



200 MW Photovoltaic Power Project, Benban – Aswan, Arab Republic of Egypt

## **Environmental and Social Impact Assessment (ESIA) Report – Non-Technical Summary**

Prepared for:

INFINITY POWER HOLDING – HASSAN ALLAM UTILITIES CONSORTIUM

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## LIST OF ABBREVIATIONS

ABBREVIATION	MEANING
AC	Alternating Current
AFDB	African Development Bank Group
CESMP	Construction Environmental & Social Management Plan
CSO	Civil Society Organization
CSP	Concentrated Solar Power
DC	Direct Current
EBRD	European Bank for Reconstruction and Development
EDG	Environment and Development Group
EEAA	Egyptian Environmental Affairs Agency
EIA	Environmental Impact Assessment
EPC	Engineering, Procurement and Construction
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
ESMS	Environmental and Social Management System
IFIs	International Financial Institutions
ISES to 2035	Integrated Sustainable Energy Strategy to 2035
NREA	New and Renewable Energy Authority
OESMP	Operational Environmental and Social Management Plan
PEA	Preliminary Environmental Assessment
PPA	Power Purchase Agreement
PV	Photovoltaic
NGO	Non-Governmental Organization

## OVERVIEW OF THE PROJECT

This document is the Non-Technical Summary of the Environmental and Social Impact Assessment (ESIA) for the Infinity Power Holding-Hassan Allam Utilities (the IH Consortium) Benban 200MW PV project (the Project). The Project is located within Benban Solar Park (BSP) in the Aswan Governorate of the Arab Republic of Egypt.

### GOALS & OBJECTIVES:

This Project will contribute towards Egypt's Integrated Sustainable Energy Strategy to 2035 (ISES to 2035), released by the Ministry of Electricity and Renewable Energy in 2015 to develop the energy sector in Egypt. One of the main outcomes of the strategy was the need to diversify the energy resources and increase the share of renewables by 42% in 2035 with wind providing 14%, hydro power 2%, Concentrated Solar Power (CSP) 3%, Photovoltaic (PV) 22% and other sources such as biomass 1%. Part of this share will be achieved through the implementation of the Benban Solar Park project with a total capacity of 1650 MW. The present 200 MW will be implemented on 5 of the Benban Project 41 plots. The objectives of this ESIA in relation to this Project include the following:

- Assessment of baseline conditions prior to the development of the Project through review of available data and conducting surveys.
- Assessment of the project's environmental & social impacts for the construction and operational phases.
- Review of compliance obligations, including applicable Egyptian regulations and international regulations & standards as well as international lender requirements.
- Engage with key stakeholders to disclose Project information, study outcomes, gain lay knowledge about the local environmental & social context and seek feedback.
- Determine applicable mitigation and management measures to be implemented in order to avoid or minimise potential impacts.
- Prepare a framework from which the construction and operation respective management systems and plans can be developed and implemented.

### DEVELOPER

The IH Consortium has been awarded the contract to develop the 200MW PV in addition to a Battery Energy Storage System (BESS) project on five plots in the Benban Solar Park. The Project award includes the design, engineering, permitting, procurement, construction, commissioning, performance testing, operation and maintenance of the PV plants. The Consortium has appointed Environment and Development Group (EDG) to prepare the Environmental & Social Impact Assessment (ESIA) for the Project.

## PROJECT DESCRIPTION

### LOCATION

The Project is located within the Benban Solar Park (37.2km<sup>2</sup>) in the Aswan Governorate, approximately 650 kms south of Cairo, 40 kms northwest of the city of Aswan and 15 kms west of the River Nile. The closest populated village to the Project site is Benban village located approximately 12 kms east of the Benban Solar Park.



Figure 1. Project plots in the Benban Solar Park.

The Benban Solar Park (BSP) covers 37.2 km<sup>2</sup> of land owned by the New and Renewable Energy Authority (NREA). Its total capacity is expected to be 1.8 GW. The Park site is divided into 41

individual plots, each leased to different project developers through long-term usufruct agreements. These plots range in size from 0.3 to 1.0 square kilometres and are designed to operate as independent PV facilities under the overarching Benban Solar Park framework. Most of the plots have been developed as operational PV projects.

NREA, as the responsible government authority and landowner, is providing essential infrastructure services including road network, four high-voltage substations, and water supply infrastructure. The overall management of environmental, social, health and safety aspects of the BSP is mandated to a facility management company (FMC). The FMC mandate covers all common areas and facilities within the park. management of E&S aspects of the project within its assigned plots is the responsibility of the developers' consortium.

Five plots have been allocated to the project (140-70-70-20 MWp + 60 MWh for BESS) covering a total area of 4.3 km<sup>2</sup> (Figure 1 and Table 1)

The sites will be connected to the existing high voltage network through four substations, which were constructed and operated by the Egyptian Electricity Transmission Company (EETC). These substations, in turn connect to an existing 500 kV overhead transmission line (OHTL).

Table 1. Location and area Details of the project's plots.

	Plot A	Plot B	Plot C	Plot D	Plot E
Area (km <sup>2</sup> )	1.0	0.97	0.97	0.35	0.92
Latitude	24.44066 N	24.39532 N	24.39531 N	24.39531 N	24.39531 N
Longitude	32.72598 E	32.69561 E	32.70152 E	32.73134 E	32.73467 E

## PROJECT FEATURES

The following are key features of the project:

- **Total Capacity:** 200 MW of solar PV generation, contributing to Egypt's renewable energy grid.
- **Energy Storage Component:** Battery Energy Storage System (BESS), which enhances grid stability by storing surplus energy for use during peak demand or low solar production periods.
- **Technology and Design:** Advanced PV modules with optimized orientation and tracking systems to maximize energy yield. The design aims to minimize land impact and ensure efficient use of space.
- **Project Timeline:** Construction is scheduled to commence by the February 2025 to meet the target **Commercial Operation Date (COD) of July 2025**. This timeline allows for the efficient mobilization of resources and timely completion of all critical construction and commissioning activities.

Photovoltaic Power Plants use photovoltaic cells to generate electricity upon exposure to sunlight. This power generation technology converts solar radiation into direct current electricity using semiconductor materials in the form of a panel that exhibits photovoltaic effects. A typical PV Plant mainly comprises a solar field which consists of a large group of semiconductor technology-based silicon solar cells arranged in what is known as solar PV Panels or PV Modules. The PV cells within modules will be installed on fixed or tracking ground mounted racks arranged to ensure the most efficient alignment for the capture of solar radiation. The solar panels convert sunrays (photons) to electrons and the electron flow generates Direct Current (DC) electricity which gets connected and channelled into an electric device 'inverter' to convert the DC into Alternating Current (AC). The project features a battery energy storage system with a capacity of 60 MWh. The BESS will enhance grid stability, manage energy supply during peak demand, and store excess energy generated during the day for use during periods of lower solar generation.

## PROJECT ALTERNATIVES

The following project alternatives were considered at the feasibility stage:

- **No Project Alternative:** Should the "Do Nothing" scenario be applied, then the anticipated minor negative impacts discussed throughout the ESIA will not occur. However, as assessed in the ESIA report, these impacts which are most likely to happen during the construction phase, are not expected to pose significant risks and can be adequately controlled through the implementation of the mitigation measures discussed in accordance with the Framework for Environmental and Social Management Plan. In addition, if the project were not to go ahead, the positive impacts and benefits that will result from the operation of the plant such as cutting carbon emissions, reducing reliance on traditional non-renewable power sources, socio-economic benefits, and the increase in renewable energy in line with ISES to 2035 and Egypt's SDG, will not occur. Therefore, the implementation of the PV Plant will have a positive impact in meeting the country's targets and the "No Project Scenario" is expected to hinder the Egyptian governments initiatives in achieving the above.
- **Site Selection:** The Project is part of a larger NREA owned, planned, and largely operational Benban Solar Park project. Therefore, the proposed site is already earmarked for the development of renewable projects by the government and assigned to NREA by Presidential Decree No. 116 of 2016. Given the scale of the Benban Solar Park, a Strategic Environmental and Social Assessment (SESA) was commissioned by NREA with support from the European Bank for Reconstruction and Development (EBRD) in 2016. This high-level assessment manages the cumulative environmental, health, safety, and social impacts of all Benban projects. The SESA framework ensures compliance with national regulations and international standards and outlines mitigation and monitoring strategies, particularly important for this remote, uninhabited desert location. It is only reasonable to construct the 200 MW PV Solar Plants on the five plots within Benban park and adjacent to other, already operational Solar PV Plants in line with NREA masterplan. As such this will benefit from certain common infrastructure and associated facilities.

## BASELINE CONDITIONS

The baseline environmental and social conditions in the project area were established through a combination of reviews of existing data sources, site inspections and field surveys.

### SITE CONDITIONS

Directly adjacent to the eastern boundary of the BSP is a tarmac, 2-way single carriageway road. Unpaved, dirt road runs immediately adjacent to the other sides of the site. The eastern road is connected to the Luxor-Aswan, about 600 meters to the east of the site, via two 2-way roads leading to the main entrances of the facility. At least four overhead transmission lines run parallel to the eastern boundary of the site in a corridor about 800 meters wide separating the eastern boundary road and the Luxor Aswan highway.

The five plots that constitute project sites (Figure 1) are currently undeveloped. Plots B and C are adjacent to each other and occupying the southwestern corner of the BSP. The other three plots are scattered through the park.

All five sites have nearly flat topography with generally slight slope towards the east and are covered with coarse sand and patches of gravel. Plot A (1.0 km<sup>2</sup>) at the northern boundary of the BSP has a virtually flat topography and is covered with mostly sand with some gravel in places. Plots B and C (1.94 km<sup>2</sup>) in the southwestern corner of the BSP, is generally flat and sandy. Excavated material and construction waste are found throughout the two plots. Plot D (0.35 km<sup>2</sup>) is relatively more disturbed than other plots with extensive numerous piles of excavated surface material and construction waste. Plot E (0.92 km<sup>2</sup>) is located closer to the southeastern corner of the park and shows limited surface disturbance with scattered piles of excavated surface material.

### PHYSICAL SETTINGS

Climate is classified as hyper-arid, hot and dry with many hours of sunshine and almost no rain. Precipitation is insignificant, averaging 1.2 mm/year. Years or decades may pass with no rain. Temperature is generally high with a very large day-night fluctuation. Humidity is very low throughout the year, with almost continuously clear sky and bright sunshine.

Topographically, the south-eastern region of the Western Desert where the Benban Solar Park is located, forms an almost featureless plain, which offers few prominent topographical or geological features. The Benban Solar Park and the surrounding area are in the gravel to sandy plain extending between the Libyan Plateau and the Nile Valley. The site has a nearly flat topography ranging in altitude between 150 to 140 meters above sea level and some 70 meters above the Nile water level in that region. About 30 to 40 km to the west, the Eocene limestone Libyan Plateau rises to the moderate height of 400 to 500 meters and extends westwards to the edge of the great hollow that forms the Baris – Kharga - Dakhla depressions with its many oases. To the east, the flat desert plain slopes down steeply into the Nile Valley to reach the nearly flat flood plain, which is only few meters above the Nile water.

The five project plots are very similar in topographic features. They all have a largely flat, topography. The ground surface is mostly covered with Quaternary surface deposits of mostly Late Pleistocene. A layer of sand, over-strewn with gravel in places covers the ground surface. Some scattered cobbles are also found at very few spots. In this virtually rainless desert, no surface drainage lines are identifiable anywhere at or near the project sites.

Hydrologically, the Benban area is located in an extremely arid region that receives virtually no precipitation. There are no signs of surface runoff in the area. Other than the Nile River, no permanent, surface water bodies of any sort are found in the area. Groundwater is the only permanent water resource in the area.

BSP gets its water supply for potable water from the New Aswan Water and Wastewater Company (NAWWCo.) by trucks. This service is run by the FMC, Health and Safety Home through a contactor. The service also includes the collection of wastewater in trucks also where the wastewater is ultimately disposed of in the NAWWCo. as well.

## ECOLOGICAL SETTING

Habitats of the Project sites and the BSP in general are limited in diversity and coverage. Habitable areas are restricted to locations that have certain topographic features, which allow adequate moisture to be available at or near the ground surface.

The habitat identified at the project plots and BSP area is typical of all desert regions and limited in diversity and coverage. The Project plots and the surrounding desert land is mostly barren and supports a very small permanent animal and plant life. Uni-specific patches of the shrub *Salsola imbricate*, sparsely scattered throughout some of the plots represent the only vegetation cover in the area. Wild fauna of the Project sites is limited to few insects and other arthropods, very few reptiles, occasional birds and small mammals that are common throughout the Western Desert of Egypt (identified as Least Concern under IUCN listing). Most of the resident birds of the project area and the surrounding region are true desert species and are typical of the Western Desert of Egypt.

Transient species are restricted to birds and insects and represent a relatively low diversity of species assemblies.

Reptiles are the most diverse vertebrate group (13 species). Very few birds have been recorded in the BSP and its immediate vicinity (28 resident species). Mammals recorded or observed at the project plots, the BSP and the surrounding area include mostly common rodent species (5 species) and possibly the red fox. None of the species observed recorded in the area are listed as threatened locally or internationally (IUCN lists).

During the site visit conducted, it is concluded that none of the plant or animal species recorded from the area are listed in the national or the IUCN as threatened or designated as critical habitat triggers or priority biodiversity features under EBRD PR6.

## SOCIOECONOMIC AND SOCIOCULTURAL SETTINGS

The nearest human settlements to the park are New Benban and Benban villages both located about 12 km to east of the park. Old Benban village comprises three affiliated communities:

Benban Qebli, Benban Bahari, and El Raqaba. The establishment of the BSP has triggered new settlements near the park and a variety of land uses, particularly east of the Luxor – Aswan Highway as shown in the next figure (Figure 2)

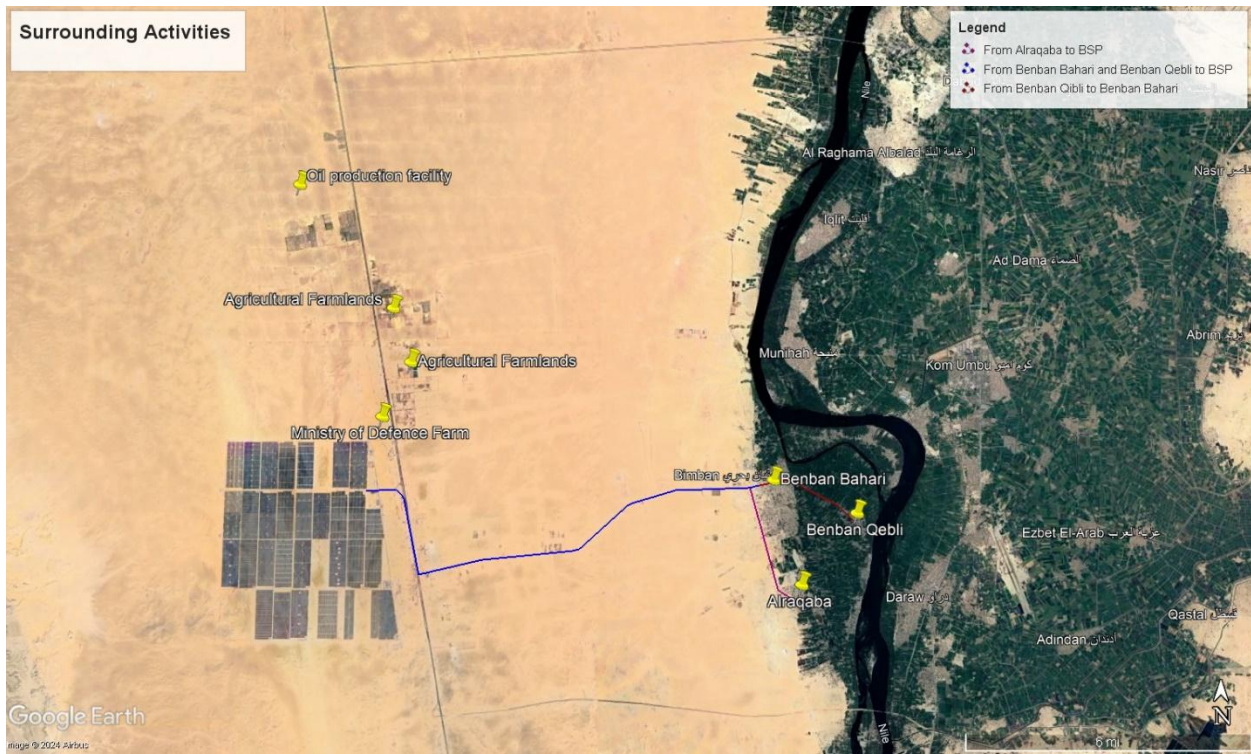


Figure 2 Affiliated communities and their access roads to BSP and the surrounding activities

The primary economic activities in Benban and surrounding villages include farming, food packaging and cattle breeding. Drying dates and tomatoes is also a common economic activity. Table 2 below presents a description of the surrounding areas and land-uses in and near the BSP.

Table 2. Surrounding Land Use

SURROUNDING AREA/ USERS	DESCRIPTION	LAND USE
Adjacent PV Projects	Operational PV project immediately adjacent to the five project plots.	Industrial
New and Old Benban Village	Approximately 12 km east of the Project boundary	Residential
Accommodation Camp	A worker accommodation camp located approximately 800 m east of the Ministry of Defence Farm.	Residential
Caravans (local contractors)	Caravans for local contractors looking to work in PV projects located across the road to the east of the Luxor – Aswan Highway approximately one km from the BSP.	Commercial
Oil Production Facility	Approximately 16 km northeast of the BSP.	Industrial
Ministry of Defence Farms	The nearest to the BSP site. Approximately 1.2 km northeast of the site.	Agricultural

SURROUNDING AREA/ USERS	DESCRIPTION	LAND USE
Agricultural Farmlands	Several smaller farms are found east of the Luxor Aswan Highway and on both sides of the Benban village road.	

In terms of cultural heritage, there are no known or recorded sites of cultural importance (including tangible archaeological sites) in the BSP area or the immediate vicinity or surroundings of the Project, including the access road and electrical connection points.

## IMPACT ASSESSMENT AND MITIGATIONS

The project will have a number of environmental and social impacts during the different phases. None of the environmental and social impacts assessed in the ESIA report were identified as significant or major and require immediate attention and additional measures. Most of the impacts are of minor to negligible significance and are considered typical during the construction and operation of a PV power plant. Details of all the identified environmental and social impacts are provided in the ESIA report and are summarised below:

- Air Quality: There are no receptors of high sensitivity in terms of air quality around the PV plants of this project. The closest receptors are the operational staff of the adjacent PV facilities, and the local contractors and farm workers located near the Luxor-Aswan Road. All are considered of medium sensitivity due to their close proximity to the project area. Temporary construction impacts of the project may be the increased dust generation, which will particularly impact receptors the solar panels, and possibly other equipment in adjacent projects, downwind of the construction activities. Such impacts are common for construction activities in dry environments and can be appropriately managed through the implementation of a robust Construction Environmental & Social Management Plan (CESMP). The operation of the project is not expected to result in any impacts to air quality.
- Noise: The potential sensitive receptors to noise are similar to the air quality receptors. Temporary noise impacts will result from the construction phase of the project and will primarily be associated with heavy plant/equipment and construction vehicle movements. As a solar PV project, it is not anticipated that the Project will result in any operational noise and vibration impacts.
- Soil, Geology, and Groundwater: During construction, impacts on soil and groundwater could arise from a number of activities. These include excavation and soil compaction, accidental spills or leaks, disposal of wastewater, and inadequate management of waste. Due to the depth of the groundwater at the wider area (range of 70-100 meters west of Benban Village) and the fact that groundwater was not encountered in any of the previous BSP construction activities it is not expected that any contamination will reach groundwater. The water needs during both construction and operations as well as the wastewater disposal service are to be provided by the FMC through a local contractor (White Care), from the New Aswan Water and Wastewater Company. Specific project impacts to soil, groundwater and geology are not expected during the operational phase, as the project will mainly rely on dry cleaning of the solar panels. Wet cleaning may be needed at a maximum rate of 2 times per year during operations according to the

weather conditions (sand storms, high humidity etc.) in addition to one time upon completion of project construction phase. Potential risks of concern during the operational phase are expected to be limited to the management and storage of hazardous materials/wastes/wastewater, chemicals and fuels. However, with the provision of the mitigation measures recommended in the ESIA, no significant environmental impacts are envisaged.

- Solid Waste and Wastewater: Construction of the project may result in the generation of rubble waste due to excavations, expected large volumes of recyclable PV module packaging wastes, and very small quantities of hazardous wastes (such as used fuel containers, spent paint cans, lubricant cans and oil cans, vehicle/plant maintenance wastes). During operations, there will be relatively few waste streams, although defective PV panels and other maintenance wastes may be generated in small quantities on a continued basis. Other wastes will be minimal and varied but may contain small quantities of hazardous components. The ESIA outlines appropriate mitigation and management measures that can be implemented to suitably manage waste during both project phases. Hazardous waste generated from the Project will be collected from the project sites by the FMC, transported to the FMC's designated hazardous waste storage area, and finally transported by road to a licensed hazardous waste facility for recycling/disposal.
- Terrestrial Ecology: The construction phase will result in loss of sand/gravel habitat due to site preparation activities, although this habitat is typical of the arid desert environment and is not of high value. During operation, birds in proximity to the site are not expected to be impacted by the project.
- Cultural Heritage: There are no known or recorded sites of cultural importance (including tangible archaeological sites) in the BSP and the Project sites or the immediate vicinity, including the access road and electrical connection points. This has been corroborated to date in the scoping consultation sessions conducted as part of the consultation activities. There has been no concern raised, or other knowledge imparted about cultural features on these lands. Although there are no archaeological artefacts within the site or areas that may have archaeology significance in close proximity to the site, there is still a potential for encountering unknown buried archaeology within the Project site during excavations. As such, the project will require a 'Chance Finds Procedure' in the construction phase ESMS in the unlikely event that any items of archaeological significance are uncovered during construction. During the operational phase of the Project, there will be no potential impact to archaeology as excavations will not be required.
- Landscape and Visual Amenity: The development of the BSP, including the project plot will include the installation of thousands of PV panels, the construction of substations, administrative facilities, etc. which will alter the existing undeveloped desert landscape character. The view of the characteristic brown sands and gravel will be replaced with a view of dark coloured flat PV Panels.
- There are no permanent dwellers within 1 km from the Project site. Based on the viewsheds generated for the identified permanent receptors, the BSP PV power plants will be most likely visible from areas and accommodation camps east and west of the Luxor – Aswan Highway. Due to the low-lying design of the PV plants, views across the wider landscape are unlikely to be significantly impacted. Mitigation measures related to the use of lighting

have been included to the ESIA to minimise potential visual impact at night by minimising skyglow, light spill onto neighbouring land and reduced glare by angling lights toward the ground.

- Community Health, Safety and Security: All construction projects have potential risks relating to public safety that could arise, particularly regarding the use of high-powered equipment, heavy construction plant, excavations, transportation amongst others, including fire and pollution releases. Public risks during construction have the potential to result in isolated incidents, which could be of a devastating magnitude to a person or group of people in the wrong place at the wrong time. Risks that could be experienced include worker influx and disease and transportation impacts, as traffic will increase on public roads to deliver materials and equipment to the project site during construction. This may include an increase in road traffic incidents. To manage traffic related impacts (including safety risks to other road users), the FMC, in coordination with the EPC Contractor will prepare a Traffic Management Plan for implementation on-site and the surrounding roads. Other risks will be appropriately assessed and prepared in the construction phase 'Emergency Preparedness and Response Plan' and training will have to be developed and implemented covering each of the project plots. Furthermore, security staff will be onsite during both the operation and construction phase.
- Socioeconomic: There are no ethnic minorities, indigenous peoples or internally displaced people in the BSP project area, or nearby. This project will reduce Egypt's dependency on fossil fuel generated power and will reduce atmospheric pollution, in comparison to other power generation technologies in the current energy mix of Egypt. It will also support the continued growth of the national economy through the provision of sufficient power supplies in Egypt.
- Labour and Working Conditions: The risks associated with the construction and operational phase of the project are anticipated to be related to occupational health and working conditions risks. The impacts during operation are expected to be significantly less than during the construction phase due to reduced site activity and requirements for heavy plant and machinery. These risks should be managed through effective risk assessment, development and implementation of an Occupational Health & Safety (OH&S) Plan.

## STAKEHOLDER CONSULTATIONS

Consultation has been carried out with local communities and local government representatives to identify any community concerns or opportunities associated with the project. Several stakeholders were identified and included community stakeholders who may potentially be affected by the project, whether directly or indirectly, as well as other interested parties, such as CSOs, NGOs, and institutional stakeholders who may be involved in one way or another in the construction or subsequent operation of the Project. Stakeholders, and their relevance to the project are listed below. Consultations were carried out during the period from the 4 to 14th of November 2024, with local community members. In addition, designed meetings and focus group discussions were carried out during that period with the FMC team, and with members of the community who may be directly or indirectly affected by the project. A stakeholder engagement plan was prepared for the project and includes a detailed community and workers' grievance mechanism, and procedures for reporting Gender Based Violence and Sexual Harassment

(GBVSH) and anonymous grievances. Moreover, roles and responsibilities for the implementation of the SEP are outlined.

Table 3 below outlines the main stakeholders:

Table 3. Main Stakeholders Identified

STAKEHOLDERS	DESCRIPTION/ CONCERNS
Key Stakeholders	<p>Includes Benban villagers who may be directly affected by the project. Those include:</p> <ul style="list-style-type: none"> <li>○ Unemployed youth and those with temporary jobs</li> <li>○ Contractors' workers</li> <li>○ Users of the Luxor – Aswan Western Highway</li> <li>○ Project Employees</li> <li>○ Local communities surrounding BSP and on the road leading to Benban village</li> <li>○ Benban Solar Developer's Association (BSDA)</li> <li>○ Facility Management Company</li> </ul>
Non-key stakeholders	<p>Stakeholders who are not necessarily affected by the Project but may be interested and/or involved in it.</p> <ul style="list-style-type: none"> <li>○ Nile Valley Community</li> <li>○ Financial Institutions/Lenders</li> <li>○ Members of the Civil Society</li> <li>○ Institutional stakeholders: involved in construction and/or operation of the Project: <ul style="list-style-type: none"> <li>- New and Renewable Energy Authority: Competent Administrative Authority and landowner</li> <li>- Egyptian Electricity Transmission Company: electricity off-taker, responsible for construction and operation of transmission substation</li> <li>- Egyptian Electricity Regulatory Authority: issuing the construction permit and power generation permit</li> <li>- Egyptian Environmental Affairs Agency: reviewing and approving the ESIA and issuing the environmental permit</li> </ul> </li> <li>○ Governorate-Level Stakeholders: <ul style="list-style-type: none"> <li>- Governorate of Aswan: the local government</li> <li>- Governorate's Environmental Management Office: inspecting the project and ensuring compliance with its Environmental and Social Management Plan</li> <li>- Civil Protection Authority: approving the firefighting plan</li> <li>- Governorate's Labour Office: inspecting the project and ensuring compliance with the Egyptian Labour Law</li> <li>- Benban local council: management of village resources</li> </ul> </li> </ul>

## ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP)

The ESIA provides a framework for the development of the Environmental and Social Management Plan (ESMP) for the construction and operational phases of the project. The framework has been developed to ensure that all environmental and social impacts are appropriately identified and controlled through the development of a robust ESMS and associated Management Plans.

The construction and operational phases of the ESMP will incorporate mitigation and monitoring requirements established within the ESIA as well as requirements set out by any Lenders. The primary documents guiding the environmental and social management of the construction and operational phases will be the Construction Environmental & Social Management Plan (CESMP) and the Operational Environmental & Social Management Plan (OESMP) respectively.

### Grievance Mechanism

- A grievance mechanism is established to address stakeholder complaints about environmental, social, and worker-related issues throughout the project lifecycle.
- **FMC is responsible for handling all community grievances** that are escalated by the community.
- A **separate mechanism is in place for worker grievances** managed by the EPC's Labor Compliance Officer (LCO), Project's E&S Supervisor and FMC's WGM LCO team
- Complaints can be submitted via sealed boxes, email, post, or directly to designated personnel (EPC LCO, or Project direct managers, and E&S Supervisor). **Anonymous and GBVH complaints** are accepted and handled confidentially.