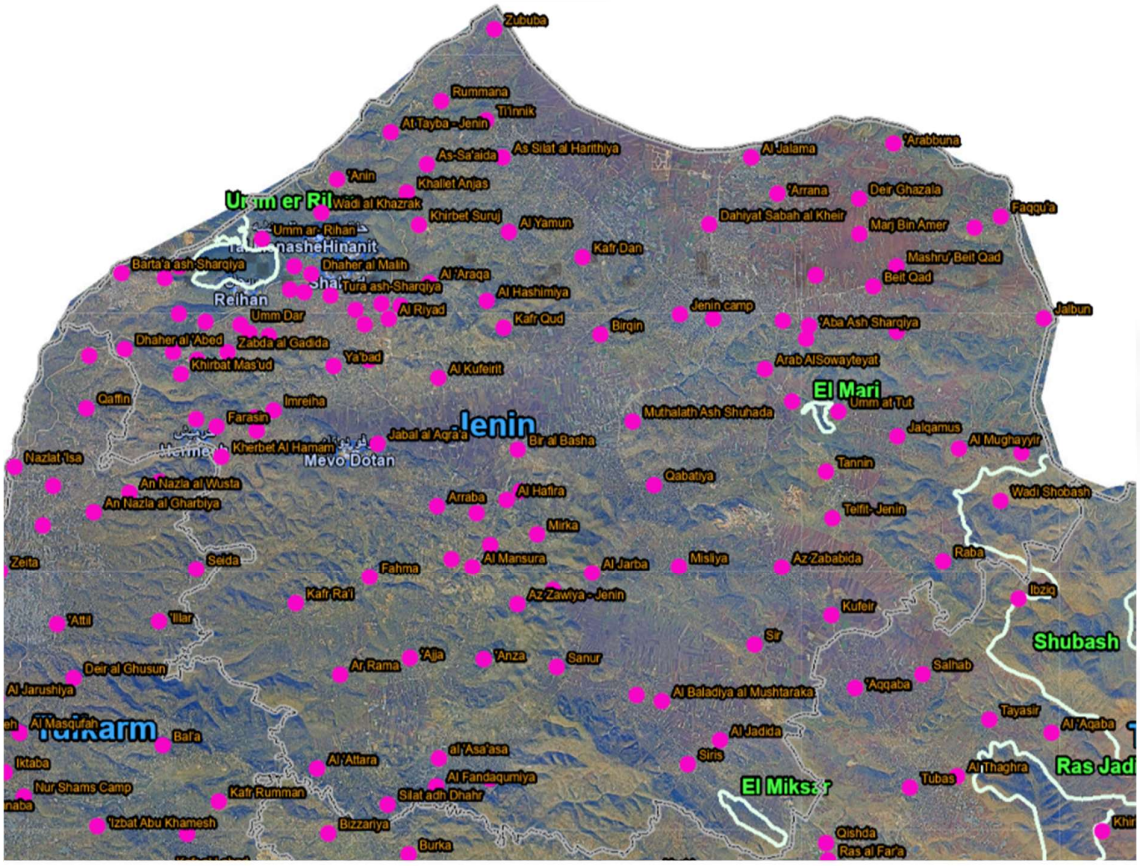

Figure 10: Natural Reserves in Jenin Area

From the project description and review of installation areas, the project is not expected to pass through protected areas, and if adjacent to them, installations follow the built-up right of way and utilizes existing infrastructure. The company should ensure that they avoid areas of natural reserves especially if the option to be implemented for installation include deployment of own poles, where avoidance is not possible, the company should ensure that adequate mitigation measures are in place and that complete liaison with the relevant parties and stakeholders is being conducted.

[5] Environmental Conservation and Protected Areas in Palestine, Mahmiyat.ps, Hanns Seidel Foundation

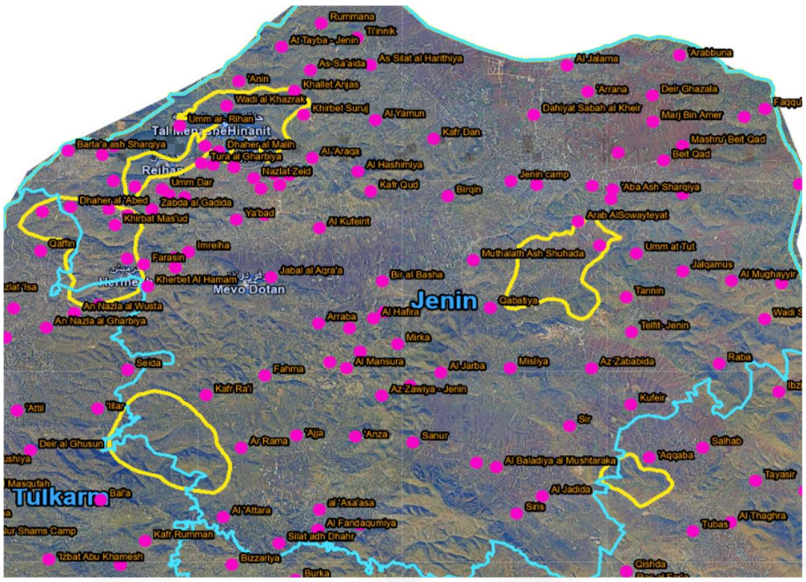

Figure 11: Areas of Biodiversity in Jenin Governorate

4.2.2. Tubas Governorate

According to the Ministry of Local Government database, Tubas governorate contains three main natural reserve areas; Shubash which extends from Jenin governorate's Wadi Shobash towards the South-East in Tubas governorate extending to Al Malih and Ein al Hilwa; El Muzawqa running parallel to the Jordan River in the Jordan valley area in Area C, and Ras Jadir to the East of Tubas city.

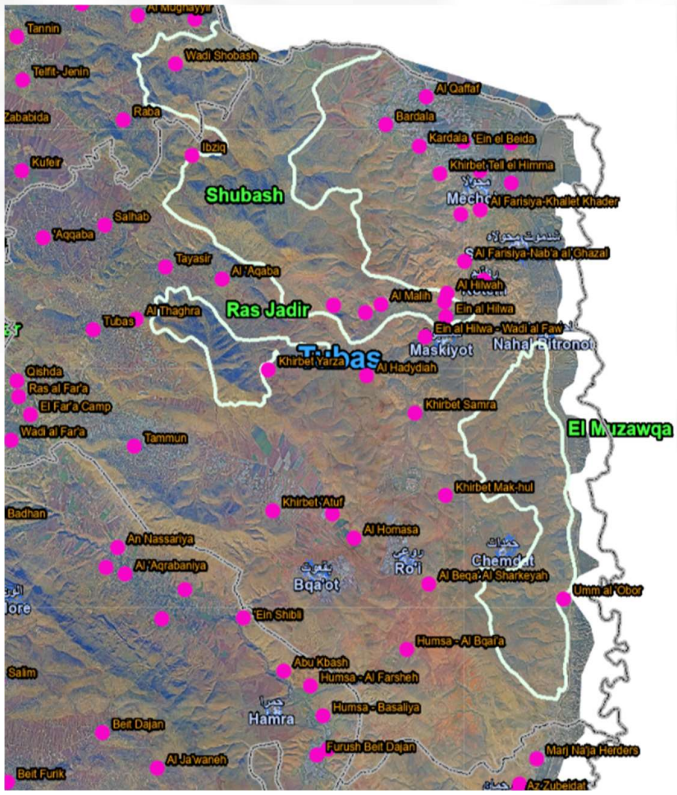

Figure 12: Tubas Governorate's Natural Reserves (Geomolg, MoLG)

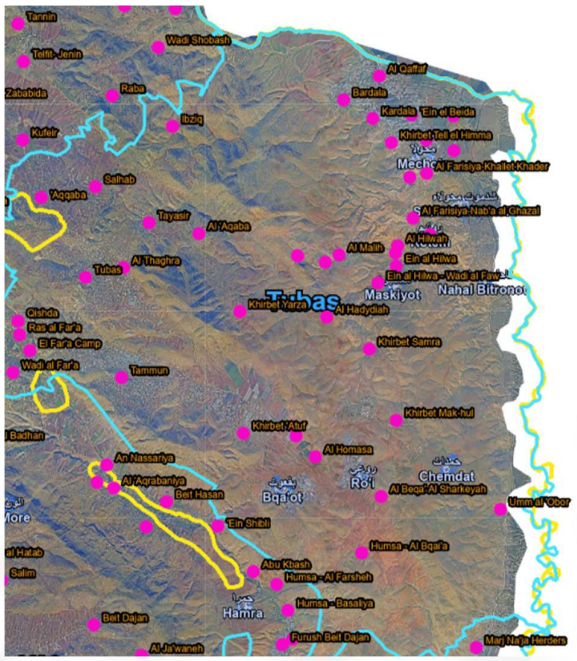

Figure 13: Biodiversity Areas in Tubas Governorate

The project however is not expected to pass through localities within, or near these natural reserves in Tubas governorate as they are located within area C. Due to restrictions in area C, which are areas under Israeli civil and military administration, the company cannot install its physical infrastructure within these areas, where telecommunications are often based on mobile data from Jordanian or Israeli service providers.

4.3. Topography

4.3.1. Jenin Governorate

Jenin Governorate exhibits an elevation range from 90 to 750 meters above sea level. The lowest point lies to the north of Jenin city in the Al Mukhaba area, adjacent to the 1948 cease-fire line, while the highest point can be found at Jabal Hureish, situated near Meithaloun village at the southern boundary of the Governorate . The topography of Jenin Governorate can be classified into three distinct regions: the eastern slopes, mountain crests, and western slopes. The eastern slopes are positioned between the Jordan Valley and the central highlands, characterized by steep inclines that contribute to the formation of young wadis. The mountain crests serve as the watershed line, effectively separating the eastern and western slopes. In contrast, the western slopes feature gentle inclinations and have elevations ranging between 100 and 400 meters above sea level.

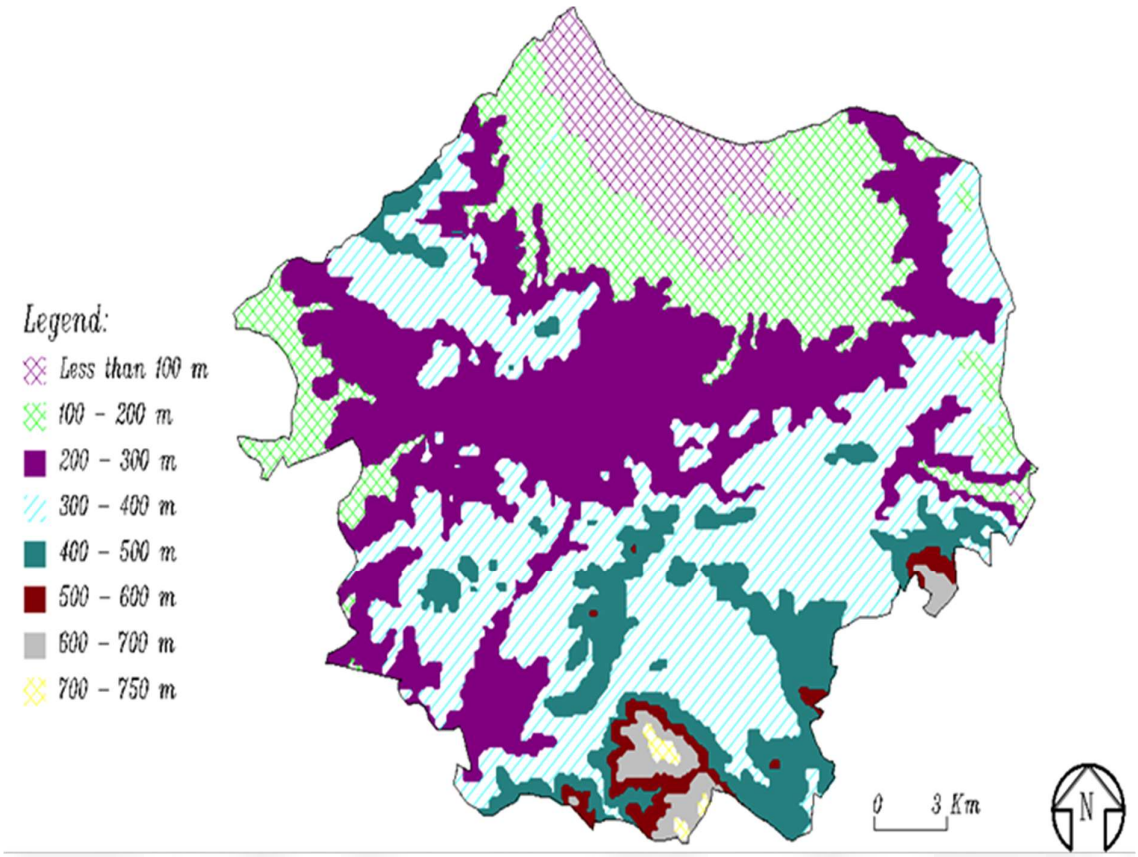

Figure 14: Jenin Governorate Elevation Map (ARIJ)

4.3.2. Tubas Governorate

Tubas governorate has a diverse plain terrains with some highlands and hills. Tubas governorate has a maximum elevation of around 550 meters above sea level, mainly in Tammoun area. Moreover, the region has several valleys with fertile agricultural plains extending along it, such as the Al-Baqi'a Plain, which is located north of Wadi Al-Fara'a and south of Tammoun. In general, the surface features of Tubas governorate are a high plain region that gradually descends eastward towards the Jordan River.

[6]https://www.arij.org/wp-content/uploads/2013/12/1996-4_Environmantal_Profiles_for_the_West_Bank_Volume_7_Jenin_District.pdf

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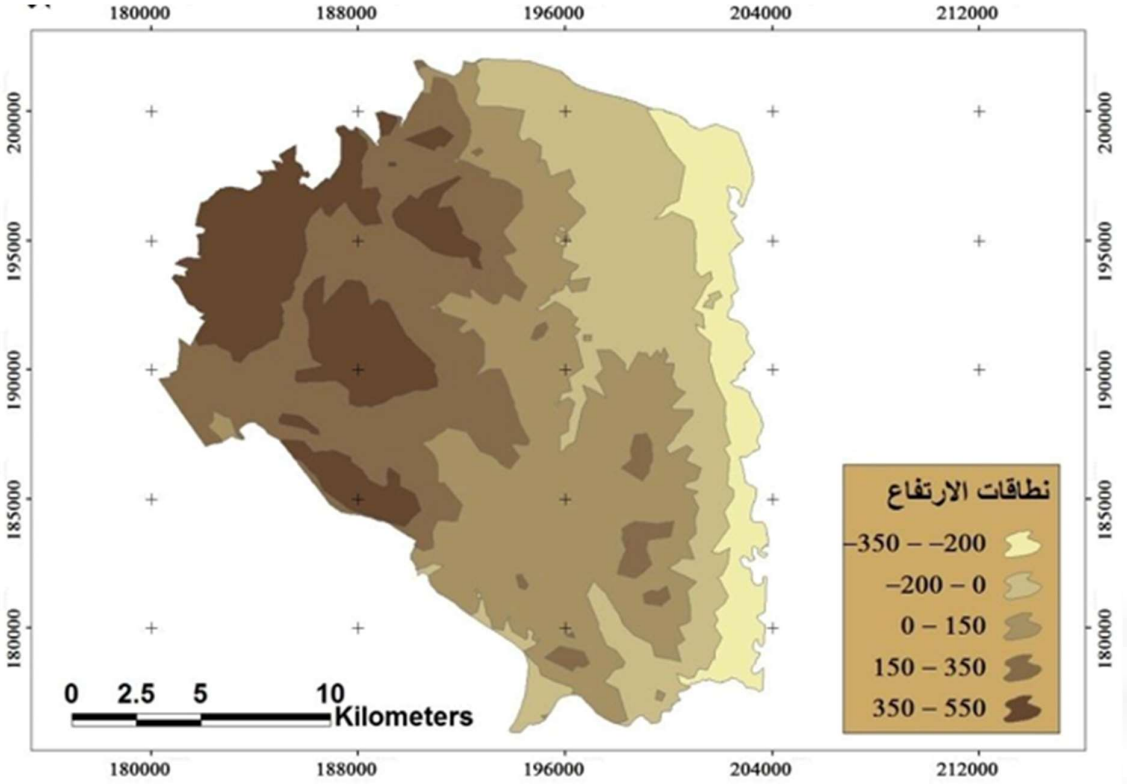

Figure 15: Tubas Governorate Elevation Map

4.4. Climate

4.4.1. Jenin Governorate

The climate of Jenin Governorate is influenced by its location along the eastern Mediterranean region. Winters in this area are characterized as moderate and rainy, while summers tend to be hot and dry. Regarding precipitation, data from the Palestinian Central Bureau of Statistics (PCBS) indicates that the average annual rainfall recorded for the Jenin governorate between 2010 and 2018 was approximately 450 mm. The lowest recorded year for precipitation was in 2017 with only 175 mm, whereas the highest was in 2018 with 763 mm (PCBS, 2018[8]).

The western slopes of Jenin governorate usually receive higher levels of precipitation, and they exhibit similarities with the internal hills of the West Bank due to their northern location and exposure to sea winds[9].

Regarding temperature, the maximum recorded temperature in Jenin experienced a slight decrease from the annual average by approximately -0.2°C. This is in contrast to the remaining governorates of the West Bank, which recorded an increase in maximum temperature over

[7] Annajah University: https://repository.najah.edu/server/api/core/bitstreams/7f2d4d29-735f-4483-bc76-ba30c7acdabf/content
[8] https://www.pcbs.gov.ps/Portals/_Rainbow/Documents/Metrological-2018-04E.html
[9] Environmental Status of Jenin Governorate, W. Saqer, 2005

the same period. On the other hand, the minimum annual temperature average in Jenin exhibited an increase of around 2°C[10].

Table 3: Jenin Governorate Mean Monthly Dry Temperature for 2018

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Monthly Dry Temperature C° - 2018	12.8	15.0	18.6	20.5	25.8	26.7	28.5	28.3	27.7	24.5	18.7	14.7

In terms of humidity, Jenin governorate recorded 69% relative humidity for 2018, similar to the annual average.

Table 4: Jenin Governorate Mean Monthly Relative Humidity (%) for 2018

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	Min	Max
Mean Monthly Relative Humidity (%) - 2018	79	73	68	68	60	65	63	69	67	66	71	77	69	60	79

With respect to annual solar radiation, in the West Bank, Jericho recorded the highest number of hours per day with an average of 8.4 hours/day.

Table 5: Jenin Governorate Mean Monthly Sunshine Duration for 2018

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	Min	Max
Mean Monthly Sunshine Duration (hr./day) -2018	4.6	5.1	7.8	8.8	8.7	11.5	11.3	10.6	9.8	7.2	5.6	4.1	7.9	4.1	11.5

While for evaporation, Jenin recorded an annual monthly average of 5.7 mm, with the maximum of 9.3 mm in July.

Table 6: Jenin Governorate Mean Monthly Evaporation (mm) for 2018

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	Min	Max
Mean Monthly Sunshine Duration (hr./day) -2018	4.6	5.1	7.8	8.8	8.7	11.5	11.3	10.6	9.8	7.2	5.6	4.1	7.9	4.1	11.5

4.4.2. Tubas Governorate

Tubas city is characterized by a moderate climate; the summer is hot and dry, whilst the winter sees a lot of rainfall. The mean annual rainfall in Tubas city is 329 mm; the average annual temperature in Tubas city is 21 °C, and the average annual humidity is 56 % (ARIJ GIS[11]).

Tubas governorate lacks a dedicated weather station for the collection of monthly data on key meteorological parameters such as mean temperatures, humidity, evaporation, and sunshine duration. Consequently, it is not featured in the annual climate bulletin published by the

[10] Palestinian Ministry of Transport, Meteorological Authority, 2018 Annual Climate Bulletin
[11] http://vprofile.arij.org/tubas/static/localities/profiles/109_Profile.pdf

Palestinian Meteorological Authority. Nonetheless, due to its geographical proximity to Jenin governorate, it is plausible to infer that their climate characteristics share similarities. Notably, as one moves eastward towards the Jordan Valley area, the climate tends to exhibit more pronounced extremes, characterized by heightened dryness, elevated temperatures, and reduced precipitation levels.

4.5. Soil

4.5.1. Jenin Governorate

In terms of soil composition, the Jenin Governorate is renowned for its fertile agricultural land, which can be categorized into four major soil types:

1- Terra Rossa, Brown Rendzinas, and Pale Rendzinas: These soils cover approximately 29,000 hectares of the Jenin Governorate area, with 30-50% of them featuring exposed rocks.

2- Brown Rendzinas and Pale Rendzinas: Occupying a total area of around 11,300 hectares, these soils also have 30-50% of rock outcrops, similar to the previous soil type.

3- Pale Rendzinas: Spanning a relatively smaller area of approximately 450 hectares, these soils are located south of Ya'bad and characterized by highly calcareous gray and grayish-brown alluvial soil. Their parent materials consist of soft chalk and marl. Due to their shallow nature, these soils are mainly used for grazing.

4- Grumusols: Covering about 17,000 hectares of the governorate, this soil association is predominantly found in almost flat topography. The soil originates from fine-textured alluvial or aeolian sediments.

4.5.2. Tubas Governorate

The dominant soil type in Tubas area is Terra Rosa soil, Terra Rossa soil is heavy and clay-rich, with silty-clay to clayey texture, and strong reddish color. The bedrock of Terra Rossa is mainly hard dolomite and limestone rocks. Formation of the area Terra Rossa is closely related to the properties of the limestone substrate.

Water table is estimated at 250-meter depth, this provides enough protection for the ground water. The geological formation is (Terra Roza) with a high alkalinity (9-9.5) and an excessive salinity of 2-5%. Terra Roza soils are usually outcropped with rocks.

4.6. Electricity Infrastructure

4.6.1. Jenin Governorate

The Northern Electricity Distribution Company (NEDCO) is the main electricity provider in the North of the West Bank. According to its concession area, NEDCO is mandated to cover the entirety of the North Bank including areas of Salfeet, Nablus, Jenin, Tubas, Tulkarem, Qalqilya[12]. However, the case on the ground is different, as many local councils are not yet covered by NEDCO and still purchase their electricity directly from the Israel electrical corporation (IEC), where the electricity grids are still owned and operated by municipalities, village councils, and Joint Service Councils (JSCs).

[12] http://www.nedco.ps/default.asp?ID=11

4.6.2. Tubas Governorate

Tubas Electrical Network is provided by IEC through an overhead transmission line of 33 KV, where Tubas has its own electricity distribution (TDECO). The main supply for electrical distribution network in the tyaseer. And the voltage of the existing distribution networks are 33 KV only. IEC supplies electricity to the electrified communities by 33 KV by overhead lines . Electricity is purchased from IEC and then distributed to the consumers. Palestine has not yet a unified power system , the existing network is local low voltage distributions networks connected to Israeli electrical corporation (IEC) , where around 97% of consumed energy were and still supplied by the IEC[13].

4.7. Socio-economic Situation

4.7.1. Jenin Governorate

The current population of Jenin Governorate is distributed among 96 community centers, including 6 urban, 89 rural, and 1 refugee camp. According to the Palestinian Central Bureau of Statistics (PCBS) 2021 data, the population of Jenin governorate in 2017 was 312,135, and it is projected to reach 374,041 by 2026.

The population density for Jenin governorate is 537 individuals per square kilometer. The population of Jenin governorate constitutes 6.6% of the total Palestinian population, with the governorate having 65,495 families, accounting for 7% of the total Palestinian families, as per the PCBS 2017 census.

The annual population growth rate of the governorate is 3.8% according to PCBS data from 2015. In 2020, the distribution of the population in the governorate was as follows: 61.2% living in urban areas, 35.5% in rural areas, and 3.3% in refugee camps. This indicates a significant shift in the demographics compared to 1996 when rural areas had the highest percentage of residents (61.7%), followed by urban areas (27.6%), and refugee camps (6.3%).

Regarding employment, Jenin governorate had an unemployment rate of approximately 20% in 2020 according to PCBS. In terms of education and literacy, there were 7,301 illiterate citizens in Jenin, comprising 2.3% of the total governorate's population, with 1,348 males and 5,953 females. Furthermore, 13% of the governorate's population attained an associated diploma or higher education.

In 2017, Jenin governorate had 14,313 economic institutions encompassing various sectors such as agriculture, industry, workshops, and stores. Agriculture, which once played a crucial role in the governorate's economy, has seen its contribution to GDP diminish in recent years due to urbanization, low remuneration for farmers, and higher risks associated with agricultural industries. On the other hand, stone cutting and quarries have become significant contributors to Jenin's economy, with many agricultural lands being transformed into quarries.

4.7.2. Tubas Governorate

Tubas Governorate, covering 401 square kilometers, had a population of 60,186 in 2017, which increased to an estimated 65,915 in 2021 according to PCBS Statistics. The

[13] Annajah University: https://repository.najah.edu/bitstreams/c4af587a-12d5-461c-9058-0e08baaf41c3/download

governorate is divided into 21 community centers[14], with a population density of 163 people per square kilometer. It experienced a 1.9% annual growth, contributing to 1.3% of Palestine's total population[15].

Most residents live in urban clusters like Tubas, Aqaba, and Tamoun, with a lower rural population. Bedouin clusters and the Al-Far'a refugee camp are also present in the governorate[16]. The unemployment rate stands at 12.4%, and illiteracy affects 7.5% of the population aged 10 years or more[17].

Tubas Governorate encompasses numerous localities, including Tubas City, Marj Naaja, Bardala, Az-Zubeidat, Ain Al-Bayda, Marj Al-Ghazal, Kardala, Al-Jiftlik, Khirbet Tel Al-Jamea, Fasayil, Abziq, Al-Auja, Sahel, An-Nuway'imah, Tayasir, Ain Ad-Duyuk Al-Fawqa, Al-Farsiyya, Makhif Ain As-Sultan, Al-Athba, Deir Al-Qilt, Al-Malih, Makhif Ain Adh-Dhib, Kishda, Deir Hajla, Khirbet Yirza, An-Nabi Musa, Ras Al-Far'a, Makhif Al-Far'a, Ar-Ras Al-Ahmar, Wadi Al-Far'a, Tammun, and Khirbet 'Atuf.

4.8. Historical and Cultural Heritage

4.8.1. Jenin Governorate

Jenin, holds a rich tapestry of historical gems. The Burqin Church, a 1500-year-old Christian site, and the Grand Mosque crafted by Fatima Khatoon reflect the city's religious diversity. Notably, the Bal'aama Tunnel, longest in Palestine, located at the southern entrance of Jenin. Tel Al-Hafeerah (Tel Dothan), renowned for Canaanite, Arabic, and Islamic influences. Abdul Hadi Palaces, 19th-century architectural wonders, served various functions. The historic Saraya (Fatima Khatun School), once a government center, later became a school. The Sanur Castle, a defense stronghold, located in the village of Sanur, 25 kilometers south of Jenin. The Iraqi Soldiers Martyrs' Cemetery and the German Memorial honor respective histories. Natural

[14]https://repository.najah.edu/server/api/core/bitstreams/24543f33-eb59-4457-9a87-c7e6da247b28/content
[15] PCBS 2017 Statistics
[16]https://repository.najah.edu/server/api/core/bitstreams/24543f33-eb59-4457-9a87-c7e6da247b28/content
[17] http://www.pipa.ps/page.php?id=21f873y2226291Y21f873

beauty thrives in the Araba Cave, boasting captivating formations in a 350-square-meter underground expanse[18].

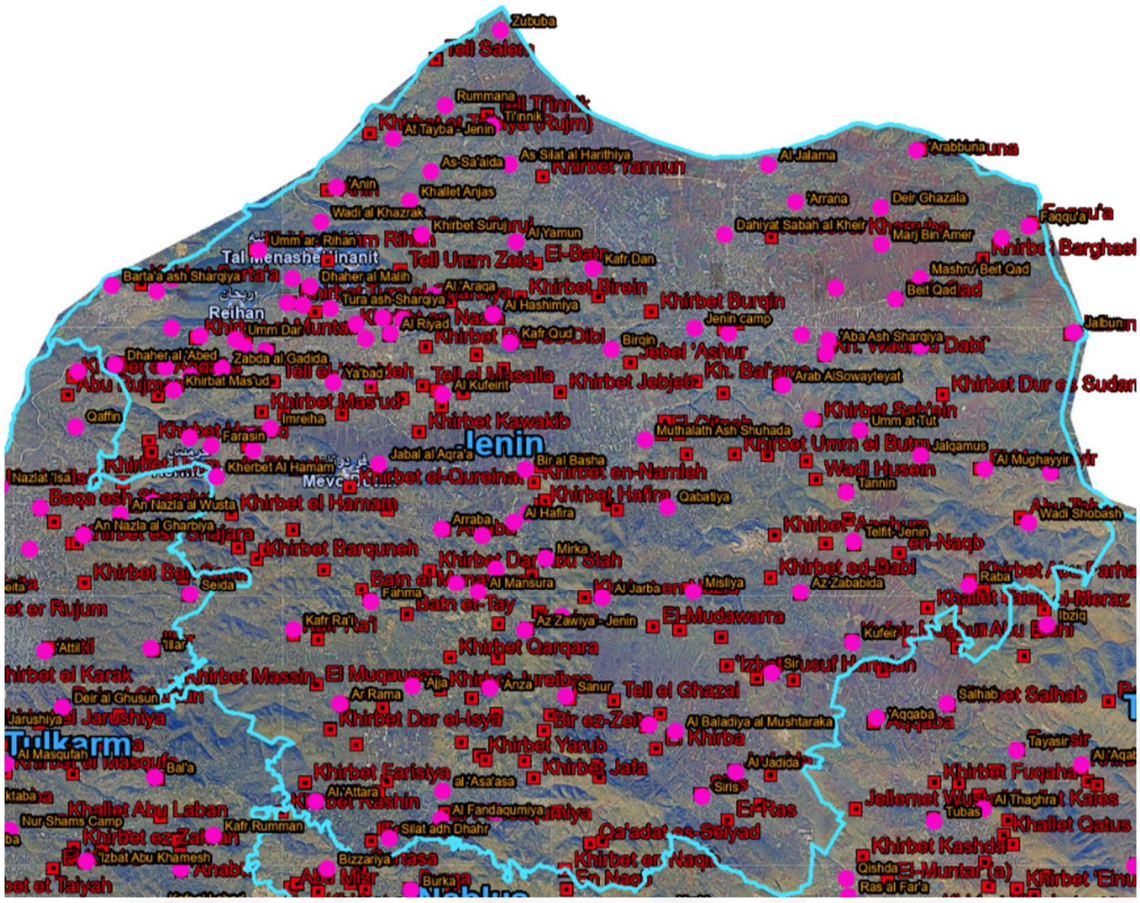

Figure 16: List of Historical and Archeological Sites in Jenin Governorate According to MoLG database

4.8.2. Tubas Governorate

There are many archaeological, natural and historical sites in the governorate of Tubas. The most important of these are the Tell of Al-Fara'h, which was inhabited during the Neolithic Period, Bronze Age and Iron Age, as well as Al-Fara'h Tower, Ain Al-Beida and Al-Malih[19]. There are also six mosques (e.g. Abd ar-Rahan Mosque, al-Tawled Mosque, Umar ibn al-Khattab Mosque, and Shaheed Mosque). And an Orthodox Church located in the northern part of the city, the Holy Trinity Orthodox Church, built in 1976 to serve the small Orthodox Christian community[20].

There are also various significant archaeological sites. Khirbet Yirza, an ancient Canaanite city, features rock-cut tombs. Khirbet Jabaris includes tower ruins, mosaic floors, and rock-carved tombs. Salhab, at 400 meters above sea level, offers ruins, mosaic courtyards, and stone wells. Ein Al-Fara'ah, Tell Al-Fara'ah, Khirbet Umm Al-Qabaa', Khirbet Al-Ghrour,

[18] https://info.wafa.ps/ar_page.aspx?id=3460
[19] https://www.travelpalestine.ps/en/category/33/1/Tubas
[20] https://visitpalestine.ps/tubas-intro/

Khirbet Einon, Al-Fara'ah Tower, and Khirbet 'Atuf, all contributing to Tubas's rich historical heritage.

Both governorates boast many other historical and archeological sites that are displayed in the map 16 and 17. The company should take appropriate measures to avoid sites of historical value when conducting installations, and if avoidance is not possible, adequate and stringent mitigation measures shall be in place in full liaison with the relevant authorities including municipalities and MoTA.

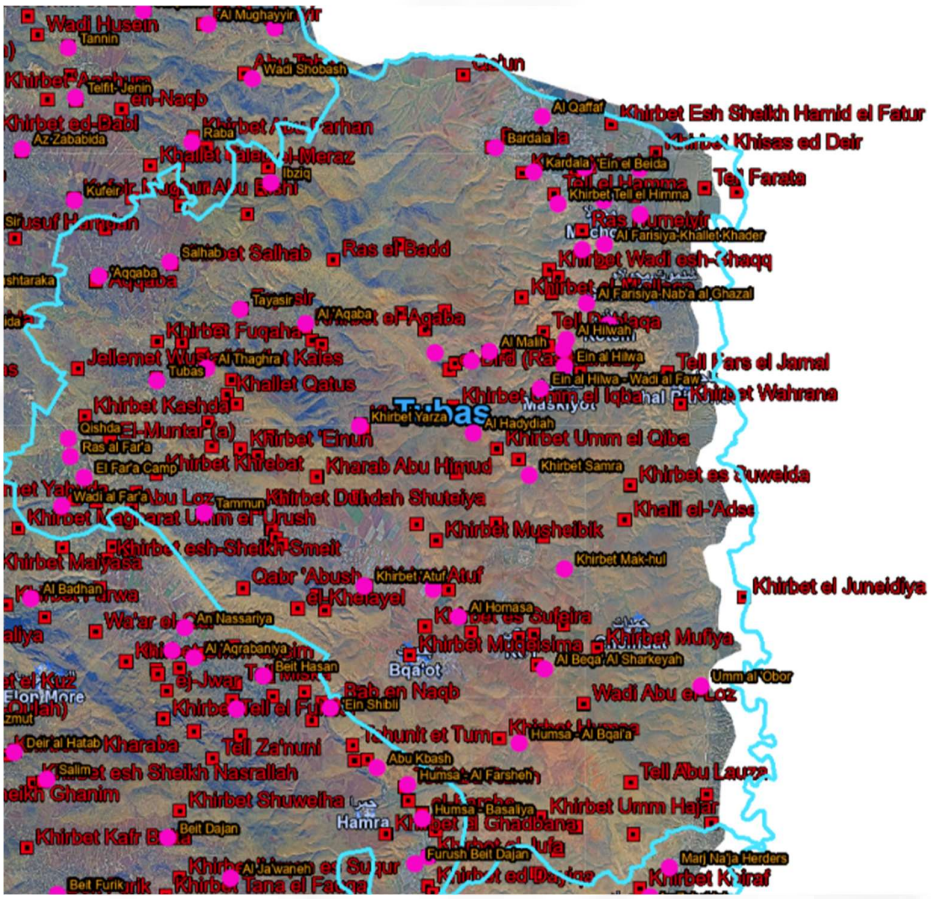

Figure 17: List of Historical and Archeological Sites in Tubas Governorate According to MoLG database

4.9. Health Care

4.9.1. Jenin Governorate

Jenin governorate has three main governmental hospitals; Khalil Sleiman hospital, Ibn Sina hospital, and Al Razi hospital[21], in addition to one private hospital. Additionally Jenin

21

www.acaps.org/fileadmin/Data_Product/Main_media/20230712_ACAPS_Briefing_note_Palestine_escalation_of_violence_in_Jenin.pdf

governorate contains 56 primary healthcare clinics managed by MoH[22], 7 non-governmental (private) clinics, 6 managed by UNRWA, and 1 millitary medical services health center[23].

4.9.2. Tubas Governorate

In Tubas governorate, there is only one governmental hospital, the Tubas Turkish hospital, in addition to 12 primary health care centers managed by MoH, 2 private clinics, 1 UNRWA, and one military medical services health center, constituting the lowest healthcare facilities in number among the Palestinian governorates[24].

4.10. Solid and Construction Waste Management

For this section, the infrastructure for solid and construction waste is common between the two governorates.

In Jenin, the Joint Services Council (JSC) of Jenin is responsible for the management of one of the three main landfills in the West Bank, Zahret Al Finjan, which is located in the northeastern part of the West Bank between Arraba and Ajja towns of Jenin Governorate at a distance of 18 km to the south of Jenin city, 26 km of Tubas. It is spread over a land area of about 240,000 m^2; 90,000 m^2 out of the area used as waste cells. The landfill was completely conducted and operated in June 2007, and was designed to landfill municipal solid waste from Jenin and Tubas governorates. Currently, it is receiving wastes from Tulkarem and parts of Nablus, Ramallah and Al-Bireh governorates[25].

In terms of solid waste management for Jenin JSC, it covers 93.4% of Jenin governorate population and collects 21% of solid waste through collection in Transfer Stations (TS) and then to Zahret Al Finjan Landfil, where the other 79% is directly sent to Zahret al Finjan. On the other hand, in Tubas through the Tubas JSC, 100% of the waste is sent to Tubas TS and then to Zahret Al Finjan landfill[26].

In terms of construction and demolition waste, such waste is usually not accepted in municipal landfills in the West Bank, resulting in random disposal along roads, wadis, or private lands. In the West Bank, 21 dumpsites receive construction and demolition waste. Zahret Al Finjan does not receive construction waste unless in rare cases for specific projects and liaison and as such, with the absence of a regulatory framework and sanitary landfills, construction and demolition waste disposal remains unregulated[27]. As such, disposal of construction and demolition waste is liaised with the relevant municipalities, in approved locations by each JSC.

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[22] Health Annual Report (MoH) June 2023: ttps://site.moh.ps/Content/Books/7B3a7X1pBCWOEINRCY7q9EWTDQUqfaw9pPoeWDZ6OsSLnxZqVGBuyY_rDZGco6Zb5437Fqi2OJDNvtmezzUdHQ79UmhKgrDjxmrzxFxoI5Zeu.pdf

[23] http://www.pipa.ps/page.php?id=238239y2327097Y238239

[24] Health Annual Report (MoH) June 2023: ttps://site.moh.ps/Content/Books/7B3a7X1pBCWOEINRCY7q9EWTDQUqfaw9pPoeWDZ6OsSLnxZqVGBuyY_rDZGco6Zb5437Fqi2OJDNvtmezzUdHQ79UmhKgrDjxmrzxFxoI5Zeu.pdf

[25] ps://staff.najah.edu/media/published_research/2017/11/12/Zahrat_AlFinjan_Landfill_Final-Published-IUG_Journal.pdf

[26] www.cesvi.eu/wp-content/uploads/2019/12/SWM-in-Palestine-report-Thoni-and-Matar-2019_compressed-1.pdf

[27] MoLG, JICA: Construction and Demolition Waste and its Management in West Bank, Palestine, 2021

5. Institutional Arrangements and site-Specific Screening

5.1. Site-Specific Screening and Exclusion Criteria

Bnet Co. is in the process of hiring an Environmental and Social Officer (ESO) who will play a crucial role in overseeing the implementation of the Environmental and Social Management Guidelines. The ESMG encompasses various mitigation measures and management plans, including the Occupational Health and Safety (OHS) plan.

As Bnet Co. continues to finalize agreements with different localities within Tubas and Jenin governorates, the nature of site-specific conditions is still evolving. In anticipation of these developments, the ESMG, along with its site-specific screening procedures outlined in Annex I, has been designed to equip Bnet Co. with the necessary tools. These tools will enable the company to conduct thorough assessments of the unique conditions of each route and locality once they are assigned. Additionally, this approach ensures that the mitigation measures implemented align precisely with the scope of activities carried out in these specific locations.

As such, the process will include the following steps:

1. Bnet Co. ESO to conduct a site/ route specific assessment of the proposed location through the utilization of Annex I form.
2. Bnet Co. ESO to share the filled and signed form with the PIA prior to initiating any works on site.
3. Once the PIA provides Bnet Co.'s ESO with a formal written no-objection, Bnet Co. can commence the installation works on site given that all comments from the PIA have been addressed and any updates required to the ESMG have been conducted.
4. The ESO in turn shall ensure that all mitigation measures are adhered to during the installation phase.

Exclusion Criteria:

The following criteria shall be screened against once the locations and routes have been identified, if the proposed sites and routes meet any of the following crtieria they have to be excluded and alternatives shall be investigated;

- Protected Areas and Critical Habitats: Locations designated as legally protected areas, critical natural habitats, or conservation areas where infrastructure projects could lead to significant degradation.
- Cultural Heritage Sites: Areas of important cultural, historical, or archaeological significance that are protected under national or international conventions.
- High Biodiversity Value: Zones of high biodiversity value, including critical ecosystems.
- Encroachment and Livelihood impacts: any installations that require encroachment to privately owned land shall be excluded. Installations are only to take place within the right of way and over the existing electricity infrastructure.
- Locations where impacts on livelihoods of residents and community could arise as a result of utilizing the right of way for the project.
- Locations where the project could result in resettlement of individuals or families or require the acquisition of land (public or private, temporarily or permanently) for its development.
- Any location where the subproject results in the temporary or permanent loss of crops, fruit trees and household infra-structure.

- Areas where installations might have a significant impact on the public infrastructure (i.e., water network, wastewater network, another telecommunication network)

5.2. Institutional Arrangements

Bnet Co. holds critical duties and responsibilities throughout the entire lifecycle of the project. During the installation phase, Bnet Co. assumes supervision responsibilities, ensuring that all aspects of the project are executed safely, efficiently, and in accordance with established measures. This includes overseeing contractors and the deployment of fiber optic infrastructure, coordinating installation activities, and managing the project's environmental and social impacts. Furthermore, during the operational phase, Bnet Co. takes on the overall implementation and management responsibility, ensuring the uninterrupted delivery of high-quality FTTH services to end-users. This encompasses network monitoring, maintenance, customer support, and compliance with all relevant regulations and quality standards. To enhance its capacity for environmental and social oversight, Bnet Co. has recently hird an Environmental and Social Officer (ESO), whose detailed Terms of Reference (TOR) are available in Annex II.

5.3. Contractors' Duties and Responsibilities During Installation

This section describes the Environmental and Social duties of Contractors and any subcontractor with regard to the realization of the project. The Contractors (defined to include both contractors and any subcontractors) shall mirror in their activities the ESMG and its management plans and SOPs, as the Contractors should be more familiar with, but not limited to, the installation works, their workforce, and the health and safety risks and measures to be identified while working with each route and the different installation mechanisms whether be it through existing electricity infrastructure or the deployment of poles. Hence, for any specific activities that need further elaborating plans, it is their responsibility to review the ESMG and its management plans, and to update them to reflect any additional risks or mitigation measures that need to be implemented to ensure overall safe working environment to their workers, the public, and the company's property.

The ESMG is designed to monitor the effectiveness of the identified mitigation actions, during and after construction. The construction phase related risks and their mitigation measures should be incorporated in the bidding documents to be issued to contractors and should also be part of the awarded contracts to these contractors, constituting a part of the legal agreement. These measures will include the required mitigation requirements for the installation phase, and will include the Grievance Mechanism requirements, OHS Plan, ERP, Traffic Management Plan, coordination, monitoring and reporting.

Bnet Co. will hire and assign an environmental and social officer (ESO) to supervise the E&S aspects of the installation phase and to oversee contractor's adherence to the ESMG and for periodic monitoring of the environmental and social aspects during the installation phase.

The contractor shall understand that through this ESMG, being a legal part of the contractual agreement, any noncompliance to the environmental and social measures and the mitigation actions highlighted in this ESMG constitutes a breach of the legal agreement. Written warnings will be provided in such cases, failure to comply with these measures will reinforce the same penalties that are instated in the contract.

The contractor shall be responsible for;

- Ensure fulfillment of all requirements of the relevant ESMG and its matrices measures during the installation phase, the corresponding management plans, the application of the mitigation measures, and reporting.
- Adhere to the OHS responsibilities of the contractor in accordance with the ESMG OHS Plan (Annex VII)
- Designate an E&S focal point to follow up with Bnet's ESO.
- Monthly progress reports including E&S aspects to be shared by the contractor with Bnet.
- The contractor shall develop a Traffic Management Plan in line with the project's ESMG. The plan is to be developed by the successful bidder upon notification of intent to award. The Contractor shall furnish the traffic management plan for the owner's approval within 3 weeks from the notice, The Project proponent shall review and provide comments, if any, within 1 week from receiving the plan, and to be approved after appropriately addressing the comments within 1 week.
- Report to the site supervisors and ESO and consult with them to obtain full understanding of the potential impacts associated with each activity, the sound application of mitigation measures, manage any unforeseen impacts or incidents, and apply the monitoring requirements.
- Update the ESMG and the management plans to reflect the actual situation on field, conduct continuous reporting to the site supervision engineer.
- The cost of the implementation of the mitigation and monitoring measures are part of the contract awarded to the contractor.
- Providing follow-up and analysis of environmental and social accidents.
- Prompt notification of accident and incidents and keeping an incident register at construction site throughout the Project life. Accident notification shall be conducted verbally on the same day of occurrence, with a follow up detailed report within 48 hours.
- Labor rights and conditions of workers shall be in accordance with national laws, including but not limited to the PLL and the minimum wage act No.4 of 2021, and in accordance with the requirements of this ESMG.
- The contractor shall commit to providing their workers with insurances in line with the PLL.
- Contractors shall provide their workers with a functioning grievance mechanism
- Where applicable, the Contractors shall provide first aid kits, fire extinguishers, a vehicle shall be always available to transport individuals in cases of injuries.
- Implementation of all other requirements and measures defined in this ESMG and its management plans.

6. Potential Environmental and Social Impacts and Proposed Mitigation Measures

The proposed project will consist of three main phases; (i) Planning Phase, (ii) Installing phase and (iii) operational phase. The planning phase will include incorporating environmental and social concerns identified in this E&S management guidelines into the site selection and planning phase of the project, where following the identification of localities, Bnet Co.'s ESO shall conduct a site-specific E&S Screening in line with Annex I's screening form to assess the site's E&S conditions in line with this guideline to ensure that no additional O.Ps are triggered and that the risks are accounted for with appropriate and relevant mitigation measures. The construction and installation phase will include the excavation works for installing the wooden poles with different depth (120cm or 140cm), laying fiber cables, installing iron base plates, install fiber boxes and re-paving the street side. The operational phase will involve the various activities as described in section 2.6 which revolve around service provision, network monitoring and management, customer support, maintenance and repairs, quality assurance, network expansion, upgrades and technology advancements, compliance and regulations, and community engagement.

The main potential impacts that could arise from the different phases of the Project were identified and their significance was assessed so that any potentially significant impacts can be properly mitigated and monitored. The assessment of potential impacts has been done through analyzing different project activities, their relevant E&S risks, probability of materialization, duration of potential impacts, and their respective area of influence. As such, envisaging possible changes to the physical and social environments. Each potential impact was qualitatively analyzed to classify its significance. Further classification was illustrated for each impact into positive and negative impacts, short-term and long-term impacts as well as clearly identifying any impacts that may not be mitigated.

The consultant conducted a desk review of Bnet Co. business plan, the environmental and social audit and screening reports provided by the Finance for Jobs II Project, environmental and social reports (ESIAs / ESMPs) for similar projects, legislations and GIIPs, scientific articles and publications, situational reports, and other data to conduct a comprehensive analysis of all baseline conditions, associated potential risks and impacts, and their appropriate mitigation measures. In addition to site visits were conducted by the consultant's team to gather information from the site and provide physical analysis of the site's conditions in relation to planned activities.

As a basis for this ESMG, screening of the project's environmental and social risks has been conducted in accordance with the F4J II Project's Environmental and Social Management Framework (ESMF). The ESMF contains a description of screening process required for projects that apply to obtain financing from the F4J against potential environmental and social impacts, the ESMF provides a detailed guideline for proper assessment, mitigation, and monitoring of potential environmental and social impacts. Any project that applies for the F4J is screened firstly in accordance with the F4J's ESMF and the World Bank's O.Ps, projects that are eligible for financing then are referred to additional environmental and social assessment. Therefore, the findings of the screening report have been considered and have been the basis for the results of this ESMG.

For Pre-construction phase, section 5.1. below portrays the environmental and social risks that must be considered as early as during the pre-construction (design) phase of the project to ensure that appropriate mitigation measures are being considered in the overall project design.

6.1. Project Expected Positive Impacts

I- CONSTRUCTION AND INSTALLATION PHASE

The generation of 150 full time equivalent new job opportunities during construction, will be over a short duration (10 months of construction and installation). Additionally, these jobs will be temporary. As for economic impacts, the construction and installation size are large, but its short term, so the impacts associated with them, will provide positive impacts to the extent of employing contractors and engaging suppliers.

As such, the socio-economic and employment impacts during the construction and installation phase are moderate positive impacts with a mid-term duration.

I- OPERATIONAL PHASE

In addition to 75 direct job opportunities, the project is expected to create an additional 30 indirect jobs. These are expected to come via Bnet Co's existing network of promoters, distributors, and media agencies, which play a critical role in its operations. Per the feasibility assessment, the PIA anticipates that the expansion project will lead to the creation of one indirect job opportunity in each of the localities, either in the form of a promoter, distributor, or a marketing agency employee.

The operational phase of the project will entail different impacts that are expected to be positive on the local societies and economy.

- JOB CREATION: The project is expected to create approximately 255 jobs, including direct and indirect employment opportunities. This can significantly boost the local economy, providing employment to both men and women in the community.
- WOMEN'S EMPOWERMENT: The inclusion of women in the workforce (around 20%) is a positive step toward gender diversity and women's economic empowerment. It can contribute to greater gender equality in the area.
- ECONOMIC GROWTH: The introduction of high-speed internet infrastructure can attract businesses and investment to the rural area, potentially leading to economic growth and diversification.
- IMPROVED ACCESS TO INFORMATION: The availability of high-speed internet can enhance access to information, education, and healthcare services for the local population, improving their overall quality of life.
- EDUCATION OPPORTUNITIES: Improved internet connectivity can facilitate distance learning and online education, expanding educational opportunities for residents, including those in remote areas.
- IMPROVED SERVICES: healthcare services, businesses, and governmental services quality are expected to be enhanced due to being provided with better internet access quality and competitive prices allowing for a better service delivery.
- ENTREPRENEURSHIP AND INNOVATION: Access to the internet can foster entrepreneurship and innovation, allowing local residents to explore new business opportunities and markets.
- COMPETITIVE ADVANTAGE: The presence of a fiber network can give the company a competitive advantage in the market. It may attract more customers and revenue, leading to increased business growth.

6.2. Assessment of Capacities and Capacity Building

- The company during the E&S audit and screening did not display adequate capacity for the management of the environmental and social aspects of the project's implementation.
- The company has agreed upon the recommendations of the E&S screening report to hire an Environmental and Social Officer (ESO) to assist in the implementation of this

ESMG as well as to ensure that site-specific screening is being conducted for each locality for which works shall commence.
- Site specific E&S Screening to be conducted by the ESO for each new locality / segment / route in accordance with the screening form available in Annex I.
- Capacity building particularly on Occupational Health and Safety (OHS) and E&S measures stated in the ESMG have to be provided to the company's staff by Bnet Co. ESO.

6.3. Planning Phase

6.3.1. Land Use and Right of Way

- Bnet Co. Shall ensure that all agreements are signed with the local councils prior to installation so that clear routes are identified within the right of way to avoid any encroachment of land.
- The agreements shall specify and clarify the rights and responsibilities of the company as well as the council and shall designate the installation areas to be within the right of way designated for municipal infrastructure in the case of installing poles, and to specify the use of electricity infrastructure in localities where installations will be over the electricity infrastructure.

6.3.2. Noise

- Noise mitigation measures and relevant noise standards as highlighted in chapter 3 must be integrated into bidding documents for contractors to comply with and for equipment purchased to ensure that any resulting noise or nuisance is within the acceptable limits set by the Palestinian Standards for Ambient Noise.
- For localities where installations will be through the erection of poles, identify the distance between the residential areas and the location of the excavation works, during the screening and planning phase in each locality, to ensure that the mitigation measures will be applied well.

6.3.3. Traffic and Vehicular Movement

- Include the requirement for the preparation of traffic management plans in the bidding documents and contracts signed with the contractors.

6.3.4. Labor and Working Conditions

- Ensure that all safety equipment are provided including PPEs, first aid kits, hats, and drinking water source prior to beginning installation works.
- Ensure that all workers to be hired have contracts that adhere to the PLL, this shall apply as well to contractors who shall adhere to the PLL, Ministerial Decisions on OHS, and the Minimum Wage requirements.

6.4. Installation & Operational Phases

6.4.1. Impacts on Air Quality

- This risk is relevant to the localities where installations will be through the use of company poles.

I- INSTALLATION PHASE

❖ ***Risks:***

- FUGITIVE DUST: FUGITIVE DUST: During the installation phase for localities that will be connected with company owned poles, the removal of pavement layers on the sidewalk and the soil is the main activity that is associated with impacts on air quality. Fugitive dust from disturbing and moving soils (excavating, backfilling, dumping, and truck and equipment traffic), is associated with this phase.
- VEHICULAR EMISSIONS AND DUST FROM UNPAVED ROADS: Roads in some localities, particularly rural areas, are not paved. And as such, movements of vehicles in an uncontrolled manner can cause dust propagation. Additionally, the use of old and maintained vehicles can exacerbate generated fumes.
- PILING OF EXCAVATION AND CONSTRUCTION WASTE: The piling of excavated soil and construction waste on site could extend the magnitude of the risks to air quality, increasing the quantities of propagated dust to adjacent areas, causing health impacts to surrounding communities.

II- Operation PHASES

❖ ***Risks:***

- FUGITIVE DUST: During the operation phase, the re-excavation to do maintenance, may result in dust propagation, however this is expected to be short in duration, and low to negligible in impact.
-

❖ ***Mitigation Measures***

- Excavation dirt shall be used to backfill the holes made for the installation of poles as much as possible given that the material is according to backfilling standards. Where any non-conforming excavation waste shall be collected and transported to authorized dumping site.
- Ensure all equipment and vehicles used during the project meet emission standards and are well-maintained to minimize exhaust emissions. Encourage the use of electric or low-emission equipment where feasible.
- Proper housekeeping to ensure that no debris or waste material remain on site that could propagate overnight.
- Provide workers with facemasks and adequate PPEs.
- Proper activity scheduling; this includes working hours and days and limit the activities to daytime. Ensure checking weather conditions every day to avoid activities that could result in dust generation on windy days.
- Using maintained and new construction and transportation vehicles as appropriate and maintain in accordance with the manufacturer's maintenance schedule, this can be ensured by requesting and checking the vehicles licenses, logs, and registration from the contractor.

❖ ***Significance:***

The impacts on air quality from dust and construction vehicles emissions are mainly relevant to the installation phase. These are mainly restricted spatially to unpaved areas. The potential impacts on air quality during construction are considered low in significance and short term in nature. During the operational phase of the project, these risks are expected to be accompanied only with maintenance works for poles as needed, and as such they are low to negligible in magnitude.

6.4.2. Noise

❖ ***Risks:***

I- INSTALLATION PHASE

- NOISE FROM EQUIPMENT AND MACHINERY: The operation of construction equipment such as excavators, and backhoes can generate localized noise levels. This may include engine noise, hydraulic machinery noise, and mechanical equipment noise. Depending on the soil type and the scope of work the activities, different machinery will be needed according to the depth required to install the wooden pools (from 1.2m to 1.4m).
- WORKING PAST DESIGNATED HOURS: the Palestinian outdoor noise level guidelines establish specific levels for noise during daytime and lower ones for nighttime depending on the nature of the area. As residential zone, the permissible levels are 50 dBA during daytime and 40 dBA during nighttime. Where daytime is defined as from 7AM to 7PM. A risk during this phase of the project is to exceed these levels especially if any works, for any reason, are to be conducted during nighttime.
- VEHICLE TRAFFIC: Increased construction-related traffic, including the movement of trucks, heavy machinery, and construction vehicles, can contribute to elevated noise levels, especially if construction vehicles are not adequately muffled or controlled.
- SITE LOCATION: The proximity of the installation sites to residential areas, schools, hospitals, or other noise-sensitive receptors can increase the potential for noise complaints and community disruptions.

II- OPERATIONAL PHASE

- HOUSEHOLD CONNECTIONS: Drilling or using some tools to connect the households or the other facilities with the network may cause some noise impacts. In addition to the noise that may result from the maintenance activities on the street units, or during changing/fixing the cables.

❖ ***Mitigation Measures***

- Restrict excavation, drilling and other noise generating activities to daytime only.
- Use modern construction equipment that meets noise emission standards.
- Maintain construction equipment regularly to reduce noise generated by engine, hydraulic, and mechanical components.
- For workers safety, ensure workers utilize hearing protection equipment as needed.
- Encourage the use of quieter equipment and machinery where feasible.
- Coordinate with sensitive receptors when installations are close to their premises and in liaison with the local councils (e.g., hospitals, schools, mosques).
- Ensure that noise levels do not exceed the recommended guidelines. Where some activities inevitably produce noise levels that are higher (drilling), these must be short duration and not exceed the NIOSH recommendations[28] and OSHA 1910.95 (a)&(b) regarding exposure periods to different noise level.
- Ensure that heavy machinery or any noise producing activities are prohibited after 7PM till 7AM and all-day during Fridays and any public and local holiday, unless an approval has been obtained by the local authorities.

[28] https://www.cdc.gov/niosh/topics/noise/default.html#:~:text=The%20NIOSH%20Recommended%20Exposure%20Limit,this%20level%20are%20considered%20hazardous.

❖ ***Significance:***

The residual impacts on noise and nuisance generation are low spatially to the areas directly close to the site and decrease significance with distance. Moreover, installation works are short in duration especially for localities utilizing the electricity infrastructure. Where in the operational phase the significance of noise impacts are negligible to low, and are localized to any maintenance activities' location, as well as being short-term and non-continuous. After the implementation of the mitigation measures, the noise risks during construction are considered moderate in significance and short term in nature.

6.4.3. Biota

❖ ***Risks:***

- *This risk is only relevant to the installation phase of the project, particularly for localities where FTTH connections will be made by the erection of poles.*

I- INSTALLATION PHASE

Jenin and Tubas governorates contain areas of biodiversity and natural reserves and in different localities. In Jenin, areas around Aqqaba, Al-Araqa, Silet-Addahr and Qabatya contain biodiversity areas that the installations need to consider, with Tubas containing only areas on the border of Jenin that have been identified to contain high biodiversity areas close to Aqqaba. Areas of Natural reserves and biodiversity have been detailed in Chapter 4. On the other hand, Tubas contains vast areas of natural reserves concentrated around Tubas city, Shubash, Tayaseer, and the Eastern Jordan valley areas.

- HABITAT DISRUPTION: Excavation or any construction activity can disrupt local habitats, including soil, vegetation, and potential nesting sites for wildlife. This disruption can temporarily displace or harm local plant and animal species.
- VEGETATION REMOVAL: Clearing vegetation to make way for equipment or erection of poles can directly affect plant life. This can include the removal of trees, shrubs, and ground cover, which can disrupt local ecosystems and remove food and shelter sources for wildlife.

❖ ***Mitigation Measures***

- Avoid areas designated as areas of high biodiversity or areas of natural reserves and seek alternative routes as applicable and feasible. In cases of erection of poles, and if no other routing options exist, ensure maintaining the infrastructure to the right of way and preferably erect poles on paved areas so to minimize impact on the biodiversity. Minimize vegetation removal by carefully planning the route of the fiber network. Ensure carefully selecting the location for each pole to minimize impact on vegetation.
- Ensure that the E&S Screening is conducted for each route, particular attention on biodiversity matters should be ensured for localities that will be connected through the erection of company owned poles, as this risk is nearly negligible for localities that will be connected through utilizing the existing infrastructure.
- Avoid natural reserves and biodiversity areas through the use of existing utility and transport corridors.
- Ensure the contractor's commitment to the ESMG and the recommended mitigation measures, to assess potential impacts on local biota and ecosystems. This can help identify sensitive areas that require special protection measures.
- Limit working activities for the installation works during daytime.

❖ ***Significance:***

The impacts regarding biological resources and the biodiversity from the installation phase are low depending on the locality and installation method (i.e., poles or electricity infrastructure). Therefore, site-specific screening using the Checklist in Annex I is important before confirming the final route or the installation methodology for each locality. After applying the specified mitigation measures, those risks are considered low to negligible in significance and short-term in nature.

6.4.4. Traffic and Vehicular Movement

❖ ***Risks:***

I- CONSTRUCTION & INSTALLATION PHASES

- TRAFFIC CONGESTION: installation work often requires the closure of lanes or even entire streets, leading to traffic congestion and delays. This can affect both local residents and commuters passing through the area.
- DETOURS AND ROAD CLOSURES: To accommodate the installation activities, detours and temporary road closures may be necessary, redirecting traffic along alternate routes, this may affect the human activities in the area.
- PEDESTRIAN SAFETY: installations on the street side, especially of poles, will disrupt pedestrian pathways, potentially leading to safety concerns. Proper signage, barriers, and designated pedestrian walkways are essential to ensure pedestrian safety.
- OBSTRUCTING ACCESS: movement of vehicles in rush hours and parking in front of entrances or on streets could obstruct residents access to their homes and businesses.
- ACCIDENTS: improper driving practices, speeding, overloading the vehicles, lack of maintenance of break and other mechanical parts of vehicles could cause accidents.

II- OPERATIONAL PHASE

- PEDESTRIAN SAFETY: Connectivity and maintenance works may occupy the street side, and this will disrupt pedestrian pathways, potentially leading to safety concerns.

❖ ***Mitigation Measures for installation, and operational phases***

- Contractors to develop a comprehensive traffic management plan that outlines installation schedules, lane closures, detours, and alternative routes. Communication with local authorities and law enforcement is essential for effective traffic control.
- Provide clear and visible signage to inform drivers of construction zones, detours, and speed limits.
- Ensure that traffic controllers are present with the installation teams.
- Ensure that vehicles are continuously maintained in accordance with the manufacturer's recommendations.
- Apply strict measures on safe driving practices, signaling, fastening safety belts, and adhering to speed limits.
- Implement measures to ensure pedestrian safety, such as designated walkways and crossings.
- Regularly inspect and maintain road surfaces to prevent damage caused by construction vehicles.
- Coordinate with emergency services to ensure uninterrupted access during construction activities.

❖ ***Significance***

Impacts on traffic are expected to be negative, local, short-term, and moderate in significance during the installation activities. Where in the operational phase the significance of traffic

impacts are negligible to low, and are localized to any maintenance activities' location, as well as being short-term and non-continuous.

6.4.5. Visual Impacts

❖ ***Risks:***

I- INSTALLATION & OPERATIONAL PHASES

- AESTHETICAL DESRUPTIONS: When fiber cables are installed using wooden poles, they may introduce above-ground infrastructure that can be visually obtrusive. The presence of utility poles and overhead cables can change the skyline.
- SKYLINE ALTERATIONS: The introduction of continuous cabling in the sky can alter the skyline of an area, changing the visual character and viewshed. This can be particularly noticeable in areas with unobstructed vistas or low-rise structures.
- CABLE CLUTTER: The proliferation of cables suspended overhead can create a cluttered appearance, detracting from the visual cleanliness and tidiness of an area. Multiple cables may crisscross streets, creating visual complexity.
- EQUIPMENT AND CABINETS: The installation of network equipment cabinets or junction boxes on sidewalks or streets can be visually disruptive if not well designed and integrated with the environment.

❖ ***Mitigation Measures for construction & installation, and operational phases***

- Invest in aesthetically pleasing design for above-ground infrastructure, such as wooden utility poles and cabinets, to blend with the surroundings.
- Ensure good workmanship when installing cables and poles.
- Repave the streetside after finishing the works.
- Incorporate landscaping and vegetation restoration efforts to compensate for any vegetation removal and improve the visual appeal of the area.
- Continuous and daily housekeeping of site during all project phases.
- Waste to be collected after finishing each site, no open laying waste should be left on site.
- Incorporate public art, beautification projects, or community enhancements in conjunction with fiber network installations to contribute positively to the visual environment. This could include painting cabins or planting vegetation around poles and cabins.
- Ensure continuous maintenance of infrastructure and equipment such as cabins especially their paint and overall structure to avoid negative visual impacts.
- Establish a maintenance log for equipment and infrastructure

❖ ***Significance***

Impacts on visual and aesthetical values are expected to be negative, local, long-term, and moderate in significance due to the size of the construction activities. The impacts are relevant to both the installation and operational phases of the project, where impacts are expected to be long-termed during the operational phase.

6.4.6. Solid Waste and E-Waste

I- CONSTRUCTION & INSTALLATION PHASES

❖ ***Risks***

- POLE INSTALLATION AND EXCAVATION: The excavation phase can produce significant quantities of soil and debris, including rocks and pavement material.
- CABLE DEPLOYMENT: The installation of fiber optic cables and related equipment can result in packaging waste, cable offcuts, and other installation-related waste.
- RANDOM DISPOSAL OF WASTE: it is common that contractors dispose of waste in open random areas rather than disposing of them into designated containers or landfills.

II- OPERATIONAL PHASE

❖ ***Risks***

- ELECTRIC AND ELECTRONIC WASTE (E-WASTE): Over time, network equipment, such as routers, modems, and switches, may become obsolete or require replacement. This can generate e-waste.
- MAINTENANCE WASTE: Routine maintenance and repairs may generate solid waste, including damaged or replaced cables, connectors, and equipment components.

❖ ***Mitigation Measures***

- All waste shall be collected from each installation site, adequate housekeeping measures shall be implemented.
- Backfill debris when erecting poles rather than disposal of waste
- Implement segregation practices, reuse, and recycling. Carboard and plastic wrappings, if existent, can be collected and the company should explore options and agreements with recycling companies.
- Implement a proactive maintenance schedule to extend the lifespan of network equipment, reducing the need for premature replacements and minimizing waste.
- Electric and electronic components during maintenance and replacement shall be collected and disposed of in accordance with the instructions of EQA in terms of E-waste management and disposal.

❖ ***Significance***

The residual impacts of solid waste generation in the construction and installation phase are expected to be negative, local, short-term, and moderate in significance as such generation pertains to only 150 Km of that are to be installed through company owned infrastructure. Where in the operational phase the significance of the solid waste and e-waste impacts are low, and are localized to any maintenance activities' location, as well as being short-term and non-continuous.

6.4.7. Underground Utilities and Infrastructure

❖ ***Risks:***

- This risk is relevant to the construction and installation phase of the project, particularly for the localities where installations will be conducted through the erection of poles.

I- CONSTRUCTION AND INSTLLATION PHASE

❖ ***Risks***

- UNDERGROUND WATER AND WASTEWATER NETWORKS: excavation works may cause damages in the underground water or wastewater pipes, leading to leaks or damage. Accidents could occur as at times the engineering drawings and layouts could differ from the actual location of these pipes and underground infrastructure.

❖ ***Mitigation Measures***

- Bnet Co. technical team to conduct thorough pre-construction surveys to identify the location of existing water and wastewater infrastructure through revising the municipalities' engineering plans for utility installations . This information can help avoid accidental damage during excavation and pole installation.
- Coordinate with the municipality to ensure that underground wastewater infrastructure is protected during installation activities.
- include cases of accidental damage to wastewater infrastructure during construction or maintenance activities in the Emergency Response Plan. Ensure prompt reporting and repair of any damage.

❖ ***Significance***

The residual impacts of underground infrastructure during the construction and installation phase are restricted spatially to the site location only. Due to the nature of the process and operations in terms of that the process, impacts are nevertheless considered low in significance as non-compliance with technical specifications could lead to these impacts.

6.4.8. Labor and Working Conditions

I- CONSTRUCTION AND INSTALLATION PHASE

❖ ***Risks***

- NONCOMPLIANCE TO LABOR RIGHTS: The PLL clearly defines working hours, leaves, wages, and benefits as well as Act No.4 of 2021 which is the latest decree setting the minimum wage limits in the Palestinian Territories. Nevertheless, the PLL and its suit of supporting decrees face enforcement challenges. Wages are often below the minimum requirements, especially when contractors and subcontractors are involved. Workers are not provided with their contracts, overtime compensation, and other rights.
- INADEQUATE INSTITUTIONAL CAPACITY: Workers lacking trainings, especially on OHS matters are at higher risk of accidents and injuries.
- WORKING HOURS: Long working hours and overtime may be necessary to meet project deadlines. Adequate rest periods, fair compensation, and adherence to labor laws are essential to protect the well-being of workers.
- SAFE WORKING CONDITIONS: Installation works of FTTH network either over electricity infrastructure or through the erection of poles entails working at heights, as well as being close to the interference zone of the electricity infrastructure. Providing appropriate safety equipment and training is vital for worker safety.
- OCCUPATIONAL HEALTH AND SAFETY: Workers are susceptible of workplace injuries, over-exertion, slip and fall, electrocution, heat strokes, injuries by heavy and rotating machinery, and other types of construction site injuries. Additionally, the non-adherence to the use of PPEs or the contractor not providing their workers with them increase the probabilities of work injuries. Moreover, Fiber optic installations have their own associated risks, workers involved in fiber optic cable installation or repair may be at risk of permanent eye damage due to exposure to laser light during cable connection and inspection activities. Workers may also be exposed to minute or microscopic glass fiber shards that can penetrate human tissue through skin or eyes, or by ingestion or inhalation.
- GRIEVANCES: During the different phases of project implementation concerns, complaints, and grievances are expected to arise among project workers. Such grievances are relevant to their labor rights and working conditions. The lack of an effective and transparent mechanism to voice such grievances and guarantee their review for resolution is an associated risk. Additional risks entailed include coercion and risks of retribution towards workers when they voice their grievances.
- UNEQUAL EMPLOYMENT OPPORTUNITIES: The recruitment process might be biased, or non-competitive without opening announcements and giving the communities equal chance for employment.
-

❖ ***Mitigation Measures***

- Contractors are to submit their workers' contracts to the employer to ensure appropriate labor rights are included in line with the PLL. The contracts will include the workers' names, IDs, wages, rights, and responsibilities.
- The contractor shall conduct Toolbox talks/meetings regularly with workers to ensure compliance with OHS requirements.
- Inspections will be conducted to ensure commitment to PPEs.

- Periodic housekeeping, removal of unused equipment, existence of first aid kits, fire extinguishers shall be ensured on site.
- For working at heights, working on connections, in the vicinity of the electrical grid, and operating heavy and rotatory machinery, only skilled workers will be allowed on the vicinity of works.
- Workers are to be provided with adequate periods of rest due to the nature of work and its mobility. Contractors are encouraged to provide facilities for workers to have their lunch-breaks such as foldable chairs, tables, and shade umbrellas.
- Promote fair employment practices, including non-discrimination, equal opportunity, and respect for worker rights.
- Whenever feasible, prioritize hiring local labor, which can benefit the local economy and reduce the environmental impact associated with worker commutes.
- Train workers on lifting and material handling during loading/ unloading activities.
- Contractors are to prepare their own Occupational Health and Safety Plan (OHS Plan) in accordance with the mitigation measures stated in the ESMG and the OHS Plan requirements in Annex VII.
- Working rights, terms of employment, working conditions, OHS, and emergency response trainings will be required by the contractor to be provided to their workers.
- Contractors shall develop a Workers' Grievance Mechanism with appropriate uptake channels with supervision from the project owner and in accordance with the Project's Workers' GRM. The Contractor's Workers' GRM shall contain effective uptake channels and clearly defined resolution and review timelines with monthly reporting to be provided to the project owner.
- OHS topics, grievance redress, and other labor rights topics must be covered in the progress reports to be submitted by contractors and monitored by the company's ESO.
- Provide first aid kits on the site, ensure that kits are provided in adequate number per workers and that they are always accessible, and in good condition at all times.
- Ensuring clear zone for loading / unloading of wire rolls, and other components.
- Establish an incident reporting log in line with the ERP.
- Worker training on specific hazards associated with laser lights, including the various classes of low and high-power laser lights, and fiber management.
- Switching off laser lights prior to work initiation, when feasible
- Use of laser safety glasses during live optical fiber systems installation
- Prohibition of intentionally looking into the laser of fiber end or pointing it at another person
- Avoiding exposure to fibers through use of protective clothing and separation of work and eating areas.
- Jobs shall be advertised and an equal opportunity system to be implemented. Hiring should be on qualification basis only with no consideration for other socio-economic factors such as religion, gender, or socio-economic status.
- Invest in local workforce development to enhance the skills of local workers, making them more competitive in the job market.
-

❖ ***Significance***

The impacts on labor rights and working conditions including occupational health and safety during the installation phase cannot be completely avoided but their chances and magnitude can be minimized with the application of mitigation measures. Therefore, and considering the type of works and their rapid nature (i.e., installation of one zone and moving to the next), the residual impact is considered as a negative short-term impact with moderate significance.

II- OPERATIONAL PHASE

❖ ***Risks***

- LABOR RIGHTS: the project is expected to create around 75 direct new opportunities. Risks associated with this employment include not providing workers with contracts that contain a clear description of their rights and duties that are in line with the PLL. Additional risks include uncompensated overtime and delayed wages.
- OCCUPATIONAL HEALTH AND SAFETY: workers during the operational phase are susceptible to injuries during connecting the buildings to the network or conducting maintenance to the network.
- GRIEVANCES: The lack of a functional grievance mechanism and complaints uptake channels carry a risk of workers' concerns not being conveyed to management.
- GENDER BASED VIOLENCE (GBV) INCLUDING SEXUAL EXPLOITATION AND ABUSE (SEA) AND SEXUAL HARASMENT (SH): As employment in the project shall be based on merit and qualifications, women are going to occupy about 33% from the jobs in Bnet. As such, risks are present in terms of employment and equal opportunity. Additionally, other risks related to SEA/ SH could be present at the workplace.

❖ ***Mitigation Measures***

- Wages shall be in accordance with the PLL and the minimum wage act No.4 of 2021. The company shall provide the F4J II with workers' contracts with clearly defined wages, the E&S consultant during monitoring visits and reports will obtain samples and interview some of the workers to ensure the company's adherence to the minimum wage act.
- Provide workers with gloves, boots, hardhats, and other PPEs as appropriate.
- Establishment of criteria for use of 100 percent fall protection (typically when working over 2 meters (m) above the working surface). The fall protection system should be appropriate for the tower structure and necessary movements, including ascent, descent and moving from point to point. Harnesses shall be maintained and ensured to be used when working at heights or at cranes.
- Safety belts shall be of not less than 16 millimeters (mm).
- Ropes should be 5/8 inch (1.6 cm) in diameter, two-in-one nylon or material of equivalent strength. Rope safety belts should be replaced before signs of aging or fraying of fibers become evident.
- Warning signs and barricades shall exist around working areas to protect workers and the public from falling objects.
- All workers must be provided with contractual documentation and are to be covered by a valid occupational health insurance policy.
- The Project Workers shall receive an E&S orientation training prior to the commencement of the operations phase, covering the CoC, GRM, OHS, ERP, and the ESMG overall.
- All workers must read and sign the code of conduct. The code of conduct to be used for this project is the one recommended by the F4J, available in the F4J Project ESMF[29] and in Annex IV. The CoC contains the required conduct expected from workers, their rights, occupational health and safety requirements, reporting, GBV prevention, and penalties in cases of breaching the CoC.
- Ongoing operation, maintenance, and network connection may require skilled technicians and engineers. Ensuring that workers have the necessary skills and training contributes to job satisfaction and the quality of service.
- The company shall prepare and implement an Occupational Health and Safety (OHS) Plan in accordance with the requirements in Annex VII.
- The Company shall implement the Emergency Response Procedures (ERP) in accordance with the requirements in Annex VII.
- Establish an incident reporting log in line with the ERP.

[29] https://www.f4j.ps/cached_uploads/download/2021/01/17/environmental-and-social-management-framework-1610875245.pdf

- For maintenance or connection works at height, and operating heavy and rotatory machinery, only skilled workers will be allowed on the vicinity of works.
- Working rights, OHS, grievance mechanism, CoC, GBV (SEA/SH) and emergency response trainings will be part of the onboarding process upon the recruitment of new workers.
- A workers' Grievance Mechanism shall be established in accordance with Annex V. Uptake channels shall be disseminated to workers including setting up a complaint box on site.
- Provide first aid kits on the site, ensure that kits are provided in adequate number per workers and that they are always accessible, and in good condition at all times.

❖ ***Significance***

The impacts on labor rights and occupational health and safety during the operational phase is significantly lower than in the installation phase due to the administrative and maintenance nature of the works. As such, and through the application of the stated mitigation measures, the associated impacts in this phase are expected to be low in magnitude yet long in duration.

6.4.9. Socio-Economy and Employment

❖ ***Risks***

Despite the overall positive impacts, the project activities will bring along, both in terms of employment, job creation, and the socio-economic positive impacts. Careful considerations need to be implemented to avoid, and where not possible, mitigate negative socio-economic impacts.

- DIGITAL DIVIDE: While the introduction of internet infrastructure is positive, there may still be challenges in ensuring that all residents have access to and can afford internet services. Bridging the digital divide may require additional efforts.

❖ **Mitigation Measures**

- Develop programs to ensure that internet services are accessible and affordable to all residents, regardless of income or location.
- Collaborate with local organizations, schools, and government agencies to maximize the educational and economic benefits of improved internet access.
- Establish project-level grievance mechanism and uptake channels for the public to raise any concerns they might have due to the project.

❖ ***Significance***

The proposed project has overall positive impacts in terms of socio-economic benefit and employment creation. As such the positive impacts of the project are high with long term duration. While the negative impacts are expected to be low in significance.

6.4.10. Community Health and Safety

I- INSTALLATION PHASE

❖ ***Risks***

- PUBLIC ENGAGEMENT: Weak participation of the public, women and vulnerable groups in planning and identifying project impacts on their health and life.

- NUISANCE AND WASTE: Nosie from the construction and installation works are expected, and it may disturb the residents in the area.
- AIR QUALITY: Excavation work can generate dust and airborne particles that may affect local air quality. Dust control measures should be in place to minimize health risks.
- GENDER-BASED VIOLENCE (GBV), SEXUAL EXPLOITATION AND ABUSE (SEA), AND CHILD ABUSE/EXPLOITATION (CAE): These risks are relatively low as the works are not localized to one area; however, these works could pass in front of sensitive areas such as schools, universities, and hospitals.
- RISKS FROM CONSTURCTION SITE: open holes, and works near the site boundaries could cause potential risks to the community's health if proper mitigation measures are not implemented, children playing in the vicinity could accidently enter the site, or unexpected visitors could be harmed. Additionally, vehicular movements are one of the highest risks to community's health during construction works.
- OBSTRUCTION OF ACCESS: works could result in increased traffic and temporary closure of roads.
- DISRUPTION DURING INSTALLATION: The installation phase may temporarily disrupt daily life for local residents, affecting businesses and routines.
-

❖ ***Mitigation Measures***

- Ensure adequate stakeholder engagement and community awareness regarding the project. Conduct a second engagement meeting with the community and stakeholders prior to the operational phase and conduct any necessary engagement later on based on need and if there are changes or updates that concern the public. The outcome, concerns, and recommendations of the consultation activities shall be documented and reviewed to include in the project's operations.
- Establish an open communication channel with the public to lodge their concerns and complaints.
- Ensure continuous liaison with the local authorities and the community to announce
- Include specific measures for handling GBV Grievances in the GRM, this has been provided in Annex V.
- Employ mitigation measures stated for air quality, noise, nuisance, waste, traffic, and other parameters as identified in this ESMG.
- Ensure that code of conduct is circulated to all contracted project workers and that it is covered within their training.
- Workers shall be provided by an orientation session that covers and explains the CoC. They must read and sign the Code of Conduct. The CoC contains the required conduct expected from workers, their rights, occupational health and safety requirements, reporting, GBV prevention, and penalties in cases of breaching the CoC.
- Provide workers with orientation workshop on the CoC, GRM, GBV prevention measures to ensure their awareness for community's health and safety.

❖ ***Significance***

The impacts on community health and safety during the installation phase are expected to be negative, local, short-term, and moderate in significance. While the probability of risks materializing is low, if such occurrences happen the impacts could be adverse, and as such, the significance of this risk is moderate.

6.4.11. Cultural Heritage

Jenin and Tubas governorates contain areas of archeological tangible heritage and protected areas in different localities. It is required to use the checklist to prevent negative impacts on those sites. If the findings of the initial screening, showed that the archeological sites may locate on the route of the FTTH network, Bnet should re-plan and update the route to prevent any negative impact.

- ARCHAEOLOGICAL FINDS: Excavation work can potentially unearth historical artifacts or archaeological remains. Chance Find Procedures shall be implemented by contractors as available in Annex VIII.

❖ ***Significance***

The impacts on cultural heritage could be during the screening phase (before construction). If any findings were discovered during the installation phase, the impacts can be significantly minimized if the mitigation measures are properly implemented.

6.5. Summary of Environmental and Social Risks

Parameter	Project Phase	Timescale	Significance
Institutional Capacity		Long-term	Negative, moderate
Land Use	Planning Phase	Long-term	Negative, moderate
Air Quality	Construction & Installation	Short-term	Negative, low
	Operation	Short-term	Negative, low to negligible
Noise	Construction & Installation	Short-term	Negative, moderate
	Operation	Short-term	Negative, low
Biota	Construction & Installation	Short-term	Negative, low to negligible
	Operation	NA	NA
Traffic	Planning	Short-term	Negative, moderate
	Construction & Installation	Short-term	Negative, moderate
	Operation	Short-term	Negative, low
Visual Impacts	Construction & Installation	Long-term	Negative, moderate
	Operations	Long-term	Negative, low
Solid Waste and E-Waste	Construction & Installation	Short-term	Negative, Moderate

	Operations	Long-term	Negative, low
Underground Infrastructure and Utilities	Construction & Installation	Short-term	Negative, low
	Operations	NA	NA
Labor & working conditions (incl. OHS & COVID-19)	Planning Phase	Long-term	Negative, moderate
	Construction & Installation	Short-term	Negative, moderate
	Operations	Long-term	Negative, low
Socio-Economy and Employment	Construction & Installation	Short-term	Positive, Moderate
	Operations	Long-term	Positive, high
Community Health	Construction & Installation	Short-term	Negative, low
	Operations	NA	NA
Cultural Heritage	Construction & Installation	Short-term	Negative, low
	Operations	---	---

7. Environmental and Social Management Matrix

The Environmental and Social Management matrix serves as a comprehensive guide to assess and manage environmental and social risks throughout the project's various phases. It consolidates identified potential impacts and their corresponding mitigation measures while outlining monitoring activities and implementation requirements in a clear and practical manner. Budgetary estimates for each action are provided to inform cost considerations, aiding both Bnet Co. and contractors in budget preparation for implementation. The matrix has three primary objectives:

I. Accurate Impact Prediction: Ensure that impact predictions are precise and aligned with the project's actual circumstances.
II. Effective Mitigation Measures: Verify the effectiveness of mitigation measures and establish a system for monitoring their implementation.
III. Cost Estimation: Provide cost estimates for each action to facilitate budget planning.

The monitoring plan outlines monitoring activities, responsible parties, and monitoring frequency across project phases. It aligns with national regulations, O.P 4.01 guidelines, and the outcomes of data collection and impact assessments conducted for the project.

This matrix is dynamic, requiring updates as the project progresses and monitoring begins. Adjustments may be necessary as new risks, impacts, or changes in circumstances arise during implementation. Its implementation should begin in conjunction with the corrective actions identified in the Environmental and Social Audit (E&S Audit), as detailed in Annex III. The ESMG includes the identified actions in the E&S audit and its corrective action plan, subsequent monitoring shall verify Bnet’s compliance to the corrective actions and the ESMG.

Table 7: E&S Management Matrix During Planning and Design Phase

This table provides the guidance for the ESO to implement during the planning and design phase to ensure addressing the E&S risks identified for this phase, the table is in the form of a checklist with actions to be conducted for each site based on the outcome of filling the screening form in Annex I.

Parameters and Impacts	Action	Monitoring Measures	Implementation Responsibility	Monitoring Responsibility & Frequency	Success Indicators
DESIGN AND PLANNING PHASE					
Environmental and Social Assessment ➢ Lack of identification of site-specific conditions	☐ Conduct Site specific E&S assessment in line with Annex I Screening form for each new locality / route /segment ☐ Update the E&S Management Matrix as needed based on the results of the Screening ☐ Include this E&S management guidelines into bidding documents of contractors	➢ PIA to provide no-objection to each E&S Screening form for each site as available in Annex I.	Bnet Co. ESO	PIA Frequency: Quarterly	ESO to conduct site-specific screenings Records of no-objection for assigned routes.
Pollution prevention ➢ Poor planning could result in increasing the magnitude of noise and nuisance to adjacent communities and noise sensitive receptors. ➢ Poor planning could result in exacerbating the magnitude of traffic risks	☐ Incorporate noise mitigation measures and relevant standards from chapter 3 into contractor bidding documents. ☐ Ensure contractor compliance with the Palestinian Standards for Ambient Noise in equipment procurement to keep noise within acceptable limits. ☐ During screening and planning in each locality, determine the distance between residential areas and proposed pole erection sites to ensure appropriate application of noise mitigation measures. ☐ Include the obligation to prepare traffic management plans in the bidding documents and contracts for contractors. ☐ Depending on the screening outcome, confirm that the contractor has developed a traffic management plan to mitigate the impact on traffic from	➢ Bidding documents to include specifications relevant to noise and environmental parameters. ➢ Planning to consider noise sensitive receptors ➢ Monitoring of site traffic conditions ➢ Existence of traffic coordinators throughout installations ➢ Accident logs ➢	Bnet Co. ESO Contractor	PIA Bnet Co. ESO Frequency: as needed	➢ Issued bids with noise and relevant specifications ➢ Drafting of a traffic management plan. ➢ Zero traffic accidents on site.

Parameters and Impacts	Action	Monitoring Measures	Implementation Responsibility	Monitoring Responsibility & Frequency	Success Indicators
DESIGN AND PLANNING PHASE					
	excavation or fiber cable installation activities, especially on intra-urban roads.				
Existing Utilities and Public Services	☐ Ensure that the technical team has revised the engineering plans of municipalities and have planned the routes in accordance to avoid any impacts on utility infrastructure	➢ Site visits ➢ GIS plans and routes ➢ Municipality plans	Bnet Co. ESO	PIA Frequency: Quarterly	➢ Network design takes into consideration the existing engineering layout of utility infrastructure
Occupational Health and Safety ➢ Lack of adequate planning or preparation before installation could result in lack of PPES and institutional capacity within contractors and workers to manage OHS and labor aspects.	☐ Ensure that all safety equipment are provided including PPEs, first aid kits, hats, and drinking water source prior to beginning installation works. ☐ Ensure that the Workers' Grievance Mechanism is functional prior to the installation phase, especially at the contractor's level. ☐	➢ PPEs to be present and in good condition.	Contractor	Bnet Co. ESO Frequency: Continuous	➢ Accident-free installation activities ➢ No workers Grievances
Working conditions	☐ Conduct capacity building to direct and contracted workers particularly on Occupational Health and Safety (OHS) and E&S measures stated in the ESMG . ☐ Review new recruitment to ensure that all workers to be hired have contracts that adhere to the PLL, this shall apply as well to contractors who shall adhere to the PLL, Ministerial Decisions on OHS, and the Minimum Wage requirements. ☐ Promote fair employment practices, including non-discrimination, equal opportunity, and respect for worker rights. ☐ Whenever feasible, prioritize hiring local labor, which can benefit the local economy and reduce the	➢ OHS and E&S orientations and capacity building trainings to take place prior to installation phase.	Bnet Co. ESO	PIA Frequency: Quarterly	➢ All workers are provided with contracts ➢ Training logs

Parameters and Impacts	Action	Monitoring Measures	Implementation Responsibility	Monitoring Responsibility & Frequency	Success Indicators
DESIGN AND PLANNING PHASE					
	environmental impact associated with worker commutes.				
Community Health and Safety	☐ Conduct stakeholder consultations with targeted localities and capture PAPs , OIPs , and vulnerable groups feedback into the design and planning process ☐ Ensure circulating the GM to project stakeholders and that it is accessible to them	➢ public Grievances ➢ stakeholder engagement feedback ➢	Bnet Co. ESO	PIA Frequency: quarterly	➢ Logs of stakeholder engagement ➢ Grievances log
Land and Livelihood impact ➢ Risk of poorly planned installations and encroaching privately owned land ➢ Poor planning resulting in needing to install poles over owned property.	☐ Bnet ESO to Verify that Bnet Co. has signed all necessary agreements with local councils before starting installation. ☐ Check that the agreements explicitly state the rights and responsibilities of both Bnet Co. and the council. ☐ Ensure that the designated installation areas fall within the municipal right of way for infrastructure, in cases involving pole installations. ☐ Confirm that the agreements include specific provisions for the use of electricity infrastructure where installations will occur alongside it.	➢ Route planning and GIS Maps ➢ Agreements with Municipalities ➢ Utilize the E&S Screening form as available in Annex I.	Bnet Co. ESO	ESO PIA Frequency: Quarterly	➢ Signed Agreements with municipalities ➢ No grievances relevant to land use
Cultural heritage	☐ Include Chance Find procedures in bidding documents ☐ If encountered, ensure that the contractor commits to the Chance Find Procedures available in Annex VIII.	➢ Monitoring visits	Bnet Co. ESO	PIA Frequency: Quarterly	➢ If cultural heritage is encountered, the CFP is activated according to this guidelines

Table 8: E&S Management Matrix During Construction and Installation

Environmental Category	Parameters and Impacts	Mitigation Measures	Monitoring Measures	Implementation Responsibility	Monitoring Responsibility & Frequency	Success Indicators	Budgetary Requirements
CONSTRUCTION AND INSTALLATION PHASE							
Physical Environment	**Air Quality / Emissions** ➢ Fugitive dust emissions from excavation works. ➢ Vehicular emissions and dust from unpaved roads ➢ Piling of excavation and construction debris. ➢ Disposal of construction waste in random dumping sites.	➢ Excavation dirt shall be used to backfill the holes made for the installation of poles as much as possible given that the material is according to backfilling standards. Where any non-conforming excavation waste shall be collected and transported to authorized dumping site. ➢ Apply dust control procedure, this includes trucks hauling material to utilize covers, daily collection of waste, and control of vehicles speed. ➢ Ensure all construction equipment and vehicles used during the project meet emission standards and are well-maintained to minimize exhaust emissions. Encourage the use of electric or low-emission equipment where feasible. ➢ Proper housekeeping to ensure that no debris or waste material remain on site that could propagate overnight. ➢ Provide workers with facemasks and adequate PPEs. ➢ Proper activity scheduling; this includes working hours and days and limit the activities to daytime. Ensure checking weather conditions every day to avoid activities that could result in dust generation on windy days. ➢ Using maintained and new construction and transportation vehicles as appropriate and maintain in accordance with the manufacturer's maintenance schedule, this can be ensured by requesting and checking the vehicles licenses, logs, and registration from the contractor.	➢ Document any air quality concerns by site supervisors. ➢ Document any grievances received on air quality matters. ➢ Site monitoring visits	Contractor	ESO Frequency: Daily	➢ Vehicles logs show regular maintenance. ➢ Complaints recorded reflect appropriate mitigation measures implemented. ➢	No additional budgetary requirements for the implementation of the indicated mitigation measures.

Environmental Category	Parameters and Impacts	Mitigation Measures	Monitoring Measures	Implementation Responsibility	Monitoring Responsibility & Frequency	Success Indicators	Budgetary Requirements
	Nuisance (Noise / vibration) ➢ Noise from equipment and machinery ➢ Working beyond designated and permissible working hours ➢ Vehicular traffic ➢ Exacerbated noise impacts due to installation locations (e.g., sensitive noise receptors)	➢ Restrict excavation, drilling and other noise generating activities to daytime only. ➢ Use modern construction equipment that meets noise emission standards. ➢ Maintain construction equipment regularly to reduce noise generated by engine, hydraulic, and mechanical components. ➢ Encourage the use of quieter equipment and machinery where feasible. ➢ For workers safety, ensure workers utilize hearing protection equipment as needed. ➢ Coordinate with sensitive receptors when installations are close to their premises and in liaison with the local councils (e.g., hospitals, schools, mosques). ➢ Ensure that noise levels do not exceed the recommended guidelines. Where some activities inevitably produce noise levels that are higher (drilling), these must be short duration and not exceed the NIOSH recommendations and OSHA 1910.95 (a)&(b) regarding exposure periods to different noise level. ➢ Ensure that heavy machinery or any noise producing activities are prohibited after 7PM till 7AM and all-day during Fridays and any public and local holiday, unless an approval has been obtained by the local authorities.	➢ Use noise level measurement instruments, taking readings when operating any noise producing machinery or equipment. ➢ Record each reading with date, location, time, and source of noise ➢ Site monitoring visits ➢ Grievances log	Contractor	ESO Frequency: Weekly	➢ Noise levels log do not display patterns of exceeding the recommended guidelines ➢ Complaints matrix show resolution of any complaints received	➢ Cost of noise measurement equipment (Sound Level Meter): 50 - 200$
	Biota (Flora / Fauna) ➢ Habitat Disruption. ➢ Vegetation Removal.	➢ Avoid areas designated as areas of high biodiversity or areas of natural reserves and seek alternative routes as applicable and feasible. In cases of erection of poles, and if no other routing options exist, ensure maintaining the infrastructure to the right of way and preferably erect poles on paved areas so to minimize impact on the biodiversity. Minimize vegetation removal by carefully planning the route of the fiber network. Ensure carefully selecting the location for each pole to minimize impact on vegetation. ➢ Ensure that the E&S Screening is conducted for each route, particular attention on biodiversity matters should be ensured for localities that will be connected through the erection of company owned	➢ Record any unusual floristic species found on site, report to the authorities if suspected of being unfamiliar to the area.	Contractor	ESO EQA Frequency: Daily	---	No additional budgetary requirements for the implementation of the indicated mitigation measures.

Environmental Category	Parameters and Impacts	Mitigation Measures	Monitoring Measures	Implementation Responsibility	Monitoring Responsibility & Frequency	Success Indicators	Budgetary Requirements
		poles, as this risk is nearly negligible for localities that will be connected through utilizing the existing infrastructure. ➢ Avoid natural reserves and biodiversity areas through the use of existing utility and transport corridors. ➢ Ensure the contractor's commitment to the E&S management guidelines and the recommended mitigation measures. ➢ Limit working activities for the installation works during daytime.					
	Traffic and Vehicular Movements ➢ Traffic congestion ➢ Detours and road closures. ➢ Pedestrian safety. ➢ Obstructing access. ➢ Risk of accidents due to improper driving practices, speeding, overloading vehicles, and utilizing unmaintained vehicles	➢ Provide clear and visible signage to inform drivers of construction zones, detours, and speed limits. ➢ Ensure that traffic controllers are present with the installation teams. ➢ Ensure that vehicles are continuously maintained in accordance with the manufacturer's recommendations. ➢ Apply strict measures on safe driving practices, signaling, fastening safety belts, and adhering to speed limits. ➢ Implement measures to ensure pedestrian safety, such as designated walkways and crossings. ➢ Regularly inspect and maintain road surfaces to prevent damage caused by construction vehicles. ➢ Coordinate with emergency services to ensure uninterrupted access during construction activities.	➢ Grievances records to verify complaints resulting from speeding or unsafe practices. ➢ Maintenance logs of vehicles	Contractor	ESO Frequency: for maintenance according to manufacturer requirements / for movement: daily	➢ Accident-free construction activities ➢ No near miss situations reported. ➢ Grievances are handled and corrective measures recorded and applied	No additional budgetary requirements for the implementation of the indicated mitigation measures.
	Visual Impacts ➢ Aesthetical disruptions of local environment ➢ Skyline alterations ➢ Cable cluttering ➢ Equipment and cabinets	➢ Invest in aesthetically pleasing design for above-ground infrastructure, such as wooden utility poles and cabinets, to blend with the surroundings. ➢ Ensure good workmanship when installing cables and poles. ➢ Repave the streetside after finishing the works. ➢ Incorporate landscaping and vegetation restoration efforts to compensate for any vegetation removal and improve the visual appeal of the area. ➢ Continuous and daily housekeeping of site during all project phases.	➢ Daily site inspection by site supervisor and ESO	Contractor	ESO Frequency: daily	➢ Complaints and grievances log indicate that any related grievances are resolved with description of the corrective actions	No additional budgetary requirements for the implementation of the indicated mitigation measures.

Environmental Category	Parameters and Impacts	Mitigation Measures	Monitoring Measures	Implementation Responsibility	Monitoring Responsibility & Frequency	Success Indicators	Budgetary Requirements
		➢ Waste to be collected after finishing each site, no open laying waste should be left on site. ➢ Incorporate public art, beautification projects, or community enhancements in conjunction with fiber network installations to contribute positively to the visual environment. This could include painting cabins or planting vegetation around poles and cabins.					
	Solid Waste and E-Waste ➢ Waste from excavation and erection of poles ➢ Cable deployment ➢ Random disposal of waste.	➢ All waste shall be collected from each installation site, adequate housekeeping measures shall be implemented. ➢ Backfill debris when erecting poles rather than disposal of waste ➢ Implement segregation practices, reuse, and recycling. Carboard and plastic wrappings, if existent, can be collected and the company should explore options and agreements with recycling companies.	➢ Quantities of waste removed shall be recorded with designated destination for reuse. ➢	Contractor	Supervision Engineer / Firm Municipality Frequency: Weekly	➢ No complaints are received regarding waste or random disposal.	No additional budgetary requirements for the implementation of the indicated mitigation measures.
	Underground Utilities and Infrastructure ➢ Damages to underground infrastructure including water and wastewater networks	➢ Conduct thorough pre-construction surveys to identify the location of existing water and wastewater infrastructure. This information can help avoid accidental damage during excavation and pole installation. ➢ Coordinate with the municipality to ensure that underground wastewater infrastructure is protected during installation activities. ➢ include cases of accidental damage to wastewater infrastructure during construction or maintenance activities in the Emergency Response Plan. Ensure prompt reporting and repair of any damage.	➢ Damages reports through accident log	Contractor	ESO Municipality Frequency: As needed	➢ No complaints are received regarding damages.	No additional budgetary requirements for the implementation of the indicated mitigation measures.
	Labor and Working Conditions (Incl. OHS) ➢ Working hours ➢ Safe working conditions. ➢ OHS; workplace injuries, noncompliance to PPEs, hazardous work conditions on site. ➢ Risks relevant to working with fiber cables and laser	➢ The contractor shall conduct Toolbox talks/meetings regularly with workers to ensure compliance with OHS requirements. ➢ Inspections will be conducted to ensure commitment to PPEs. ➢ Periodic housekeeping, removal of unused equipment, existence of first aid kits, fire extinguishers shall be ensured on site.	➢ Validate the ages of the workers by checking their IDs ➢ Ensure that the contractor is honoring their labor rights by validating their contracts and close interviews with workers through	Contractor	ESO Ministry of Labor Ministry of Health	➢ Compliance to the use of PPEs on site recorded in progress reports. ➢ Validation and inspection of workers' contracts and	ESO Cost included in the preparation phase. Cost of PPEs range around 30-50$ per worker

Environmental Category	Parameters and Impacts	Mitigation Measures	Monitoring Measures	Implementation Responsibility	Monitoring Responsibility & Frequency	Success Indicators	Budgetary Requirements
		➢ For working at heights, working on connections, in the vicinity of the electrical grid, and operating heavy and rotatory machinery, only skilled workers will be allowed on the vicinity of works. ➢ Workers are to be provided with adequate periods of rest due to the nature of work and its mobility. Contractors are encouraged to provide facilities for workers to have their lunch-breaks such as foldable chairs, tables, and shade umbrellas. ➢ Train workers on lifting and material handling during loading/ unloading activities. ➢ Contractors are to prepare their own Occupational Health and Safety Plan (OHS Plan) in accordance with the mitigation measures stated in the ESMG and the OHS Plan requirements. ➢ Working rights, terms of employment, working conditions, OHS, and emergency response trainings will be required by the contractor to be provided to their workers. ➢ Contractors shall develop a Workers' Grievance Mechanism with appropriate uptake channels with supervision from the project owner and in accordance with the Project's Workers' GRM. The Contractor's Workers' GRM shall contain effective uptake channels and clearly defined resolution and review timelines with monthly reporting to be provided to the project owner. ➢ OHS topics, grievance redress, and other labor rights topics must be covered in the progress reports to be submitted by contractors and monitored by the company's ESO. ➢ Provide first aid kits on the site, ensure that kits are provided in adequate number per workers and that they are always accessible, and in good condition at all times. ➢ Ensuring clear zone for loading / unloading of wire rolls, and other components. ➢ Establish an incident reporting log in line with the ERP.	inspection and monitoring visits ➢ Inspection of PPEs and their conditions ➢ Commitment of using PPEs on site ➢ Review of complaints log ➢ Review training records		Frequency: Weekly inspections of PPEs and Working conditions	➢ IDs to ensure adequate labor rights and no child labor on site ➢ No near miss accidents or injuries recorded during the construction and installation works due to negligence or noncommitment to the use of PPEs	

Environmental Category	Parameters and Impacts	Mitigation Measures	Monitoring Measures	Implementation Responsibility	Monitoring Responsibility & Frequency	Success Indicators	Budgetary Requirements
		➢ Worker training on specific hazards associated with laser lights, including the various classes of low and high-power laser lights, and fiber management. ➢ Switching off laser lights prior to work initiation, when feasible ➢ Use of laser safety glasses during live optical fiber systems installation ➢ Prohibition of intentionally looking into the laser of fiber end or pointing it at another person ➢ Avoiding exposure to fibers through use of protective clothing and separation of work and eating areas.					
Social Environment	**Socio-economy and Employment** ➢ Payment of wages below the minimum requirements ➢ Unequal employment opportunities	➢ Develop programs to ensure that internet services are accessible and affordable to all residents, regardless of income or location. ➢ Collaborate with local organizations, schools, and government agencies to maximize the educational and economic benefits of improved internet access. ➢ Establish project-level grievance mechanism and uptake channels for the public to raise any concerns they might have due to the project.	➢ Verify and locate trends in the grievances received. ➢ Ensure addressing stakeholders feedback	Contractor / Bnet	ESO Frequency: prior to commencement of works, during hiring processes.	➢ No complaints regarding employment injustice	No additional budgetary requirements for the implementation of the indicated mitigation measures.
	Community Health ➢ Risk of inadequate public and stakeholder engagement ➢ Nuisance creation and waste disposal risks due to traffic or random dumping of waste ➢ Air quality risks from dust ➢ gender-based violence (gbv), sexual exploitation and abuse (sea), and child abuse/exploitation (CEA) ➢ General construction site risks such as open holes and unsafe environment ➢ Obstruction of access to lands and property	➢ Ensure adequate stakeholder engagement and community awareness regarding the project. Conduct a second engagement meeting with the community and stakeholders prior to the operational phase and conduct any necessary engagement later on based on need and if there are changes or updates that concern the public. The outcome, concerns, and recommendations of the consultation activities shall be documented and reviewed to include in the project's operations.	➢ Grievances log and reports ➢ Feedback from consultation activities	➢ Contractor & Bnet	ESO Frequency: Monthly or as needed	➢ Complaints received are adequately resolved and corrective actions recorded. ➢ COC is covered in trainings	No additional budgetary requirements for the implementation of the indicated mitigation measures.

Environmental Category	Parameters and Impacts	Mitigation Measures	Monitoring Measures	Implementation Responsibility	Monitoring Responsibility & Frequency	Success Indicators	Budgetary Requirements
		➢ Establish an open communication channel with the public to lodge their concerns and complaints. ➢ Ensure continuous liaison with the local authorities and the community to announce ➢ Include specific measures for handling GBV Grievances in the GRM ➢ Employ mitigation measures stated for air quality, noise, nuisance, waste, traffic, and other parameters as identified in this ESMG. ➢ Ensure that code of conduct is circulated to all contracted project workers and that it is covered within their training. ➢ Workers must read and sign the Code of Conduct. The CoC contains the required conduct expected from workers, their rights, occupational health and safety requirements, reporting, GBV prevention, and penalties in cases of breaching the CoC. ➢ Provide workers with orientation workshop on the CoC, GRM, GBV prevention measures to ensure their awareness for community's health and safety.					
	Cultural Heritage ➢ archaeological findings	➢ If unexpected or buried archaeology is discovered during excavation works, the F4J II Project's Chance Find Procedures will be implemented. ➢ Work activities will be stopped immediately, and the responsible competent authority (Ministry of Tourism and Antiques - MoTA) needs to be contacted ➢ Work will not be allowed to proceed without a written approval from the relevant agencies.	➢ Records of Chance Find Procedures	Contractor	➢ ESO ➢ MoTA Frequency: as required	➢ Chance Find Procedures Implemented ➢ No damage to archaeological sites or heritage if found	No additional budgetary requirements for the implementation of the indicated mitigation measures.

Table 9: E&S Management Matrix During Operations

Environmental Category	Parameters and Impacts	Mitigation Measures	Monitoring Measures	Implementation Responsibility	Monitoring Responsibility & Frequency	Success Indicators	Budgetary Requirements
OPERATIONAL PHASE							
Physical Environment	**Air Quality / Emissions** ➢ Fugitive dust	➢ Excavation dirt shall be used to backfill the holes made for the installation of poles as much as possible given that the material is according to backfilling standards. Where any non-conforming excavation waste shall be collected and transported to authorized dumping site ➢ Ensure all construction equipment and vehicles used during the project meet emission standards and are well-maintained to minimize exhaust emissions. Encourage the use of electric or low-emission equipment where feasible.	➢ Document any air quality concerns by workers and community. ➢ Document any grievances received on air quality matters. ➢ Daily visual inspections	Bnet Co. ESO	F4J ES Specialist / E&S consultant during monitoring and evaluation visits Frequency: Quarterly or as required	➢ Complaints recorded reflect appropriate mitigation measures implemented.	No additional budgetary requirements for the implementation of the indicated mitigation measures.
	Nuisance (Noise / vibration) ➢ Noise from works of connecting costumer residences the network.	➢ Optimize the use of machinery that generate noise (e.g., driller) ➢ Continuous maintenance of used tools and equipment, is in accordance with the manufacturer's recommendations. ➢ Limit the use of noise generating machinery to daytime only. ➢ Good communication with the surrounding buildings, to inform them about the activities and the working hours. ➢ Restrict working hours to daytime only. ➢ Optimize the use of machinery (i.e., turn off when idle) ➢ Keep an open grievance mechanism, keep close coordination with the municipality and community representatives	➢ Site monitoring visits ➢ Grievance log	Bnet Co. ESO	F4J ES Specialist / E&S consultant during monitoring and evaluation visits Frequency: Quarterly or as required	➢ Complaints matrix show resolution of any complaints received	No additional budgetary requirements for the implementation of the indicated mitigation measures.
	Traffic and Vehicular Movements	➢ Ensure safe pedestrian pathways and crossings during construction. Install proper signage and barriers to protect pedestrians	➢ Grievances records to verify complaints	Bnet Co. ESO and municipalities	F4J ES Specialist / E&S consultant during	➢ Grievances are handled and corrective	No additional budgetary requirements for the implementation of the

Environmental Category	Parameters and Impacts	Mitigation Measures	Monitoring Measures	Implementation Responsibility	Monitoring Responsibility & Frequency	Success Indicators	Budgetary Requirements
	➢ pedestrian safety				monitoring and evaluation visits Frequency: Quarterly or as required	measures recorded and applied	indicated mitigation measures.
	Visual Impacts ➢ Skyline alterations and aesthetical disruptions	➢ Incorporate public art, beautification projects, or community enhancements in conjunction with fiber network installations to contribute positively to the visual environment. This could include painting cabins or planting vegetation around poles and cabins. ➢ Ensure continuous maintenance of infrastructure and equipment such as cabins especially their paint and overall structure to avoid negative visual impacts.	➢ Overall aesthetical view of installations ➢ Maintenance log of infrastructure	Bnet Co. ESO and municipalities	F4J ES Specialist / E&S consultant during monitoring and evaluation visits Frequency: Quarterly or as required	➢ An updated maintenance log	Maintenance budget has to be allocated annually per the requirements of the company
	Solid Waste and E-Waste ➢ Electronic waste ➢ maintenance waste	➢ Implement a proactive maintenance schedule to extend the lifespan of network equipment, reducing the need for premature replacements and minimizing waste. ➢ Electric and electronic components during maintenance and replacement shall be collected and disposed of in accordance with the instructions of EQA in terms of E-waste management and disposal.	➢ Establishment of a maintenance log ➢ Segregation, collection, and appropriate disposal of e-waste	Bnet Co. ESO and municipalities	F4J ES Specialist / E&S consultant during monitoring and evaluation visits Municipality Frequency: Quarterly or as required	➢ Collection and disposal manifests of E-waste	No additional budgetary requirements for the implementation of the indicated mitigation measures.
	Labor and Working Conditions (Incl. COVID-19 & OHS) ➢ Non-compliance to labor rights in accordance with the PLL on wages, overtime, OHS, leaves and other aspects ➢ OHS; workplace injuries, noncompliance to PPEs, hazardous work conditions on site ➢ Lack of a functioning Workers' GM and not providing workers with uptake channels to voice their grievances. ➢ Gender Based Violence (GBV) Including Sexual Exploitation and Abuse (SEA) And Sexual Harassment (SH)	➢ Wages shall be in accordance with the PLL and the minimum wage act No.4 of 2021. The company shall provide the F4J II with workers' contracts with clearly defined wages, the E&S consultant during monitoring visits and reports will obtain samples and interview some of the workers to ensure the company's adherence to the minimum wage act. ➢ Provide workers with gloves, boots, hardhats, and other PPEs as appropriate. ➢ The Project Workers shall receive an E&S orientation training prior to the commencement of the operations phase,	➢ Validate the ages of the workers by checking their IDs. ➢ Interview with workers and review of their contracts and payments ➢ Inspection of PPEs and their conditions ➢ Commitment of using PPEs on site ➢ Review of complaints log ➢ Review training records	Bnet Co. ESO	F4J ES Specialist / E&S consultant during monitoring and evaluation visits Frequency: Quarterly or as required	➢ Compliance to the use of PPEs on site recorded in progress reports. ➢ Validation and inspection of workers' contracts and IDs to ensure adequate labor rights and no child labor on site.	No additional budgetary requirements for the implementation of the indicated mitigation measures.

Environmental Category	Parameters and Impacts	Mitigation Measures	Monitoring Measures	Implementation Responsibility	Monitoring Responsibility & Frequency	Success Indicators	Budgetary Requirements
		covering the CoC, GRM, OHS, ERP, and the ESMG overall. ➢ All workers must read and sign the code of conduct. The code of conduct to be used for this project is the one recommended by the F4J, available in the F4J Project ESMF . The CoC contains the required conduct expected from workers, their rights, occupational health and safety requirements, reporting, GBV prevention, and penalties in cases of breaching the CoC. ➢ Ongoing operation, maintenance, and network connection may require skilled technicians and engineers. Ensuring that workers have the necessary skills and training contributes to job satisfaction and the quality of service. ➢ The company shall prepare and implement an Occupational Health and Safety (OHS) Plan. ➢ The Company shall implement the Emergency Response Procedures (ERP) in accordance with the Annex VII. ➢ Establish an incident reporting log in line with the ERP. ➢ For maintenance or connection works at height, and operating heavy and rotatory machinery, only skilled workers will be allowed on the vicinity of works. ➢ Working rights, OHS, grievance mechanism, CoC, GBV (SEA/SH) and emergency response trainings will be part of the onboarding process upon the recruitment of new workers. ➢ A workers' Grievance Mechanism shall be established. Uptake channels shall be disseminated to workers including setting up a complaint box on site. ➢ Provide first aid kits on the site, ensure that kits are provided in adequate number per workers and that they are always accessible, and in good condition at all times.				➢ No near miss accidents or injuries recorded during the construction and installation works due to negligence or noncommitment to the use of PPEs.	

8. Reporting and Monitoring

The results of the screening and field investigations using the E&S Screening form (Annex I) during the planning phase at each locality, in addition to the records generated as outputs from the implementation of the ESMG and its supporting plans and procedures whether filled by the contractor or the project's staff shall be maintained by the administrative staff in accordance with procedure retention, and storage and retrieval requirements, as well as access control and other requirements designed to preserve the accessibility and integrity of records. accidents, and other forms and records shall be maintained by the administrative staff.

8.1. Reporting

Project's reporting activities shall consist of the following;

I. Contractors:

- Contractor: monthly progress report to be submitted by contractors to include E&S aspects.

II. BNET:

- ESO: will be available on-site during installation activities as part of Bnet team. The ESO will be responsible to carry out the field investigation using the E&S Checklist, to identify the exact E&S potential risks and the most appropriate mitigation. The ESO shall furnish monthly progress reports and share them with the F4J team. While site-specific E&S Screening to be shared as needed.

III. PIA

- F4J E&S Specialist / E&S Consultant : monitoring reports by the PIA to be monthly during installation phase and quarterly during operations or as needed and determined appropriate by the F4J management.

8.2. Monitoring

The monitoring reports for the project will consist of;

I. BNET:

- Continous monitoring of OHS aspects in line with the ESO responsibilities under the OHS plan (Annex VII).
- Monthly progress reports covering the ESMG by the ESO, including OHS aspects, this will list all aspects of the implementation of the mitigation measures, grievances, and incident reports if any.

II. PIA:

- F4J E&S Specialist / E&S Consultant : monthly or quarterly site visits, depending on project phase and needs to ensure compliance to the ESMG, reports will be generated following the site visit.

These reports shall include photos to support visual assessment of the ESMG implementation. Additionally, the E&S monitoring and evaluation may be conducted at unspecified times to avoid any cover ups during expected visits. Additionally, the reports should highlight current

environmental and social problems that are persistent despite the implementation of the mitigation measures, any newly discovered environmental and social risks that were not reported in the ESMG, and interviews with selected samples of the workers and staff.

9. Stakeholder Engagement

9.1. Project's Stakeholders

The identified project's stakeholders included the Project Affected Parties (PAPs) who are the population of both governorates in the localities that are targeted by the company and are listed in table 1 and are represented by their respective councils and municipalities. Other Interested Parties (OIPs) identified and consulted with include the governmental institutions and ministries such as ministry of health, environment quality authority (EQA), Ministry of education, Ministry of Tourism and Antiques (MoTA), Ministry of Local Government (MolG), Ministry of National Economy (MoNE), Ministry of Telecom and IT (MTIT), and Ministry of Labor (MoL), OIPs also include private sector and private institutions such as the Chambers of Commerce of each of the governorates, universities that are represented by the Arab-American University of Jenin, The Electricity Distribution Companies (DISCOs) of both governorates, and the Joint Services Council (JSCs). Additionally, the invited OIPs included NGOs and civil society actors such as the Palestinian Agricultural Relief Committees (PARC), Jenin Women Association, Tubas Charitable association, Rural Women Development Society (RWDS), and Juzoor foundation. These also represent the vulnerable and marginalized groups within both governorates which particularly include women and women headed households, the youth, people living in access restricted areas particularly within Area C[30] especially in Tubas governorate's Jordan Valley, the poor, Women living in families with social norms which prohibit interaction beyond the community.

9.2. Conducted Stakeholder Engagement Activities

A public consultation meeting conducted on Sep 21st ,2023 at Haddad Recreational Village Meeting halls in Al Zababdeh-Jenin Governorate, the location was chosen to be between Tubas and Jenin Governorate as the consultation meeting included invitees from the communities, local councils, NGOs, Public sector, Private Sector, and civil organizations from both governorates. The session targeted different stakeholders who may have interest and influence of the project.

The objectives of this meeting were:

- Introduce project (Objective, location, activities during construction and operation, etc.)
- Explain and discuss key anticipated environmental and social impacts.
- Identify and determine additional requirements or key issues of concern to be taken into account for the E&S management guidelines.

[30] Over 60 percent of the West Bank is considered Area C, where Israel retains near exclusive control, including over law enforcement, planning and construction. An estimated 300,000 Palestinians live in Area C in about 530 residential areas. Some 341,000 Israeli settlers live in some 135 settlements and about 100 outposts in Area C, in contravention of international law. Palestinian construction in 29% of Area C is heavily restricted; only approximately 1% of Area C has been planned for Palestinian development (UN OCHA, 2014). As such most Palestinian owned lands are used for agriculture since construction and urban development is restricted. People residing in area C are heavily underserved due to the inability to connect adequate infrastructure, and hence development for the area, this results in impacts on private sector activities, and as such, employment opportunities .

The session was arranged by Bnet Co. in cooperation with the consultant. Different stakeholders were invited, these included municipalities and local councils from both governorates reaching over 35 localities, different public institutions and ministries such as the Civil Defense, EQA, MoTA, MoA, Ministry of Education, Ministry of Health, and others. In addition to Private sector firms and their representatives including the Chambers of Commerce for both governorates and Electricity Companies, NGOs and Civil Society Organizations (CSO)s including the Palestinian Agricultural Relief Committee (PARC), Rural Women

Development Organization, Women's Skills Association, in addition to Academic institutions where the Arab American University of Jenin was invited. The invitation list included over 70 stakeholders.

Figure 18: Bnet Co. FTTH for Rural Areas Engagement Session

Figure 19: One of the Slides of the Presentation Deck of the Engagement Session

The session began with an introduction about the company by Mr. Mansour Habaibeh, Bnet's commercial manager, then Mr. Mohammad Abu Alrob (Bnet Project Manager) provided an

introduction and an overview of the FTTH project. Later, Mr. Faisal Kilani (E&S Consultant) provided an overview of the project's potential E&S risks, local laws and applicable standards, initial findings, proposed mitigation measures, the ESMG, the project's GM, CoC, OHS measures, and other E&S issues identified in the ESMG. Later, the discussion was opened for a Q&A session.

The signed attendance sheet included 56 attendees (however the number was estimated to be larger as many late commers did not sign the sheet and it was not possible to rotate it due to time and logistics constraints). During the meeting many questions were raised and different points were discussed by the attendance, as shown in the table below:

Table 10: Summary of Engagement Meeting Remarks

Raised question\ Issue	Answers
Imad Jaradat (Local Council Zaboba), asked questions regarding: 1- The nature of agreements with local councils, are there obligations towards the council or solo rights for the company in the locality if the agreement is signed? 2- What is the PING and what will be the given speeds?	Mansour Habaibeh, the Commercial manager for Bent stated that the agreement is not binding and it is not a concession agreement for the company in the area. The council has the right to cancel the agreement or sign with other companies. Mansour provided an overview of the PING in the network and explained the speeds ranging from 30 to 500 Mbs.
Kanaan Al-swodi (Local Council – Al Fara'); People and councils are concerned with the quality of the services. There is a general dissatisfaction about the high internet prices from service providers (not exclusively Bnet) and he hopes that the prices are competitive and affordable for everyone.	Mansour stated that Bnet's prices will be lower than market norm with around 20% and could be more for different segments. Where the company realizes that income and wages differ from area to area and that they vary between each governorate and locality.
Ashraf Ennabeh (Aqqaba Municipality): 1- this was a remark: fiber installations should take into considerations the distance from electricity cables with around 30 cm or more distance, which is sufficient to keep fiber and electricity lines apart. 2- A question raised was that could fiber cables be installed underground? 3- Are underground installations more expensive? 4- Can the costumer / local council request that installations be underground?	Mohammad Abu Al Rob (Bnet) explained the technical specifications for aerial installations and the distances considered between fiber and electricity cables. Furthermore, he explained that underground fiber installations are possible and depend on the characteristics of the site and locality. Additionally, he stated that it is possible to agree on underground installations, but this will be reflected in the agreement as it is more expensive.
Yaser Abu Safad (Consumer Protection Commission): in terms of internet speed, could the actual speed vary from the one the costumer receives?	Mohammad explained that speeds from the company do not vary at the customer premises and are tested regularly where the company has a monitoring system that displays service quality. Variances could occur due to connection types (e.g., wifi) or number of connected devices among other factors Mohammad explained.

Raised question\ Issue	Answers
Public Question: Are costumers provided with internet routers?	Mansour explained that this is included within the installation package
AbdelRahman Nour (Ministry of Education): What benefits are provided to local councils if they connect with Bnet?	Mansour explained that the agreement will entail benefits to local councils when signing the agreement including discounts and increased speeds.
Question: Municipalities are interested that the youth from the local areas to be hired for the project.	Mansour confirmed this.
Question: Local councils are interested that there is not a clutter of poles and cables in local areas where currently each company are installing their own poles.	Mansour answered that all the works from design, choosing pole locations, installations, and operations are being conducted in complete liaison with the local councils and that if any pole location or installation is requested to be moved, the company will coordinate to choose another more appropriate location. As for other companies, they should also liaise with municipalities and the MTIT.
Question: in terms of agreements with municipalities, some clauses have been seen to be unfair to municipalities and have to be revised, this is especially regarding the company's grace period.	Mansour stated that the grace period aims to provide the company with the space needed to start deployment, where it is unfair and illogical to start paying prior to installing the service. As such, even if the agreement is signed, the payments start once works commence in the said locality. Where the grace period is only meant to give the company the time to prepare and they confirm starting to pay once they begin deployment of the service.
Yaser Abu Safad (Consumer Protection Commission): is there a ceiling for upload and download capacity?	Mohammad stated that there is no service without such limitations, this aims to guarantee fair access to everyone and that some premises do not uptake more capacity than others. And where this is a common practice in the telecom sector. Additionally, the provided capacity limit is more than the needed consumption of subscribers.
Question: Is there a specific number or limit to the number of councils Bnet will connect with their services?	Mansour stated that the deployment of services in localities is based on priorities and based on the order of signing agreements to ensure committing to the agreements with the signed localities first.

The received feedback has been noted by the company to account for in their planning for new localities.

As for the full attendance sheet of the session, it is available through the following link:

https://drive.google.com/file/d/1T2JkHOEXARzZK85kp2s5tiQGQkO0FYzq/view?usp=sharing

9.3. Future Stakeholder Engagement Requirements

To ensure continuous community and public engagement, the company during the design and planning phase, as well as the installation phase, and prior to the operational phase in each locality, shall continue the stakeholder engagement activities through;

- Community engagement activities during the E&S screening and before the installation in each locality in coordination with the local municipality/ village council. Updates to the E&S management guidelines shall take place based on the feedback received from the stakeholders.
- Disclosure and dessimination of the E&S management guidelines to the localites through the municipalities / councils.
- Public disclosure of the Grievance Mechanism in Arabic.
- Continue engagement sessions with the same stakeholders either individually or through another public session prior to the operational phase
- Conduct stakeholder engagement meetings during operations on-need basis; if there are new developments or changes in the project operations that could carry impacts to the local community.

10. Grievance s Mechanism

The Grievance mechanism (GM) is part of the ESMG and is of two folds; the Project Level GM intended for the use of the public, and Workers' GM intended for the use of project workers. The purpose of the Project Level GM is to facilitate communication between the stakeholders and the project management, and to resolve issues affecting the stakeholders promptly and effectively. As for the Workers' GM, it aims to provide project workers, either direct (Bnet Co.) or contracted (Contractors') with appropriate and affective uptake mechanisms to voice their complaints, grievances, and concerns to their management. During the construction and installation phase, Contractors are required to provide their workers with an appropriate grievance mechanism and uptake channels in accordance with suggested GM available in Annex V. Moreover, the grievance mechanism helps the project team to identify environmental and social issues resulting from the operation of the project and take actions to resolve such issues accordingly.

The company has an established complaints mechanism through their different uptake channels that include; a functioning online complaints system through their website, a published free toll number, social media, email, and through personal visits. The complaints mechanism can be accessed through: https://form.bnet.ps/pages/Customer/complaintrequest.php

The GM requires enhancements to ensure that it adheres to the requirements of the O.Ps regarding stakeholder engagement and information disclosure, as well as the GM requirements, particularly regarding announcement and disclosure of the GM, the right to submit anonymous grievances, and GBV (SEA / SH) referral mechanisms. Additionally, the existing complaints mechanism shall include a clear resolution timeframe and should include a description of the GM, its uptake channels, process for handling complaints/grievances, the right to submit anonymous grievances, and the referall mechanism for GBV grievances. The ESO in cooperation with Bnet Co. staff shall ensure the implementation of the needed enhancement activities.

The grievance mechanism shall be announced along with the project description through relevant means of media, whether through newspapers, social media, or radio announcements. A simplified Arabic version for public disclosure the company is advised to adapt or modify to suit their complaints system has been suggested in Annex III.

Complaints received through the grievance forms and mechanisms shall be screened to the matrix in chapter 7 in order to define whether the issue is an anticipated issue or is a new issue that needs to be included in the new revision of the ESMG.

Expected grievances to be received during the project's life cycle include:

- Service interruptions due to construction and installation works or maintenance works.

- Employment Grievances: Issues related to worker recruitment, wage disputes, working conditions, and termination.

- Environmental Grievances: Concerns about environmental degradation, such as noise.
  Property Grievances: Claims of damage to personal or communal property due to project activities.
  Safety Grievances: Reports of unsafe practices or conditions affecting workers or the community.

  For the steps of resolution of grievances, the process is available in Annex V.

11. Budgetary Requirements

The implementation of the mitigation and monitoring measures could be accompanied with additional costs as necessary provisions will have to be implemented to eliminate and/ or reduce negative potential impacts. Most of the mitigation measures specified in the ESMG matrix are based on avoidance, and as such do not have any additional cost related to them. Nevertheless, several mitigation measures and monitoring activities are still associated with cost to contractors and to the company that need to be identified, these include;

Table 11: Cost Estimate of the Implementation of the ESMG

Action	Cost	Responsibility	Timeframe
CONSTRUCTION AND INSTALLATION			
1. Institutional Capacity			
Hiring of ESO	1000-2000/month	Bnet Co.	Continuous
2. Capacity Building			
I. OHS Training	1000$	Contractor	Prior to the start of the construction and installation works.
II. OHS Training	1000$	Bnet Co.	Prior to the start of the construction and installation works.

III. E&S awareness and orientation on the E&S management guidelines for Bnet Staff	300$	Bnet ESO.	Annual
3. Workers Health and Safety			
Monitoring of noise levels – purchase of Noise Level Meter	150$	Bnet Co.	Once
Cost of PPEs	30-50$/worker	Contractor	Once
4. Community Health and Safety			
Cost of Stakeholder Consultations	500$	Bnet Co.	For each locality during negotiation
TOTAL (During Construction & Installation)			~34,950$ - 49,950$
		OPERATIONS	
Hiring of ESO	1000-2000/month	Bnet Co.	Continuous
TOTAL (During Operations)			12,000$ - 24,000$

Annex I: Environmental and Social Site-Specific Screening Checklist

Site-Specific Screening CHECKLIST

PART I: INSTITUTIONAL & ADMINISTRATIVE			
Locality:			
Municipality:			
Sub-project/ Segment / Route Title:			
Route and infrastructure ownership	Right of way / municipality / …		
Scope of works:	Poles / Electricity infrastructure. Elaborate on works and scope of installation.		
Sub-project Duration:		**Starting Date:**	
Municipality's focal point	**Name:**		**Phone**:

SITE DESCRIPTION			
Describe the site location *(Attach map for the final route of the network and the location of the poles)*			
If the answer to any below question is "Yes", then the sub-project will be considered ineligible:			
	Yes	**No**	**Description**
Is there any archaeological site along the route of the network, or near the works' site?			
Are there potential impacts on livelihoods of residents and community as a result of utilizing the right of way for the project?			
Is there any close natural reserve? Do the installations affect or have impacts on these natural reserves?			

Will the project result in resettlement of individuals or families or require the acquisition of land (public or private, temporarily or permanently) for its development?			
Will the project result in the temporary or permanent loss of crops, fruit trees and household infra-structure?			
Will the sub-project have a significant impact on the public infrastructure (i.e., water network, wastewater network, another telecommunication network?)			
If the Answer for all the above is "No", please fill in the followings;			
ENVIRONMETAL POTENTIANL RISKS			
	Yes	**No**	**Description**
Description of the geographic, physical, biological, geological, hydrographic context.			
Does the subproject have any significant potential impact on the environment (i.e.: Air, soil, water & groundwater, biodiversity.) ?			
What alternatives to the subproject design have been considered and what mitigation measures are proposed?			
SOCIAL RISKS & IMPACTS			
Does the subproject have any significant potential impact on local community? Describe it.			
Identify the potential social risks and impacts initiated by the project implementation? propose the mitigation measures in this regard.			
Will the project reduce other people's access to their economic resources? Propose the mitigation measures in this regard.			
Classify the vulnerable and/or disadvantaged groups.			
Identify specific risks that each vulnerable group face? Propose the mitigation measures in this regard.			
What impact has the subproject on the human health? Propose the mitigation measures in this regard.			
PUBLIC CONSULTATIONS			

Have concerned communities been consulted, involved and have their interests and knowledge been adequately taken into consideration in subproject preparation?			
Identify when / where the public consultation / community dialogue process took place.			
GRIEVANCE REDRESS MECHANISM (GRM)			
Description of subproject level GRM.			
LABOR AND WORKING CONDITIONS			
Direct Workers (description and number if applicable contracted Workers (description and number)?			
What are the key labor risks?			
What are the required PPEs?			
What are the trainings needed before starting the works?			
Is there any GRM for subproject workers?			
Are there any specific OHS or labor rights risks associated with these works that have not been identified in the ESMG?			

CATEGORIZATION AND CONCLUSION

☐ Project is Accepted ☐ Project is declined

If accepted, choose the required ES management plans to be prepared:

☐ Update E&S Managmeent Matrix (Chapter 7 of the Guidelines)
☐ Traffic management plan to be prepared by the contractor
☐ Site-Specific OHS plan
☐ Stakeholder management plan
☐ Contractor to establish a Workers' GM
☐ None. Implementation of the E&S management guidelines shall suffice.

ADDITIONAL NOTES AND RECOMMENDATIONS:

- The screening shall be done in line with the E&S Managmeent Matrix available in chapter 7. Any risks that have not been identified or any additional reocmmendations and mitigation measures shall be addressed here and reflected to the E&S management guidelines.

PHOTOS:

Name of ESO, Date and Signature:

Name of Manager, Date and Signature:

Annex II: Bnet Co. Environmental and Social Officer Terms of Reference

Bnet Communications & Advanced Technology

Environmental and social officer

TERMS OF REFERENCE

Introduction

“BNET” was established in 2010 as part of the “BCI” group of companies, to be the group’s arm in the field of communications and Internet services. BNET is a company specialized in the field of communications, Internet, and broadband services in the Palestinian market. Its services vary to include home Internet services, and narrow and broadband services, ensuring that the needs of all its subscribers, including individuals, institutions, and medium and large companies, are met.

The company is currently preparing for the implementation of a new project that aims to connect over 30 localities in Jenin and Tubas Governorates with Fiber to the Home (FTTH). The project will entail laying company owned poles in a few areas while mainly relying on installing fiber cables over the existing electricity infrastructure. For the project, an Environmental and Social Management Plan (ESMP) has been developed, which includes the environmental and social mitigation measures to be implemented by Bnet throughout the project’s lifecycle. These measures were based on Environmental and Social (E&S) Assessment conducted for the project and the identification of potential risks, as well as consulting with the relevant stakeholders.

As the project will cover a relatively large area, E&S screening will be required for each location prior to installation per the ESMP's screening form to assess any potential E&S impacts that could arise for the specific site/route. The ESMP contains management procedures that have to also be implemented such as, but not limited to, occupational health and safety, traffic safety, community health and safety, emergency response procedures, grievance and complaint mechanism, and others.

For this, Bnet is seeking a qualified Environmental and Social Officer (ESO) to supervise and assist the company in the sound implementation of the ESMP and its measures.

Main Tasks and responsibilities

Environmental and Social (E&S) Management Responsibilities:

- The ESO shall be responsible for the complete management, implementation, and supervision of all measures and actions as stated by the project's ESMP.
- The ESO shall conduct an on-site E&S screening per the ESMP form for each new location / route for which installation is to commence.
- Prepare periodic E&S reports per the company's request and as specified by the ESMP.
- Conduct monitoring site visits frequently as requested and per minimum as specified by the ESMP.
- Liaise with external stakeholders and partners on E&S matters.
- Manage and supervise the implementation of a Public and Workers' Grievance (complaints) mechanisms in line with the ESMP and prepare periodic reports on received complaints, their status, and other parameters.
- Ensure that E&S measures and clauses are included in bidding documents
- Ensure that the implementation of OHS measures /plan and emergency response procedures are being followed on site during works.
- Report any non-compliances directly to the company and suggest corrective actions needed.
- Report any incident, accident, or near-miss to the company promptly and prepare relevant reports as required in the ESMP. Ensure that reporting is within the timeframe required. And submit the reports to the required parties as stated.
- Assist external E&S auditors, consultants, and missions to visit and verify the project conditions, the ESO is expected to be the E&S focal point for the company.
- monitor the compliance of contractors to the provisions of the ESMP.
- Provide awareness trainings and orientations to workers, contractors, and stakeholders on the ESMP measures as instructed and per the ESMP requirements.
- Conduct stakeholder engagement activities throughout the project's lifecycle. maintain a record of the consultations indicating means of feedback other than consultations, e.g., surveys, used to seek the views of affected stakeholders; date and location of the consultation meetings; a list of the attendees and their affiliation and contact address; and summary of minutes of meeting.
- Any other tasks as instructed by the direct supervisor.

Competencies and job requirements

- At least a BSc. degree in environmental studies, or any other related field.

- Minimum 2 years of work experience as an Environmental and/or Social Officer, with technical knowledge in both environmental and social safeguards processes and compliance.
- Knowledge in international organizations Environmental and Social Standards and Safeguard Policies.
- Knowledge of national environmental regulations and procedures.
- Relevant experience in preparing environmental and social assessments, ESMPs.
- Very good management skills, particularly workshop organizing and moderation, communication skills as well as having the ability to work in a team.
- Proven ability to communicate effectively, understand community and stakeholder perspectives and vulnerabilities and to engage with project affected people and project management teams positively and constructively.
- Requisite language skills including oral and written professional proficiency in English, in addition to report writing.
- Strong results-orientation, proactivity, and ability to problem-solve.
- Excellent computer skills, including other relevant business software.
- Ability to work under pressure and meet tight deadlines.

Annex III : Bnet Co. FTTH for Rural Areas Project – E&S Audit Corrective Action Plant

Based on the E&S Audit conducted for the project during the E&S screening and assessment process, and through examining the existing installations of the two methods;(i) own infrastructure implemented in Jenin through installation of telecom poles and fiber network, and (ii) in Qabatya through utilizing the existing electricity infrastructure for fiber over cable, the following denotes the corrective action plan for the project based on the audit's findings;

No.	Parameter	Fully Met	Partially Met	Not Met	Evidence and Observation / Remarks	Corrective Actions	Timeline	Implementation responsibility	Monitoring Responsibility	Budget
	Environmental Parameters									
1	Environmental and/or Social Assessment and institutional capacity			✓	The company did not prepare or was requested to prepare any environmental or social assessment. Additionally, the company does not have a dedicated E&S focal point or OHS officer	• Follow the recommendations of the screening section of this report for the remaining installations. Consult with EQA on the licencing requirements for the new installations ○ **UPDATE:** EQA has been consulted and no additional requirements are needed. • Employ an OHS officer as such role is required to be present on site and ensure safety of workers.	Bnet to hire an ESO Prior to the October 2023.	• Bnet Co.	• PIA	• 1000 – 2000$ USD per month depending on qualification and level of effort.
2	Installation Conditions	✓			Installed infrastructure in Jenin and Qbatya have been visited, the company has adhered to the right-of-way and the specifications of poles and network installation. Cables and poles seemed to be new and in good condition in Jenin, while in Qabatya installations where over electricity cables with no remarks.	• Develop Occupational Health and Safety (OHS) Protocols • Include waste management measures in the E&S tools to be prepared. • Ensure that the company has inspection and monitoring schedule on a periodic basis to ensure the conditions of installation and needs of maintenance.	• OHS plan to be developed in line with the ESMP prior to the end of October 2023. • ESO to commence monitoring and evaluation and progress reporting by end of November 2023 the latest.	• Bnet Co. ESO	• PIA	No additional budgetary requirements

No.	Parameter	Fully Met	Partially Met	Not Met	Evidence and Observation / Remarks	Corrective Actions	Timeline	Implementation responsibility	Monitoring Responsibility	Budget
3	Occupational Health and Safety		✓		The field office in Jenin has the required life and fire safety installations in line with the civil defence and their certificate. Cables and electronics are enclosed and protected and only qualified workers are permitted to enter. In terms of installation and OHS on field, contractors are required to adhere to the use of PPEs, nevertheless, there are no records of OHS trainings being conducted for the contractors' workers. In terms of emergency response, the company did not display any organizational measures or plans to respond to emergencies whether on site or in Jenin office which houses main hardware. Nevertheless, the main office has been licensed by the civil Défense.	• Develop an OHS plan. • Inspect contractors and subcontractors PPEs, and ensure that the equipment especially ladders, fall protection, gloves, and helmets are in good condition. • Include clauses on OHS trainings and record keeping, special training topics needed should cover electrical hazards, working from heights, physical injuries, first aid, optical fiber safety, fall protection equipment, and ladder safety. • Develop proportionate emergency response procedures in accordance with the identified risks and potential impacts particularly related to OHS, community health and safety, and traffic safety.	• OHS plan to be developed in line with the ESMP prior to the end of October 2023. • Site visits, inspections and progress reporting to be conducted no later by end of November 2023. • E&S and OHS orientation and trainings to commence no later than by Q1 2024. • ERP to be included as part of the OHS plan and procedures to be prepared under the ESMG by no later than end of October 2023.	• Contractors • Bnet Co. ESO & ES consultant	• PIA	• Cost of OHS consultant to conduct awareness session ±1000$ • Cost of ESO included in above measures.
4	noise		✓		Noise in the installation phase is short in duration and relatively low in magnitude. Nevertheless, it has been noted that installations if taking place in residential areas are not being announced or consulted on.	• Announce times and areas of work expected at least 1 week prior to installations • ensure adequate activity scheduling especially close to noise sensitive receptors such as schools and hospitals.	• Continuous	• Bnet Co. ESO	• PIA	No additional budgetary requirements
5	Solid waste			✓	While the works do not result in reportable amounts of solid waste. The company could enhance their operations by exploring recycling schemes. Currently the followed practice is collection from installation	• Explore plastic and carton recycling	Recycling Options to be explored by end of Q4 2023.	• Bnet Co. ESO	• PIA	No additional budgetary requirements

No.	Parameter	Fully Met	Partially Met	Not Met	Evidence and Observation / Remarks	Corrective Actions	Timeline	Implementation responsibility	Monitoring Responsibility	Budget
					point and disposal in nearest trash bin.					
6	Land use/ownership	✓			All installation points are based on agreements with local municipalities per contracts signed.	ESO to ensure prior to installations that agreements are valid and cover the installation localities	• Continuous	Bnet Co. ESO	• PIA	ESO to ensure prior to installations
7	Traffic/right of movement		✓		While the installations take place in the right of way, and the company owns warning signs to guide traffic during installations, the risks could be significant on the intra-urban roads where driving speed limits are higher.	• Contractors to prepare Traffic Management Plans • Ensure that reflective signs are used especially on intra-urban roads installation • Workers to be provided with reflective vests. • Workers to be accompanied by traffic guides • Liaison and early announcement of work areas to be conducted. • Ensure that a dedicated and sufficient space is always available for loading and unloading of cables and equipment	• Traffic management plan to be prepared by contractors and to be approved by Bnet prior to end of Q4 2023. • Signs to be used during installations as well as appropriate PPEs such as vests throughout the installation works.	• Contractors • Bnet Co. ESO	• PIA	No additional budgetary requirements
8	Visual Impacts		✓		The company's main infrastructure installation will include a small portion of new network (i.e., 150 km of poles compared to 1,000 km of over cable fiber). The over cable fiber poses low visual impacts due to utilization of existing infrastructure. The installation of poles has been witnessed to follow good practice, nevertheless, connections to home from those poles need to be enhanced.	• Consult with building residents on possibility of using trenches rather than arial installations • Ensure addressing concerns regarding pole locations or cables immediately through an effective GM • Follow GIIP in connecting buildings from splitter boxes in the street	• Continuous	• Bnet Co. ESO	• PIA	No additional budgetary requirements
Labor Rights, Working Conditions, Occupational and Community Health and Safety										

No.	Parameter	Fully Met	Partially Met	Not Met	Evidence and Observation / Remarks	Corrective Actions	Timeline	Implementation responsibility	Monitoring Responsibility	Budget
1	Do all employees and workers have contracts? Are there impacts relevant to Labor rights and working conditions?	✓			The company reported that all their staff have contract and are full-time. Interviewed staff in Ramallah headquarters and Jenin field office had contracts. Reviewing the list of the workers insured. It was noticed that one of the administrative officers receives a wage slightly lower than the minimum wage act of 2021 (1880 ILS).	• Review the salaries of direct and contracted workers to ensure the adherence to the minimum wage act.	• As needed and depending on new hiring. Preferably semi-annually.	Bnet Co. ESO	• PIA	No additional budgetary requirements
2	is there a company code of conduct?		✓		Main management in Ramallah have received a company guidebook which contains a CoC. However, field employees in Jenin did not receive it.	• Conduct a review of the company CoC and ensure its adherence to national and World Bank requirements. And its consistency with the F4J II's CoC that is available in its ESMF[31] • Ensure the circulation of the CoC to all project staff, including contractors and subcontractors.	• Suggested CoC to be provided throughout the ESMG by no later than end of October 2023. • Bnet ESO once on board shall review the ESMP COC and Company COC and update the company CoC based on the ESMP or adapt the ESMP COC as appropriate, by no later than end of Q4 2023. • Bnet ESO shall ensure that the CoC is circulated to all direct and contracted workers and that its part of the orientation training.	Bnet Co. ESO	Bnet Management PIA	No additional budgetary requirements

[31] https://www.f4j.ps/cached_uploads/download/2021/01/17/environmental-and-social-management-framework-1610875245.pdf

No.	Parameter	Fully Met	Partially Met	Not Met	Evidence and Observation / Remarks	Corrective Actions	Timeline	Implementation responsibility	Monitoring Responsibility	Budget
							• Bnet ESO to ensure the inclusion of the COC as part of the onboarding and contract signing process			
3	is there an active Workers' grievance mechanism?			✓	Complaints are resolved through the company management verbally. Where direct workers raise their grievances to the company's management. For contracted workers, they raise their grievances to their own management. There is no log, systematic process, or defined timeline for resolution. Additionally, there are no disclosed uptake mechanisms.	• Further management plans should contain a detailed, effective, and accessible workers' GRM for direct and contracted workers.	• Bnet to adapt the Suggested GM In the ESMG to their operations by no later than end of Q4 2023. • The GM shall be published and circulated to workers.	• Contractors • Bnet ESO	• PIA	No additional budgetary requirements
4	are workers provided with adequate insurance?	✓			Company workers and contractors' workers are insured against injury. Site installations have third party liability insurance as well. The insurance policy for workers covers site installations but does not cover the company's field office in Jenin, .and any installation works conducted across the West Bank. However, it can be seen from the insurance policy of the contractor that the coverage extends to workers specifying their daily wages not to exceed 80 shekels, which is less than the minimum wage act of 85 shekels	• Modify insurance policy to include Jenin field office and all installation works conducted under the project, where provided policies only cover specific areas. • Review contracted workers' daily wages to ensure that they adhere to minimum wage act of 2021 • Modify the contractor's insurance policy to reflect the minimum wage act	• Insurance policy to be modified by no later than end of November 2023. • Contracts and daily wages to be revised by no later than end of November 2023.	• Contractors • Bnet Co. Management	• PIA	New insurance policy difference (±1000- 2000$)
5	are workers provided with E&S and OHS training?			✓	The workers and new comers are provided with on-the-job training. No specific	• Further management plans should include the requirements and guidelines for conducting occupational health and	• OHS Training requirements included in point 3 of the	• OHS consultant • Bnet ESO	• PIA	• OHS Training cost included in

No.	Parameter	Fully Met	Partially Met	Not Met	Evidence and Observation / Remarks	Corrective Actions	Timeline	Implementation responsibility	Monitoring Responsibility	Budget
					safety training or orientation program is provided	safety training for new workers, and toolbox safety meetings requirements • Contractual clauses with contractors should include training requirement provisions as detailed in the section above	environmental parameters along with OHS consultant cost.			point 3 of the environmental parameters along with OHS consultant cost.
6	Do workers have adequate PPEs? Is there overall compliance with the use of PPEs?		✓		gloves, helmets, harnesses, and other PPEs are provided by the company as required according to their assignment and job.	• The Code of Conduct shall establish the need to wear and commit to the use of PPEs. Training sessions and toolbox meetings shall stress on the importance of PPEs in the workplace. • The code of conduct should cover OHS aspects and include reporting requirements and penalties in case of non-compliance with OHS measures such as the commitment with using PPEs. • OHS engineer / focal point should be assigned to the project and ensure the commitment to the use of PPEs by contractors	• CoC requirements added above. • ESO recruitment added above.	• Contractors • Bnet Co. Management • Bnet Co. ESO	• PIA	No additional budgetary requirements
11	is there a publicly available GRM?		✓		The company has a complaint system and a free toll number. They rely most on the number and the GM is not announced on the website. The ticketing system exists and requires some enhancements to reflect the safeguards requirements.	• Announce the GM on the website. • Provide a description and list the uptake channels on the website and social media and other outlets • Include workers' GM in the ticketing system. • Including a filtering option for environmental and social grievances	• Suggested GM is to be developed as part of the ESMG, Bnet Co. to adapt the suggested GM requirements to their system as needed by end of Q4 2023.	• Bnet Co. ESO	• PIA	No additional budgetary requirements
12	have consultations been conducted with the local community?			✓	Liaison is conducted with local authorities but not with residents or community representatives.	• Conduct consultation and engagement activities including meetings, announcements, social media and news outlets to inform local communities of the project and times of installation.	• Consultation activities to be conducted as part of the preparation of the ESMG by end of October 2023 the latest.	• Bnet Co. E&S consultant	• PIA	No additional budgetary requirements
13	Have there been impacts on Community		✓		There have been no reported impacts on the community, installation works are of minor civil works nature	• Warning signs around installation works to be installed • Diversion of pedestrian movement to be implemented	• Warning signs to be installed in line with the above points.	• Contractors	• PIA	No additional budgetary requirements

No.	Parameter	Fully Met	Partially Met	Not Met	Evidence and Observation / Remarks	Corrective Actions	Timeline	Implementation responsibility	Monitoring Responsibility	Budget
	Health and Safety?				include shallow excavations and installation of poles.	• Bystanders to be monitored by OHS officer or site supervisor to ensure they do not come in proximity to installation works	• Traffic management plans to be prepared by contractors in line with the above points • Traffic supervisors to accompany installations at all times.	• Traffic Supervisors • Bnet Co. ESO		
14	Have there been impacts on road safety?		✓		Works on inter-urban ways and within cities have not been reported to result in any incidents relevant to road safety. However there have not been systematic management of road safety including having a traffic supervisor or OHS officer.	• Install warning signs at appropriate distances on inter-urban roads to alert drivers in advance of existence of works. • Publish on media outlets the locations of works at least 1 week prior to installations. • Have the supervisor's direct traffic or assign a dedicated traffic supervisor	• Information disclosure to be in line with the above requirements • Traffic safety to be in line with the above requirements	• Bnet Co. ESO • Contractors	• PIA	No additional budgetary requirements

Annex IV: Suggested Code of Conduct

مدونة قواعد السلوك واخلاقيات العمل

مقدمة

يأتي الاهتمام بمواثيق سلوك وأخلاقيات العمل والتشغيل كأحد مداخل تطوير الاداء للعاملين وأصحاب العمل. إن إعداد مدونة قواعد السلوك وأخلاقيات العمل من شأنه تعزيز قيم والممارسات الايجابية في العمل، وتعد مدونة السلوك إطاراً عاما يجب على العاملين في المشروع التقيد به والعمل بمقتضاه، فهي مدونة تلقي الضوء على المعايير والاخلاق والقيم التي يجب أن يتحلى بها العامل أثناء أداء واجباته، ومن ثم فهي قواعد ستسهم على نحو فاعل في الارتقاء بمستوى جودة الاداء والارتقاء به. إن هذه المدونة تشكل جزءاً من مقتضيات العمل في المشروع بالتركيز على اجراءات الوقاية والسلامة والصحة العامة، ويجب تطبيقها في كل اوقات العمل وطوال فترة التشغيل، وسوف يتم تزويد كل عامل بنسخة منها، ليقرأها ويعمل بموجبها.

تعريفات مهمة

•**العنف الجنسي والعنف القائم على النوع الاجتماعي:** مصطلح شامل لأي فعل ضار يُرتكب ضد إرادة الشخص ويستند إلى الفروق المنسوبة اجتماعيًا بين الذكور والإناث (أي الجنس). ويشمل الأفعال التي تلحق الأذى، أو المعاناة الجسدية أو الجنسية أو العقلية، والتهديد بمثل هذه الأفعال، والإكراه، وغير ذلك من أشكال الحرمان من الحرية .

•**الاستغلال والاعتداء الجنسيان : sexual exploitation and abuse (SEA)** يُعرَّف بأنه أي إساءة فعلية أو محاولة إساءة استغلال لموقف ضعف أو قوة تفاضلية أو ثقة لأغراض جنسية ، بما في ذلك، على سبيل المثال لا الحصر، تحقيق الربح المادي أو الاجتماعي أو السياسي من الاستغلال الجنسي من جانب اخر.

•**الاعتداء الجنسي:** "التدخل الجسدي الفعلي أو المهدَّد بطابع جنسي ، سواء بالقوة أو في ظل ظروف غير متكافئة أو قسرية."

•**التحرش الجنسي : sexual harassment (SH)** التحرش الجنسي غير المرغوب فيه ، وطلب خدمات جنسية ، وغير ذلك من السلوك اللفظي أو الجسدي ذي الطبيعة الجنسية.

•**التحرش الجنسي مقابل الاستغلال والانتهاك الجنسيين:** يحدث الاستغلال الجنسي ضد مستفيد أو فرد من المجتمع. ويحدث التحرش الجنسي بين أفراد / موظفي مؤسسة أو شركة وينطوي على أي تقدم جنسي غير مرغوب فيه أو سلوك لفظي أو جسدي غير مرغوب فيه ذي طبيعة جنسية. يعد التمييز بين الاثنين أمرًا مهمًا بحيث يمكن أن تتضمن في سياسات الوزارة وتدريب الموظفين على تعليمات محددة حول إجراءات الإبلاغ عن كل منهما.

• **الموافقة:** هي الاختيار الكامن وراء قرار الشخص الطوعي بفعل شيء ما. يجب منح الموافقة على أي نشاط جنسي بحرية، وموافقة على الانسحاب، وتتخذ مع أكبر قدر ممكن من المعرفة، ومحددة للموقف. إذا تم الحصول على اتفاق باستخدام التهديدات، أو الأكاذيب، أو الإكراه أو استغلال اختلال توازن القوى، فهذه لا تعتبر موافقة.

أولا: المبادئ الاساسية لمدونة السلوك واخلاقيات العمل

إن جودة الاداء ونجاح العمل تتوقف على الالتزام بقواعد السوك العامة واخلاقيات العمل، والتصرف بطريقة عادلة وصادقة كأفراد مسئولين اجتماعيا انطلاقا من ايماننا الراسخ بمسؤوليتنا الاجتماعية التي لها أثرا إيجابيا كبيرا على المشاريع التي نعمل بها. ولتحقيق هذا، **يجب علينا احترام هذه المبادئ الاساسية**:

النزاهة والامانة: الأيمان بتعزيز التصرف بأمانة في جميع العلاقات مع التقيد الصارم بجميع القوانين المعمول بها، احترام كرامة كل شخص والحفاظ على سلامتهم.

الشفافية: الاحترام المتبادل والحوار والشفافية هي أساس العلاقة مع اصحاب العمل والسلطات ذات العلاقة، والتي تتوافق مع مبادئ التعاون والصدق والانفتاح.

الموضوعية والاستقلالية: العمل بموضوعية واستقلالية وتجنب أي نوع من أنواع الفساد أو تضارب المصالح الذي قد يؤثر على اتخاذ القرارات المتعلقة بالعمل.

المسؤولية: توفير بيئة عمل آمنة وصحية للعمال، واحترام الحقوق والتقيد بالواجبات من مقتضى المسؤولية، واحترام المجتمعات التي نعمل فيها.

ثانيا: قواعد السلوك واخلاقيات العمل

القسم الاول: الحقوق العامة

- يلتزم العامل بتأدية عمله بإخلاص وأمانة وبالمحافظة على أسرار العمل وأدواته، ويعتبر مسؤولا عن الادوات التي في عهدته وعليه الحفاظ عليها، وفي حالة وجود ظرف خارج عن ارادته او قوة قاهرة، فان العامل لا يعتبر مسؤولاً عن خلل الأدوات أو ضياعها.
- على العامل أن يلتزم بأخلاقيات العمل والحفاظ على خصوصية السكان والعمال في منطقة العمل، دون الاشتباك معهم أو التسبب بأي أذى لهم بأي شكل كان. ويجب الامتناع عن المشاركة في أي عنف بدني او لفظي لأي من العاملين أو السكان.
- على العامل التقيد بساعات العمل المطلوبة، وكذلك التقيد والامتثال بالمهام المكلف بها من قبل صاحب العمل.
- على العامل الالتزام بإجراءات السلامة المتبعة في الموقع، خاصة عند استخدام الآلات الخطرة، وأي إجراءات إضافية يتم طلبها من قبل اصاحب العمل.
- على العامل الالتزام باستخدام أدوات ومعدات الحماية المطلوبة وعلى صاحب العمل توفيرها لهالها.
- يجب على العامل الإبلاغ فورا عن أي أمراض مزمنة يعاني منها أو عند الشعور بالإعياء، وعن أي عقاقير يتلقاها العامل.
- الامتناع عن التسبب بأي نوع من المضايقات سواء اللفظية المباشرة او غير المباشرة لأي شخص أثناء فترة العمل، وخاصة من فئة النساء والأطفال وذوي الاحتياجات الخاصة.
- من حق العامل أن يوقع عقد عمل مع صاحب العمل على أن يكون باللغة العربية، وذلك لحفظ حقوق العامل، علما بأن عقد العمل يجب أن يتضمن: الأجر، نوع العمل، مكانه ومدته، ساعات وأوقات العمل، كما ويجب ان يتضمن العقد الاجراءات الصحية وشروط الوقاية المتعلقة بالصحة والسلامة المهنية، ويجب أن يوقع العقد من قبل صاحب العمل والعامل بحيث يحتفظ العامل بنسخة أصلية من العقد.
- علي صاحب العمل أن يلتزم بالتامين على جميع عماله عن إصابات العمل لدي الجهات المرخصة في فلسطين.
- يجب أن تتخلل ساعات العمل اليومي فترة أو أكثر لراحة العامل لا تزيد في مجموعها عن ساعة مع مراعاة ألا يعمل العامل أكثر من خمس ساعات متصلة دون تخصيص وقت للراحة.
- التقيد بأوقات العمل وتكريس اوقات العمل للقيام بالمهام والواجبات المتعلقة بطبيعة العقد، كما نص عليها عقد العمل.
- ضمان حق العامل في التظلم او الشكوى من اي انتهاك لحقه او من اتخاذ قرار خاطئ بحقه.
- تعتبر مدونة السلوك هذه جزئا لا يتجزأ من العقد والاتفاق القانوني المبر م ما بين العامل وصاحب العمل.

القسم الثاني: حماية حقوق النساء

- معاملة النساء باحترام بغض النظر عن العرق، أو اللون، أو اللغة، أو الدين، أو الرأي السياسي، أو غير السياسي، أو الأصل، او الإعاقة، او أي وضع آخر.
- عندما يكون لدى المرأة العاملة مخاوف أو شكوك فيما يتعلق بأعمال العنف القائم على النوع الاجتماعي من قبل اصحاب العمل او اي طرف ذو علاقة بالعمل، يجب عليها الإبلاغ عن هذه المخاوف وفقًا لإجراءات الشكاوى المعتمدة في المشروع. على ان يتم التعامل مع هذه الشكاوى بخصوصية كبيرة للحفاظ على كرامة المشتكية.
- يجب توفير الحماية للنساء وتهيئة أماكن امنة في العمل للنساء وخاصة الحوامل والتأكد من عدم نقل أي امرأة حامل بشكل غير صحيح، والعمل على ازالة او منع تعرض النساء الحوامل للمخاطر.
- يجب توفير أماكن للنظافة الشخصية لاستخدامها من قبل النساء العاملات بعد الانتهاء من العمل. وايضا توفير مرافق صحية) دورات مياه (خاصة بالنساء في اماكن العمل، ويجب أن يتم تعقيم هذه الأماكن بشكل يومي.
- يجب تنفيذ لقاءات توجيهية قبل بدء العمل في الموقع للتأكد من أن الجميع على دراية بقواعد السلوك الخاصة بالعنف القائم على النوع الاجتماعي.

القسم الثالث: حماية حقوق ذوي الاعاقات

- يلتزم اصحاب العمل بتهيئة البيئة الملائمة لاحتياجات ذوي الاحتياجات الخاصة وتوفير تسهيلات الحركة والتنقل في اماكن العمل.
- عدم التمييز بحق المعاقين والمعاقات في العمل، واحترام حقهم / هن في اختيار نوعية الاعمال التي تناسب قدراتهم /تهن، واهتماماتهم/هن واحتياجاتهم/هن.
- الالتزام بتوفير خدمات ومرافق صحية مواءمة لاستخدامات ذوي الاعاقة الحركية في مواقع العمل.

القسم الرابع: الصحة والسلامة المهنية

- على العامل التقيد بتطبيق شروط واجراءات الصحة والسلامة العامة الصادرة عن وزارة الصحة الفلسطينية، والالتزام بقواعد السلامة والصحة المهنية في العمل.
- على صاحب العمل تقديم الإسعافات الأولية اللازمة للعامل في حال الاصابة ونقله إلى أقرب مركز للعلاج
- الالتزام بإجراءات ومتطلبات السلامة والصحة المهنية بما في ذلك ارتداء واستخدام معدات الصحة والسلامة والالتزام بالتعليمات وحضور والالتزام بالتدريبات المتعلقة.

القسم الخامس: التبليغ:

إذا لاحظ أي شخص سلوكًا يعتقد أنه قد يمثل انتهاكًا لمدونة قواعد السلوك هذه، أو للتبليغ عن سلوك يتعلق بشخصه / شخصها، فيجب عليه / عليها إثارة المشكلة على الفور الى الإدارة التابع/ة لها.

سيتم الحفاظ على سرية هوية الشخص، ما لم يكن الإبلاغ عن الادعاءات مكلفًا بموجب قانون الدولة. يمكن أيضًا تقديم شكاوى أو ادعاءات مجهولة المصدر وشكاوى متعلقة بالعنف القائم على النوع الاجتماعي والتحرش الجنسي وسيتم أخذها في الاعتبار. نحن نتعامل بجدية مع جميع التقارير المتعلقة بسوء السلوك المحتمل وسنحقق ونتخذ الإجراء المناسب. سنقدم توصيات لمقدمي الخدمة الذين قد يساعدون في دعم الشخص الذي تعرض للحادث المزعوم، حسب الاقتضاء.

لن يكون هناك أي تبعات او عواقب لأي شخص يثير مخاوف بحسن نية بشأن أي سلوك محظور بموجب مدونة قواعد السلوك هذه. مثل هذا الانتقام او أي عواقب ستكون انتهاكًا لمدونة قواعد السلوك هذه.

القسم السادس: عواقب انتهاك مدونة السلوك

قد يؤدي أي انتهاك لقواعد السلوك هذه من قبل الموظفين والعمال إلى عواقب وخيمة، بما في ذلك الإنهاء والإحالة المحتملة إلى السلطات القانونية.

استمارة استلام

لقد تلقيت نسخة من مدونة قواعد السلوك مكتوبة بلغة أفهمها. أفهم أنه إذا كان لدي أي أسئلة حول مدونة قواعد السلوك هذه، فيمكنني الاتصال بالشؤون الإدارية في الشركة التي اعمل لديها لمزيد من التوضيح

اسم الموظف \ العامل_____ :

التوقيع_____ :

التاريخ_____ :

التوقيع بالتصديق – مدير الشركة (اسم الشركة_____)

الاسم والتوقيع_____ :

التاريخ_____ :

المرفق 1: السلوكيات التي تشكل الاستغلال والاعتداء الجنسيين (SEA) والسلوكيات التي تشكل تحرشًا جنسيًا(SH)

المرفق 1 لمدونة قواعد السلوك

السلوكيات التي تشكل الاستغلال والاعتداء الجنسيين (SEA) والسلوكيات التي تشكل تحرشًا جنسيًا

(SH)

تهدف القائمة غير الشاملة التالية إلى توضيح أنواع السلوكيات المحظورة، تشمل أمثلة الاستغلال والاعتداء الجنسيين، على سبيل المثال لا الحصر:

•يخبر عامل المشروع أحد أفراد المجتمع أنه يمكنه الحصول على وظائف متعلقة بموقع العمل (مثل الطهي والتنظيف) مقابل ممارسة الجنس.

•يقول أحد العاملين في المشروع أنه يمكنهم تقديم أجهزة او خدمات او تفضيلات للنساء مقابل ممارسة الجنس.

•يقوم أحد العاملين في المشروع باغتصاب أحد أفراد المجتمع أو الاعتداء عليه جنسياً

•يمنع عامل المشروع أي شخص من الوصول إلى الموقع / الخدمات ما لم يقدم خدمة جنسية

•يخبر عامل المشروع الشخص الذي يتقدم للحصول على عمل بموجب العقد أنه لن يقوم بتوظيفه إلا إذا مارس الجنس معه.

أمثلة على التحرش الجنسي في سياق العمل

•تعليق عامل المشروع على مظهر عامل أو طاقم مشروع آخر (سواء كان إيجابياً أو سلبياً) والرغبة الجنسية.

•عندما يشكو عامل المشروع من التعليقات التي أدلى بها عامل آخر على مظهره / مظهرها ، يعلق العامل الآخر في المشروع بأنه "ي\تطلب ذلك" بسبب طريقة لبسه\ها.

•اللمس غير المرغوب فيه للعامل / الموظفين من قبل عامل آخر في المشروع

•يخبر عامل المشروع عامل آخر في المشروع أنه سيحصل له / لها على زيادة في الراتب، أو ترقية إذا أرسل له / لها صورًا عارية لنفسه.

Annex V: Suggested Grievance Mechanism Measures

PURPOSE

Bnet Co. has an already functioning complaints system that is efficient and with multiple uptake mechanisms. The following aims to provide the company with a suggested manual to firstly enhance their public GM to include environmental and social matters reporting channels and secondly to assist the company in establishing a Workers' GM.

1. DEFINITIONS

- **The complaint:** A written, or electronic document submitted by the complainant or his agent that reports a wrong behavior or shortening to perform a service or taking an action that the company or one of its employees was supposed to do, or regarding any form of discrimination or violation of the legislation in force, and it shall be submitted to the E&S coordinator or management of the company.

- **The complainant:** any normal person, his agent, his guardian, and every legal person or agent who has submitted a complaint about damaging or suffering as a result of the implementation of the project, its implementation mechanisms, or its results.

- **Project Workers:** These include the direct workers hired to work for Bnet Co. in a direct way, and the contracted workers who will be involved in the installation of the FTTH infrastructure through contractor firms.

2. PROJECT DEFINED GRIEVANCES CLASSIFICATION

Expected impacts and their relevant mitigation measures are listed in the E&S management matrix, the received complaints and grievances shall be screened against the matrix in order to resolve the issues and determine the most appropriate resolution. Grievances that may be received are included under the following categories listed in the ESMG and its matrix;

- Social & Socio-economic impacts
- Physical environment impacts
- Health and Safety
- Employment, labor rights and working conditions.

Received grievances can be categorized according to their frequency and severity into the following;

Category	Description	Severity	Resolution
A	Standard impacts and issues that are mostly, but not necessarily, included in the ESMG and an approved answers can be provided instantly	Low	Report to complainant, fill grievance form, and fill the grievance log.
B	Impacts that are not frequent or may have a one-time occurrence nature and are of a local nature	Medium	Bnet Co. ESO to investigate the issue to ensure that adequate mitigation measures are implemented from there forward. Consult the project management to draft an appropriate response. Report to the PIA in line with the reporting requirements.
C	Frequent, or potentially high impact or widespread that requires immediate attention.	Potentially High	Prioritize depending on severity and involve the project management to resolve and set a management strategy. Moreover, include impact in the updated ESMG and management plans.

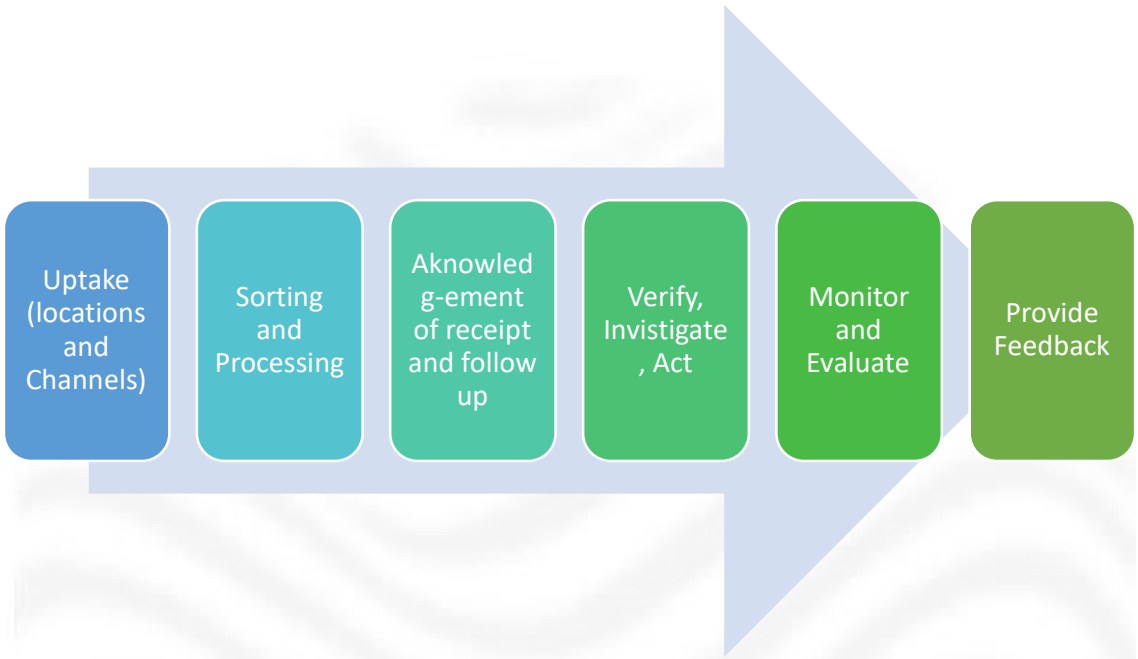
3. THE GRIEVANCE REDRESS MECHANISM

The first step for ensuring a successful implementation of the grievance redress mechanism is making it public, available, and easily accessible. This does not only include publicizing it,

but rather making sure that it is one of the essential topics covered in public consultations and that the stakeholders are aware of its existence, processes, timelines, and hierarchy.

This mechanism will apply to the public, as well as the project workers involved directly or being contracted to work for the benefit of Bnet Co.

The following simplified value chain describes the steps involved in the GM, which shall be described in further detail in the following sections.



4. PUBLIC GRIEVANCES UPTAKE CHANNELS

The ESO designated from Bnet team will be responsible for the overall management of the public's grievances relevant to the environmental and socio-economic parameters relevant and stated by this ESMG where other service-related complaints shall be processed through Bnet Co.'s complaints unit. Therefore, Bnet Co.'s ESO shall conduct review, verification, preparation of response, and recommending mitigation measures to the management.

Uptake channels will be as follows;

1. By Email: maburub@bci.ps
2. By Phone: 00970592666180
3. By Personal Visit: Ramallah, Ein Musbah, Omar AlMukhtar St., BCI Building.
4. By Facebook Page Messages: https://www.facebook.com/BnetPal

5. DIRECT WORKERS' GRIEVANECS UPTAKE CHANNELS

Bnet will provide their employees and workers with appropriate uptake mechanisms to voice their concerns and grievances to the management, the ESO will be responsible for direct liaison with the administrative affairs and the company's management to resolve workers'

complaints. The ESO in turn, will voice their complaints directly to the company's management through the same process and timeline for resolution.

Additionally, the company will be responsible for allocating anonymous uptake mechanisms whether be complaint boxes or online forms that are easily accessible to all workers and at a location that is neutral, away from management offices, and not monitored by security cameras.

1. By Email: ESO's email once hired
2. By Phone: ESO's phone once hired
3. By filling the grievance form at the office of the ESO

6. CONTRACTED WORKERS' GRIEVANCES UPTAKE CHANNELS

Contractors shall apply this grievance mechanism to their workers and any subcontracted workers, this GM will be part of the ESMG which is an integral part of the bidding documents, and where the contractors will have to reflect this grievance redress mechanism to their operations.

The contractor shall appoint a focal point who will liaise and report to Bnet ESO. The progress reports provided by contractors shall include grievances received, number, types, resolution, and other details.

The Workers' GM will be covered in the E&S training and toolbox meetings conducted by the contractor. They shall provide their workers with the following uptake channels and set up a complaints box on site. The contractor shall fill the corresponding details and circulate them to all workers.

1. By Email:
2. By Phone:
3. By filling the grievance form
4. Any other uptake mechanism that can be implemented.

7. ANNONYMOUS GRIEVANCES

The GM also includes an anonymous reporting process as some complainants may choose to file a complaint anonymously. Channels to accept and respond to anonymous grievances will be communicated to project affected parties during the consultation meetings and throughout project implementation. Anonymous complaints should provide factual details and specific allegations of misconduct or serious wrongdoing related to any of the project activities. The ESO shall ask the complainant about the preferable way to inform him/her of the solution.

Complainants can request that their personal identification information to be anonymized. Complainants are encouraged to maintain contact details in order to report back to them with resolution.

8. GBV (SEA / SH) GRIEVANCES UPTAKE CHANNELS

The GM includes specific procedures for SEA/SH grievances including confidential reporting and ethical documentation of GBV cases. Channels to accept and respond to GBV grievances will be communicated to the public and project workers during stakeholder engagement activities, inductions, consultations and throughout project implementation. The GM will accept GBV related grievances through the available channels. Telephone information line, email address and procedures will be communicated to during consultations and induction sessions.

The GM will report any GBV grievances directly to the upper management and will be treated and resolved with uttermost confidentiality. In cases where survivors request legal actions and where physical abuse have occurred, the company will contact the Ministry of Women Affairs through the GBV hotline **1-800-500-121.**

When reported through the GM, the following procedures will be followed;

i- Accept the grievance/ complaint through the GRM available channels.
ii- Provide the complainant with the option of anonymity as described in section 7. And request their consent to be contacted by the ESO.
iii- Notify company upper management and follow uttermost confidentiality.
iv- Investigate internally and suggest the required resolution along with the survivor's consent.
v- If the survivor decides to seek justice, in cooperation with the Ministry of Women Affairs, the national referral system through the Ministry will be followed.
vi- After referral, the GM focal point will follow up with the survivor to ensure proper care is provided to them, and to obtain feedback from the Ministry regarding the case for filing and closure.
vii- Document the details and insert in the log.
viii- Investigate the case and identify the source of issue to suggest preventive measures for such cases.

9. FILING GRIEVANCES

- The complainant fills in the designated form in writing and signs it or fills it in electronically including all personal information and details of the complaint. If they wish for anonymity, they can tick the anonymity box. Complainants have the right to also omit their personal identification information, but they need to understand and be made aware that this will not allow the ESO to provide them with feedback regarding their grievance.

- The complainant encloses all copies of documents which may support the complaint.

- The ESO will ensure that the form is filled in accurately. Once this is verified, an email/ SMS of acknowledgment with a reference number to track the complaint will be sent within 1 business day.

- If the complainant chooses to file his/her complaint verbally, the ESO must register the complainant information and details of the complaint into the system. The complainant will receive a reference number to track his/her complaint.

10. REGISTERING GRIEVANCES

- The ESO will enter the complaint into the GM Tracking Matrix/log.

- The GM Tracking log tracks the status of all complaints.

- The GRM Tracking log records the following information:

    • Complaint Reference Number

    • Date of receipt of complaint

- Name of complainant (Optional)
- Gender (Optional)
- Confirmation that a complaint is acknowledged
- Brief description of Complaint
- Details of internal and external communication / Attachments
- Action taken: (Including remedies / determinations / result)
- Date of finalization of complaint

- Original documentation must be kept on file.

11.EXAMINATION AND RESOLUTION OF GRIEVANCES

Once the grievance has been verified as legitimate, the ESO will inform the complainant that an investigation is underway within **three business days**. The complainant shall be informed of the estimated duration for resolving the complaint, which is no later **than two weeks** from the date of receipt of the complaint. Where the complaint is unlikely to be resolved within the estimated duration, the ESO must promptly contact the complainant to request additional time and explain the delay. If the complaint is not resolved after the two-week period, the ESO will refer the complaint to management to take the proper measures.

12.CLOSING GRIEVANCES

A complaint is closed in the following cases:

- Where the decision/solution of complaint is accepted by the complainant, the ESO shall close the complaint and sign the outcome and date in the Complaint Register.
- A Complaint that is not related to the project.
- A Complaint that is being heard by the judiciary.
- A malicious complaint.

13. REPORTING

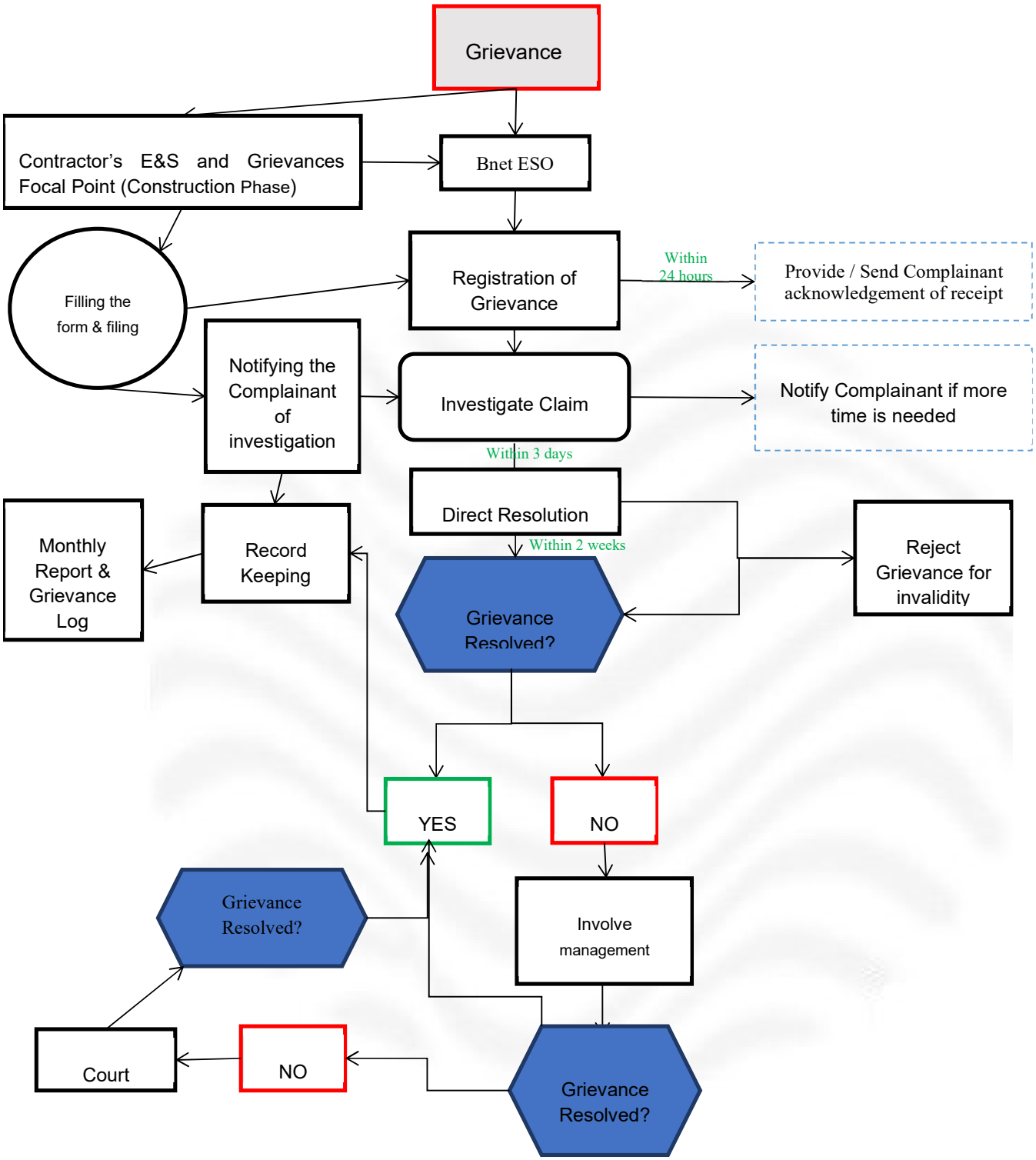
The ESO shall review the Complaints Register regularly for the purpose of supplying analysis and reports on complaints to management and to the F4J II Project through progress and Monitoring and Evaluation reports. The reports shall include the number of complaints received, managed and closed. It shall also include analysis of systemic and recurring problems. This will aid the project management in determining the cause of complaints and whether remedial action is warranted.

Periodic Reporting shall be as following:

- A monthly report by the contractor's E&S focal point included in the progress report (installation phase)

- A monthly report to Bnet management and the F4J Team by the ESO.
- Monthly / Quarterly Monitoring Reports by the F4J E&S Specialist / E&S Consultant.

14.GRIEVANCES MANAGEMENT SCHEME


Grievance
Contractor's E&S and Grievances Focal Point (Construction Phase)
Bnet ESO
Filling the form & filing
Registration of Grievance
Within 24 hours
Provide / Send Complainant acknowledgement of receipt
Notifying the Complainant of investigation
Investigate Claim
Notify Complainant if more time is needed
Within 3 days
Direct Resolution
Monthly Report & Grievance Log
Record Keeping
Within 2 weeks
Reject Grievance for invalidity
Grievance Resolved?
YES
NO
Grievance Resolved?
Involve management
Court
NO
Grievance Resolved?

1. طلب تقديم شكوى

التاريخ:.....

رقم الشكوى: .....

القسم الأول: حول المشتكي/ة

اسم مقدم/ة الشكوى الرباعي (اختياري):

رقم الهوية:

لا مانع من الكشف عن هويتي (نعم \ لا) - (لا: سيتم احالة الشكوى للدوائر المختصة على انها من مجهول)

اسم المؤسسة مقدمة الشكوى:

الصفة: اعتباري شخصي وكيل وصي ولي

الجنس (للأفراد فقط): ذكر ☐ انثى ☐

العمر (للأفراد فقط): ..... تاريخ الميلاد: / /

رقم الهاتف:

البريد الالكتروني:

القسم الثاني: حول الشكوى

موضوع الشكوى:

.....

.....

الجهة المقدم بحقها الشكوى:

.....

.....

هل الشكوى منظورة أمام القضاء: نعم ☐ لا ☐

هل تقدمت بشكوى في ذات الموضوع سابقا: نعم ☐ لا ☐

- اسم الجهة المقدم بحقها الشكوى سابقا: .....تاريخ التقديم: ...../...../

- هل تلقيت ردا على الشكوى السابقة: نعم، تاريخ الرد: ...../...../..... لا ☐

وقائع الشكوى:

.....

.....

القسم الثالث: مرفقات الشكوى (وثائق ومستندات)

1- .....
2- .....
3- .....

أقر وأصرح انا مقدم/ة الشكوى..... بأن المعلومات والبيانات والمرفقات الواردة أعلاه هي معلومات وبيانات ومرفقات صحيحة وحقيقية والتزم واتعهد بتحمل كامل المسؤولية القانونية فيما لو تبين خلاف ذلك في أي وقت من الأوقات أو إذا تبين أن الشكوى المقدمة من قبلي كيدية.

وعليه أوقع

توقيع و/أو بصمة مقدم/ة الشكوى: ..... تاريخ تقديم الشكوى: / /

توقيع و/أو بصمة الشخص الذي استعان به مقدم الشكوى في كتابة الشكوى: .....

اسم الموظف/ة مستلم/ة الشكوى: .....

توقيع الموظف/ة مستلم/ة الشكوى: ..... تاريخ استلام الشكوى: / /

القسم الرابع: (خاص لاستخدام مسؤول الشكاوى)

التوصية حول الشكوى: .....

.....

.....

رفض الشكوى ☐ قبول الشكوى ☐

- مبررات رفض الشكوى: .....
.....
.....

التاريخ:

مسؤول لشكاوى

التوقيع.....

2. <u>ابلاغ رد لمقدم الشكوى</u>

التاريخ:.....

الأخ / الأخت / السادة مؤسسة.....المحترم/ المحترمة/ المحترمين

الموضوع: ابلاغ رد حول الشكوى رقم ( )

تحية طيبة وبعد،

تهديكم شركة بي نت أطيب التحيات، وبناء على متابعة الشكوى رقم ( ) المقدمة من طرفكم بتاريخ...../...../..... وموضوعها .....، نود ابلاغكم بالرد الاتي:
.....
... .

مع فائق الاحترام والتقدير

مسؤول الشكاوى

1. **سجل الشكاوى**

الرقم	رقم الشكوى كما في النظام	مقدم الشكوى	مستلم الشكوى	الجنس (M/F)	تاريخ تقديم الشكوى	حالة الشكوى	تفاصيل حالة الشكوى	موضوع الشكوى	جهة المتابعة	تاريخ اغلاق الشكوى	طريقة الاستلام	جهة الاختصاص	طبيعة الرد	ملاحظات
1														
2														
3														
4														
5														
6														
7														
8														

٤- ملخص الية الشكاوى

الية الشكاوى

توفر هذه الالية الحق في تقديم أي شكوى او استفسار او رأي لأي شخص طالما تتعلق بالمشروع او احد مكوناته او انشطته.

الشكاوى غير المنظور اليها

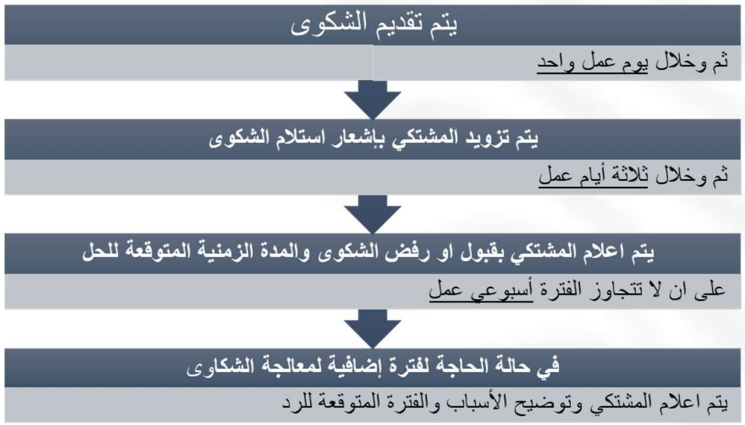
- الشكاوى الغير متعلقة بالمشروع او أحد مكوناته او انشطته
- الشكاوى المنظورة امام القضاء او المحاكم او هيئات التحكيم
- الشكاوى الخالية من الصحة

شكاوى العنف المبني على النوع الاجتماعي

يستقبل النظام أي شكوى متعلقة بالعنف القائم على النوع الاجتماعي او العنف والتحرش او الاستغلال الجنسي. حيث يتم توفير السرية الكاملة للمشتكي ويتم تحويل الحالة بالشراكة مع وزارة شؤون المرأة حسب نظام التحويل الوطني.

سرية المعلومات

يحق للمشتكي/ة، كما ينص نموذج الشكاوى، بطلب عدم مشاركة هويته\ها، حيث يتم تحويل الشكوى على انها من مجهول. ويحق أيضا للمشتكي/ة بعدم الادلاء بمعلوماته\ها، ولكن في هذه الحالة لن يكون من المستطاع الرد على المشتكي/ة بخصوص حالة او نتيجة شكواه\ها.



كيفية تقديم شكوى الى الشركة؟؟؟

- عن طريق الايميل : maburub@bci.ps
- عبر الهاتف: 00970592666180
- عن طريق الحضور الشخصي الى الشركة: عمارة BCI، شارع عمر المختار، عين المصباح، رام الله والبيرة
- عن طريق الفيسبوك عبر الرابط التالي: https://www.facebook.com/BnetPal

Annex VI: Occupational Health and Safety Policy

Bnet for Communications and Advanced Technology (Bnet Co.)'s policy is to ensure permanently a safe and healthy working environment in all locations, for all employees including contractors, the public, workers, and visitors. Based on an E&S audit conducted for the company, the audit has identified the need for an OHS policy to be implemented at the company level, this includes the Rural FTTH Project and its different phases from planning and design, construction and installation, and operational phases.

Bnet Co. is committed to providing a safe and healthy work environment for employees, the public, its partners and those who may be impacted by its operations. The company recognizes that Occupational Health and Safety (OHS) and the overall well-being of people is vital to the success and growth of the company. The company also acknowledges that health and safety is an integral part of its activities, policies, processes and business operations.

OHS is a collective responsibility and employees need to work with the Company to deliver the following OHS objectives:

- Incidents and injuries are preventable. We shall adopt appropriate measures to focus on OHS risks and opportunities for the prevention of occupation-related incidents, injuries, illnesses and near-misses;
- Set objectives and targets for OHS and conduct monthly reviews to assess our performance;
- Fulfil all relevant OHS legal and other requirements applicable to the organization and strive for "Beyond Compliance* leadership and best practices;
- Build OHS awareness and competencies among colleagues at all levels to handle individual OHS responsibilities and proactively adhere to all OHS requirements to create a safe workplace;
- Partner with suppliers and contractors by proactively sharing OHS objectives and encouraging them to achieve the same; thereby seeking their participation and consultation in the process
- Communicate this OHS policy to all Bnet employees, business partners, and customers and ensure it is available to other stakeholders and the public. The policy can be accessed through our internal and external web portals;
- Review the OHS policy and management systems periodically to ensure their continuing applicability and relevance to our operations;
- Provide adequate resources to ensure continual improvement of OHS management and performance; and
- Report all OHS incidents and performance through the OHS management channels.

Through this commitment to ensure the safety, health and overall well-being of our employees, business partners, and those who may be impacted by our business operations, we reaffirm our corporate sustainability commitments.

Annex VII: Occupational Health and Safety Plan

1. *Introduction*

This Occupational and Community Health and Safety Plan identified the necessary measures to implement during the all of the project's stages, including installations and operation. Where this plan shall also be adhered to be Bnet Co.'s contractors. Every project has Health, Safety, and Environmental risks, many of which are common through all projects, and some are specific to individual operations. It is the contractor's duty during installations, and the company's duty during operation to assess all related risks in conjunction with the ESMG matrix and identify appropriate additional measures to protect Occupational and Community health and safety.

This document sets the requirements in line with national laws and legislations including the Palestinian Labor Law, The Decree No.4 of 2021, Laws and decrees on occupational health and safety as defined in chapter 3 of the ESMG, the General and industry-specific EHS Guidelines of the World Bank, and Good International Industry Practices (GIIP).

The aim of the OHS Plan is to outline and define the approach to health and safety to be adopted during the installation and operational phases. It also aims to highlight potential hazards specific to this project, as well as more general hazards, and to define the procedures by which these hazards should be addressed. This is issued in support of the Project's commitment to "Zero Accidents". This plan is to educate and provide an overview of OHS requirements to be used by the main Contractors and all subcontractors employed in relation to the project. All Contractors are obligated to commit to the OHS plan, update it as necessary, and conduct their associated Risk Inventory.

This Plan shall be reviewed and updated throughout the life of the project to incorporate any changes the project is likely to experience.

2. *Objectives of the OHS Plan*

The Objectives for this plan are to:

- Adopt a positive Health & Safety Culture.
- Adopt the principles of prevention to avoid risk.
- Complete the project without incident (Zero fatalities, Zero Lost Time Injury (LTI) or occupational illness).

3. *Key Responsibilities*

Involvement of all in implementing, maintaining and continually improving OHS processes is the key to successful completion and achievement of quality objectives set by the management. All project personnel shall therefore be required to be familiar with the content of this OHS plan and shall participate in implementing, maintaining and improving the management system.

It is the responsibility of the project manager and all key personnel to ensure that the requirements for quality are fulfilled for works under their responsibility.

All new staff and staff who are given new responsibilities are to be inducted into the requirements set out in this plan in general and into their function and responsibilities in particular.

3.1. Bnet Co. ESO Responsibilities

- Ensure that all construction, installation, and operation activities comply with local and international regulations related to telecommunications and workplace safety.
- Identify potential hazards and risks associated with the construction, installation, and operation of fiber optic networks and internet services. This includes assessing risks related to equipment, electrical network, confined spaces, and more.
- Develop and implement safety training programs for employees and contractors, focusing on proper handling of equipment, working at heights, safe work practices, and emergency procedures.
- Establish and enforce safety procedures and protocols to mitigate identified risks. This may include fall protection measures, and electrical safety protocols.
- Ensure that appropriate personal protective equipment (PPE) is available and used by employees and contractors as needed. This might include hard hats, harnesses, safety glasses, gloves, and high-visibility vests.
- Establish a system for reporting and investigating incidents and near-misses. Maintain records of all incidents and analyze them to identify trends and areas for improvement.
- Develop and maintain emergency response plans for various scenarios. Conduct drills and training exercises to ensure readiness.
- Monitor and ensure compliance with environmental regulations related to construction and operation. This includes maintaining noise levels, collection of waste, and safety at work.
- Conduct regular safety inspections of construction sites to identify potential risks and ensure compliance with safety standards.
- Maintain detailed records of safety activities, including training records, incident reports, safety inspections, and compliance documentation.
- Foster open communication between management, employees, and contractors regarding safety concerns and best practices. Encourage a culture of safety awareness and reporting.
- Continuously assess and improve safety programs and procedures based on lessons learned from incidents, changes in regulations.
- Ensure that contractors and vendors working on the network and devices adhere to safety standards and contractual safety requirements.
- Coordinate with local emergency services and authorities to ensure a prompt and effective response in the event of an emergency.
- Stay up-to-date with industry trends and best practices in telecommunications and workplace safety. Provide ongoing training and development opportunities for the safety team and other employees.

4.1. Contractors' Responsibilities

- Prepare relevant OHS documentation and procedures, and advise on updating the OHS plan as needed.
- Monitor the efficient implementation of OHS requirements at the sites.
- Participate and organize the OHS risk assessments.
- Conduct regular OHS inspections.
- Make thorough analysis of statistical data and inspections; delineates problem areas; and makes recommendation for solutions.
- Take part in the review of all OHS incidents and assist in investigating incident.

- Monitor the efficient implementation of the Project's OHS requirements.
- Check on the use of all types of personal protective equipment specifies the use of appropriate PPE for the various work activities. Evaluates their effectiveness and suggests improvements where indicated.
- Conduct independent inspections to observe conformance with established OHS Plan and determines the effectiveness of individual elements of the plan (pre-task briefing, weekly toolbox talk, etc.)
- Establish contact with Subcontractors with the objective of maintaining good relations and coordination of accident prevention activities and compliance with the established OHS plan.
- Correct unsafe acts and unsafe conditions.
- Deliver OHS induction/orientation course to all employees, including subcontractors.
- Deliver OHS awareness course and toolbox talk.
- Advise employees on OHS matters.
- Keeping safety records and shall be responsible for completing safety inspections and maintaining records to reflect findings and corrective actions taken.
- The contractor shall require employees who, in the course of their work, are subject to the hazards of electrical shock, fall from heights, and strikes by moving objects, to receive special training e.g., usage of artificial respiration. Special training should also be included all risky works, such as working at heights, digging, and confined spaces.
- The contractor shall commit to amending any non-compliance as instructed within a period of 24 hours since receiving the instruction letter, otherwise the owner has the right to cease the contractor's activities until an adequate action is implemented to rectify the situation.
- The contractor shall develop and implement a grievance mechanism for the workforce prior to the start of civil works.
- This plan shall be part of the legal agreement, and any non-compliance to it that is not rectified shall be treated in line with the penalties instated in the contract.

4.2. All Employees Responsibilities

- Take all reasonable and practical steps to care for their own health and safety and avoid affecting the health and safety of coworkers and the general public.
- Follow all instructions and use the equipment properly
- Not interfere with any safety arrangements.
- Report any circumstances which may not comply with the project's OHS management system.

4.3. Competency

All personnel required to operate or work with any equipment or machine must be competent, be tested for each equipment that he/she shall be operating. All personnel who as part of their profession require licensing or certification must obtain the necessary certification before he/she shall be allowed to work on the site.

4.4. Fitness

All personnel working on site shall be required to be certified medically fit to do so by an approved medical facility or Medical Doctor (pre-employment medical examination) in line with the Ministry of Labor decisions on medical examinations.

4.5. Personal Conduct While on Duty

- Any violation shall be considered sufficient cause for disciplinary action.

- Any Workers/employee reporting for duty under the influence of liquor, illegal drugs, or illegal smoking materials will be dismissed. Any supervisor or other person in charge who permits such employee to work, will also be subject to disciplinary action. For more details, please, refer to the approved Code of Conduct.

5. *Monitoring and Reporting*

Monitoring and reporting during construction will be conducted by the contractor's E&S focal point to the company's management and directly to Bnet Co.'s ESO, provisions on community and health and safety will be included as part of the periodic progress reports. The monitoring program should include:

- **Safety inspection, testing and calibration:** This should include regular inspection and testing of all safety features and hazard control measures focusing on engineering and personal protective features, work procedures, places of work, installations, equipment, and tools used.
- The inspection should verify that PPE continues to provide adequate protection and is being worn as required. All instruments installed or used for monitoring and recording of working environment parameters should be regularly tested and calibrated, and the respective records maintained.
- **Surveillance of worker's health:** health of the Project's staff will be monitored on a regular basis through conducting general medical checkup.
- **Training:** Training activities for workers and visitors should be adequately monitored and documented (curriculum, duration, and participants). Emergency exercises, including fire drills, should be documented adequately. Service providers and contractors should be contractually required to submit to the employer adequate training documentation before the start of their assignment.
- **Monitoring and Evaluation:** the contractor shall include OHS measures in their periodic progress reports, Bnet Co.'s ESO will also report on OHS measures during screening and monthly reporting, additionally, the PIA will inspect OHS conditions during their monitoring visits.
- **Incident Reporting:** The company shall establish an incident log in accordance with the ERP within this plan.

6. *OHS Training*

6.1. Basic requirements for the installation and operational phases of the FTTH Project

The employed staff including management, supervisors, and workers of the project (both during construction and operation) need to receive basic OHS training to ensure proper orientation to the general and specific hazards of individual work assignments and to protect the general public, and visitors to the site. Special training needs to be provided for workers in charge of rescue and first-aid duties. Project's staff and workers shall receive awareness sessions that include information on workers GM, GBV, SH and SEA. OHS training requirements and budget has been included in the ESMG Matrix, where Bnet Co.'s ESO shall assist in delivering E&S awareness sessions for workers prior to the commencement of works.

In general, the OHS training would cover the followings:

- Basic hazard awareness & color coding,
- Installation related hazards,
- Working from heights,
- Falling objects,

- Working close to electrical grids,
- Use of PPEs,
- Safe work practices,
- Workers GM
- Code of Conduct including GBV, SH and SEA related issues, and
- Emergency procedures for fire, evacuation, and disaster

Further details need to cover the followings:

- Knowledge of materials, equipment, and tools
- Known hazards in the operations and how they are controlled
- Potential risks to health
- Precautions to prevent exposure
- Hygiene requirements
- Wearing and use of protective equipment and clothing
- Appropriate response to operation extremes and accidents
- Principles of first aid

6.2. OHS Meetings

OHS management meetings shall be held once a month. The meeting is to help identify safety problems, develop solutions, review incident reports, provide training and evaluate the effectiveness of our safety program. Some of the meetings shall be:

- Project/Site Management HSE Meeting for management and supervision (Monthly).
- Toolbox talk meetings for all workforce (Weekly).
- Pre-task briefing for all workforces (Daily).
- Special situation meeting (As required).

6.3. Induction / Orientation Requirements

Every new or rehired employee and contractors employees must undergo mandatory OHS orientation / induction. The purpose of the Induction is to educate workers and make them aware of the major potential hazards he or she shall come into contact with while working on the site; also, it is one more opportunity to stress the importance of OHS being the first priority in the operations.

6.4. Project Specific OHS Training

In addition to the E&S / OHS orientation /induction, there shall be specific site OHS trainings which shall cover the following topics:

- Fiber optic works safety
- Electrical safety
- Working at heights
- Use of fall protection equipment
- Traffic safety
- First aid training
- Emergency preparedness and response
- Safe driving techniques
- Lifting and rigging

7. *Hazard Identification and OHS Risk Assessment*

7.1. Project OHS risk Assessment

The project OHS risk assessment shall be developed and recorded. The Project's OHS risk assessment shall be conducted by Bnet Co.'s ESO in line with Annex I of the ESMG. It must be approved by the Project manager and shared with the PIA for no-objection.

7.2. Physical Hazards

Physical hazards represent potential for accident or injury or illness due to repetitive exposure to a mechanical action or work activity. Single exposure to physical hazards may result in a wide range of injuries, from minor and medical aid only, to disabling, catastrophic, and/or fatal. Multiple exposures over prolonged periods can result in disabling injuries of comparable significance and consequence.

7.3. Rotating and Machine Movements

Possible Injury or death can occur from being trapped, entangled, or struck by machinery parts due to unexpected starting of equipment or unobvious movement during operations. Therefore, safety measures as well as respective Personal Protection Equipment's (PPES) as per the safety Data Sheet (SDS) for each equipment need to be adopted and implemented.

7.4. Noise

The project management will ensure that no employee will be exposed to a noise level greater than 85 dB for a duration of more than 8 hours per day without hearing protection measured regularly.

- The ESO shall ensure that excessive noise generating equipment are maintained regularly according to the preventive maintenance schedule.
- The ESO shall request the project manager to promptly raise work orders to service and repair equipment that is generating abnormally excessive noise.
- The ESO shall ensure that non-routine activities (e.g., pole driving, rock clearing, drilling) which generate excessive noise are scheduled during daytime hours as mentioned above.
- The ESO shall implement the noise relevant mitigation measures in line with the ESMG.

7.5. Electrical hazards

While the project does not entail electrical works, the installation of the FTTH network will take place over the electricity infrastructure and the deployment of the fiber cables will be close to the electricity grid. As such, careful considerations shall be implemented to ensure OHS at the work site.

All works close to the electricity grid should be constructed, installed and maintained by a competent person, and so used as to guard against danger. Before construction commenced and during the progress thereof, adequate steps should be taken to ascertain the presence of and to guard against danger to workers from any live electrical cable or apparatus which is under, over or on the site.

The works shall be governed by national laws and regulations.

Prevention and control measures associated with live power lines include:

3.2. Only allowing trained and certified workers to install, maintain, or repair electrical equipment; ·

3.3. Deactivating and properly grounding live power distribution lines before work is performed on, or in close proximity to, the lines; ·

3.4. Ensuring that live-wire work is conducted by trained workers with strict adherence to specific safety and insulation standards. Qualified or trained employees working on transmission or distribution systems should be able to achieve the following[32]:

- Distinguish live parts from other parts of the electrical system
- Determine the voltage of live parts
- Understand the minimum approach distances outlined for specific live line voltages
- Ensure proper use of special safety equipment and procedures when working near, or on, exposed energized parts of an electrical system

3.5. Workers should not approach an exposed, energized or conductive part even if properly trained unless:

- The worker is properly insulated from the energized part with gloves or other approved insulation; or
- The energized part is properly insulated from the worker and any other conductive object; or
- The worker is properly isolated and insulated from any other conductive object (live-line work)

3.6. Where maintenance and operation is required within minimum setback distances, specific training, safety measures, personal safety devices, and other precautions should be defined prior to works[33].

Recommendations to prevent, minimize, and control injuries related to electric shock include:

3.7. All electrical installations should be performed by certified personnel and supervised by an accredited person. Certification for such work should include theoretical as well as practical education and experience;

3.8. Strict procedures for de-energizing and checking of electrical equipment should be in place before any maintenance work is conducted. If de-energizing is not possible, electrical installations should be insulated to minimize the hazardous effects;

3.9. Prior to excavation works, all existing underground cable installations should be identified and marked. Drawings and plans should indicate such installations;

3.10. Personnel training should be provided in revival techniques for victims of electric shock.

7.6. Fiber Optic Safety

Workers involved in fiber optic cable installation or repair may be at risk of permanent eye damage due to exposure to laser light during cable connection and inspection activities. Workers may also be exposed to minute or microscopic glass fiber shards that can penetrate human tissue through skin or eyes, or by ingestion or inhalation. Recommendations to prevent, minimize, and control injuries related to fiber optic cables installation and maintenance include:

[32] Further information is available from the Occupational Safety and Health Administration (OSHA), 29 CFR 1910.268 (Telecommunications).

[33] Additional information on setback distances applicable to telecommunications work is provided in OSHA, 29 CFR 1910.268.

3.11. Worker training on specific hazards associated with laser lights, including the various classes of low and high-power laser lights, and fiber management;

3.12. Preparation and implementation of laser light safety and fiber management procedures which include:

- Switching off laser lights prior to work initiation, when feasible
- Use of laser safety glasses during live optical fiber systems installation
- Prohibition of intentionally looking into the laser of fiber end or pointing it at another person
- Restricting access to the work area, placing warning signs and labeling of areas with potential for exposure to laser radiation, and providing adequate background lighting to account for loss of visibility with the use of protective eyewear

3.13. Avoiding exposure to fibers through use of protective clothing and separation of work and eating areas.

7.7. Traffic Safety

Vehicle driving and site traffic safety practices will include:

- Contractors to develop Traffic management plans
- Site traffic conductors to be available to assist pedestrians and drivers
- Warning signs should be placed before the installations site at adequate distances and in an abundant quantity and large size to warn drivers of upcoming congestions, slowdowns, or closures. Particular attention should be paid when installing on intra-urban ways.
- Training and licensing vehicle drivers of the during construction of specialized vehicles such as forklifts, including safe loading/unloading, load limits.
- Establishing rights-of-way, site speed limits, vehicle inspection requirements, operating rules and procedures, and control of traffic patterns or direction/ direction signs.
- Plan works in important roads in consultation with traffic police and municipality;
- Provide information, direction and warning boards, provide traffic guards with danger flags
- Provide prior public information about the work, traffic disruptions/diversions

7.8. Working at heights and slip and falls

Installation of FTTH infrastructure entails excessive use of cranes. This poses workers at risk of slips and fall from heights:

- The area around which elevated work is taking place should be barricaded to prevent unauthorized access. Working under other personnel should be avoided;
- Hoisting and lifting equipment should be rated and maintained and operators trained in their use. Elevating platforms should be maintained and operated according to established safety procedures that include such aspects as equipment and use of fall protection measures (e.g., railings), movement of location only when the lift is in a retracted position, repair by qualified individuals, and the use of effective locks to avoid unauthorized use by untrained individuals;
- Ladders should be used according to pre-established safety procedures including proper placement, climbing, standing, and the use of extensions.
- Implementation of a fall protection program that includes training in climbing techniques and use of fall protection measures; inspection, maintenance, and

replacement of fall protection equipment; and rescue of fall-arrested workers, among others;

- Establishment of criteria for use of 100 percent fall protection (typically when working over 2 meters (m) above the working surface. The fall protection system should be appropriate for the tower structure and necessary movements, including ascent, descent, and moving from point to point;
- Safety belts should be of not less than 16 millimeters (mm) (5/8 inch) two-in-one nylon or material of equivalent strength. Rope safety belts should be replaced before signs of aging or fraying of fibers become evident;
- When operating power tools at height, workers should use a second (backup) safety strap.

8. *Safety Signage*

Safety signs (machinery, electrical, noise, fall, and others) shall be available on site, visible, and in Arabic language.

9. *Personal Protective Equipment*

Personal Protective Equipment (PPE) provides additional protection to workers exposed to workplace hazards. This document refers to the 29 CFR 1926 – OSHA Safety and Health Regulations for Construction, where the regulations governing the use, selection, and maintenance of personal protective and lifesaving equipment are included.

The Contractor is responsible for requiring the wearing of appropriate personal protective equipment in all operations where there is an exposure to hazardous conditions or where this part indicates the need for using such equipment to reduce the hazards to the workers, employees and visitors. Bnet ESO shall enforce and monitor the compliance to the use of PPEs. All personal protective equipment shall be of a safe design and construction for the work to be performed.

The contractor/subcontractor shall take every practicable measure to eliminate hazards through the selection of non-hazardous materials and/or by engineering controls, e.g., prohibition, substitution, enclosure, etc.

Workers working alone on installation sites in confined spaces, enclosed premises or in remote or inaccessible places should be provided with an appropriate alarm and the means of rapidly summoning assistance in an emergency. Ensure the visibility of workers through their use of high visibility vests when working on roads or walking through heavy equipment operating areas. High visibility waistcoats during all installation phases of the project. Additional PPE requirements, e.g., fall protection, respiratory protection, face shields, hearing protection, gloves, winter PPE, etc., shall be determined/mandated by the nature of the individual work activities.

PPE should be stored, maintained, cleaned and, if necessary, for health reasons, disinfected or sterilized at suitable intervals. Workers should be required to make proper use of and to take good care of the personal protective equipment and protective clothing provided for their use.

Where there is no practical alternative to the use of PPE, appropriate training shall be given to employees to ensure that they are fully conversant with the construction, processes and equipment they are working with appropriate PPE for the project shall consist of the following:

- Safety helmet
- Light duty safety glasses

- Safety boots
- Safety gloves, protection against cuts or sharp materials
- Protection against cold or heat
- Protection against fall
- Harnesses use
- Use of lasers

Workers should be instructed on the use of personal protective equipment and protective clothing. Training in the correct selection, and proper use of personal protective equipment shall provide to workers.

10. First Aid

Following are nine general directions for first aid in an emergency, outlined by the American Red Cross.

- Keep the victim lying down.
- Examine the victim - look for serious bleeding, lack of breathing, and poisoning.
- Keep the victim warm.
- Send someone to call a physician or ambulance.
- Remain calm. Do not be rushed into moving the victim unless absolutely necessary.
- Never give an unconscious victim anything to eat or drink.
- Keep the crowd away from the victim.
- Ensure the victim is comfortable and cheerful.
- Don't allow the victim see his injury.

At least one employee/worker trained in first aid shall be present at all times during working hours. The Trained person phone will be distributed to all the workers on the site at highlighted boards and listed in the contact number list.

Kits must be available at all times. The first aid equipment may contain and not limited to the following:

- Plasters in a variety of different sizes and shapes
- Small, medium and large sterile gauze dressings
- Sterile eye dressings
- Triangular bandages
- crêpe rolled bandages
- Safety pins
- Disposable sterile gloves
- Tweezers
- Scissors
- Alcohol-free cleansing wipes
- Sticky tape
- Thermometer (preferably digital)
- Skin rash cream, such as hydrocortisone or calendula
- Cream or spray to relieve insect bites and stings
- Antiseptic cream
- Painkillers such as paracetamol
- Cough medicine
- Antihistamine cream or tablets
- Distilled water for cleaning wounds
- Eye wash

Knowing what not to do in an emergency is just as important as knowing what to do. The original injury may be magnified by the wrong kind of treatment or mishandling. If a victim must be transported, ensure that methods described in a standard first aid text are used. With neck or back injuries, particularly, serious damage may occur by improperly transporting the victim. If possible, the victim should remain at the site where the injury occurred until a physician arrives, rather than risk an increase to the injury through mishandling. Further information is expected to be received during the OHS training.

11. Emergency Response Procedures

11.1. Purpose and Scope

These Emergency Response Procedures (ERP) establish guidelines for all reasonably foreseeable workplace emergencies. Because each emergency involves unique circumstances, the guidelines provide general guidance only. Thoughtful actions based on situation assessment are always needed when responding to an emergency. It is also important to note that emergency guidelines do not necessarily represent sequential series of steps. As this ESMG is an integral part of the bidding documents, the requirement to implement an Emergency Response Procedures is a contractual obligation.

The implementation of these procedures is intended to mitigate and protect property, staff, employees and the surrounding community from injury and prevent damage to the environment.

11.2. Definitions

Accident: means unexpected events that result in injury and loss of personnel and/or damage to properties and the environment

Emergency: is a situation that poses an immediate risk to health, life, property, or environment. It may be anthropogenic or natural occurrences.

Hazard: A hazard is a situation that poses a level of threat to life, health, property, or environment. Hazards can be dormant or potential, with only a theoretical risk of harm; however, once a hazard becomes "active", it can create an emergency. A hazardous situation that has come to pass is called an incident. Hazard and possibility interact together to create risk.

Risk: means the chance of a specific undesired event occurring within a specific period or in specified circumstances.

Risk Analysis: is the identification of undesired events that lead to the materialization of a hazard, the analysis of the mechanisms by which these undesired events could occur.

11.3. Contact Details in Cases of Emergency

Bnet Company for Communication and Advanced Technology

- Contact Person: Mohammad Aburob (Project Manager)
- E-mail: maburob@bci.ps
- Address: Omar Al Mokhtar St. BCI building, Ein Mesbah, Ramallah
- Phone number: 00970592666180

EMERGENCY RESPONSE NUMBERS

- Police 100

- Ambulance 101
- Civil Defense 102
- Ministry of Health 103
- Ministry of Interior 109

11.4. Emergency Preparedness

11.4.1. Training

During the installation of the network, the contractors in coordination with the ESO and the company management team shall give induction to all new workers, including daily workers, on the impacts that may be associated with the project activities, evacuation, using emergency response equipment, personal protection devises.

The same activities shall also be carried out during operation, and refresher courses shall be given at any time deemed appropriate by the ESO.

11.4.2. Practical Drills

The workforce of the company or the contractor are required to participate in any drills conducted by the Civil Defense, in order to develop skills and evaluate the adequacy of the Emergency Response Plan.

The ESO shall develop a report describing the practicality of the drill and the Emergency Response Plan concerning the workforce, as well as emergency equipment effectiveness, first aid and rescue procedures, and evacuation and personnel count procedures.

11.4.3. Emergency Equipment

All vehicles and installation teams shall have the following equipment present at site,

- Fire extinguishers and suppression devices
- Personal protective gear
- First aid kit

These kits and equipment shall be maintained and renewed per the manufacturer's recommendations.

11.5. Emergency Categorization

According to this Emergency Response Procedures, emergencies are identified as the following:

Level I: Minor incidents requiring on-site workers to respond and take necessary collective actions that will not jeopardize individuals' safety, health, or result in exposure. Level I incidents are not likely to spread beyond the affected area.

Level II: Intermediate level incidents requiring a response by on-site or off-site trained staff but poses no danger to the public and surrounding communities.

Level III: A major incident beyond the resources of a single facility, and where the assistance of other local organizations may be required.

11.6. Personal injuries

The following notification procedures shall be used to communicate the occurrences of injuries, exposures and/or medical condition requiring hospitalization.

- an ambulance will be called immediately in addition to the insurance company, the injured personnel shall be transported to the nearest medical facility depending on the level of medical attention required.
- If injuries are major, Civil Defense will respond to such situations, perform first aid as necessary and transport the individual to the designated medical facility.
- The emergency respondent or their designee shall accompany the injured individual to the medical facility and provide health information regarding the person, details about the incident, and first aid measures that were provided.
- Incidents that result in multiple injuries or fatalities will require securing the site and conducting a formal investigation.

11.7. General Reporting Requirements

- Call emergency response services based on the incidents on the numbers identified in section 4.
- Provide the emergency services with your name, location, phone number, where the call is being made from, location of emergency and any other useful details
- State type of emergency (fire, medical, spills, crime, etc..)
- State the number and condition of victims, extent and description of incidents, material involved.
- Do not hang up first, let the emergency services hang up when they have acquired all needed information.

11.8. Infrastructure Damage Incidents

In cases where installation of poles result in accidental damages to underground infrastructure, the company should stop the works and immediately inform the local council/municipality / service providers. Contractors and workers should not try to fix and cover up the damage. The following steps should be followed;

- Immediate Notification: Promptly inform local utility authorities about the damage and request their emergency response.
- Damage Assessment: Assess the extent and nature of the damage, including safety risks.
- Secure the Area: Ensure safety by blocking access with barriers, cones, or warning signs.
- Water / Supply Shutdown: Coordinate with utility authorities to halt the water supply to prevent further damage.
- Containment: Use absorbents or barriers to contain spills and prevent environmental contamination.
- Safety Gear: Equip workers and responders with proper PPE for safety.
- Coordinate with Authorities: Maintain open communication with local authorities and follow their guidance.
- Post Incident Assessment: include in the accident report and devise mitigation measures to prevent its reoccurrence, update the ESMG Matrix and this plan as needed.

11.9. Medical Emergencies

- Survey the scene, evaluate the personal safety issues.
- Request immediate assistance.
- Call emergency services
- Provide the needed information as described in section 10.
- Alert trained first aid personnel to respond to the victim's location and bring the first aid kit.
- Do not move the victim unless the victim's location is unsafe.
- Take precautions to prevent contact with body fluids and exposure to pathogens
- Meet the ambulance at the nearest entrance or emergency access point, direct them to the victim's location.

11.10. Workplace Violence and Political Risks

- The first step is to evacuate, have an escape route in mind. Leave your belongings behind and keep your hands visible.
- The second step is to hide in an area out of the active conflict zone, and away from view. Block the entry to your hiding place and lock doors if any.
- Call the police when it's safe to do so.
- Wait for the police to intervene.

11.11. Incident Documentation and Investigation

The emergency situation should be documented by the ESO and Bnet management. All reports, photos, video tapes, and communications during the crises should be properly filed and kept. An investigation should immediately start after the recovery from the crises to draw conclusions and to minimize future similar incidents. The investigation team should be formed by Bnet in coordination with the related governmental bodies such as the Ministry of local government, Civil defense, Ministry of public works and ministry of Justice.

11.12. Suggested Incident Reporting Form

APPENDIX A- INCIDENT REPORTING FORM

Report No:

Date of Report: _____

Injured Party: _____

Employer: _____

Site: _____

Site Location: _____

Report Prepared By: _____

Signature: _____

Title: _____

1. ACCIDENT/INCIDENT CATEGORY (check all that applies)

___Injury ___ Illness ___Near Miss ___ Property Damage ___ Fire ___ Chemical Exposure ___ On-site Equipment ___ Motor Vehicle ___ Electrical ___ Mechanical ___ Spill ___ Other (Specify:_____)

2. DATE AND TIME OF ACCIDENT/INCIDENT: _____ _____

Please identify the actions leading to or contributing to the accident/incident and the actions following the accident/incident.

3. WITNESS TO ACCIDENT/INCIDENT:

Name: _____

Company: _____

Address: _____

Phone No.: _____

Name: _____

Company: _____

Address: _____

Phone No.: _____

4. INJURED - ILL:

Name: _____

Address: _____

Age: _____

Length of Service: _____ Time on Present Job: _____

Time/Classification:

_____

4. SEVERITY OF INJURY OR ILLNESS:

____ Disabling ___ Non-disabling ___ Fatality____ Medical Treatment ___ First Aid Only

5. ESTIMATED NUMBER OF DAYS AWAY FROM JOB: _____

6. NATURE OF INJURY OR ILLNESS: _____

7. CLASSIFICATION OF INJURY (Check all that apply):

__ Abrasions _____ Dislocations ____ Punctures ____ Bites _____ Faint/Dizziness ____Burns __ Blisters _____ Fractures ____ Respiratory Allergy ____ Bruises _____ Sprains __ Chemical Burns _____ Heat Burns ____ Toxic Resp. Exposure ____ Cold Exposure __ Heat Exhaustion __ Toxic Ingestion __ Concussion _____ Heat Stroke ____ Dermal Allergy __ Lacerations

• Part of Body Affected: _____

• Degree of Disability: _____

• Date Medical Care was received: _____

• Where Medical Care was received: _____

• Address (if off-site): _____

8. PROPERTY DAMAGE: Description of Damage: _____

Cost of Damage: $ _____

10. ACCIDENT/INCIDENT ANALYSIS: Causative agent most directly related to accident/incident (Object, substance, material, machinery, equipment, conditions)

• Was weather a factor?

• Unsafe mechanical/physical/environmental condition at the time of accident/incident (Be specific):

11. ON-SITE ACCIDENTS/INCIDENTS:

• Was injured using the required equipment?

12.ACTION TAKEN TO PREVENT RECURRENCE: (Be specific. What has or will be done? When will it be done? Who is the responsible party to ensure that the correction is made?

13.ACCIDENT/INCIDENT REPORT REVIEWED BY:

Name Printed: _____ Signature _____

14.OTHERS PARTICIPATING IN INVESTIGATION:

Signature _____ Title _____

Signature _____ Title _____

Signature _____ Title _____

11.13. Suggested Incident Reporting Log

No.	Injured Party	Site / Location	Reported By	Type of Incident	Date and Time of Incident	Severity of Incident / injury	Description of incident	Classification of injury (if any)	Medical treatment needed and received?	Estimated cost of damage	Analysis of cause of incident	Required mitigation measures to prevent reoccurrence

Annex VIII: Chance Find Procedures

Contracts for civil works involving excavations should normally incorporate procedures for dealing with situations in which buried physical cultural resources (PCR) are unexpectedly encountered. The final form of these procedures will depend upon the local regulatory environment, including any chance find procedures already incorporated in legislation dealing with antiquities or archaeology. Chance finds procedures contain the following elements:

1. PCR Definition

In some cases, the chance finds procedure is confined to archaeological finds; more commonly it covers all types of PCR. In the absence of any other definition from the local cultural authorities, the following definition could be used: “movable or immovable objects, sites, structures or groups of structures having archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance”.

2. Ownership

The identity of the owner of the artifacts found should be ascertained if at all possible. Depending on the circumstances, the owner could typically be, for example, the state, the government, a religious institution, the land owner, or could be left for later determination by the concerned authorities.

3. Recognition

As noted above, in PCR-sensitive areas, recognition and confirmation of the specific PCR may require the contractor to be accompanied by a specialist. A clause on chance finds should be included in every contractor’s specification.

4. Procedure upon Discovery

Suspension of Work

If a PCR comes to light during the execution of the works, the contractor shall stop the works. Depending on the magnitude of the PCR, the contractor should check with the Ministry of Tourism and Antiquities (MoTA) for advice on whether all works should be stopped, or only the works immediately involved in the discovery, or, in some cases where large buried structures may be expected, all works may be stopped within a specified distance (for example, 50meters) of the discovery. MoTA’s decision should be informed by a qualified archaeologist.

After stopping work, the contractor must immediately report the discovery to the project owner. The contractor may not be entitled to claim compensation for work suspension during this period. The owner may be entitled to suspend work and to request from the contractor some excavations at the contractor’s expense if he thinks that a discovery was made and not reported.

1. **Demarcation of the Discovery Site**

With the approval of the company, the contractor is then required to temporarily demarcate, and limit access to, the site.

Non-Suspension of Work

The procedure may empower the company's supervisor to decide whether the PCR can be removed and for the work to continue, for example in cases where the find is one coin.

2. Chance Find Report

The contractor should then, at the request of the company, and within a specified time period, make a Chance Find Report, recording:

- Date and time of discovery;
- Location of the discovery;
- Description of the PCR;
- Estimated weight and dimensions of the PCR;
- Temporary protection implemented.

The Chance Find Report should be submitted to the company, and other concerned parties as agreed with the cultural authority, and in accordance with Palestinian national legislation. The owner, or other party as agreed, is required to inform the cultural authority accordingly.

3. Arrival and Actions of Cultural Authority

The cultural authority undertakes to ensure that a representative will arrive at the discovery site within an agreed time such as 24 hours, and determine the action to be taken. Such actions may include, but not be limited to:

- Removal of PCR deemed to be of significance;
- Execution of further excavation within a specified distance of the discovery point;
- Extension or reduction of the area demarcated by the contractor.

These actions should be taken within a specified period, for example, 7 days. The contractor may or may not be entitled to claim compensation for work suspension during this period.

If the cultural authority fails to arrive within the stipulated period (for example, 24 hours), the owner may have the authority to extend the period by a further stipulated time. If the cultural authority fails to arrive after the extension period, the owner may have the authority to instruct the contractor to remove the PCR or undertake other mitigating measures and resume work. Such additional works can be charged under the contract. However, the contractor may not be entitled to claim compensation for work suspension during this period.

4. Further Suspension of Work

During this 7-day period, the Cultural authority may be entitled to request the temporary suspension of the work at or in the vicinity of the discovery site for an additional period of up to, for example, 30 days. The contractor may, or may not be, entitled to claim compensation for work suspension during this period. However, the contractor will be entitled to establish an agreement with the cultural authority for additional services or resources during this further period under a separate contract with the cultural authority.