



**Oman Broadband Infrastructure Project
Phase-II**

**Addendum
Oman Broadband Environmental and Social
Management Plan**

Oman Broadband Company

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(Public Disclosure - Final Version)

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Annex A: Template of Quarterly Progress Report

1. Introduction

Oman Broad Company (OBC) is currently implementing the first phase of Oman Broadband Infrastructure Project (OBIP-I) in the priority areas of Oman, with financial assistance from the Asian Infrastructure Investment Bank (AIIB). In order to address the environmental and social impacts of the project and in compliance with the requirements as defined in the AIIB Environmental and Social Framework (ESF), OBC prepared an Environmental and Social Management Plan (ESMP) for OBIP-I.

OBC now intends to undertake the Phase-II of the project (OBIP-II) extending the broadband infrastructures in the remaining areas including the rural communities of Oman. The existing ESMP stands mostly valid for OBIP-II since its activities are quite similar to the original project activities. However, the present Addendum to ESMP has been prepared to address a few gaps that have been identified in the existing ESMP. This Addendum should be read in conjunction with the original ESMP.

2. Project Overview

As part of the National Broadband Strategy in Oman, OBC has been deploying a gigabit passive optical network (GPON). OBC owns, operates, and maintains all of its passive fiber-based network infrastructure and long-distance transmission network, while the active equipment that is used to deliver end-to-end services to end clients is owned and maintained by the internet service providers (ISPs).

The Project involves two phases.

In Phase 1 of OBC's roll-out plan (OBIP-I), it has been focused primarily on providing fiber-to-the-home (FTTH) coverage in Muscat plus some urban areas outside Muscat. This involved the installation of fiber optic cables and associated infrastructure, such as telephone exchange nodes (transmitters and receivers), remote integrated multiplexers (RIM) or customer multiplexers (CMUX), and premises receivers, covering Muscat and other urban areas of Oman under OBIP-I.

In Phase 2 of OBC's roll-out plan (OBIP-II), it is focused on providing coverage outside Muscat using a mix of FTTH and 5G fixed-wireless access (FWA) technologies in appropriate areas. FWA is considered to be a complimentary technology to FTTH and used to expand the coverage of broadband in areas where FTTH would prove to be too expensive in the short term.

Construction involves the installation of radio equipment on tower or roof-top locations in the relevant areas. The towers themselves would be provided by tower infrastructure companies such as Oman Tower Co. The radio equipment would be installed and maintained by the provider of the radio equipment. Home connections also require the installation of radio equipment in the home premises since outdoor receivers, either roof or wall mounted, give better reception than indoor receivers. Contractors will be used for home installation of radio equipment, in a similar way to FTTH home connections.

The Project will utilize the current infrastructure, such as existing telecom line conduits or pipe chases, to the fullest extent possible for installing the new services. Further details of the project activities are presented in **Section 1.3** of the original ESMP.

- Key Project Activities

In relation to operating model, OBC outsources all civil work and fiber deployment to numerous companies (contractors), selected according to an open tender process

Primarily, three types of assignments in relation of fiber deployment exist:

- Rollout of core network.
- Rollout of Homes Passed or access network (up to Network Access Point- NAP)
- Rollout of Home Connections.

During the first phase of the company’s operations only FTTH technology was deployed. However, beginning in 2021, Fixed Wireless Access technology is also being deployed alongside FTTH, and hence contractors will install wireless equipment both in the access network and in home connections.

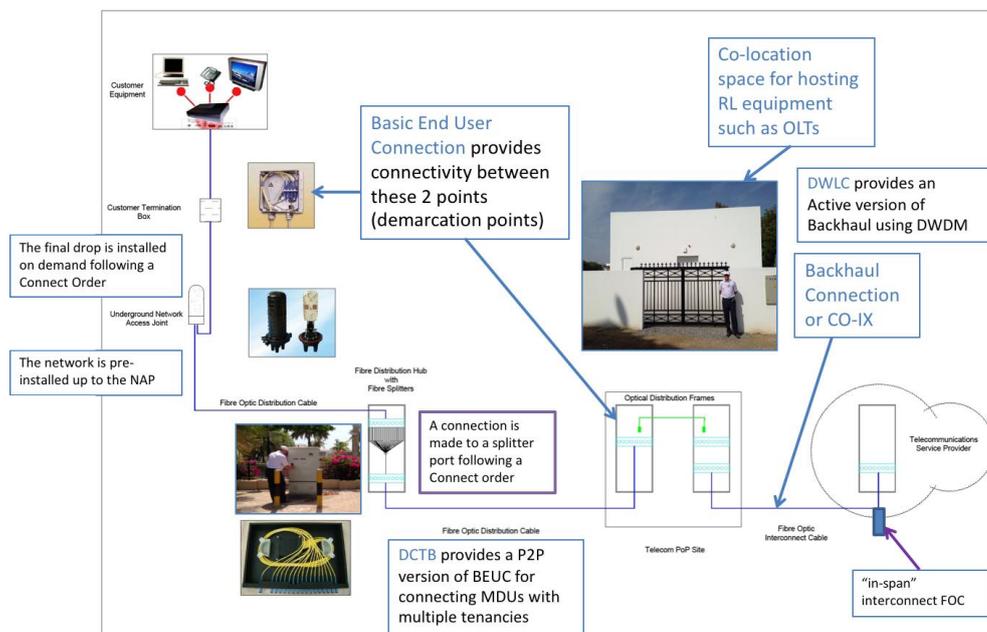


Figure 1.3 Schematic Representation of Network Segments

To utilize synergies with other state-owned entities and in case excavations are planned in certain areas by such entities, for certain projects civil work is excluded from OBC’s scope and only fiber cable deployment is conducted by OBC’s direct contractors. However, for stand-alone projects, where infrastructure is installed independently of other utilities, then both civil works and cable deployment is conducted. Service Operations Centre (SOC) and Network Operations Centre (NOC) are fully insourced, while field maintenance is again outsourced to subcontractors, just like network deployment. SOC and NOC are coordinating all activities towards OBC’s customers

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(Service Providers) and are responsible for clearing faults (coordinating contracted/outsourced maintenance teams).

In the case of backhaul products, in general both civil works and cable deployments are made. In some cases, shared infrastructure, such as optical ground wire (OPGW), is used. In these cases, the single point of contact towards service providers remains OBC, though maintenance of shared infrastructure is in the domain of infrastructure owner (i.e., in case of OPGW, Electricity Transmission Company).

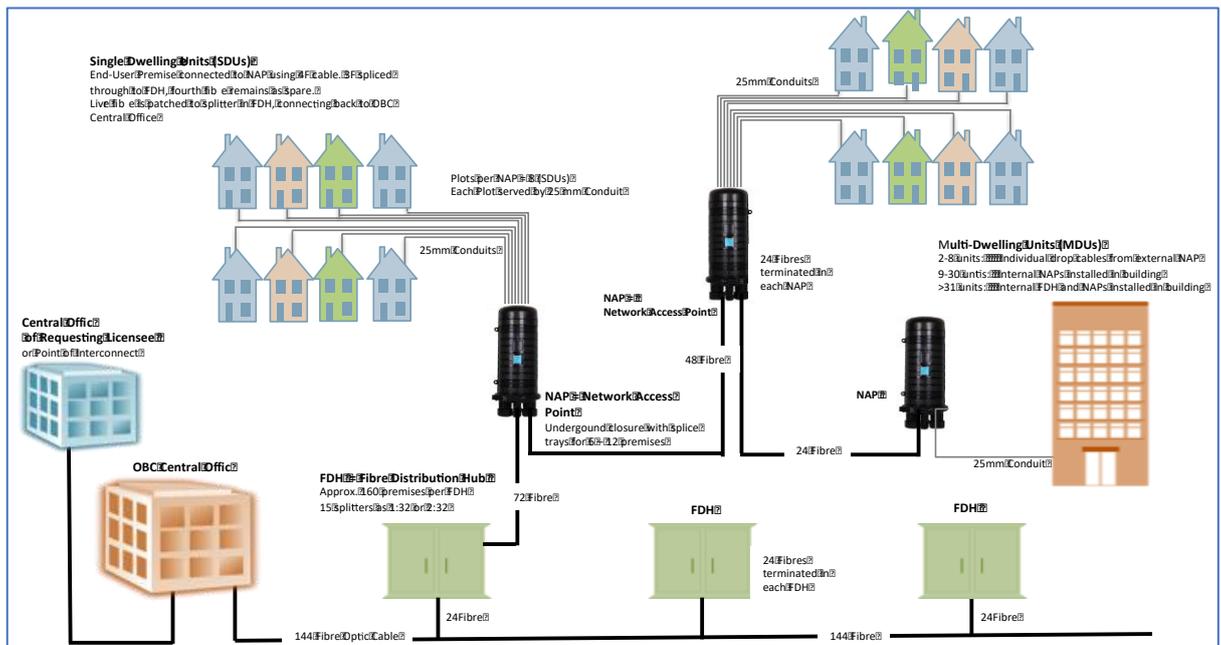


Figure 1.4 FTTH High level network architecture

In 2016, OBC started to execute FTTH civil works outside Muscat, including opportunities arising from shared civil works with other utility companies and in line with the Masterplan. As per OBC’s communication, most FTTH civil works in Muscat, except for Bawsher, conducted before 2020 was led by Haya Waters, while OBC directly managed civil works in Bawsher and outside Muscat. After that, OBC generally directly manage all civil works for the Projects.

Based on the above, three FTTH construction scenarios have been observed, forming the basis of the ESMP as follows:

- Excavation of trenches by Haya Waters the sewage company, including laying cabling ducts for use by OBC when pulling cables. In such case OBC reviews the quality of the works undertaken prior to handover of the infrastructure. Furthermore, when the work is being undertaken by Haya Waters, OBC has limited to no oversight of the activities on site or of the contractor management.
- Excavations of trenches directly being undertaken by OBC contractors to lay cabling ducts. This digging of trenches involves different topographies such as rocky terrains, residential areas (paved concrete areas) and sandy soils. The rocky terrain requires excavators to aid in excavation. The depth of the

3. Project Categorization

Much like the original project, OBIP-II has also been classified as ‘Category B’ under the Environmental and Social Standards (ESS) of the AIIB, since the potential impacts of the proposed activities are site-specific, mostly reversible as well as temporary in nature and can easily be addressed using simple and readily implementable mitigation and control measures that are presented in the original ESMP.

4. Administrative and Policy Framework

The administrative and policy framework described in **Section 2** of the original ESMP stands valid for the OBIP-II as well.

5. Environmental and Social Impacts

The potential impacts of the OBIP-I activities have been adequately discussed in the original ESMP (**Section 3**) and include the following:

- Air emissions
- Noise
- Wastes including hazardous wastes
- Road traffic
- Occupational health and safety (OHS)
- Community health and safety (CHS)
- Labor and working conditions
- Cultural heritage
- Employment and economic development.

In addition, the construction work can potentially cause access restriction to public.

6. Environmental and Social Management

Various management plans have been presented in **Sections 4** and **5** of the original ESMP and they remain valid for the OBIP-II as well. These include the following specific plans:

- Air quality management plan
- Soil and groundwater management plan
- Noise and vibration management plans
- Waste management plan
- Workforce management plan
- Community health and safety management plan
- Cultural heritage management plan

- Occupational health and safety plan (measures for health, safety and labor).

In addition to the above, the contractors will ensure the following:

- OBC and its contractors will follow the Covid-19 guidelines as defined by the Sultanate of Oman (<https://www.moh.gov.om/en/corona>) and international organizations.
- The contractors will ensure that the construction activities do not cause any access restriction to public (residential, commercial, or public).

6.1. Environmental and Social Monitoring

In order to ensure that the above listed plans are adequately, and timely implemented, environmental and social monitoring need to be carried out on a regular basis. For this purpose, simple checklists should be developed on the basis of the specific actions listed in **Sections 4 and 5** of the original ESMP and also in Section 6 of this Addendum. These checklists should be used during the environmental and social monitoring and should be filled by the contractors to indicate the outcome and result of monitoring (i.e., compliance status of implementation of various mitigation and control measures detailed in Section 4 and 5 of the original ESMP and also in Section 6 of this Addendum). The filled checklists should be provided to OBC on a monthly basis. OBC should also carry out its own top supervision of the construction activities on a random basis, as described in **Section 8.2** of the ESMP.

6.2. ESMP Training

OBC will carry out ESMP training for its relevant staff to familiarize them with various actions to be undertaken as detailed in the ESMP and in this Addendum. In particular, the training should focus on overall implementation of ESMP and the present Addendum, top supervision of the construction sites, functioning of grievance redress mechanism (GRM) (discussed later in the document), and reporting requirements. Similarly, the construction contractors will also provide training to their personnel on a regular basis. These training will address aspects including but not limited to implementation of mitigation measures particularly OHS, CHS and waste management, environmental and social monitoring, GRM, and Covid-19 guidelines.

6.3. Roles and Responsibilities

The organizational structure and roles and responsibilities described in **Section 8** of the original ESMP will remain valid for OBIP-II as well.

7. Stakeholder Engagement and Disclosure

The consultation, engagement and disclosure requirements are discussed in **Section 6** of the ESMP. For the OBIP-II, OBC will conduct the consultations as described in Appendix B of the original ESMP. The community participation will also be ensured in these consultations. These consultations will be carried out in accordance with the Covid-19 guidelines ensuring the safety of all the participants. Proceedings of these consultations will be documented and shared with AIIB (in English language).

Much like the original ESMP, OBC will disclose the present Addendum on its website both in English and Arabic languages.

7.1. Summary of Stakeholder Consultation Workshop

Oman Broadband conducted a public consultation session in 24th of August 2021 at 10:00 am and lasted for 1 hour, through Microsoft Teams. The workshop included multiple stakeholders (Customers, Partners, Suppliers, Contractors & Public). The workshop agenda included an elaboration about Environmental & Social Management Plan, Environmental & Social Management Plan Addendum & Grievance Redress Mechanism.

The workshop presented the potential risks and its associated measurement and controls that includes:

- The potential impacts of the Projects activities include the following:
 - Air emissions
 - Noise
 - Wastes including hazardous wastes
 - Road traffic
 - Occupational health and safety (OHS)
 - Community health and safety (CHS)
 - Labor and working conditions
 - Cultural heritage
 - Employment and economic development.

Various management plans have been presented in original ESMP, these include the following specific plans:

- Air quality management plan
- Soil and groundwater management plan
- Noise and vibration management plans
- Waste management plan
- Workforce management plan
- Community health and safety management plan
- Cultural heritage management plan
- Occupational health and safety plan (measures for health, safety, and labor).

At the end of the workshop, a communication means was presented and link to provide feedbacks.

As a summary of received feedbacks, the participants were satisfied with the workshop, and provided a very positive feedback that indicated their satisfaction of the workshop.

8. Grievance Redress Mechanism

The GRM described in **Section 7** of the original ESMP will be valid for OBIP-II as well. OBC will ensure that the GRM is fully operationalized, and awareness and training is provided to the relevant personnel within OBC and also the contractors and communities. The GRM principles and procedures will be shared with the stakeholder particularly the communities during the stakeholder consultations described in **Section 7** above. Complete record of grievances received, grievances assessed/considered, and grievances resolved will be maintained and a summary included in the quarterly progress reports (discussed below).

9. Reporting

OBC will prepare quarterly progress reports (QPR) and share them among others with AIIB. These QPRs will include a summary of the ESMP monitoring carried out by the contractors and OBC personnel during the reporting period (discussed in **Section 6.1** of this document), ESMP training carried out during the reporting period (**Section 6.2** above), a summary of stakeholder engagement if carried out during the reporting period, a summary of the GRM (grievances received, grievances considered, grievances resolved, and grievances pending/unresolved), and any other aspect related to the environmental and social performance of the project. A suggested format of the QPRs is presented in **Annex A**. It will be discussed and agreed with AIIB.

10. Action Plan

The actions to be undertaken by OBC and its contractors in compliance with the ESMP, the present Addendum and AIIB ESF, are summarized below.

- OBC will arrange the stakeholder consultation workshop as described in **Section 7** of this document. The proceedings of the workshop will be documented.
- OBC will insert the summary of workshop in **Section 7.1** of this Addendum.
- OBC will disclose the Addendum and its Arabic translation on the Company website.
- Subsequently, the ESMP will be shared with AIIB for review and clearance.
- The GRM will be operationalized following the procedure described in **Section 7** of the original ESMP.
- ESMP monitoring will be carried out by the contractor and by OBC on a regular basis as described in **Section 6.1** of this Addendum.
- ESMP training will be carried out on a regular basis as described in **Section 6.2** of this Addendum.
- Quarterly progress reports as described in **Section 9** of this Addendum will be prepared and shared with AIIB on a regular basis.
- Take any other action as discussed and agreed with AIIB to ensure compliance with the ESMP, the present Addendum and AIIB ESF.

Annex A: Quarterly Progress Report Template (2-3 page long)

Overview/Executive Summary. [a summary of the activities carried out and key actions taken during the reporting period, key outstanding issues, key actions planned for the next reporting period.]

Introduction. [A brief section to introduce the project and the QPR.]

ESMP Monitoring. [a summary of ESMP monitoring carried out by the contractors during the reporting period, any non-compliances observed, corrective action taken]

GRM. [a summary of grievances received during the reporting period; details of grievances resolved during the reporting period; details of outstanding grievances; key outstanding issues regarding GRM implementation/functioning.]

Capacity Building/Training. [capacity building/training conducted during the reporting period; capacity building/training to be conducted during the next reporting period; any outstanding issues.]

Field Visits. [description of field visits if carried out by OBC personnel during the reporting period; key findings and observations during the field visits with photographs; any outstanding issues; plan for next reporting period.]

AIIB Aid Memoirs. [a tabular summary of actions agreed during the previous AIIB mission/meeting and actions taken during the reporting period.]

Others. [any other activities carried out during the reporting period not covered under the above sections, any other outstanding issues not covered under the above sections.]

Annexes. [As appropriate/required such as photographs or supporting details.]