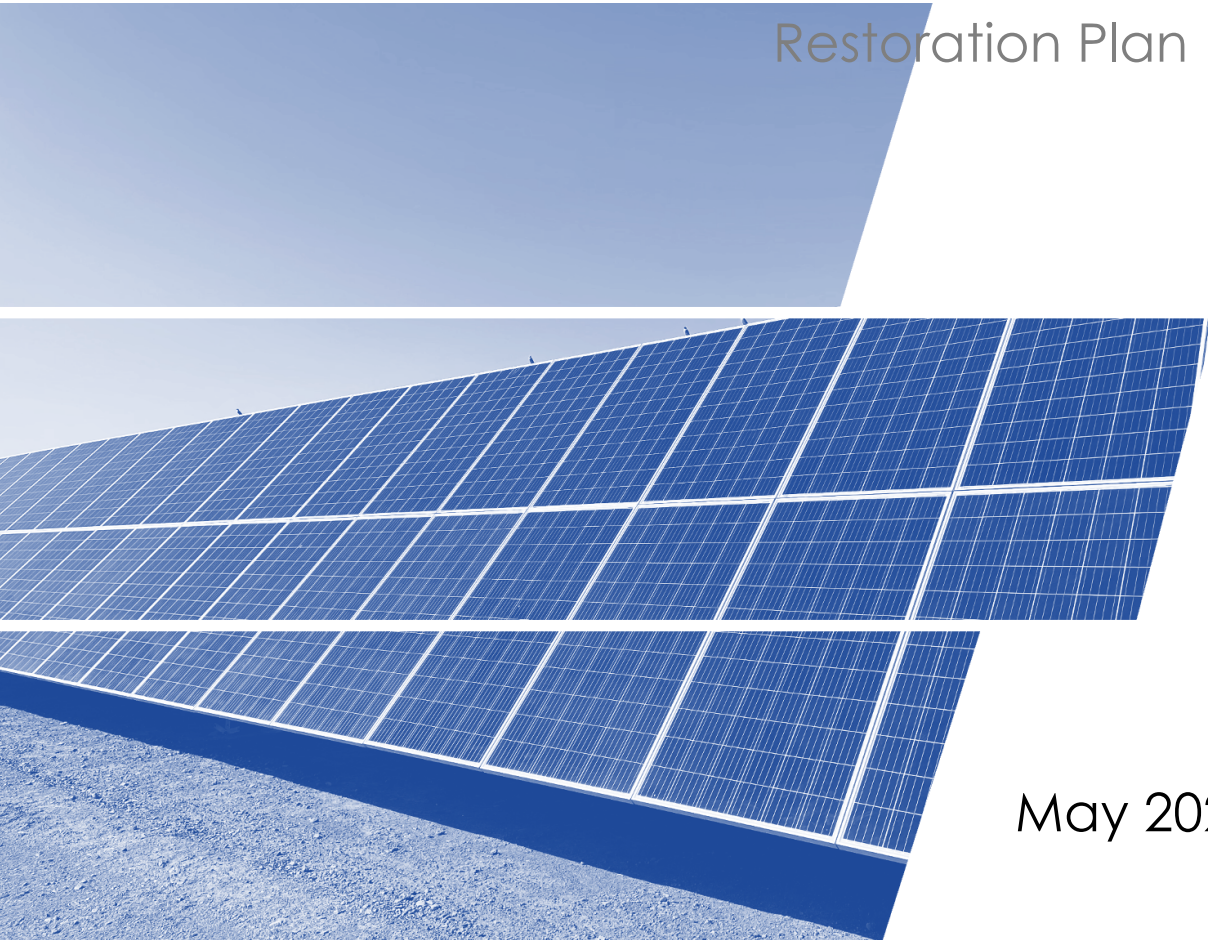


# Samarkand II Solar PV and BESS Project Republic of Uzbekistan

Land Acquisition and Livelihood  
Restoration Plan (LALRP)



May 2024, v1.0



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## LIST OF ABBREVIATIONS

ABBREVIATION	MEANING
<b>AIIB</b>	Asian Infrastructure Investment Bank
<b>AoI</b>	Area of Influence
<b>BESS</b>	Battery Energy Storage System
<b>CESMP</b>	Construction Environmental & Social Management Plan
<b>CAP</b>	Corrective Action Plan
<b>CLO</b>	Community Liaison Officers
<b>COD</b>	Commercial Operation Dates
<b>DEG</b>	German Investment Corporation
<b>DFIs</b>	Development Finance Institutions
<b>EBRD</b>	European Bank for Reconstruction and Development
<b>EIA</b>	Environmental Impact Assessment
<b>EMS</b>	Energy Management System
<b>EPFIs</b>	Equator Principles Financial Institution
<b>ESG</b>	Environmental and Social Governance
<b>ESIA</b>	Environmental and Social Impact Assessment
<b>ESMS</b>	Environmental and Social Management System
<b>FGD</b>	Focus Group Discussions
<b>GRM</b>	Grievance Redress Mechanism
<b>GSZ</b>	Grid Security Zone
<b>HPZ</b>	Health Protection Zone
<b>HSSE</b>	Health Safety Security and Environmental
<b>IFC</b>	International Finance Corporation
<b>IFI</b>	International Financial Institutions
<b>IPs</b>	Indigenous Peoples
<b>IsDB</b>	Islamic Development Bank
<b>JSC</b>	Joint-Stock Company
<b>KIIs</b>	Key Informant Interviews
<b>LALRP</b>	Land Acquisition and Livelihood Restoration Plan
<b>LAO</b>	Land Allotment Order
<b>LESA</b>	Lenders' Environmental and Social Advisor
<b>LGA</b>	Local Government Authorities
<b>LLA</b>	Land Lease Agreement
<b>MDAs</b>	National Ministries, Departments, and Agencies
<b>NEGU</b>	National Electric Grid of Uzbekistan
<b>NGO</b>	Non-Governmental Organizations
<b>O&amp;M</b>	Operation and Maintenance
<b>OESMP</b>	Operational Environmental & Social Management Plan

ABBREVIATION	MEANING
OTL	Overhead Transmission Line
PAC	Project-Affected Communities
PAH	Project-Affected Household
PAP	Project Affected Person
PIC	Project Information Centres
PPA	Power Purchase Agreement
PPP	Public-Private Partnership
PS	IFC Performance Standards
SEP	Stakeholder Engagement Plan
SPP	Sazagan Power Purchase
SWID	Sericulture and Wool Development

# 1 INTRODUCTION

ACWA Power intends to undertake the development and operation of two Photo-Voltaic (PV) plants with a combined capacity of 500 MMW and a 500 MWh Battery Energy Storage System (BESS), in partnership with the Ministry of Energy of the Republic of Uzbekistan, and with international financing from Development Finance Institutions (DFIs) including EBRD, ADB, IFC and several Equator Principles Financial Institutions (EPFIs). This Report presents the Land Acquisition and Livelihood Restoration Plan (LALRP) for the Project, which has been prepared in line with regulatory requirements and relevant standards applicable under the project lenders.

## 1.1 National Energy Context

Uzbekistan is amongst the fastest growing economies in the Central Asian region, with a steady demand for energy. In 2018, the country's power consumption reached 50 million TWh, and the domestic demand for power is projected to rise at an annual rate of 4%, due to continued population growth and industrial expansion. In 2019, the installed capacity of electricity generation in Uzbekistan totalled 63 TWh, with natural gas fired thermal power plants accounting for 85% of this production.

The steady uptrend in power consumption, declining yield of aged power plants and emergent climatic pressures have led to unprecedented power supply shortages, particularly within the regions of Tashkent, Andijan, Namangan, Ferghana, Samarkand, and Surkhandarya. In December 2022, severe grid overload ensued from widespread spikes in electrical demand for domestic heating under extreme winter temperatures, culminating in a series of power blackouts across Tashkent Region. The emerging power crisis in Uzbekistan has prompted a priority agenda for the development of the country's renewable energy base. This plan aligns with the country's policy shift towards decarbonization and a greener economy.

In 2018, Uzbekistan ratified the Paris agreement, and in 2021 the country submitted its latest Nationally Determined Contribution (NDC) to global carbon footprint cutbacks. The NDC includes a commitment to reduce domestic greenhouse gas (GHG) emissions by 35% relative to its 2010 GHG output by 2030. In step with the power security emergency and efforts towards green transition, the Government of Uzbekistan introduced several sectoral strategies and laws to scale up the country's renewable power infrastructure. These instruments include the Strategy for the Transition of the Republic of Uzbekistan to the Green Economy for the Period (2019-2030), Law on the Use of Renewable Energy (2019), and the Transmission Network Development Plan to 2030. Amongst other objectives, the reforms mandate a larger

renewable contribution (25%) to Uzbekistan's energy mix, and upgrade of interconnection facilities for the integration of additional power sources, efficient and stable transmission, and international electricity trade.

To promote private sector inclusion and international collaboration in the country's pursuit of a carbon-neutral economy, the Government of Uzbekistan has also enhanced the policy landscape on these fronts, with the execution of the Law on Public-Private Partnership (PPP, 2019) and the Presidential Decree on Measures to Further Improve the Mechanisms of Attracting Foreign Direct Investment to the Economy of the Republic.

## 1.2 Project Rationale and Roadmap

The emergence of a dire energy crisis at the height of recent peak-demand periods in Uzbekistan has been met with urgent measures to augment the country's installed power capacity. This agenda will largely involve the establishment of additional renewable energy sources, with a view to attaining a solar power capacity of 10,000 MW by 2030, amongst other targets.

With regard to renewable energy production, Uzbekistan offers remarkable technical solar energy potential totalling 7,411 PJ, which is fourfold higher than the country's current electricity consumption level. In terms of local Photo-Voltaic (PV) power potential, recent solar resource assessments across the country have indicated a Global Horizontal Irradiance (GHI) value of 4.52 kWh per square metre, which equates to 2,000 hours of sunshine per year. This potential is attributable to the country's central geographic location, distance from large waterbodies, and predominantly anticyclonic conditions.

To leverage the country's solar resources in response to the current power crisis and climate agenda, the Government of Uzbekistan has passed a Presidential Decree on Measures to Increase the Effectiveness of Reforms Aimed at the Transition of the Republic of Uzbekistan to A "Green" Economy by 2030 (2022). In its commitment to include private sector machinery in the fast-paced development of the country's energy infrastructure, the Ministry of Energy of Uzbekistan has signed a USD 7.5 billion investment agreement with ACWA Power (hereinafter the Project Developer).

In furtherance of the master agreement, on 19 March 2023, the Joint-Stock Company (JSC) National Electric Grid of Uzbekistan (NEGU) entered into a Power Purchase Agreement (PPA) with ACWA Power (hereinafter Project Developer), for the fast-track development and operation of 500 MW PV power plant, two 500/220 kV sub-stations, and a 500-megawatt hour (MWh) Battery Energy Storage System (BESS), hereinafter referred to as the Project, in the regions of Samarkand, Tashkent and Bukhara. The agreement also includes the construction

of related interconnection facilities (i.e., sub-stations and powerlines). The agreement will be executed over a period of 25 years and 20 years from the Commercial Operation Dates (COD) for the PV power plant and BESS components respectively. Upon the completion of the agreement term, the project facilities will be handed over to the off-taker (NEGU) for subsequent operation and maintenance (O&M).

To this end, the project company, ACWA Power Sazagan Solar 2 LLC, was incorporated on 2 March 2023. In preparation for the Project, the Project Developer is seeking international financing from Development Finance Institutions (DFIs) including the European Bank for Reconstruction and Development (EBRD), Asian Development Bank (ADB), German Investment Corporation (DEG), Asian Infrastructure Investment Bank (AIIB), Islamic Development Bank (IsDB), Saudi EXIM Bank and Proparco/ French Development Agency (AFD) (hereinafter Project Lenders).

The Project developer has commissioned 5 Capitals Environmental and Management Consulting (hereinafter referred to as the Consultant) to undertake the development of a Land Acquisition and Livelihoods Restoration Plan (LALRP). 5 Capitals has further appointed 'Juru' as Local Sub-Consultant for support on certain elements of the scope, including the LALRP surveys and consultations.

### 1.3 Objectives of the LALRP

The key objectives of the LALRP are as follows:

- Provide for the avoidance, or otherwise minimization, of involuntary resettlement (i.e., physical and/or economic displacement) through the consideration of project design alternatives;
- Identify the extent of all forms of physical and/or economic displacement due to temporary and/permanent land access restrictions resulting from the Project;
- Provide for the mitigation of any adverse socioeconomic impacts associated with physical and/or economic displacement induced by the project, through the provision of compensation at full replacement value and livelihood restoration assistance, as appropriate;
- Ensuring security of tenure is achieved provided replacement property (i.e., land and housing) is required as part of compensation;
- Provide for the enhancement, or otherwise the restoration, of the livelihoods and living standards of households and communities subject to physical and/or economic displacement, relative to pre-project levels;
- Identify the gaps between national law and compliance obligations of the project lenders and means to address these;



- Ensure the PAPs without legal lease agreements/contracts or any legally recognisable rights to land are eligible for compensation for loss of non-land assets and livelihood restoration;
- Determine the existence of vulnerable groups among the PAPs in order to ensure they are provided with additional support;
- Improve living conditions among displaced PAPs through provision of adequate housing including identification of suitable replacement grazing and agricultural
- To provide the PAPs eligibility criteria and entitlement matrix according to type of lost assets;
- Provide for progressive stakeholder engagement, including disclosure and consultation for resettlement-affected households and communities, with regard to livelihood related impacts and restoration measures.
- Present the Grievance Redress Mechanism (GRM) that will be followed in order to address any concerns and/or complaints from PAPs.
- Set out the monitoring requirements of the livelihood restoration outcomes, their impacts on the standard of living of the PAPs is carried out, and whether the objectives of the LALRP have been met; and
- Establish organisational arrangements and processes to monitor the implementation of the LALRP and take corrective actions as necessary

## 2 PROJECT DESCRIPTION

The following sections elaborate on the facilities, activities and resources planned for the Project's construction and operational phases. This description is based on the best available information at the time of this assessment and serves to aid the identification of the Project's E&S aspects and livelihood impacts.

### 2.1 Key Project Information

**Table 2-1 Key Project Information**

<b>PROJECT TITLE</b>	Samarkand II Solar PV and BESS Project
<b>PROJECT DEVELOPER</b>	ACWA Power
<b>PROJECT COMPANY</b>	ACWA Power Sazagan Solar 2 LLC
<b>OFF TAKER</b>	JSC National Electric Grid of Uzbekistan
<b>EPC CONTRACTOR</b>	[TBC]
<b>O&amp;M COMPANY</b>	NOMAC
<b>ENVIRONMENTAL CONSULTANT</b>	5 Capitals Environmental and Management Consulting (5 Capitals) PO Box 119899, Dubai, UAE Tel: +971 (0) 4 343 5955, Fax: +971 (0) 4 343 9366 www.5capitals.com
<b>POINT OF CONTACT</b>	Ken Wade (Director), Ken.wade@5capitals.com

### 2.2 Project Location

The project consists of four main components which include one PV power plant, one BESS facility, two sub-stations and three transmission lines, which will be located within the regions of Samarkand, Syrdarya, Jizzakh, Tashkent and Bukhara.

The 500 MW PV power plant will be located in Nurobod District, about 80 km from Samarkand City, and the 500/220kV Nurobod Sub-Station will be sited in Pastdargom District, about 18 km from the city. The 500 MW PV power plant will be linked to Nurobod Sub-Station by a 220 kV 70-kilometre OTL.

The BESS and the 1.1-km underground cable connecting the facility to the adjacent sub-station will be established in Karakul District, approximately 50 km from Bukhara City. The relative locations of the planned project facilities are illustrated in Figure 2-1 to Figure 2-4 below.

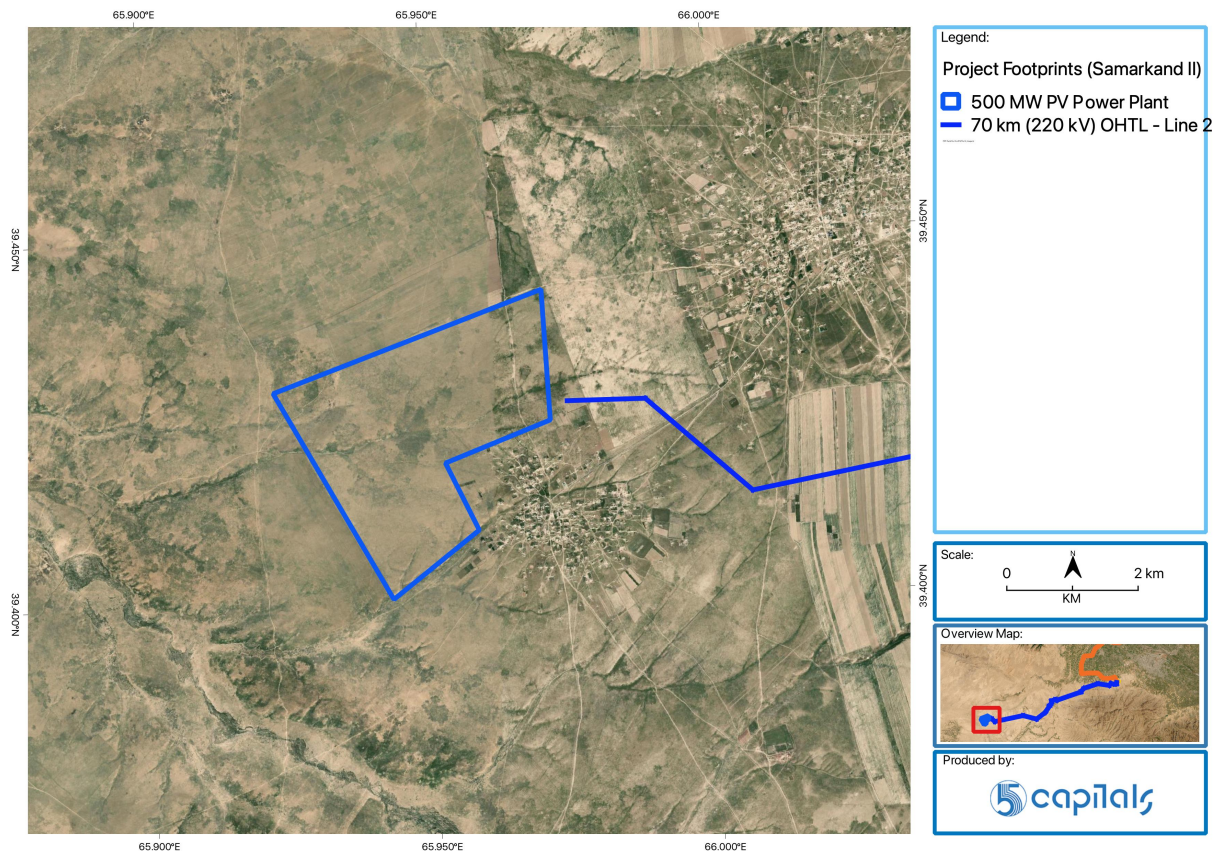


Figure 2-1 Location of the 500 MW PV power plant

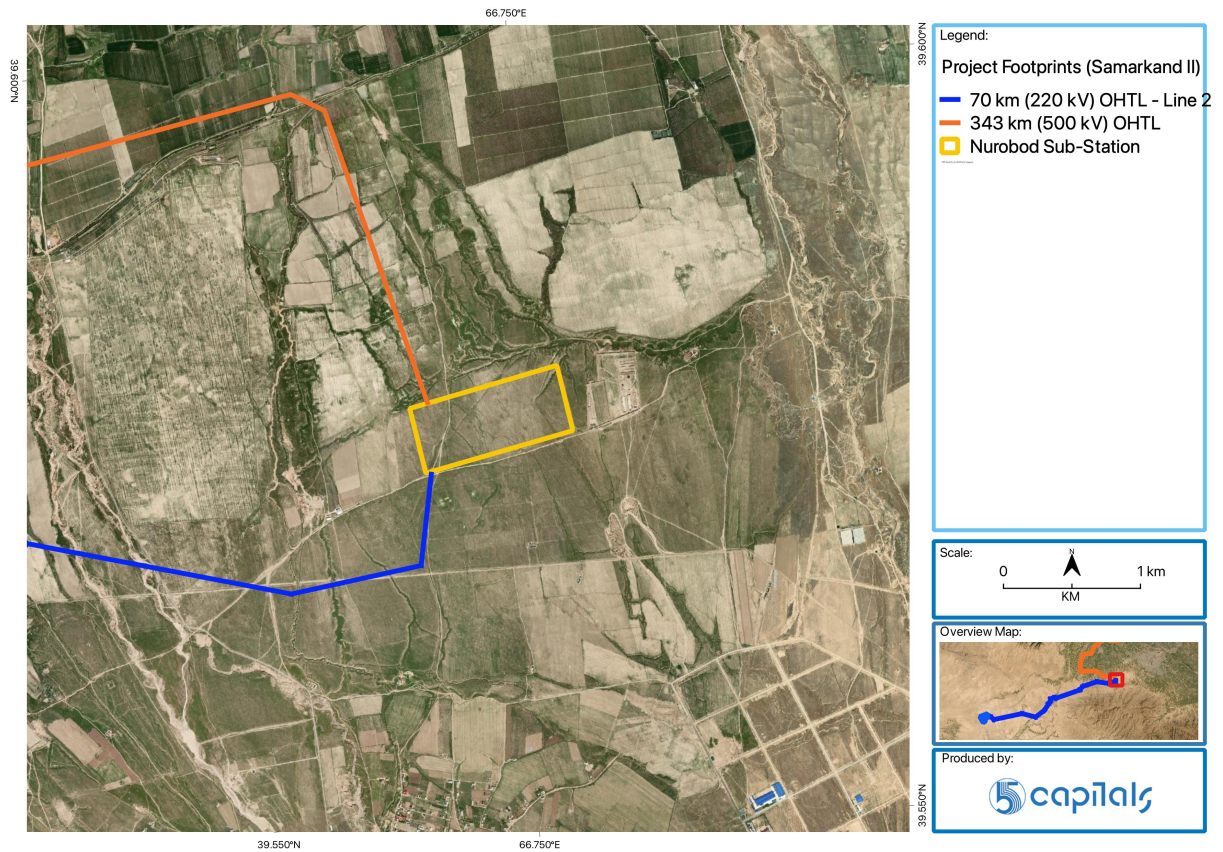
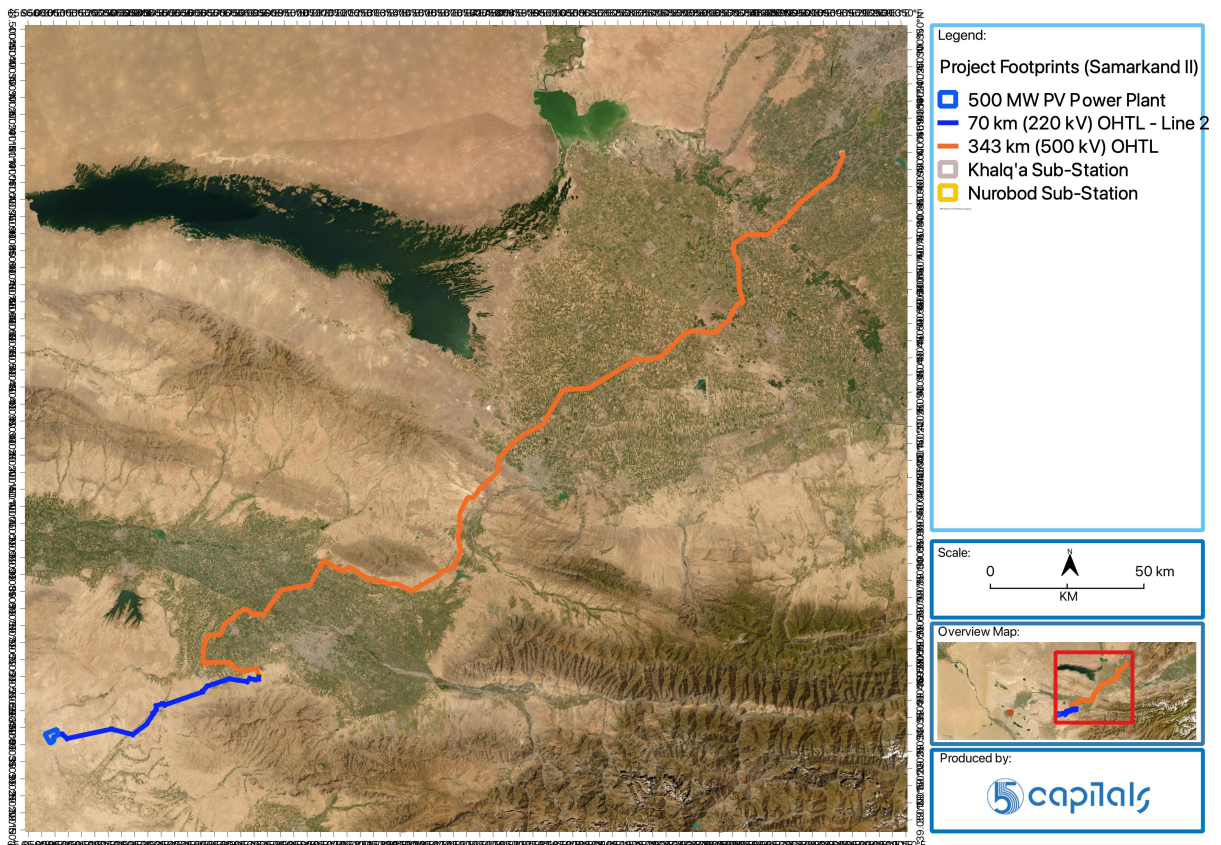


Figure 2-2 Location of the Nurobod sub-station



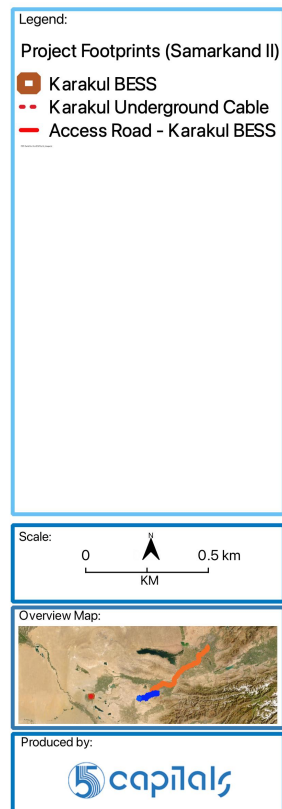


**Figure 2-3 Planned 70-km OHL corridor to link the 500 MW PV power plant with the Nurobod substation; and planned 350-km OHL to link the sub-station with Khalq'a sub-station**

63.850°E



63.850°E



**Figure 2-4 Location of the Karakul BESS**

Indicative GPS coordinates for the non-linear project facilities are provided in the table below.

**Table 2-2 coordinates for the project site boundaries**

LATITUDE	LONGITUDE
<b>500 MW PV power plant site</b>	
65.92256902	39.429192
65.97054867	39.44231101
65.97144495	39.42437636
65.95266158	39.41892587
65.95825235	39.40959672
65.94276584	39.40046985
<b>Karakul BESS site</b>	
63.86678779	39.51636452
63.87151443	39.52032504
63.87423742	39.51847344
63.875184	39.51561925
63.8719822	39.5129059
<b>Nurobod sub-station site</b>	
66.74046363	39.57744046



LATITUDE	LONGITUDE
66.75310882	39.57987352
66.75424104	39.57554102
66.74160068	39.57315096
<b>Khalq'a sub-station site</b>	
69.0855967	41.01557923
69.09104695	41.01208199
69.08700172	41.00858597
69.08148709	41.01216435

## 2.3 Existing Land-Use

The following sections describe the precedent land-uses within the project sites, with a further outline of current land ownership subject to expropriation.

### 2.3.1 500 MW PV Power Plant

The 500 MW PV power plant site lies within a rural area located in Nurobod District, which lies about 33 kilometres south-west of the Nurobod district centre, and 81 kilometres south-west of Samarkand City.

Land use within the site is predominantly pastoral. A number of herding structures, such as temporary livestock sheds, were identified within the site. Residential property is not present within the site. Land-use in the surrounding vicinity includes small-scale crop farming, and two residential communities.



**Figure 2-5 Steppe landscape within the 500 MW PV plant site (left); Livestock shelter within the site (right)**



### 2.3.2 Nurobod Sub-Station

The Nurobod sub-station site is located within a rural area in Pastdargom District, which is located about 8 kilometres south of the town of Juma (district centre), 37 kilometres east of the Nurobod district centre, and 13 kilometres south-west of Samarkand City.

Land within the site perimeter is largely idle with seasonal herding activity and residential property is not present within the site. Land-use in the vicinity of the site relatively varied, with herding, livestock farms, crop farms and quarry sites located within a one-kilometre radius.



**Figure 2-6 Herders found nearby the Nurabad sub-station site (left); Arid, steppe landscape within the site (right)**

### 2.3.3 70-km OTL

The 70-km OTL route cuts across a rural, agricultural landscape in Nurobod District. Land-use in and around the OTL corridor largely includes crop farming. No residential property was identified along the impact corridor.



**Figure 2-7 Pastural land-use and crop cultivation around the 70-km OTL corridor**

#### 2.3.4 350-km OTL

The 350-km OTL route cuts across a total of four regions, namely Samarkand, Syrdarya, Jizzakh and Tashkent. A total of 16 districts fall within the OTL corridor, and the major urban centres located nearby the corridor include the cities of Samarkand, Jizzakh and Tashkent.

Agriculture along the OTL footprint is dominated by irrigated crop farms. Several aquacultural establishments are also located in and around the corridor, within Syrdarya Region in particular. Small-scale industrial property located in the vicinity of the OTL include quarry sites along the Zerafshan and Syrdarya rivers.



**Figure 2-8 Agricultural land along the 350-km OTL corridor**

### 2.3.5 Khalq'a Sub-Station

The Khalq'a sub-station site is located within a rural area in Kuyichirchik District, which is located about 20 kilometres south-west of the outskirts of Tashkent City.

Land within the site perimeter is cultivated for wheat and barley. No residential property has been established within the site. The site is surrounded by distant residential clusters, the nearest of which is lies about a kilometre away from the site.





**Figure 2-9 Temporary shelter for cotton farmers on the Khalq'a sub-station site**

### 2.3.6 Karakul BESS and Underground Cable

The Karakul BESS site is located within a peri-urban area in Karakul District, which lies about 3 kilometres from the district centre, and 50 kilometres south-west of Bukhara Town.

Land within the BESS is part of the state forestry reserves and no residential property is present within the site. The site falls within a relatively undeveloped part of the wider industrial zone. Distant residential, commercial, and industrial zones fringe the site to the west and north. The eastern and southern surrounds within a 2 kilometre sweep include a sparse distribution of established and developing industrial facilities.

The footprint of the underground cable that will link the BESS to an existing sub-station cuts across an existing railway section, and the M37 trunk road.

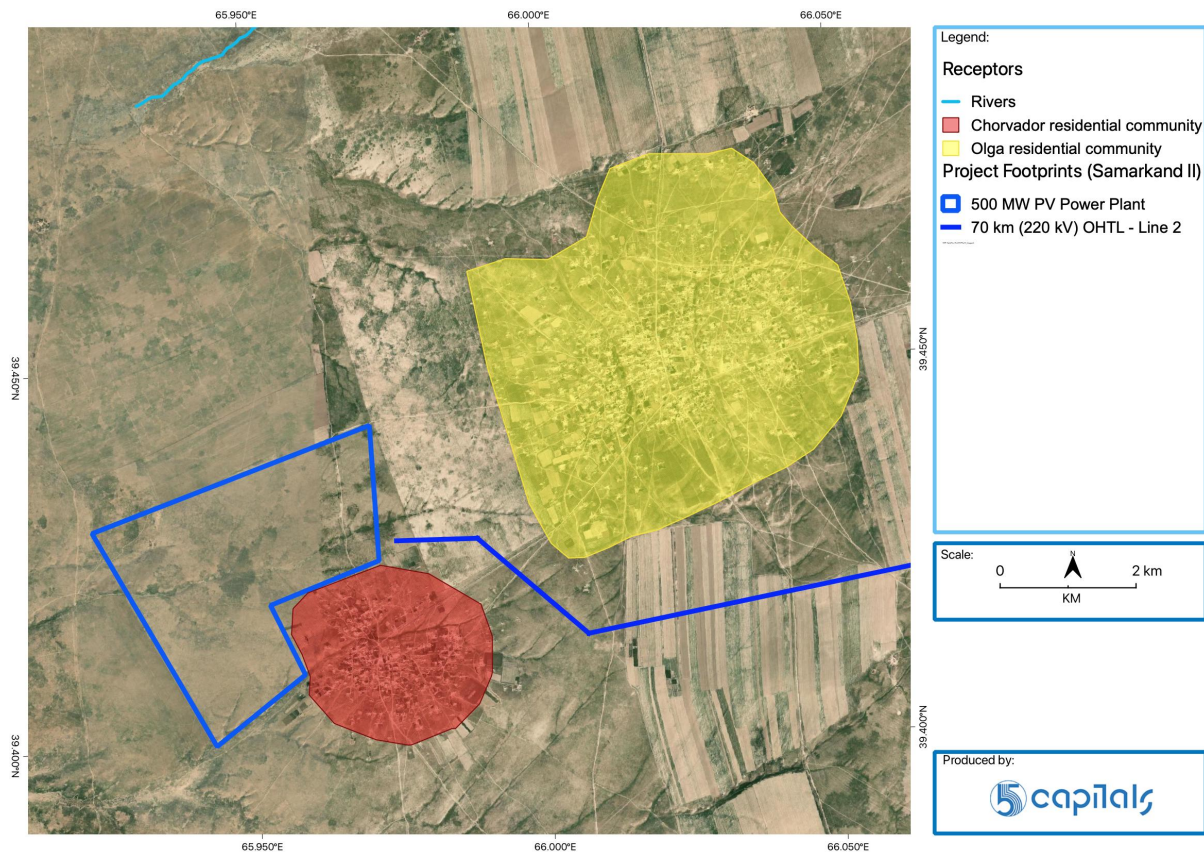


**Figure 2-10 Sandy plains with a sparse cover of white saxaul scrub within the Karakul BESS site**

## 2.4 Initial Identification of E&S Impact Receptors

A preliminary identification of potential E&S receptors (i.e., Valued Environmental Components) located within 1 kilometre of the project site boundaries was carried out based on the examination of satellite imagery, field reconnaissance and ongoing consultations with key stakeholders. As shown in Figure 2-11 below, these receptors include active and abandoned/ decommissioned residential, economic, industrial, and utility establishments, as well as surface water bodies. The general Area of Influence (Aol) was set based on the maximum Area of Influence (Aol) expected for potential direct impacts associated with the project facilities.

The following maps and receptor tables provide an overview of the E&S impact receptors pre-identified within the Aol, for the Project's non-linear facilities (with the exception of access roads). A composite, visual receptor map is not provided hereunder, considering the multitude of receptors linked to the linear (OTL) project facilities.



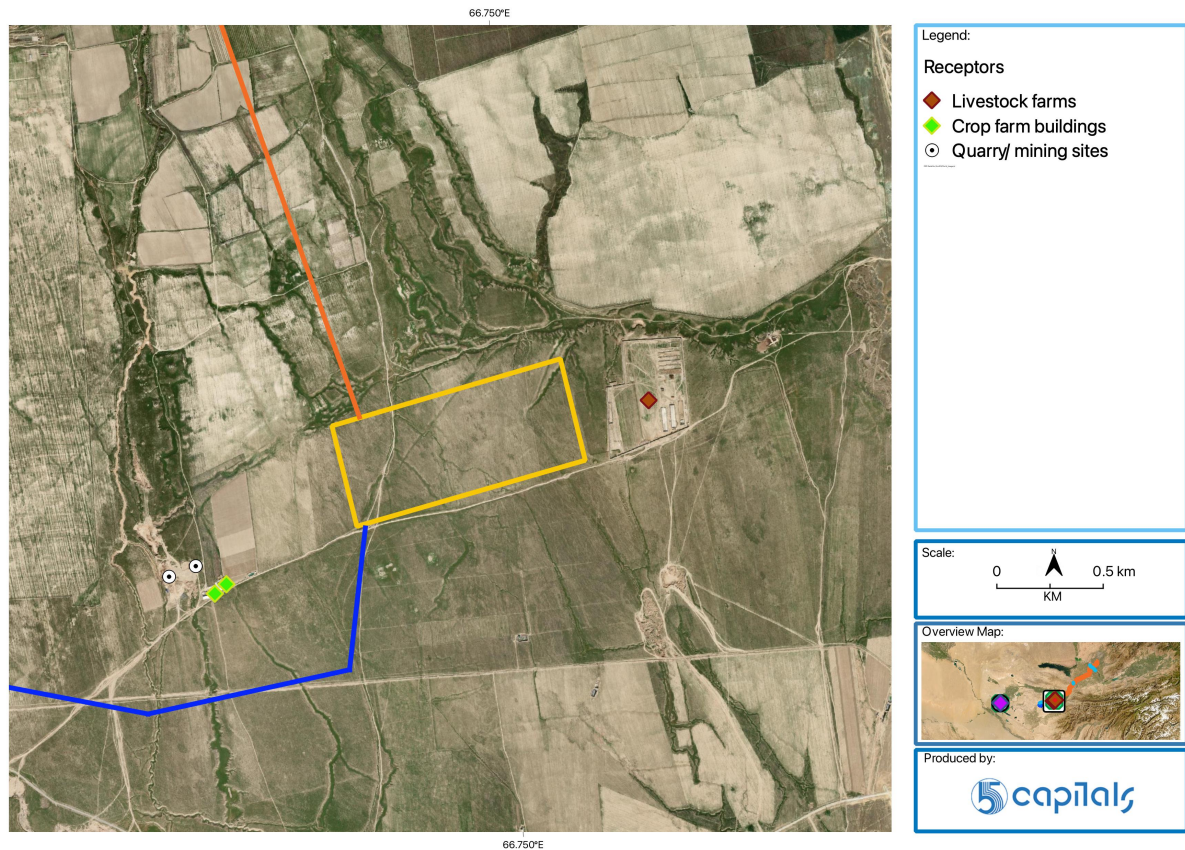
**Figure 2-11 Overview of potential E&S impact receptors within the Aol of the 500 MW PV power plant**

Table 2-3 below provides a list of the E&S receptors provisionally identified within the general preliminary Aol of the 500 MW PV power plant, with respective summary descriptions.

**Table 2-3 Overview of potential E&S impact receptors within one kilometre of the 500 MW PV power plant site**

RECEPTOR TYPE	PROXIMITY TO PROJECT SITES	DESCRIPTION
Chorvador residential community	90 m	Residential community located around the 500 MW power plant, with the closest dwelling situated about 90 metres south of the power plant site boundary.
Olga residential community	2.7 km	Residential community located north-east of the 500 MW power plant, with the closest dwelling situated about 2.7 km away.





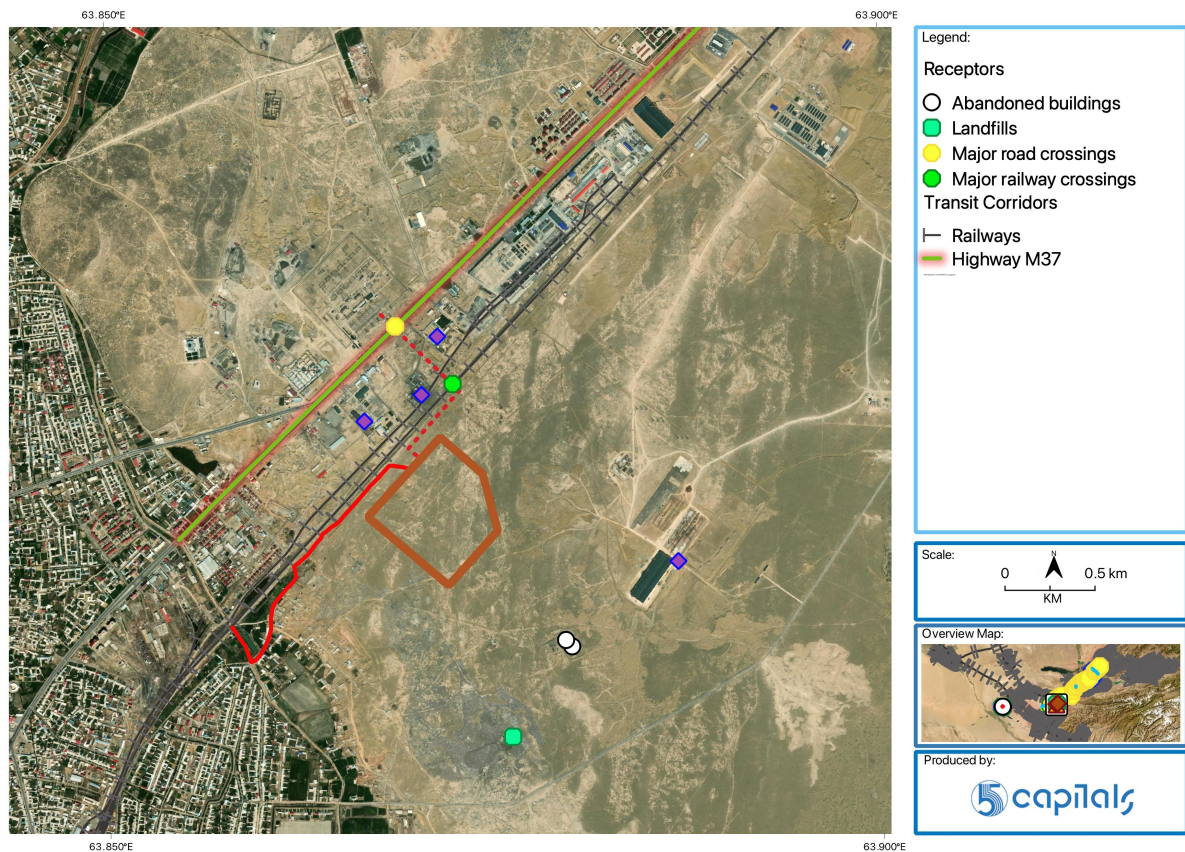
**Figure 2-12 Overview of potential E&S impact receptors within the Aol of the Nurobod sub-station**

Table 2-4 below provides a list of the E&S receptors provisionally identified within the general preliminary Aol of the Nurobod sub-station, with respective summary descriptions.

**Table 2-4 Overview of potential E&S impact receptors within one kilometre of the Nurobod sub-station site**

RECEPTOR TYPE	PROXIMITY TO PROJECT SITES	DESCRIPTION
Crop farm buildings/ structures	570 m	Crop farm sheds and houses located west of the site.
Livestock farms	165	Chicken farm located east of the site.
Quarry	790 m	Sand mining sites located west of the site.
River	3.8 km	Sazagansai River located west of the site.





**Figure 2-13 Overview of potential E&S impact receptors within the Aol of the Karakul BESS**

Table 2-5 below provides a list of the E&S receptors provisionally identified within the general preliminary Aol of the project component mapped above, with respective summary descriptions and locations relative to the boundaries of the project footprints.

**Table 2-5 Overview of potential E&S impact receptors within one kilometre of the Karakul BESS site**

RECEPTOR TYPE	PROXIMITY TO PROJECT SITES	DESCRIPTION
Industrial facilities	240 – 700 metres	Industrial facilities (mainly industrial warehouses) located north and east of the site.
Railway	145 metres	Operational railway line located north of the site.
M37 Highway	616 metres	Regional highway located north of the site.
Landfill	860 metres	Landfill located south-west of the site.
Unidentified structures	700 metres	Abandoned buildings located south-east of the site.

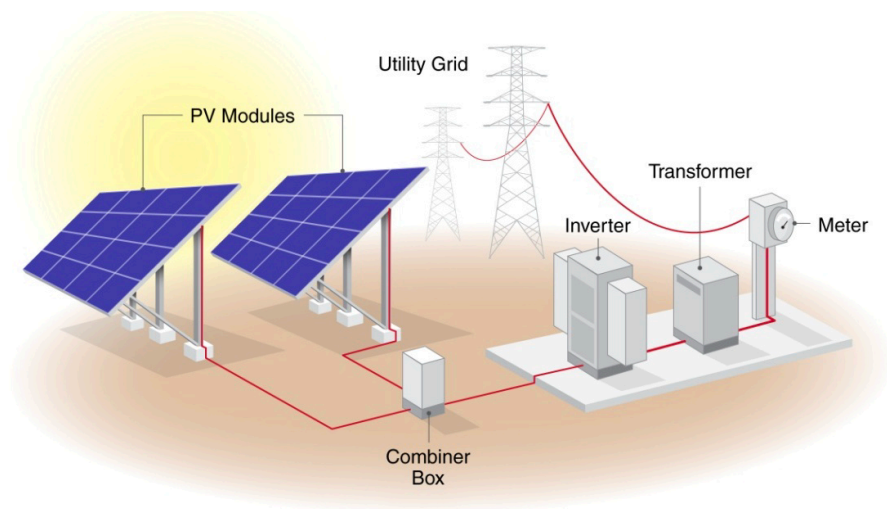
## 2.5 Project Facilities

Project facilities planned for the Project's construction and operational phases can be split into several categories, based on their relation to the project and the financing agencies involved in the development of these facilities.

The project facilities include the following components:

- 500 MW solar (PV) power plant
- 500 MWh Karakul BESS and underground cable
- Nurobod sub-station
- Khalq'a sub-station
- 70-km OTL
- 350-km OTL

The solar (PV) power plant will operate at a capacity of 500 MW, with a total estimated lifetime yield of 32,028,395 MWh. The PV plant components involved in the generation of electricity are described in the following sub-sections.



**Figure 2-14 Illustration of the configuration of utility-scale PV power plants**

### 2.5.1 Ancillary facilities

Ancillary facilities refer to facilities which are planned as part of the project, which are (i) of secondary importance to the Project's operational objectives and (ii) directly owned, operated, or managed by the Project Developer, EPC Contractor, and O&M Company. This set of project facilities will be established for auxiliary purposes during the Project's construction and operational phases, such as general maintenance and connection to enabling utility infrastructure.

### 2.5.1.1 Construction enabling and maintenance

The following facilities will be established to enable construction activities planned for the Project.

#### ACCESS ROADS

A short access road measuring about 700 metres will be established for access to the 500 MW PV power plant site. The access road will branch out of an existing district road. An additional service road (dedicated internal road planned for the Samarkand I project) will be used for access to the site.

Part of an existing asphalt (public) road extends alongside the Nurobod sub-station site. The road branches out the A-378 highway, measuring a total length of 5.2 kilometres between this junction and the project site location. While dedicated service roads will be established within the site, no major roadworks are envisaged outside of the site perimeter, as the existing adjacent road is in good condition.

Khalq'a substation is an associated facility, which will be developed and operated by the Ministry of Energy, through NEGU JSC. At the time of this assessment, detailed design, including the location of relevant access roads was not available.

Part of an existing public road extends alongside the Karakul BESS site. The road branches out of the M37 highway (trunk road), measuring a total length of 1.74 kilometres between this junction and the project site location. A short access road measuring a length of 120 metres will be constructed between the existing road and the project site.

#### LAYDOWN AREAS

Temporary laydown areas will be established within the PV power plant, BESS, and sub-station sites, to allow for the storage of construction materials. The areas will be sited relatively close to the site entry points and EPC Contractor temporary offices.

#### CONCRETE SUPPLY

Construction works will entail the construction of concrete structures, including foundations and hard-standings for the planned PV power plant and BESS facilities. At the time of this assessment, the establishment of concrete-batching plants within the project sites was not envisaged. Readymade concrete-mix feedstock will be delivered by suitable concrete mix suppliers based within the project-affected districts.

#### CONSTRUCTION SITE OFFICES AND WELFARE FACILITIES

The Project's construction phase will employ a peak workforce totalling 700 workers. At the time of this assessment, the development of construction labour camps was not envisaged. Suitable, existing accommodation facilities within the host districts and the suburbs of nearby cities (e.g., Samarkand, Jizzakh and Bukhara) will be identified.

#### **SANITATION FACILITIES**

Sanitation facilities planned for the Project's construction phase include mobile toilets. A licensed wastewater collection contractor will be engaged to carry out sewage transfer to designated wastewater treatment plants within the project-affected districts and nearby cities.

#### **SOLID WASTE FACILITIES**

Waste storage areas will be developed for the segregation and storage of construction waste. A licensed solid waste collection contractor will be engaged to carry out solid waste collection and transfer to designated waste management facilities for recycling, and disposal as appropriate.

#### **SECURITY SYSTEM**

During construction, the following security measures will be put in place to safeguard on-site personnel and assets from potential security incidents, such as theft, and vandalism:

- Permanent fencing for the PV power plant, BESS, and sub-station sites
- Entry gates and guard posts
- Access controls in form of guard-post registration, door locks and access control devices
- Provision of ID documents for all construction personnel
- Surveillance systems (remote and on-site inspections)
- Lighting system
- Ad-hoc engagement with local authorities (i.e., makhalla security units/ guilds, khokimiyats and local police stations)

As power generation and storage facilities in the Republic of Uzbekistan are strategic assets of national importance, National Guard is mandated to provide on-site security services for both the PV power plant and BESS sites throughout the Project's construction phase.

### **2.5.1.2 Operation and maintenance**

#### **DRAINAGE SYSTEM**

Detailed feasibility studies to identify any engineered drainage requirements within the project sites at the Project's construction and operation stages (i.e., PV power plant, BESS, and sub-station footprints) were ongoing at the time of the ESIA.

#### **FIRE SAFETY SYSTEM**

Fire safety measures planned for the PV power plant and BESS operation include a range of fire detection, warning, and suppression facilities. The O&M contractor will ensure that the Plant has a high level of fire detection and protection in accordance with National Fire Protection Association (NFPA) Codes, International Fire Code and with all applicable national and local codes and regulations.

#### **LIGHTNING PROTECTION SYSTEM**

A complete lightning protection system will be installed within on-site buildings and commissioned in accordance with relevant standards. Lighting points will be installed on the BESS site, to allow operators to perform maintenance activities during the night-time.

#### **O&M OFFICE**

An administrative office will be established to house the O&M contractor's staff and components of the SCADA monitoring and control systems dedicated to the PV power plant, collector sub-station and BESS infrastructure.

#### **WAREHOUSE**

A warehouse will be established within a central location in the BESS site, for operation-phase storage of spare materials and equipment. The warehouse will be situated next to the main office building.

#### **SANITATION FACILITIES**

Permanent sanitation facilities will be established within on-site O&M offices. Concrete underground septic tanks will be constructed for the collection and partial treatment of sewage, and regular water level monitoring will be carried out to prevent and detect overflow and spills.

A licensed wastewater collection contractor will be engaged to carry out sewage transfer to designated wastewater treatment plants within the project-affected districts and nearby towns/ cities where necessary.

#### **SOLID WASTE FACILITIES**

A waste storage area will be developed for the storage and segregation of operational waste within the PV power plant and BESS sites, including electronic refuse and domestic waste. Solid



waste will be segregated, and special provisions and facilities will be used for the management of hazardous waste.

A licensed solid waste collection contractor will be engaged to carry out solid waste collection and transfer to designated waste management facilities for solid waste recycling and disposal as appropriate.

#### **SECURITY SYSTEM**

At the Project's operational stage, the following security measures will be put in place to safeguard on-site personnel and assets from potential security threats, such as theft, vandalism, and personal violence against O&M workers:

- Permanent fencing for the PV power plant, BESS, and sub-station sites.
- Entry gates and guard posts.
- Access controls in form of guard-post registration, door locks and access control devices.
- Provision of ID documents for all construction personnel.
- Surveillance systems (remote and on-site inspections).
- Lighting system.
- Ad-hoc engagement with local authorities (i.e., makhalla security units/ guilds, khokimiyats and local police stations).

As power generation and storage facilities in the Republic of Uzbekistan are strategic assets of national importance, National Guard is mandated to provide on-site security services for both the PV power plant and BESS sites throughout the Project's operational phase.

## **2.6 Construction Activities, Resources and Waste**

### **2.6.1 Construction activities**

The Project's construction phase will entail the following main activities.

#### **2.6.1.1 Mobilization and early construction works**

This will entail site clearance to remove any obstructive vegetation from construction zones and the solar array where shading should be eliminated. This will be followed by site levelling and grading to allow for construction and installation of temporary and permanent facilities.

Subsequently, interior (on-site) access roads will be constructed to enable transit within all sections of the project sites, and temporary fencing and demarcation will be established to ensure site security and public safety. Laydown areas, waste management areas, contractor

offices, welfare and sanitary facilities will also be established within the sites. Temporary grid connections will be developed for power supply for construction activities.

Mobilization will also involve a phased dispatch of construction equipment, materials, and labour to construction sites. The onboarding of the EPC contractor staff will include various technical and health and Health Safety Security and Environmental (HSSE) induction and trainings. Sensitization of local communities within the project areas to potential employment opportunities during the Project's construction and operational phases has commenced as part of the ESIA and ongoing LALRP public hearings and Focus Group Discussions (FGDs).

### 2.6.1.2 Civil works

Civil works will begin with excavation (with a maximum depth of 4-5 metres below ground level) for the construction of foundations and hard standings within the project sites (as appropriate). Further earthworks will include pile-driving for the installation of solar trackers, excavation of trenches for underground cabling, as well as the development of drainage ditches where necessary.

### 2.6.1.3 Electrical and mechanical works

This scope of construction activities will involve the assembly and installation of the solar array, collector sub-station, BESS and OTL equipments. Mechanical works will mostly involve the installation of mounting structures/ trackers. It will also entail the installation of electrical connections suitable for various PV power plant, sub-station, OTL and BESS components.

### 2.6.1.4 Demobilization

Upon the completion of the above construction activities, the EPC Contractor will carry out demobilization, as well as site restoration beyond the footprint of the Project's operational (permanent) facilities. This will entail the phased disengagement of construction labour, site clean-up, and transfer of all residual waste for controlled off-site disposal, as well as mechanical completion.

## 2.6.2 Construction equipment

The main equipment to be employed for construction activities includes excavators, bulldozers, mobile cranes, forklifts, trucks, trenchers, compactors, welding machines, and power generators, among others. Summary counts for the main construction equipment are provided in Table 2-6 below.

**Table 2-6 Provisional inventory of construction equipment**

BATTERY UNITS	TOTAL NUMBER
Bulldozer	2



BATTERY UNITS	TOTAL NUMBER
Excavator	2
Mobile crane	2
Truck	2
Truck-mounted drill rig	6

### 2.6.3 Construction workforce

The Project Company currently employs a total of 16 employees, [TBC] of whom are Uzbekistan nationals.

At the time of this assessment, the EPC Contractor was not appointed. The construction workforce will comprise skilled and semi-skilled labour, with a peak total of 700 workers. A sizeable fraction of the contracted workforce (i.e., 40-60%) will be foreign, however recruitment for readily available specialists and blue-collar jobs will be reserved for Uzbekistan nationals and residents of the Project's affected communities, to the extent feasible.

The establishment of construction camps for worker accommodation is not envisaged. Construction workers will utilize rental housing in the nearby district centres (e.g., Nurobod, Juma, Karakul etc.) and urban suburbs. Transportation service will be provided by staff vehicles, including buses. Any centralized accommodation facilities (i.e., new or existing) will be audited to ensure accommodation and sanitary conditions meet the requirements of the IFC/ EBRD guidelines for labour accommodation.

## 2.7 Operation and Maintenance Activities, Resources and Waste

### 2.7.1 Operational activities

The following Operation and Maintenance (O&M) activities will be carried out over the course of the Project's operational lifetime.

- Commissioning and plant handover
- Scheduled/ preventative maintenance
- Unscheduled/ corrective maintenance
- Performance monitoring, production forecasting and reporting

### 2.7.2 Operational equipment

Key equipment that will be used at the Project's O&M phase mainly includes miscellaneous spare equipment parts/ devices (i.e., batteries, fuses etc.).

### 2.7.3 Operational materials and waste

Materials required for O&M activities will be delivered to PV power plant and BESS sites upon demand and stored within on-site warehouses. These materials will include water for sanitary and other maintenance activities. Operation and maintenance will also generate various streams of liquid and solid refuse, which will require temporary and controlled on-site storage, prior to handover to licensed contractors for disposal, treatment and/or recycling at designated sites.

Operation-phase waste materials potentially include:

- Electronic waste.
- Spent oils.
- Domestic solid refuse from site offices.
- Domestic wastewater/ sewage.

### 2.7.4 Operational workforce

The Project's operational workforce will include a full-time workforce of 16 personnel. In addition, a total of 20-25 specialist staff may be deployed for major maintenance activities.

NOMAC Maintenance Energy Services is the main O&M Contractor appointed for O&M support under the Project Company.

## 2.8 Project Milestones

The following pre-feasibility and feasibility studies, have been completed for the Project:

- Remote and on-site solar resource assessment.
- Topographic survey.
- Geotechnical survey.
- Hydrological survey.
- Commercial modelling.

The Government of Uzbekistan commissioned the solar resource assessment in March 2023. Following the execution of the PPA, the Project Developer assigned Juru Limited and UzAssystem to undertake the engineering related feasibility surveys, in preparation for detailed design and construction.

The Project is currently in its development and detailed design phase, which includes the completion of engineering designs, selection of the Project's EPC Contractor and supplier, acquisition of various permits from competent authorities, and access to project financing.

Table 2-7 below provides an overview of the tentative schedule for subsequent stages of project implementation.

**Table 2-7 Milestones for project implementation**

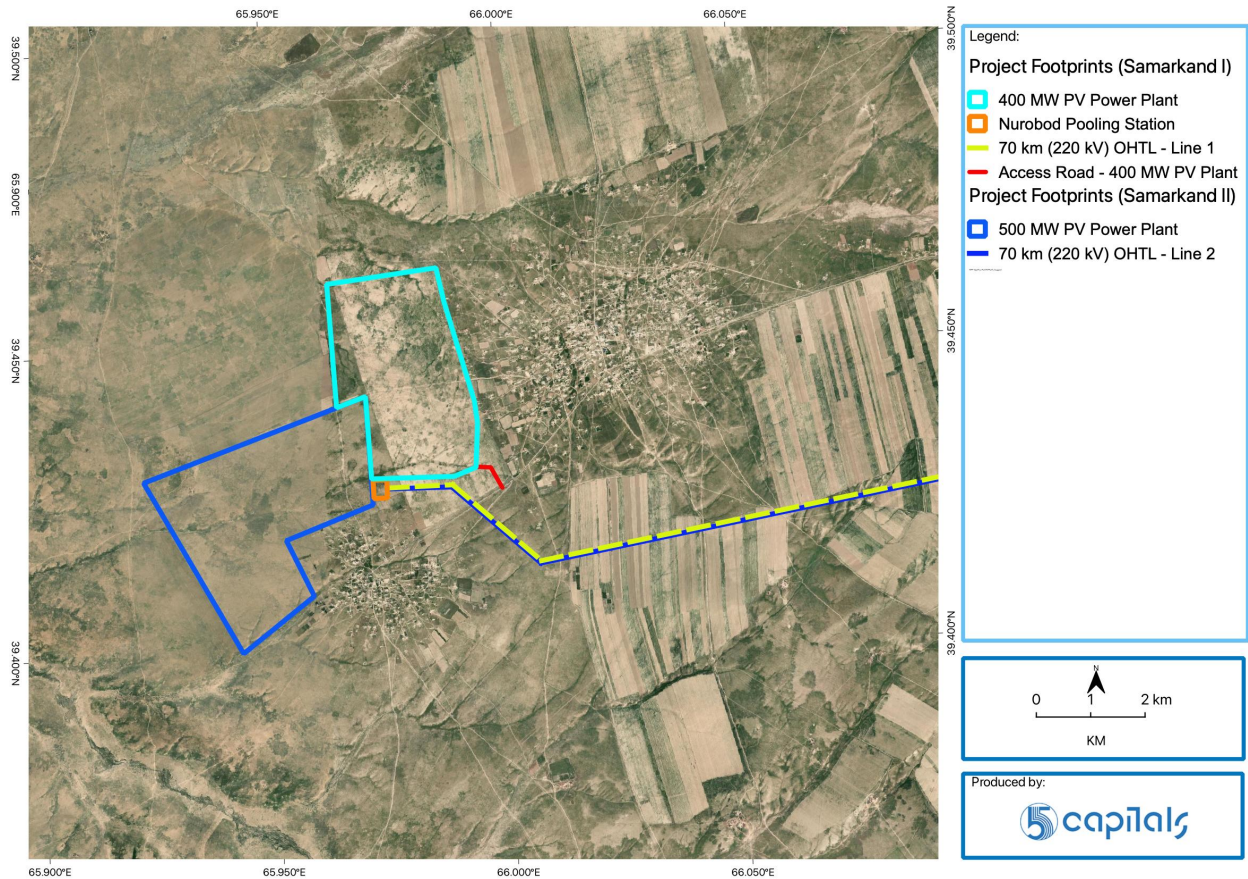
IMPLEMENTATION PHASE	COMMENCEMENT DATE
<b>Mobilization and Early Works</b>	
500 MW PV power plant	June 2024
Nurobod sub-station	June 2024
Khalq'a sub-station	[TBC]
Karakul BESS	June 2024
70-km and 350-km OTLs	June 2024
<b>Construction</b>	
500 MW PV power plant	September 2024
Nurobod sub-station	September 2024
Khalq'a sub-station	[TBC]
Karakul BESS	September 2024
70-km and 350-km OTLs	September 2024
<b>Commissioning and Commercial Operation</b>	
500 MW PV power plant	April 2027
Nurobod sub-station	April 2027
Khalq'a sub-station	[TBC]
Karakul BESS	April 2027
70-km and 350-km OTLs	April 2027

## 2.9 Sazagan Power Purchase Scheme

The Project will be undertaken in parallel with a similar project, namely the Samarkand I solar PV and BESS Project. Both Projects will be delivered by the Developer, under matching agreements with the Ministry of Energy of Uzbekistan.

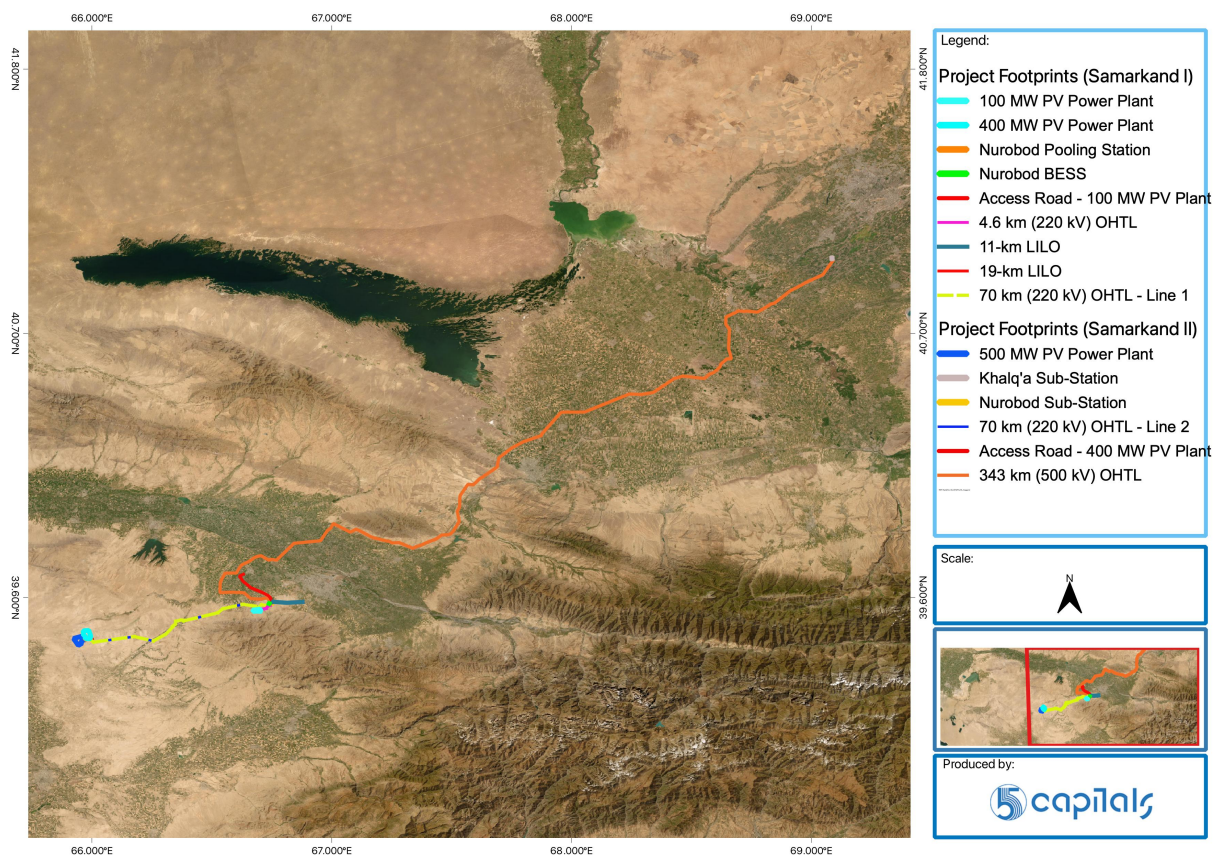
The Samarkand I Project includes a relatively limited interconnection scope which terminates in Samarkand Region. The two projects also differ in their financing arrangements and associated E&S performance standards. On this basis, a standalone ESIA has been commissioned for the Samarkand I solar PV and BESS project.

The composite maps below provide an overview of the concurrent and co-located developments constituting these projects, for reference in regard to the subsequent assessment of cumulative E&S impacts.



**Figure 2-15 Adjacent, planned power generation and transmission facilities constituting the Project and the associated Samarkand II Solar PV and BESS Project.**





**Figure 2-16 Adjacent, planned power generation, storage and transmission facilities constituting the Project and the associated Samarkand I Solar PV and BESS**

## 3 LEGAL FRAMEWORK

### 3.1 National Laws and Regulations

#### 3.1.1 The Constitution of the Republic of Uzbekistan

The Constitution of Uzbekistan establishes the following fundamental legalities in relation to rights, liberties and duties pertaining to land access, livelihoods, socioeconomic infrastructure, social security, and general civil welfare.

##### **SOCIAL INFRASTRUCTURE**

- Articles 48, 49 and 50 provide that all residents have (i) the right to health and qualified medical care, (ii) the right to education, and (iii) the right to a favourable environment and reliable information on its condition.

##### **LAND TENURE**

- Article 41 affirms that everyone shall have the right to own property.
- Article 47 states that everyone shall have the right to housing, adding “In the cases and in the manner prescribed by law, the owner, deprived of his or her home, shall be provided with preliminary and equivalent compensation for the cost of housing and the losses incurred by him or her”.
- Article 65 follows-up with “Equality and legal protection of all forms of property shall be ensured in Uzbekistan, private property shall be inviolable”.

##### **LIVELIHOODS AND POVERTY ALLEVIATION**

- Article 43 requires the Government to take measures to ensure employment of citizens, to protect against unemployment and to reduce poverty.
- Article 57 highlights “The Government shall take the measures to improve the quality of life of vulnerable sections of the population, to enable this demographic to fully participate in social and public life and to enhance their ability to provide for their necessities of life independently.
- Article 67 states that entrepreneurs shall, in accordance with the law, have the right to conduct any livelihood/ business activity and choose its strategy independently.

##### **HUMAN RIGHTS**

- Article 4 states “The Republic of Uzbekistan shall ensure a respectful attitude toward the languages, customs and traditions of all nationalities and ethnic groups living on its territory and create the conditions necessary for their development”.

- Article 19 states that all citizens of Uzbekistan shall have equal rights and freedoms, and shall be equal before the law, without discrimination by sex, race, nationality, language, religion, social origin, convictions and social status.
- Articles 25 and 26 affirm that the right to life is an inalienable right of every human being and shall be protected by law, and that torture, violence or other cruel, inhuman, or degrading treatment or punishment is prohibited. Article 27 adds “No one may be arrested, detained, imprisoned, taken into custody or otherwise restricted in freedom except on lawful grounds”.
- Article 34 highlights “The State bodies, organizations, citizens' self-governing bodies and their officials shall allow everyone access to documents, resolutions and other materials, relating to their rights and legitimate interests”.
- Article 55 stipulates that everyone shall be guaranteed the right to have his/her case examined by a competent, independent, and impartial court within the time limits established by law in order to have his or her rights and freedoms restored.
- Article 58 states that women and men shall have equal rights.

### 3.1.2 The Land Code (1998, amended in 2022)

The Land Code provides the fundamental framework for the classification and administration of land in the Republic of Uzbekistan. It establishes the principles and requirements for the allocation, utilization, and protection of land. The Code also defines legal forms of individual and collective land tenure, as well as various land categories subject to reservation and conditional reallocation.

#### PROVISIONS ON LAND OWNERSHIP

- Article 16 provides that all land in the Republic of Uzbekistan is a national treasure which must be managed on a sustainable basis as it underpins the life, economy, and welfare of the population.
- Article 19 life-long inheritable rights to land can be granted for (i) running dekhani/peasant farms, (ii) individual residences, and (iii) collective gardening, exclusively.
- Article 24 specifies that short-term and long-term (up to 50 years) leasehold ownership of land can be granted for agricultural enterprises and foreign investment enterprises. The Article underscores the prohibition of sub-lease arrangements for land leased from the government.
- Article 28 provides that payment for leased land parcels must be made in form of an initial instalment at the time of the leasehold establishment, and through subsequent ‘annual rent’ payments. The value of rent for leased land is based on the quality, location and water supply context of a given land parcel.
- Article 33 specifies the two documents, which serve to demonstrate legal tenure of land parcels, namely (i) state certificate on the right to possess a land plot, (ii) land-use agreements.

- Articles 59 and 60 specify land use categories for land resources in urban and rural jurisdictions, namely (i) land for urban building, (ii) land for common use, (iii) agricultural land use, (iv) forestry land use, (v) industrial, transport, communication and military land use, (vi) restricted land use (for wildlife, hazardous, cultural and recreational land), (vi) water supply land, and (vii) reserve lands.

#### PROVISIONS FOR LAND EXPROPRIATION

- Article 37 states “Withdrawal of the land parcel or its part for state and public needs is carried out with the consent of the landowner or with the agreement of the land user and lessee following the decision of the towns, viloyats, or the Cabinet of Ministers of the Republic of Uzbekistan”. The same article permits landowners with reasonable objection against expropriation of land parcels for public use to appeal the decision on withdrawal in the court of law.
- Article 41 states “Interference into the activity of owners of land parcels, landowners, land users, lessees and owners of households of state, economic and other authorities and organizations is forbidden, with the exception of cases of infringement of legislation by the owners of land parcels, landowners, land users and lessees”. The Article mandates compensation or whole refunds for loss of or damage to land assets and lost profits, due to infringement of land rights held by landowners, land-users, and land leasers.
- Article 43 states “Transfer of lands of agricultural purpose into other categories of land for non-agricultural needs is allowed in exceptional cases in accordance with this law and other legislative acts”.

#### LAND ADMINISTRATION FRAMEWORK

In addition, the Land Code establishes the institutional framework for the administration of land in Uzbekistan. The main governmental entities involved in the management of land resources include (but are not limited to):

- The Cabinet of Ministers of the Republic of Uzbekistan (as relevant)
- Council of Ministers of the Republic of Karakalpakstan (as relevant)
- State Assets Management Agency
- State Tax Committee
- Chamber of State Cadastres of the Cadastre Agency
- Regional Khokimiyats

#### 3.1.3 The Civil Code (1996, amended in 2022)

The Civil Code (i) defines the legal status of participants in civil relations, (ii) sets out the basis and procedures for implementing the right to property, and (iii) regulates contractual obligations. It further establishes general rules for the withdrawal/ seizure of property, determination of the value of property, and the right to compensation, as well as conditions for deprivation of rights.



The code establishes that any person whose rights have been violated may demand full compensation for the losses caused, unless the law or the contract does not provide compensation for losses in a lower amount. Losses are understood to mean the expenses that the person whose rights have been violated, have produced or will have to produce in order to restore the violated right, the loss or damage to his/her property (real damage), as well as the income/revenue that the person would have received under normal conditions of civil activity if his/her rights had not been violated (lost profit).

- Article 8 provides that the rights to the property which are subject to the state registration shall arise upon the registration of the relevant rights to it, unless otherwise provided by law.
- According to Article 14, if the person has violated the law, revenue received as a result of this will be lost, the person whose rights were violated, has the right to demand compensation along with other losses, lost profits in the amount less than such profits.
- Article 83 defines immovable property as plots of land, subsoil, buildings, constructions, perennial plantings, and other property firmly connected with the land i.e. objects whose displacement without disproportionate damage to their purpose is impossible.
- Article 84 provides that the right of ownership and other real property rights, creation, transfer, restriction, and termination of these rights are subject to state registration. This means that without registration the right to real estate property does not enter into force.

### 3.1.4 Law No 781 on procedures for the withdrawal of land plots for public needs with compensation (2022)

The Law provides for the expropriation of privately held land for public needs. It specifies conditions and procedures for lawful land withdrawal and reallocation and sets out compensation entitlements for legally registered land rights holders.

#### PROVISIONS ON LAND WITHDRAWAL

- Article 4 specifies 'public need' developments that warrant land withdrawal and reallocation. One amongst these is construction (reconstruction) of roads and railways of republican and local significance, airports, airfields, air navigation facilities and aviation technical centres, railway transport facilities, bridges, subways, tunnels, engineering facilities and lines of the energy and communications system, space activities facilities, main pipelines, engineering — communication networks, irrigation, and melioration systems.
- Article 13 requires the initiator of a project warranting land expropriation to identify the most suitable land parcel (with the least pre-existing priority assets), where technically feasible alternatives are available, and present substantiating documents to the resident Regional Khokimiyat.

- Article 14 provides that “The initiative for the implementation of the project and the withdrawal of land plots in this regard, and relevant substantiating materials, shall be considered by the Cabinet of Ministers of the Republic of Uzbekistan. Based on the results of consideration by the Cabinet of Ministers of the Republic of Uzbekistan, a resolution shall be adopted on the implementation of the relevant project. This Resolution refers to the Presidential Resolution referenced in the project ESIA and LALRP reports.
- Article 14 further states “Where it becomes necessary to withdraw land plots in connection with the adoption by the Cabinet of Ministers of the Republic of Uzbekistan based on a resolution on the implementation of the project for public need, all obligations assigned by this Law shall be performed by the khokimiyat of the relevant region”.

#### **PROVISIONS ON VALUATION COMPENSATION FOR LAND WITHDRAWAL**

- Article 23 specifies compensation entitlements for legal landholders subjected to land expropriation. These include compensation (at market value) for immovable property on affected land plots, compensation for plots under lifetime/ inheritable ownership, compensation for perennial plantations, and conditional compensation for certain transitional expenses leading up to the restoration of affected property and livelihoods.
- Articles 24 and 25 include several provisions to legalize both monetary and in-kind compensation for land and immovable assets lost on account of land expropriation. These provisions mandate the provision of replacement assets of equal value to those lost, and the delivery of compensation for immovable assets within 24 months from eviction.
- Article 25 states “Compensation to participants in common joint property shall be provided in accordance with their shares in the common property”, adding “Compensation shall be provided within the terms specified in the agreement, but no later than six months from the date of conclusion of the agreement, and if the agreement provides for compensation in the form of monetary funds, then such compensation shall be provided no later than one month from the date of conclusion of the compensation agreement”.
- Article 25 further provides that “The amount of monetary funds specified as compensation in agreements, from the date of conclusion of which one month has expired at the time of the conclusion of an agreement with all right holders within three months, shall be paid subject to indexation in proportion to inflation officially announced by the State Committee of the Republic of Uzbekistan on statistics in the relevant months”.

#### **PROVISIONS ON VALUATION OF AFFECTED PROPERTY**

- Article 29 states “Assessment of objects of immovable property subject to demolition, including perennial plantings, as well as rights to a withdrawn land plot, shall be carried out before the start of the procedures for withdrawing the land plot or until the impact of the notice of withdrawal of the land plot on the value of the object of immovable property, as well as the rights to the withdrawn land plot.

- It adds “Assessment of the rights to the withdrawn land plot shall be carried out solely on the basis of documents confirming the state registration of rights to the land plot”.

#### PROVISIONS ON VALUATION OF AFFECTED PROPERTY

The Law further provides for legal recourse for any grievances and objections arising out of land expropriation proceedings.

- Article 34 states “The Compensation Commissions shall preliminarily consider disputes related to the provision of compensation to the right holder in the pre-trial procedure”, adding “A party that does not agree with the decision of the Compensation Commission may apply to the court in accordance with the procedure established by legislative acts”.

### 3.1.5 Resolution of Cabinet Ministers No. 146 on measures to improve the procedures for granting land plots for urban development activities and other non-agricultural purposes (2011)

The Resolution establishes the procedures for determining the amount of compensation for loss of owned or leased land, and associated loss of agricultural and forestry production.

- Article 2 states “Compensation for losses of owners, users, tenants, and owners of land plots, including lost profits, as well as losses of agricultural and forestry production, is made by legal entities to whom the land plot is provided (allocated), or whose activities cause restriction of rights to the land plot and deterioration land quality.
- Article 5 establishes that “Losses of owners, users, tenants and owners of land plots are determined and compensated in full (including lost profits) in the following cases:
- Article 6 mandates compensation for (i) privately owned land, (ii) immovable buildings/ structures, (iii) perennial plantings, and (iv) lost profit.
- Article 8 requires that the value of a land plot that is privately owned by legal entities and individuals is determined by appraisal organizations based on its market value at the time the decision to seize the land is made.
- Article 12 establishes that “the cost of lost profits of legal entities associated with the seizure of land plots with the demolition of buildings and structures located on it is determined based on the average annual net income for the last three years, taken from the financial activity report for the relevant years, and the period that is necessary for restoration of activities in a new location”.
- Article 12 further provides that “The amount of lost profits from withdrawn agricultural land is determined as the average annual net income received from the affected land area over the last three years, multiplied by four years which represent transitional time prior to full agricultural restoration on replacement land”.

### 3.1.6 Law of the Republic of Uzbekistan on Protection of Private Property and Guarantees of the Owner's Rights (2012)

The law establishes the following requirements for compensation and notices related to demolition necessitated by land withdrawal:

- Demolition of a house, other structures, facilities or plantations located on the plot of land subject to withdrawal shall not be permissible unless prior and complete compensation of losses at market value is provided.
- The state bodies shall notify the owner of the house, other structures, facilities or plantations about the reached decision in writing (under signed receipt) no less than six months before the commencement of demolition with copies of a decision of the Council of Ministers of the Republic of Karakalpakstan, khokim of the province and city of Tashkent, respectively, attached to the notification.

### 3.1.7 Other legislation

The following legislation provides for relevant socioeconomic aspects, including land access.

**Table 3-1 Overview of additional relevant laws and regulations**

LEGAL REQUIREMENT	SUMMARY
Resolution of the Cabinet of Ministers No.911 from 16 November 2019 "On additional measures for enhancing modalities of providing compensation on withdrawal and allocation of land plots and safeguard the property rights legal and physical entities" (as amended in 2022)	<p>This Resolution establishes the main requirements and procedures for land withdrawal for state and public needs and implementation of investment projects, as well as the mechanism of compensation for land withdrawal to individuals and legal entities for demolished residential, industrial and other buildings, facilities and plantings. The decision for land acquisition for investment projects will be given only by Presidential and Cabinet of Minister's decision which limits land expropriation by the local municipalities.</p> <p>The Resolution stipulates that a land plot will be expropriated only after payment of full compensation at replacement rate and consultation with affected households. In this Resolution, public consultation and disclosure meetings are obligatory. Also, there are clear steps for the implementation of Land Acquisition and Resettlement activities.</p> <p>The basic requirements and procedures of land withdrawal for state and public needs and realization of investment projects, as well as the purpose of compensation for land withdrawal are established in Resolution of the Cabinet of Ministers No. 911 and the Regulation approved by this Resolution include:</p> <p>Withdrawal of land or part of it for state and public needs, including for realization of important social-economic and investment projects is made at the consent of the landowner or in coordination with the land user and tenant - at the decision of Supreme Council of the Republic of Karakalpakstan, councils of people's deputies of regions (Council of people's deputies), and Tashkent City Councils.</p> <p><i>Amended on 22 September 2021</i></p> <p>The decision of the Council of Ministers of the Republic of Karakalpakstan, regional and Tashkent city or district (city) authorities on demolishing the real estate object located in the</p>

LEGAL REQUIREMENT	SUMMARY
	<p>expropriated land plot is accepted only when there is a positive conclusion of the judicial bodies.</p> <p>This Resolution regulates the procedure for compensation of losses and damages to owners as a result of land acquisition. Furthermore, the Resolution provides general rules for acquisition and compensation of lands including; preparation of land withdrawal documents for both state and public needs and investment projects. The Resolution also allows for application of international standards, in case the project is financed by international organisations or banks.</p> <p>With recent changed to current legislation PAPs will be compensated for:</p> <p>Income loss due to the cancelling land-for land compensation method;</p> <p>Buildings/structures, even if they are illegal.</p>
Resolution of Cabinet of Ministers "On amending and adding to some decrees of the Republic of Uzbekistan, aimed the further improvement of registration of cadastral document on a real property" dated 21 September 2016 No.317	It determines the cost of acquired agricultural land per hectare, separately for each region. In addition, it establishes regulations on the procedure for compensation for losses of owners, users, tenants and owners of land plots, as well as losses of agricultural and forestry production.
Presidential Decree "On measures to improve the effectiveness of training and realizing projects with participation of international financial institutions and foreign government financial organizations" dated on 16 July 2018 No. 3857	<p>Determines the regulations and rules for the projects that are carried out with participation of International Financial Institutions or banks.</p> <p>In case of inconsistency of resettlement policies between Uzbek legal framework and International Financial Institutions (IFI), the policies of the IFI's will be followed by Executing Agencies and resettlement costs (compensation in case of withdrawal of land plots, demolition of houses and other structures, structures or plantings) paid based on assessment documents prepared by IFI using their methodology.</p>
Presidential Decree "On measures on major improvement of the investment climate in the Republic of Uzbekistan" dated on 1 August 2018 No. 5495	Stipulates those decisions on the withdrawal of land for state and public needs shall be allowed only after open discussion with the stakeholders whose land plots are planned to be withdrawn and after estimation of benefits and costs. Demolition of residential, industrial and other buildings and structures owned by individuals and legal entities in the process of land withdrawal is permitted after full compensation of the market value of the real estate and losses incurred by the owners in connection with such withdrawal.
Presidential Decree No.5742 of June 17 <sup>th</sup> 2019 "On measures for the effective use of land and water resources in agriculture"	Article 5 states "To establish a procedure according to which: irrigated agricultural lands are taken under special protection; it is not allowed to allocate these lands for non-agricultural purposes, including for the construction of industrial and civil facilities (buildings and structures), except for the lands allocated by the Presidential Decree"
Presidential Decree on additional measures to unconditionally ensure	This decree outlines measures to guarantee property rights of citizens and entrepreneurs:

LEGAL REQUIREMENT	SUMMARY
the guarantee of the property rights of citizens and business entities" No. 5491 dated August 3 <sup>rd</sup> 2019	<p>Land allocation for state and public purposes can be carried out only after consultation with the affected citizen/entrepreneur and assessment of costs (income / expenses).</p> <p>The land allocation permit will be issued only after the payment of compensation to the citizen/entrepreneur for the value of property based on market prices and losses related to the land allocation.</p> <p>Losses / expenses incurred as a result of the illegal execution of documents by a state body (official), will be compensated at the expense of this state body from any funds other than the republican budget and / or shall be compensated by officials who committed this illegal act.</p>
Presidential Decree on measures to ensure equality and transparency in land relations, reliable protection of rights to land and their transformation into market assets." June 8, 2021	<p>Along with several changes in land relations mentioned in the decree, the authority of district governors to allocate land directly is abolished. It is also prohibited to seize, reserve, or transfer land with any document. This means, from August 1, 2021, some rights on land of local governors will be restricted, and such restrictions will also affect the process of purchasing and leasing land.</p> <p>This is now forbidden for local governors to transfer land to citizens, businesses, organizations by making an immediate decision.</p> <p>Instead, agricultural land will be sold through an open electronic tender, and non-agricultural land will be sold through an online electronic auction with the right of ownership or lease.</p> <p>Although district governors have been deprived of direct land allocation, the Council of Ministers of the Republic of Karakalpakstan, governors of regions, and Tashkent city saving a right to approve the results of the open electronic tender for agricultural lands.</p> <p>However, according to the President's press service, all decisions of regional governors on land relations will be subject to legal review by the Department of Justice. In addition, the Council of Ministers of the Republic of Karakalpakstan, governors of regions, and the city of Tashkent will provide state organizations with land plots for state and public needs with the right of permanent use their decision.</p>
Tax Code of Uzbekistan	<p>The Tax Code (TC) is a regulatory framework for taxation related matters for individuals and legal entities. This law regulates compensation for vulnerable group of people in terms of applying discounts or exemptions from property taxes, income tax and other taxes stipulated in the TC.</p>
Family Code of the Republic of Uzbekistan	<p>Articles 23-24 of the Republic of Uzbekistan states that spouses have equal rights to own, use and dispose property if it is their joint ownership regardless of whether it was acquired in the name or financing of one of the spouses.</p> <p>Real estate or any other property cannot be sold or transferred in ownership without the consent of the other spouse.</p> <p>Article 25 states that property belonging to each spouse before marriage, or received by one of them as a present according to the procedures of inheritance or according to other non-paid transactions is their private property unless it is determined that the other spouse has invested in it thus increasing the value (capital, repairs, reconstruction etc).</p>
Law about Valuation Activities (as amended on 29 <sup>th</sup> June 2022)	<p>Cancelled on 12.10.2021 Article 41: A valuation organization is a legal entity carrying out valuation activities. Amended on 12.10.2021</p>



LEGAL REQUIREMENT	SUMMARY
	<p>Article 11: A valuation is mandatory in case of a decision on the acceptance of objects, their recognition in full or on the right of common ownership in part to the state. Amended on 14 May 2014</p> <p>Article 181: if necessary, in order to verify the reliability of the assessment report in accordance with the procedure established by law, an examination of this report may be carried out by another assessment organisation on a contractual basis.</p> <p>The results of the examination of the reliability of the assessment report are drawn up by an expert opinion.</p> <p>The expert opinion of the evaluation organization conducting the examination should contain an unbiased opinion on the reliability of the evaluation report. At the same time, this organization does not have the right to re-evaluate and make an expert opinion on the value of the object of evaluation.</p> <p>It is not allowed to involve an evaluation organization in conducting an examination of the reliability of an evaluation report that it has previously performed.</p> <p>If the customer does not agree with the expert opinion received on the reliability of the assessment report, the dispute is subject to consideration by the court.</p> <p>In order to conduct an expert examination of the evaluation materials of the evaluation object in disputed cases, an expert commission is created in accordance with the procedure established by law.</p> <p>The conclusion of the expert commission on the examination of the evaluation materials of the evaluation object to establish the reliability of these materials is prepared exclusively by the court in accordance with the procedure established by law. If the assessment report is recognized by the court as unreliable, the expert commission for the examination of the evaluation materials of the evaluation object, as determined by the court, re-evaluates the evaluation object and provides the court with an opinion on the value of the evaluation object.</p>
<p>Resolution of the Cabinet of Ministers No 1047 "On the Procedure for the formation and use of funds of centralised funds for the compensation to affected individuals and legal entities for the expropriation of land for the state or public needs" Dated 26<sup>th</sup> December 2018.</p>	<p>This law defines the sources of compensation payments based on the type of projects. It also establishes Republican Centralised Fund (RCF) as the main body which is responsible for the compensation payments to</p> <p>The Supervisory Board of the RCF is tasked with deciding on the allocation of funds for compensation.</p>
<p>Cabinet of Ministers Resolution No 122 "On measures for the further improvement of the system of social protection of the population &amp; widely introduction of modern</p>	<p>The Ministry of Mahalla and Family Support of the Republic of Uzbekistan, the Ministry of Development of Information Technologies and Communications, the Cadastral Agency under the State Tax Committee, the Ministry of Employment and Labour Relations and other relevant ministries are obliged to develop and implement a single electronic database with the specified territorial boundaries and ensure its integration into an IT "Unified register".</p>



LEGAL REQUIREMENT	SUMMARY
<p>ICT in the industry" passed on 5<sup>th</sup> March 2021 to cover the entitlement of vulnerable people.</p>	<p>The legislations aims to ensure that the information system of the Public Services Agency under the Ministry of Justice "Unified Electronic Archive of the Public Service Agency" provides information on guardians and trustees through electronic information exchange between departments from the beginning to the end of enrolment (admission, transfer from class, transfer, graduation).</p> <p>The Ministry of Finance together with the Ministry of Economic development and Poverty Reduction are obliged to conduct a regular analysis of the socio-economic situation of families receiving social benefits and material assistance through the Unified Register. Based on the analysis of the socio-economic situation of families receiving social pensions and material assistance, budget allocations for social pensions and material assistance shall be distributed among the local budgets of districts and cities.</p>
<p>Law of the Republic of Uzbekistan 'Regarding appeals of individuals and legal entities' No 378 dated 3.12.2014 (with amendments on 17<sup>th</sup> August 2017)</p>	<p>The purpose of this law is to regulate the appeals of individuals and legal entities (hereinafter referred to as appeals) to state bodies and state institutions (herein referred as 'state bodies'), as well as to their officials. Appeals can be oral, written or electronic. Appeals, regardless of their form and type are of equal importance.</p> <p>A people's 'Reception Office' is tasked with:</p> <ul style="list-style-type: none"> <li>Organising a direct dialogue with the population, ensuring the functioning of an effective system of appeals aimed at the full protection of their rights, freedoms and legitimate interests;</li> <li>Using modern information and communication technologies through the introduction and maintenance of an electronic information system for entering, summarising, systematising, monitoring and controlling the consideration of appeals received; and</li> <li>Real-time consultation through information exchange between consultants, individuals and legal entities who wish to receive prompt information on the issue of interest.</li> </ul> <p>An application or complaint is considered within 15 days from the date of receipt by the state body, organisation or their official, who are obliged to resolve the issue.</p> <p>Where additional study and/or verification is required, the request for additional documentation must be made and completed within a period of 1 month from the date of original request.</p>
<p>Law of the Republic of Uzbekistan on Pasture Land No 538 dates 21.05.2019 (as amended on 06/06/2022).</p>	<p>This law stated that specially authorized state bodies in the field of use and protection of pastures are the Ministry of Agriculture of the Republic of Uzbekistan, the State Committee of the Republic of Uzbekistan for Ecology and Environmental Protection and the State Committee of the Republic of Uzbekistan for Forestry (Article 5).</p> <p>Legal entities and individuals can use pastures by obtaining land plots for rent, including sublease. Pastures can be provided to individuals and legal entities based on open electronic competition.</p> <p>On the lands of the forest fund, pastures are used with the permission of the state forestry authorities. Based on an investment agreement or a public-private partnership, pastures that have gone out of circulation can be leased to citizens of the Republic of Uzbekistan, agricultural enterprises, as well as investors who are</p>

LEGAL REQUIREMENT	SUMMARY
	<p>residents of the Republic of Uzbekistan, for agricultural production for a period that cannot be less than three years and must not exceed forty-nine years. Legal entities and individuals may sublease pastures put into use (without the right to transfer them to third parties) (Article 13).</p> <p>The right to use pastures is terminated in cases of liquidation of a legal entity, death of an individual, expiration of the period for which pastures were provided, use not for the intended purpose, irrational use, withdrawal of pasture lands for public needs, voluntary refusal to use pastures (Article 19).</p> <p>Pasture monitoring is a system for observing the state of pastures, and ongoing changes resulting from pasture use, to collect information on quantitative and qualitative data on pastures, assess and forecast their condition, and identify and eliminate negative processes. The monitoring is based on systematic observation data obtained through geobotanical surveys and pasture inventory. Monitoring data on the state of pastures in the Republic of Karakalpakstan and regions are periodically posted on the website of the Ministry of Agriculture of the Republic of Uzbekistan (Article 25).</p> <p>Legal entities and individuals are obliged to compensate for the damage caused to pastures as a result of pollution, irrational use, degradation of pastures and other violations of pasture legislation (Article 26).</p>

### 3.1.8 Legal Requirements for Rights of Way

Procedures for the right of way in Uzbekistan are the same for legal entities and individuals. Right of way or limited use of land plot is determined in the Land Code of Uzbekistan, mainly in Article 30 and 86, and in Article 173 of Civil Code (by term servitude), also in Resolution of Cabinet of Ministries No.911 dated on 16.11.2019.

In accordance with Article 30 of the Land Code, Article 173 of the Civil Code, Article 30 of Annex 1 of the Resolution of Cabinet of Ministers No. 1060 dated December 29, 2018, right of way is established by agreement between persons demanding establishment of temporary land take and the owner, user, lessee, proprietor of foreign land plot. If they do not reach an agreement, the right of way shall be established in a limited order by court decision at the user's claim. The agreement on the right of way shall be subject to state registration and shall be preserved when the land plot is transferred to another person. Right of way agreement can be terminated in cases of the cessation of the reason according to which it was established

Calculation and compensation of losses due to right of way agreement are performed in accordance with the Resolutions of Cabinet of Ministers No.146 from 25 May 2011 "On measures to improve the procedure for granting land plots for urban development activities and other non-agricultural purposes" and No. 911 from 16 November 2019 "On additional

measures for enhancing modalities of providing compensation on withdrawal and allocation of land plots and safeguard the property rights legal and physical entities".

Article 30 of Land Code (LC) determines the following cases for getting right of way:

- Passing or going across somebody's land parcel;
- Carrying out drainage work on the land parcel;
- Using the land parcel for laying and maintaining of irrigation,
- Engineering, electrical power and other lines and nets,
- Probing of water and water well (for drinking) on the land parcel;
- Taking cattle across the land parcel; and
- Temporary use of the land parcel for carrying out prospecting, research and other work; creating on the land parcel of protection forest plants and other nature protection objects; other servitudes.

### 3.1.9 Requirements on Health Protection Zone

There is no specific requirement that establishes Health Protection Zone for Solar PVs and BESS, as such technologies are relatively new in country context. Nevertheless, SanPiN 0350-17 states following:

"Paragraph 2.11. of this SanPiN states "For objects not included in the sanitary classification, with new, insufficiently studied technologies that have no analogues in the country and abroad, with the presence of chemical and biological substances of the first and second hazard classes in the emissions into the atmosphere, the width of the HPZ is set individually in each specific case based on preliminary calculations and possible impact on human health". Since renewable power plants are new in Uzbekistan (and they are related to power plants) it is necessary to consult with the Sanitary Agency to determine HPZ for solar power plants, as well as its facilities.

As such Consultant has conducted series of consultations with Sanitary and Epidemiological Wellbeing agency (hereinafter SES) which is authorised to establish HPZ for facilities with new technology that are not listed in existing regulatory acts.

Based on the consultations, the following feedback was issued:

- Based on provisions in the law SanPin 0236-07, the HPZ for OTLs with a voltage rating of 220kV is 15 metres from the outermost conductors on each side of the line. For OTLs with a rating of 500kV, the HPZ is 30 metres.
- No existing laws provide mandate a HPZ for PV power plants and BESS infrastructure. Nevertheless, SES recommended a precautionary setback of 50 metres and 250 metres, from the outermost electrical facilities installed on the PV power plants and BESS facilities respectively.

### 3.1.10 Decree of the Cabinet of Ministers of the Republic of Uzbekistan No.1050 on approval of rules for protection of power grid facilities (2018)

This decree establishes the procedure for mandating Grid Security Zones (GSZ) for power grid facilities, as well as special conditions for using land located within these exclusion zones, to ensure sustainable operation of the said facilities, with minimum risk to public health and safety, as well as vulnerable wildlife.

Grid Security Zones for power grid facilities shall be established on both sides of the power transmission line from the outermost wires and along the perimeter of substations at the following distances for voltages:

- 110kV – 20 meters from each outer-most conductor
- 220kV – 25 meters from each outer-most conductor
- 500kV – 30 meters from each outer-most conductor

## 3.2 Lender requirements

### 3.2.1 EBRD

Performance Requirement 1 outlines the need for assessing social impacts as part of ESIA. This is interpreted to include socio-economic effects to individuals/groups/populations that may be impacted by a project.

Performance Requirement 5 on land acquisition, involuntary resettlement and economic displacement refers to Involuntary resettlement as both physical displacement (relocation or loss of shelter) and economic displacement (loss of assets or resources, and/or loss of access to assets or resources that leads to loss of income sources or means of livelihood) as a result of project-related land acquisition and/or restrictions on land use.

Where resettlement is government led, PS5 requires, 'the client (to) collaborate with the responsible government agency, to the extent permitted by the agency, to achieve outcomes that are consistent with the objectives of this PR.'

### 3.2.2 ADB

*The ADB Environmental Safeguards include the need to assess socio-economic project impacts in ESIA (including impacts on livelihood through environmental media, health and safety, vulnerable groups, and gender issues).*

Specifically, 'The borrower/client will identify and assess the risks to, and potential impacts on, the safety of affected communities during the design, construction, operation, and

decommissioning of the project, and will establish preventive measures and plans to address them in a manner commensurate with the identified risks and impacts.'

ADB's Safeguard Requirement 2 on Involuntary Resettlement safeguard requires socio-economic surveys and census to be undertaken to identify all persons who will be displaced by the project and to assess the project's socioeconomic impacts on them.

ADB SPS Safeguard Requirement on Involuntary Resettlement requires meaningful consultation to be undertaken with affected persons, their host communities and civil society for every project with the potential for involuntary resettlement impacts. Consultation should be undertaken in a manner commensurate with the impacts on affected communities paying particular attention to the need of disadvantaged or vulnerable groups. This Safeguard Requirement also requires the establishment of a grievance redress mechanism to receive and facilitate the resolution of concerns and grievances from affected persons about physical and economic displacement and other project impacts, paying particular attention to the impacts on vulnerable groups.

ADB's SR2 also aims to avoid involuntary resettlement where possible; to minimise involuntary resettlement by exploring project and design alternatives; to enhance at least restore, the livelihoods of all displaced persons in real terms relative to pre-project levels; and to improve the standards of living of the displaced poor and other vulnerable groups.

The safeguard also requires adverse economic, social, or environmental impacts from project activities other than land acquisition such as loss of access to assets or resources or restrictions on land use to be avoided, or at least minimized, mitigated or compensated for through the environmental assessment process. Where such impacts are found to be adverse, the borrower/client is required to develop and implement a management plan to restore the livelihood of affected persons to at least pre-project level or better

### 3.2.3 EPFIs

Several of the IFC Performance Standards have elements that relate to socio-economics. Key requirements for the assessment of socio-economic impacts are outlined in PS1, whilst PS5 on Land Acquisition and Involuntary Resettlement has important requirements relating to projects that acquire land or will necessitate physical or economic displacement to PAPs, including compensatory measures.

With regard to stakeholder engagement, all of the IFC Performance Standards include requirements for an amount of stakeholder consultation/engagement (either in the EIA, or as part of the future ESMS) and therefore the project will require a level of engagement. In particular, IFC Performance Standard 1 on "Social and Environmental Assessment and



Management Systems” describes the stakeholder engagement requirements in more depth. It states the following:

“Stakeholder engagement is the basis for building strong, constructive, and responsive relationships that are essential for the successful management of a project’s environmental and social impacts. Stakeholder engagement is an on-going process that may involve, in varying degrees, the following elements:

- Stakeholder analysis and planning.
- Disclosure and dissemination of information.
- Consultation and participation.
- Grievance mechanism.
- On-going reporting to Affected Communities.

The nature, frequency, and level of effort of stakeholder engagement may vary considerably and will be commensurate with the project’s risks and adverse impacts, and the project’s phase of development.”

The IFC Performance Standards indicate that when Affected Communities are subject to identified risks and adverse impacts from a project, the developer/client will undertake a process of consultation in a manner that provides the Affected Communities with opportunities to express their views on project risks, impacts and mitigation measures, and allows the client to consider and respond to them. Effective consultation is a two-way process that will:

- Begin early in the process of identification of environmental and social risks and impacts and continue on an on-going basis as risks and impacts arise.
- Be based on the prior disclosure and dissemination of relevant, transparent, objective, meaningful and easily accessible information which is in a culturally appropriate local language(s) and format and is understandable to Affected Communities.
- Focus inclusive engagement on those directly affected as opposed to those not directly affected.
- Be free of external manipulation, interference, coercion, or intimidation.
- Enable meaningful participation, where applicable; and
- Be documented.



### 3.3 Gap Analysis

The matrix below provides a comparative overview of mandatory requirements and lender performance standards in relation to land access and livelihood restoration, and relevant reconciliation measures.

**Table 3-2 Gap analysis for mandatory requirements on involuntary resettlement and livelihood restoration in relation to lender requirements**

ELEMENT	EBRD PR5	ADB's SAFEGUARD INVOLUNTARY RESETTLEMENT	IFC PS5	UZBEKISTAN LEGISLATION	MEASURES TO BRIDGE THE GAP
<b>Avoidance or minimization of displacement</b>	The client will avoid or at least minimise physical and/or economic displacement	The Project will avoid involuntary resettlement whenever possible to minimise involuntary resettlement by exploring project design alternatives.	The client will avoid, and when avoidance is not possible, minimise displacement by exploring alternative project designs.	The land belongs to the state and can be withdrawn for state and public needs including for realization of important socio-economic and investment project.	<p>A Presidential Resolution was issued to provide a mandate for the Project. Land expropriation is necessary for the implementation of public investments, particularly those of strategic importance.</p> <p>A progressive site selection process was carried out as part of the Project's technical feasibility studies, and locational alternatives were refined further as part of the Project's ESIA and LALRP studies, through early-stage stakeholder engagement and field reconnaissance.</p> <p>Project sites with the least impact on private property and livelihoods were reviewed for all project</p>

ELEMENT	EBRD PR5	ADB's SAFEGUARD INVOLUNTARY RESETTLEMENT	IFC PS5	UZBEKISTAN LEGISLATION	MEASURES TO BRIDGE THE GAP
					facilities (i.e., PV power plants, BESS, sub-station, powerlines and access roads).
<b>Planning process</b>	The client will prepare a resettlement plan proportionate to the risk and impacts associated with the project.	The client will prepare a resettlement plan if the proposed project will have involuntary resettlement impacts including collection of census data of the affected persons.	Requires that a client prepares a RAP in case of Projects involving physical and economic displacement including collection of appropriate socio-economic baseline data of the PAPs	There is no requirement to prepare an integrated standalone RAP, based on expert asset inventory and valuation. There is no comparable requirement for conducting a socio-economic survey.	Following the identification of the potential for economic displacement during the ESIA process, and LALRP has been developed to mitigate the risks associated with loss of residential and income generating assets and resources. The Plan draws on dedicated census, socioeconomic and asset inventory surveys, to ensure the delivery of effective compensation and supplementary livelihood restoration aid for all categories of project-affected entities, in line with mandatory and lender-prescribed performance requirements.
<b>Eligibility for compensation</b>	PR5 identifies 3 main categories of PAPs: <ul style="list-style-type: none"> <li>Those who have formal legal rights to the land (including</li> </ul>	ADB identifies 3 categories of PAPs: <ul style="list-style-type: none"> <li>Persons with formal legal rights to land</li> </ul>	PS 5 identifies 3 main categories of PAPs: <ul style="list-style-type: none"> <li>Those who have formal legal rights to the land</li> </ul>	The Land Code and other pertinent legislation mandate the	Livelihood restoration measures, including compensation, transitional support and livelihood restoration initiatives will be

ELEMENT	EBRD PR5	ADB's SAFEGUARD INVOLUNTARY RESETTLEMENT	IFC PS5	UZBEKISTAN LEGISLATION	MEASURES TO BRIDGE THE GAP
	<p>customary &amp; traditional rights recognised under national laws).</p> <ul style="list-style-type: none"> <li>Those who do not have formal legal rights to land at the time of the census, but who have a claim to land that is recognised or recognisable under the national laws.</li> <li>Those who have no recognisable legal right to claim the land that they occupy.</li> </ul>	<p>lost in its entirety or in part.</p> <ul style="list-style-type: none"> <li>Persons who lost the land they occupy in its entirety or in part who have no formal legal rights to such land, but who have claim of such lands that are recognizable under national laws.</li> <li>Persons who lost the land they occupy in its entirety or in part who have neither formal legal rights nor recognised or recognizable claims to such land.</li> </ul> <p>ADB also requires that:</p> <ul style="list-style-type: none"> <li>Those with no formal/recognizable right on the land are entitled to be compensated for their non-land assets at replacement cost and for rehabilitation assistance.</li> <li>Land compensation (instead of cash) for PAPs whose</li> </ul>	<p>or assets they occupy or use.</p> <ul style="list-style-type: none"> <li>Those who do not have formal legal rights to land or assets, but have a claim to land that is recognised or recognisable under national law.</li> <li>Those who have no recognizable legal right or claim to the land or assets that they occupy or use.</li> </ul>	<p>provision of compensation and transitional support for landholders with legitimate rights to land, exclusively.</p> <p>Furthermore, the presidential resolution issued for the Project provides that the Ministry of Energy is exempt from delivery of compensation for agricultural land subject to expropriation.</p>	<p>provided for all PAPs, including those who do not have legal rights to productive land and common resources (e.g., informal herders in Nurobod district).</p> <p>However, the scope of compensation entitlements will differ according to the tenure status of each PAP.</p> <p>Furthermore, valuation standards and compensation eligibility criteria provided in national legislation (preceding the Presidential Resolution), will be upheld as a basis for asset inventory and valuation surveys, to meet lender performance requirements.</p>



ELEMENT	EBRD PR5	ADB's SAFEGUARD INVOLUNTARY RESETTLEMENT	IFC PS5	UZBEKISTAN LEGISLATION	MEASURES TO BRIDGE THE GAP
		livelihoods are land-based is preferred.			
<b>Inventory of affected assets &amp; establishment of a cut-off date</b>	<p>The client shall carry out an inventory of affected assets including land, structures, crops, communal amenities &amp; natural resources to establish the basis for further valuation of such assets.</p> <p>The client shall also establish a cut-off date for eligibility either (i) as foreseen in applicable legislation; or (ii) using the end date of the census or of the inventory (whichever is the latest).</p>	<p>An inventory of displaced persons and their assets will be documented. In addition, the client will establish a cut-off date for eligibility. Information regarding the cut-off date will be documented &amp; disseminated throughout the project area.</p>	<p>The client will carry out an inventory of affected land and assets at the household, enterprise, and community level.</p> <p>This will also include establishment of a cut-off date for eligibility information of which will be documented and disseminated throughout the project area.</p>	<p>The asset compensation methodology requires for the client to carry out an inventory for the affected assets. However, this does not include any specific requirement for the establishment of a cut-off date.</p>	<p>A cut-off date was established based on the timeline for the LALRP census and asset inventory surveys. The cut-off date was issued to the PAPs and publicized within the wider affected communities, to create awareness around the time limit for survey and valuation of project-affected assets.</p>
<b>Grievance mechanism</b>	<p>The client is required to establish a grievance mechanism consistent with PR5 and PR10 in order to receive and address concerns regarding the Project in a timely manner. The GM will include a recourse mechanism designed to resolve disputes and complaints in an impartial manner.</p>	<p>The client is required to establish a mechanism to receive and facilitate the resolution of affected persons' concerns and grievances about physical and economic displacement and other project impacts, paying particular attention to the impacts on vulnerable groups.</p>	<p>The client is required to establish a grievance mechanism in accordance with the requirements set out in PS1 in order to be able to address any specific project concerns about the compensation process. The GM will include a recourse mechanism designed to resolve disputes and complaints in an impartial manner.</p>	<p>In case of a disagreement with the decision to withdraw land, the land bowner/user can appeal the decision in court. There is however, no requirement for a project specific GM.</p>	<p>A grievance mechanism, which aligns with guiding principles set out in relevant lender policies and standards has been instituted for the Project, at the outset of the project ESIA. The GRM has been publicized within project-affected communities and is available to PAPs. The GRM serves to ensure that any grievances relating to the LALRP and other activities are received and addressed</p>

ELEMENT	EBRD PR5	ADB's SAFEGUARD INVOLUNTARY RESETTLEMENT	IFC PS5	UZBEKISTAN LEGISLATION	MEASURES TO BRIDGE THE GAP
					in a timely and responsive manner.
<b>Information disclosure</b>	The client should summarise the information for public disclosure to ensure that the affected people understand the compensation procedures and know what to expect at the various stages of the project (for example, when an offer will be made to them, how long they will have to respond, grievance procedures, legal procedures to be followed if negotiations fail).	The Client will provide relevant resettlement information, including information on the resettlement framework, resettlement plan and monitoring reports in a timely manner, in an accessible place and in a form and language(s) understandable to affected persons and other stakeholders. For illiterate people, other suitable methods will be used.	Disclosure of relevant information and participation of Affected Communities and persons will continue during planning, implementation, monitoring, and evaluation of compensation payments, livelihood restoration activities, and resettlement to achieve outcomes that are consistent with objectives of PS5.	No requirement for information disclosure exists in Uzbekistan through the land withdrawal and compensation process.	PAPs will be provided with relevant information throughout the implementation of the LALRP as per the EBRD PR5, ADB and IFC PS 5 requirements.
<b>Stakeholder consultations</b>	Following disclosure of all relevant information, the client is required to consult with affected persons and communities and facilitate their early informed participation in decision making process.	The client will conduct meaningful consultation with affected persons, their host communities, and civil society for every project and subproject identified as having involuntary resettlement impacts.	Consultations shall be conducted to allow informed participation of those affected by the project.	Requires matters of local importance to be publicly discussed with local authorities but there are no specific requirements for consultations with the PAPs	To be reconciled through the consultations with the PAPs and other relevant stakeholders and agencies throughout the implementation of the LALRP.
<b>Vulnerable groups</b>	PR 5 requires special attention to be paid to vulnerable groups and ensure that they are not	The client will identify individuals and groups who may be differentially or disproportionately	PS 5 requires that special attention is provided to the needs of the poor and vulnerable to assist	The Tax Code regulates compensation of vulnerable groups	Targeted supplementary livelihood restoration assistance will be provided to vulnerable PAPs in

ELEMENT	EBRD PR5	ADB's SAFEGUARD INVOLUNTARY RESETTLEMENT	IFC PS5	UZBEKISTAN LEGISLATION	MEASURES TO BRIDGE THE GAP
	disadvantaged in the compensation process and are fully aware of their entitlements and rights.	affected by the project because of their disadvantaged or vulnerable status. The client will ensure that the standards of living of the displaced poor and other vulnerable groups are improved and not merely restored.	in restoring/improving their pre-project standard of living and livelihoods.	in terms of applying discounts or exemptions from property taxes, income tax but does not provide requirements for additional support to vulnerable groups in relation to helping them improve their livelihoods.	accordance with EBRD, ADB and IFC performance requirements.
<b>Compensation</b>	The client will offer PAPs compensation for loss of assets at full replacement cost and any other required transitional support.	<ul style="list-style-type: none"> <li>All compensation of assets at full replacement cost and assistance should be provided prior to displacement including provision of additional support.</li> <li>Compensation for losses at full replacement cost and transitional support will be provided prior to handing over the site for civil works.</li> </ul>	When displacement cannot be avoided, the client will offer displaced communities and persons compensation for loss of assets at full replacement cost and other assistance/transitional support to help them improve or restore their standards of living.	Land owners/tenants are entitled to have the right to be compensated in full (including lost profit). Replacement land should also be provided to legal land users/tenants.	All PAPs will be compensated for the losses incurred at full replacement cost and transitional support provided as needed.
<b>Monitoring of RAP Implementation</b>	PR 5 requires consultations to continue during the implementation, monitoring,	ADB requires monitoring & assessment of outcomes, their impacts	The client will establish procedures to monitor and evaluate the	No provision for is	The client will establish procedures to monitor and evaluate the

ELEMENT	EBRD PR5	ADB's SAFEGUARD INVOLUNTARY RESETTLEMENT	IFC PS5	UZBEKISTAN LEGISLATION	MEASURES TO BRIDGE THE GAP
	and evaluation of compensation payment and resettlement so as to achieve outcomes consistent with the objectives of the PR.	<p>on the standards of living of displaced persons, and whether the objectives of the resettlement plan have been achieved by taking into account the baseline conditions &amp; the results of resettlement monitoring.</p> <p>As part of this, the following reports will be prepared for the Project:</p> <ul style="list-style-type: none"> <li>• RAP Compliance Report – Upon completion of compensation payments.</li> <li>• Semi-annual social monitoring report throughout the construction period.</li> <li>• RAP evaluation report upon completion of the Project.</li> </ul>	implementation of a RAP and take corrective actions as necessary.	provided in the Uzbekistan law.	implementation of the LALRP.





## 4 LAND ACQUISITION PROCESS

### 4.1 Project Alternatives

#### 4.1.1 Locational alternatives

##### 4.1.1.1 PV power plant, sub-station, and BESS facilities

A range of factors determine the suitability of a given site for solar power generation. As such, the identification of candidate sites and final site selection are based on a number of technical feasibility studies. Site investigation undertaken as part of the feasibility studies took stock of viability factors including:

- Solar resources
- Area and land-use
- Climatic extremes and hazards
- Geotechnical and hydrological conditions

A number of locational alternatives were evaluated on the basis of E&S sensitivities, among other criteria, at the outset of the Sazagan Power Purchase (SPP) scheme. In the early stages of feasibility studies, the Government of Uzbekistan, through the Ministry of Energy, engaged GOPA Consulting to provide technical support to identify suitable sites for the projects planned under the scheme.

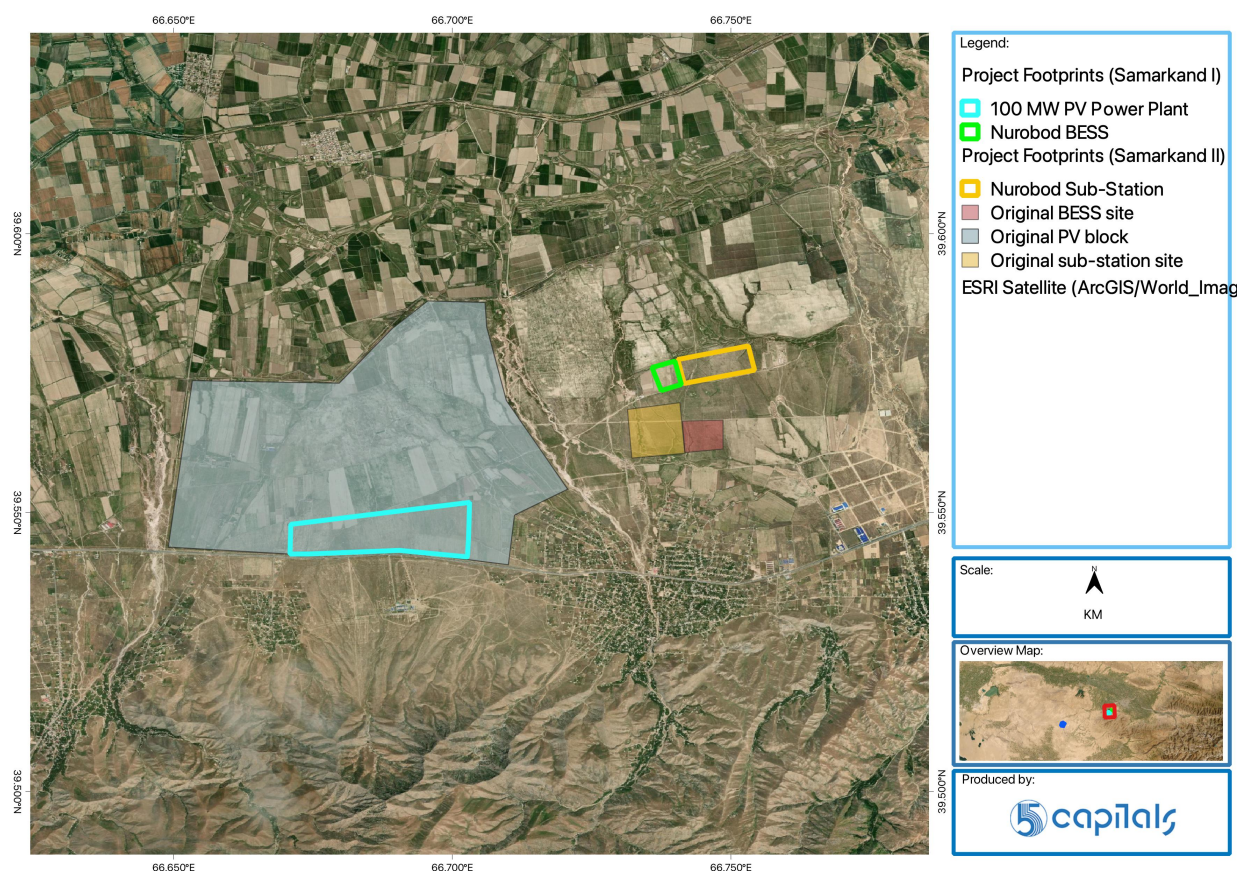
Due to the scarcity of land with sufficient insolation, the study targeted one three plots of land for the development of (i) a single PV power plant, (ii) nearby sub-station, (iii) BESS with a short-range, underground connection to the sub-station (under separate Sazagan 1 project), and (iv) an OTL to link the power plant with the sub-station. This plan was subsequently transferred to the Project Developer via the SPP scheme, for advanced feasibility studies.

With the commencement of detailed feasibility investigations and the ESIA, a number of E&S constraints were identified within the interior and vicinity of the sites originally selected for the development of the PV power plant and sub-station in Nurobod District, specifically:

- A housing project planned near the site
- A hazardous waste management facility within the site
- A gas pipeline transecting the site
- An OTL running along the site

Through progressive feasibility reviews and cross-cutting stakeholder consultation, the design was modified such that the power plant was relocated 70 km West of the original site, and the sub-station and BESS pairing was shifted several kilometres up the North. The translocation of the PV power plant necessitated the establishment of a 70-km OTL, to interconnect the 500 MW PV plant with the distant sub-station. This set-up was determined to be the best and final locational alternative, considering the absence of strategically located, low-value (unoccupied) land with suitable technical advantages elsewhere in the district.

The original project design is shown in the map below, in relation to the final constellation, based on a screening against E&S, technical and economic feasibility criteria.



**Figure 4-1 Alternative project sites considered at the feasibility stage**

#### 4.1.1.2 Powerlines

Beyond the design modifications above, a series of adjustments were made to the OTL routes associated with the separate SPP scheme components. A total of 6 purposive iterations were made for the 70-km OTL route, and a total of 10 revisions for the 350-km OTL.

The OTL design adjustments were made in efforts to avoid the following E&S sensitivities:

- Provisionally identified residential property (i.e., households subject to physical displacement)
- Commercial and industrial property
- High-value orchards
- Mining and prospecting zones
- Areas of high biodiversity value/ conservation importance

#### 4.1.2 No project alternative

The zero alternative is not regarded as favourable, as the project is set to deliver on nationally important energy objectives, in face of the ongoing power shortages across the country. In addition, the Project aligns with the national movement towards a cleaner and more efficient power sector, to meet the rising demand for energy within the country.

## 4.2 Land Expropriation

The Project Developer entered into a PPA with the Ministry of Energy (represented by NEGU JSC) of Uzbekistan in March 2023. On 4<sup>th</sup> July 2023, a presidential decree was issued to mandate the project plan and its implementation (Appendix A)..

Amongst other provisions, the presidential decree sets the legal basis for the expropriation of land within specific sites earmarked for the development of the planned project facilities. The land expropriation process in Uzbekistan mainly begins with the withdrawal of earmarked land into state reserves, on the basis of Land Allotment Orders (LAOs) from district- and regional khokimiyats with direct, existing ownership of the land. Subsequently, land returned to state reserves is reclassified and reallocated to new landholders, on the basis of Land Lease Agreements (LLAs). The LAO for the Project was issued on 20 July 2023 (Appendix B).

At present, the majority of the project sites fall within land tracts zoned for agricultural land-use. The Project's land acquisition process will involve the reallocation of the land for industrial use. The best available estimates for the Project's itemized land-take is summarized in the table below. The land areas indicated include both permanent footprints and temporary footprints in the Project's operational and construction phases respectively.

**Table 4-1 Preliminary land-take estimates for the project facilities**

SN	PROJECT SITE	OVERALL AREA (Ha)
1.	500 MW PV power plant	994
2.	Karakul BESS and underground cable	32.4
3.	Nurobod sub-station	54.5
4.	Khalq'a sub-station	31.1

SN	PROJECT SITE	OVERALL AREA (HA)
5.	70-km (220 kV) OTL	143
6.	350-km (500 kV) OTL	[TBC]

## 5 CENSUS AND SOCIOECONOMIC SURVEYS

### 5.1 Survey Objectives

#### 5.1.1 LALRP census

The objectives of the LALRP census include the following:

- To identify the types of land use within all of the project sites.
- To establish the number of project-affected landholdings within the project sites, and the pre-project tenure of all privately held land parcels.
- To quantify potential livelihood impacts in terms of the number of Project-Affected Persons (PAPs). In this respect, PAPs hereinafter refers to both individual (natural) and institutional (legal) entities.

The LALRP census commenced with an early-stage investigation into potentially impacted property and entities subject to associated livelihood impacts. The first round of the census entailed a series of written and in-person consultations, and cadastral reviews with resident khokimiyats at the district and regional level. The purpose of these engagements was to delineate land parcels situated within the project sites and gather general information on pre-existing land-use and ownership.

**Note:** The LALRP census and socioeconomic surveys were designed and implemented to capture all historical land users with legal and informal claims to land parcels designated for the Project immediately prior to the outset of the project and the onset of expropriation procedures.

Further, this round of census involved walkovers to identify establishments within the project sites, as well as a series of land-use surveillance visits to identify less apparent land-use around common resources, and seasonal land-use in particular.

The second and final stage of the census was carried out in parallel with the socioeconomic and asset inventory surveys, to garner more specific information for the quantification and categorization of PAPs. The census survey was conducted through questionnaire-guided consultations with PAPs, on their respective property.



### 5.1.2 LALRP socioeconomic survey

The LALRP-oriented socioeconomic survey was carried out with all of the Project-Affected Households (PAHs) who were available for in-depth consultations, along the mandatory asset inventory (valuation) surveys. The objectives of the socioeconomic survey include the following:

- To gather household-specific information for profiling the pre-project (baseline) structure and socioeconomic situation of PAHs.
- To garner supplementary information on potentially impacted landholdings and attached assets.
- To enable participatory project design to minimize the scale of land expropriation and resultant livelihood impacts, and to ensure transparency with regard to practicable avoidance of resettlement through precautionary and consultative planning.
- To obtain information regarding household-specific preferences and priorities in terms of compensation and livelihood restoration initiatives.
- To identify PAHs that are socioeconomically vulnerable in the context of livelihood restoration planning, and to gain an understanding of any particular collective needs within the project-affected communities, in relation to general/mutual livelihood impacts.

The socioeconomic survey was conducted within the PAHs' affected property, alongside the advanced census survey and asset inventory survey, by way of questionnaire guided consultations.

## 5.2 Survey Timeline

The LALRP census and socioeconomic (household) surveys were carried out between 30 August 2023 and 15 May 2024.

## 5.3 Scope and Limitations

The LALRP census and socioeconomic surveys targeted all project-affected entities, and entities with potentially affected private property and common resources in particular. These surveys were carried out with a view to establishing the entire inventory of PAPs and property impacted by land expropriation. Accordingly, the surveys were focused on establishing all land-use and tenure which preceded the outset of the Project (following the issue of the Presidential Resolution and subsequent Land Allotment Orders to launch land acquisition). The limitations involved in the implementation of the LALRP census and socioeconomic surveys discussed in this LALRP issue are discussed below.

### 5.3.1 OTL tower footprint

Over the course of the surveys, the design and footprint of nearly all project facilities was well established. However, the location of the OTL towers were not determined by the time of the surveys and subsequent analyses. This gap in design and relevant survey information concerns the PAPs associated with the Project's planned OTLs exclusively. Nevertheless, best efforts were made to capture general information regarding assets within the impact corridor, and the PAPs were informed about a subsequent round of LALRP surveys, which will entail (i) verification of the compensation entitlements established through the initial round of surveys, and (ii) a rapid survey focused on the OTL tower footprint and simultaneous verification of the final survey results and adjusted entitlements.

### 5.3.2 Cadastral maps

In addition, cadastral particulars were not fully available for all of the project-affected land parcels. In a few such cases, cartographic and GIS information for delineating private landholdings could not be obtained to visualize and/or validate the extent of land-take relative to the original area (hectarage) of affected land plots. In these circumstances, triangulation was used to derive reliable estimates, based on limited cadastral records and complementary accounts of relevant landholders.

### 5.3.3 Voluntary information

Further, surveyed PAPs were allowed full discretion with regard to the provision of private information for the purposes of the LALRP. While the objectives of the LALRP surveys were conveyed in a transparent manner at the start of each consultation, and PAPs were encouraged to provide relevant information to enhance the management of livelihood impacts, all information was gathered on a voluntary basis. No forceful or manipulative means were used to elicit responses, and in certain instances, designated respondents declined to disclose certain, non-critical information. Data gaps and shortfalls were nonetheless addressed by averaging or summing information from relevant PAP categories in the same project-affected locations, where aggregative analyses are appropriate.

### 5.3.4 Ongoing surveys

Lastly, the census and socioeconomic surveys for the 350-km OTL were ongoing at the time of this assessment. On this basis, the information presented in this LALRP issue is cumulative and subject to updates post the completion of the outstanding surveys.

## 5.4 Survey Results

### 5.4.1 Administrative boundaries

The following table provides an overview of the affected regions, districts, and makhallas, where the project facilities are located.

**Table 5-1 Overview of project-affected regions, districts, and communities**

PROJECT FACILITY	REGION	DISTRICT	MAKHALLA
<b>500 MW PV Plant</b>	Samarkand	Nurobod	Olga
			Chorvador
<b>Nurobod sub-station</b>	Samarkand	Pastdargom	Saroy
			Dustlik MFY
<b>70-km OTL</b>	Samarkand	Nurobod	Chorvador
			Olga
			Jom
			Urtabuz
			Ulus
			Dustlik
			Sarikul
			Mehnatkash
			Chortut
			Sazagan
			Saroy
		Pastdargom	Elbek
<b>350-km OTL and Khalq'a sub-station</b>	Samarkand region	Pastdargom	Dustlik
			Elbek
			Khonchorbog
			Navbakhor
			Yangiavlod
			Ilm
			Utarchi
			Mustakillik
			Beklar
			Navruz
			Yangiobod
			Boldir

PROJECT FACILITY	REGION	DISTRICT	MAKHALLA
			Durmansoy
			Istikbol
			Beshbola
			Qushchinor
			Shombuloq
		Oqdaryo	Olchintepa
			Guzalkent
			Kumushkent
		Payariq	Khalqobod
			Choshtepa
			Ernazarqurgon
			Khuja Ismoil
			Maniobod
			Sarisuv
			Tupolos
			Oqqurgon
			Bobur
			Polvonarik
		Jomboy	Polvonarik
			Nogokhon
			Qulbosti
			Qungirof
			Gazira
			Sariqipchoq
		Bulungur	Bogbon
			Beshkuton
			Yangiobod
			Kattaqishloq
			Lalmikor
			Gubdin
	Jizzakh region	Gallaorol	Khominkurgon
			Oktom
			Mulkush
			Mirzabulog

PROJECT FACILITY	REGION	DISTRICT	MAKHALLA
			Kukbulok
			Kukgunbaz
		Sharof Rashidov	Yangi-Diyor
			Madaniyat
			Kulpisar
			Tarakkiyot
			Buston
			Samarkandkuduk
		Zafarobod	Yorkin
			Birlik
		Pakhtakor	Ok bulok
			Olmazor
			Pakhtakor
			Mingchinor
		Dustlik	Manas
	Syrdarya region	Syrdarya	Zarbdor
			Obi khayot
			Obi zilol
			Khisobdon
			Ankhor
			Khamdam
			Tinik
			Ta'minotchi
			Khamkor
			Sohil
		Mirzaobod	Mirzachul
			Dekhkonobod
			T.Akhmedov
		Akaltin	Zakhiriddin Mukhammad Bobur
			Sardoba
			A.Toirov
		Sardoba	Sharof Rashidov (Mingchinor)
			T.Malik (Bogzor)
		Saykhunobod	Zafarobod

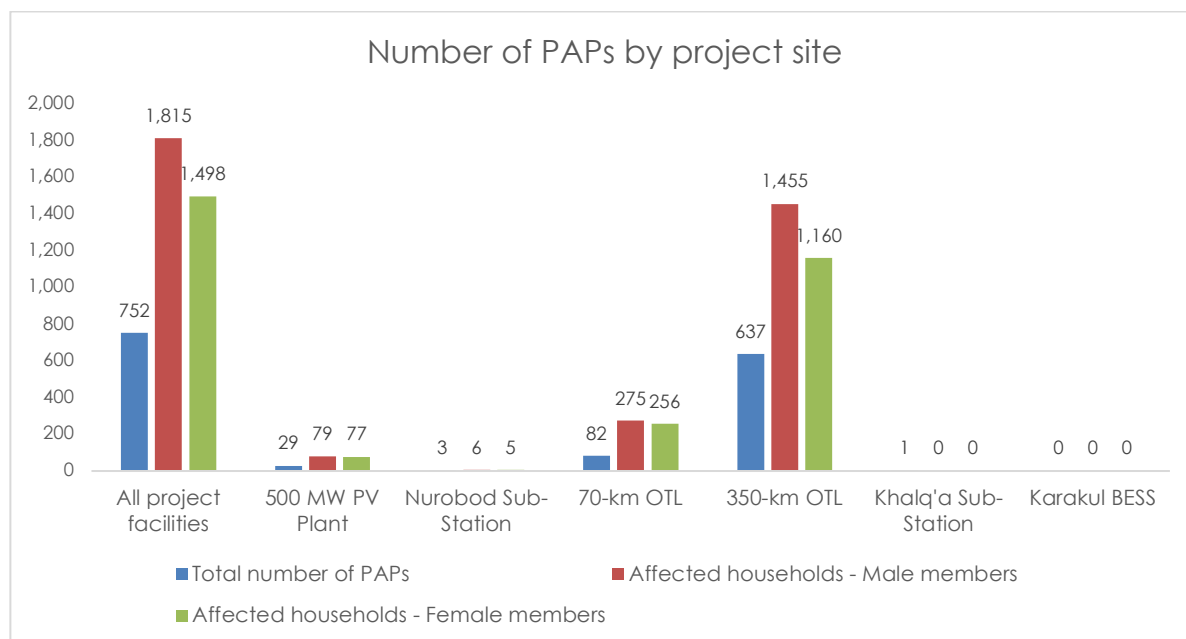


PROJECT FACILITY	REGION	DISTRICT	MAKHALLA
	Tashkent region	Kuyichirchik	Dustlik 1
			Djumagul
			Pakhtachi
			Uch chinor
			Birlik
			Dustlik
			Chinobod
			Pakhtazor
<b>Karakul BESS</b>	Bukhara	Karakul	Chekirchi
			Khujalar
			Tinchlik

#### 5.4.2 Categorization of PAPs and PAHs

At the time of this LALRP issue, the number of Project-Affected Persons (PAPs) subject to displacement from project-related land withdrawal totalled 752 entities (i.e., households and other legal institutions). About 711 of the PAPs are provisionally categorized as Project-Affected Households (PAHs). For PAHs specifically, a total of 1,815 male household members and 1,498 female household members were enumerated during the surveys.

The plot below provides an overview of the PAP counts and respective gender-disaggregated household statistics for impacted households, by project facility.



**Figure 5-1 PAP count and PAH population distribution by project site**

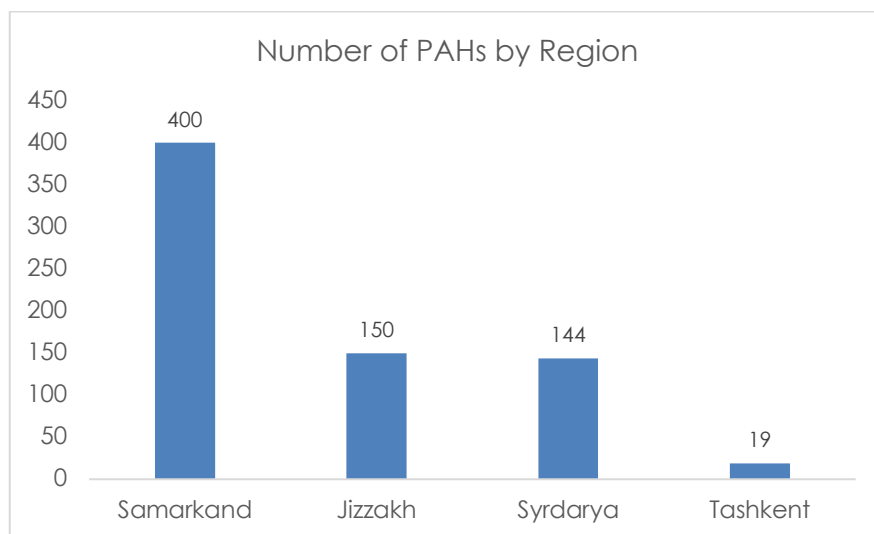
As shown in the graph, the majority of PAPs surveyed are associated with the 350-km OTL corridor, and to a lesser extent, with the 70-km OTL. A substantially lower number of PAPs was surveyed in relation to the Nurobod sub-station, 500 MW PV plant and Khalq'a sub-station. No PAPs were identified in relation the Karakul BESS and underground cable footprint.

#### 5.4.3 Residential location

The Project-Affected Households (PAHs) reside within a total of 146 communities, which are located in regions of Samarkand, Jizzakh, Syrdarya and Tashkent.

The majority of PAHs (56%) are based in Samarkand Region, and the remaining PAHs are largely distributed between Jizzakh and Syrdarya, with the lowest number of PAHs recorded in Tashkent Region.

According to the survey, the PAHs have resided in their respective communities for an average period of 9 years.



**Figure 5-2 Distribution of PAHs by region**

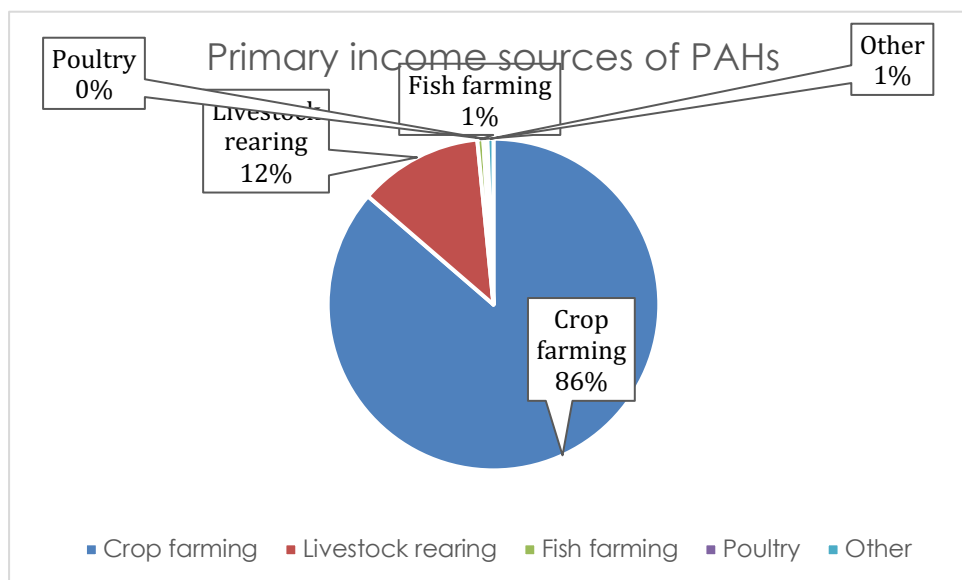
#### 5.4.4 Income sources

The vast majority of PAHs are employed in land-based livelihoods, mainly crop farming and livestock farming. Little to no irrigation systems exist in Nurobod District and the southern fringes of Pastdargom District. For this reason, most of the agricultural activity in these parts is based around the rearing of livestock including sheep, goats, and cattle. Sheep and goats are bred extensively, given the aridity and low pastoral yields of land within these areas.

Beyond Nurobod District, irrigated cultivation is predominant in the remaining, project-affected reaches of Samarkand, Jizzakh, Syrdarya and Tashkent regions. Extensive irrigation networks radiate from large canals fed by a number of resident rivers, notably Zarafshan and Syrdarya Rivers. A minority of the PAHs engage in alternative agriculture, notably fish farming and poultry breeding. Other reported employment includes professional occupations, such as clerical and teaching jobs, as well as small retail enterprises. Local trade involves the procurement of merchandize and produce from the closest towns and cities, for sale in the relatively rural, remote parts of the project-affected districts. In Nurobod district, abject unemployment has led some of the male youth to relocate to urban centres such as Samarkand and Tashkent, and the neighbouring countries of Turkey, Kazakhstan, and Russia, in search of employment.

Women in most of the PAHs are primarily involved in household upkeep, child-care, and crop harvesting. Some of the women are employed in textile workshops located a relatively long distance away from the residential locations. Further, both men and women partake in seasonal/ part-time labour, including intensive agricultural labour in resident/ neighbouring crop-farming clusters, as well as construction projects, and catering services.

For the majority (53%) of surveyed PAHs, household income is mainly earned through crop farming. Livestock farming is the second top (45%) source of primary household income, while a very limited proportion of the households derive their income from formal employment, other less represented livelihoods and welfare assistance.

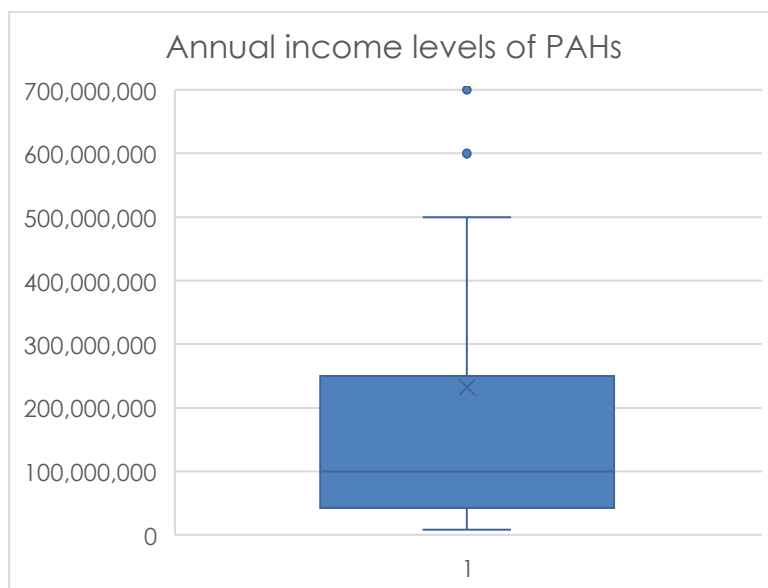


**Figure 5-3 Primary of source of household income**

#### 5.4.5 Household income

Based on socioeconomic information gathered during the surveys, the PAHs earn an average annual income of UZS 232,011,250, which equates to a monthly sum of 19,334,271. Extreme poverty, reflected by a monthly earning lower than the national poverty line of the UZS 621,000 was not recorded, although a few of the households have been registered on communal 'Iron Books' for welfare payments to alleviate impoverishment from special and dire needs, such as physical disability. While some respondents opted to not disclose their monthly earnings, the lower end of reported income averages UZS 1,250,000.

The plot below depicts key statistics for annual household income, including the income range (i.e., maximum, minimum, mean, upper and lower quartiles, and frequent outliers). A number of extreme outliers were excluded for the purposes of this analysis.



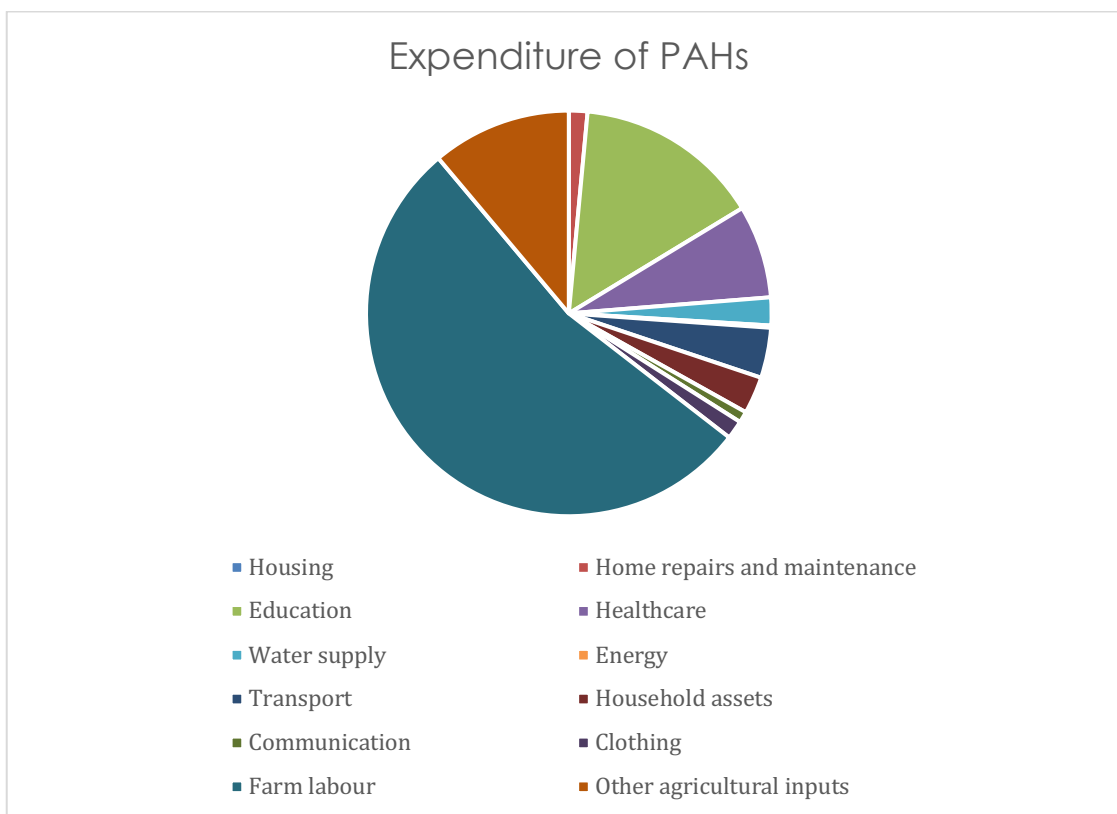
**Figure 5-4 Minimum, maximum, mean, quartiles and select outliers for annual household income**

#### 5.4.1 Household expenditure

The main annual expenditures reported by PAHs include agricultural inputs and labour, transportation, water supply, education, and healthcare. The share of PAHs in charge of small to medium agricultural enterprises generally indicated more spendings on intensive farming activities. Minimum annual expenditures amongst the PAHs averages about UZS 2,000,000, while the mean expenditure of the PAHs amounts to UZS 122,797,710 per year.

The plot below indicates the relative proportions of the various household expenses reported by the majority of PAHs. Certain expenditures have been lumped into larger categories, for the purposes of this analysis.





**Figure 5-5 Itemized annual expenditure of PAHs**

## 5.4.2 Social services

### 5.4.2.1 Education

All project-affected communities have reported having one to three resident schools and kindergartens. Higher education institutions are located within district centres and other strategic locations within the affected districts.

Some of the low-income communities, particularly those within Nurobod District, noted chronic challenges within resident educational institutions, including the shortage of books, furniture, IT facilities, and sports facilities.

### 5.4.2.2 Healthcare

The majority of project-affected communities indicated the presence of at least one outpatient medical facility, within a three kilometres' distance. For advanced diagnostic and treatment services, patients are referred to larger healthcare facilities centred in their respective districts, towns, and regions.

Despite the limited number of medical practitioners in the less developed, rural parts of affected districts, the majority of communities are satisfied with the existing state of healthcare

infrastructure. A notable exception is several medical facilities in Nurobod district, where frequent power outages beset the delivery of basic services.

#### **5.4.2.3 Water supply**

Sources of water and water supply infrastructure vary widely across the project-affected districts and specific communities. Most urban areas have access to a piped water supply systems operated by state-owned utilities such as Uzsuvtaminot and water resource (ministerial) departments of resident khokimiyats. In the rural parts, water supply alternatives include centralized, piped water supply networks, communal distribution systems (powered by pumps) connecting to rivers and springs, groundwater wells, rivers, and irrigation canals.

Where irrigation canals, seasonal and ephemeral rivers are located, various land-uses and activities must comply with the sanitary and protective buffers specified in relevant legislation. The size of the buffers is proportionate to the flow rate of rivers and dimensions of irrigation canals. Local authorities indicated that best efforts should be pursued to avoid the diversion of canals serving irrigated agricultural landscapes in and around project sites.

#### **NUROBOD**

No centralized water supply networks exist in the project-affected communities in within Nurobod and Pstdargom Districts (i.e., nearby the PV power plant and Nurobod sub-station). Residents of these communities obtain water primarily from spring intakes and a water tanker supplier registered as Suvokava. Some households tap into pump-powered supply systems which draw water from communal spring intakes, at a monthly charge that is billed for each user. The downside to this system is that water abstraction is oftentimes interrupted by power outages. Other households receive regular water supplies from Suvokava at a charge of UZS 65,000 to UZS 90,000 per ton. Low-income community sections prefer to fetch water manually from springs, groundwater wells, irrigation canals, while others use rainfall harvesting systems.

With regard to water supplies for the project, local authorities recommended that contractors engage with Suvokava for tanker services. Otherwise, groundwater wells can be drilled, with prior feasibility studies and permitting by the regional and district offices under the Ministry of Water Resources, and potentially from the State Committee for Geology and Mineral Resources (Goskomgeology). Two main issues highlighted in regard to the latter alternative is that groundwater in local aquifers is saline, and that some groundwater stress has been recorded within the area, and water shortages tend peak in the Spring.

Irrigation canals are absent for the most part of the districts, however small-scale, rudimentary canals have been developed around the seasonal rivers/ streams situated along the 70-km OTL route.

## **PASTDARGOM DISTRICT**

The water supply context in project-affected communities in Pastdarmom District is broadly similar to that of Nurobod District. However, the district benefits from an extensive irrigation system stemming from Dargom River and Zarafshan River. None of the existing canals are located within the Nurobod substation site, however a few canals are located along the 350-km OTL corridors.

## **KARAKUL DISTRICT**

The project-affected communities in Karakul district are served by a centralized, piped water supply system, which was established in 2021. High-quality water is available all year round. Agricultural and industrial establishments further out abstract water from a number of canals, including but not limited to the Amu-Karakul, Yomonjar, Karagin, Gurdush, and Qaygyr, which draw from the Zarafshan river basin.

With respect to water supplies for the project, local authorities recommended that contractors engage with Suvokava for tanker services. Otherwise, groundwater wells can be drilled, with prior feasibility studies and permitting by the regional and district offices under the Ministry of Water Resources. However, groundwater abstracted from depths of up to 20 metres is saline and practically unsuitable for most purposes.

## **DISTRICTS ALONG THE 350-KM OTL**

For the string of affected districts within the regions of Samarkand, Jizzakh, Syrdarya and Tashkent, centralized infrastructure for water supply and sewage are available to residents within urban settlements. However, in the rural parts, communities rely on multiple water sources, including springs, groundwater wells, canal intakes, rivers and rainwater reserves. Specialized water tanker services are also accessible throughout rural settlements in the districts.

### **5.4.2.4 Power**

All of the affected communities are connected to the national grid. However, the stability of power supply and duration of power outages varies by community. Certain under-developed communities, such as those based around the project sites in Nurobod District, are afflicted by frequent power outages due to:

- Grid congestion, mainly during the winter season
- Failure of dilapidated power distribution network facilities during strong winds and rainfall

Low-income communities within Nurobod and Pastdargom Districts reported frequent (sometimes daily) power outages that last for 3-4 hours. These communities also shared that the power distribution network in place is run down, as it was established in the 1970's. As a result, strong winds and heavy rainfall often damage the distribution poles and cabling, which exacerbates power shortages and hampers basic social and commercial services within schools, clinics, and other establishments.

As for heating, most communities located with urban locations are served by centralized heating systems. Communities based around the Karakul BESS site in Karakul District enjoy a mostly stable supply of power and gas from utility networks. Rural communities, including those based around the project sites in the districts of Nurobod and Pastdargom lack central heating, and utilize locally harvested firewood and dried manure (tappi) for heating during the winter. Purchased gas is also used for supplementary heating in these communities, albeit to a much a lesser extent.

With regard to power provisioning during the Project's construction phase, local authorities recommended connections to the grid. It was further noted, if the power demand exceeds 10 kW, then the Project Developer should install a dedicated transformer, in collaboration with NEGU and resident (district-level) construction departments.

For string of affected districts within the regions of Samarkand, Jizzakh, Syrdarya and Tashkent, centralized infrastructure for power supply and heating are available to affected communities. In the relatively rural settlements however, while the entire population is served by the grid, access to central heating is not available to all communities.

#### **5.4.2.5 Social security**

The social security scheme of Uzbekistan consists of pension payments and a host of welfare interventions for socioeconomically vulnerable households and residents. The forms of social security available to the project-affected communities in the regions of Nurobod, Pastdargom, include the following:

- Pension instalments
- Need-based monetary donations
- Loans for acquisition of residential property, household and/or SME assets
- Grants for higher education
- Livestock donations for disadvantaged producers
- Donations for non-agricultural SMEs (e.g., sewer machines for women in tailoring businesses)
- Free-of-charge housing schemes

- Free-of-charge agricultural land leaseholds
- Subsidies and debt relief for provision of medical, legal, or basic utility services
- Priority-basis recruitment services for civil, seasonal and/or semi-skilled jobs

Local authorities involved in rendering welfare assistance for vulnerable and marginalized community sections include the (i) socio-economic/makhalla and employment khokimiyat department, (ii) women and domestic affairs makhalla department, as well as community-level the Employment and Poverty Reduction Units (EPRUs). The EPRUs are entrusted with undertaking periodic monitoring of makhallas and registering all vulnerable households and residents. The criteria for the inventorying of economically challenged community members include (but are not limited to) chronic illness, disability, protracted unemployment, large low-income households/ families, women-headed households, and child-headed households. Individuals and entire households that meet these criteria are enlisted on the following institutional registers:

- **Temir daftari** – A live register (database) for poor and socially vulnerable families
- **Ayollar daftari** – A live register (database) for women in need of welfare assistance
- **Yoshlar daftari** – A live register (database) for young residents from poor and/or marginalized households

As noted in consultations with relevant authorities in the project-affected districts within Samarkand, Jizzakh, Syrdarya and Tashkent regions, households living in extreme hardship (i.e., below the national poverty line) account for 2-4% of the total number of resident households.

### 5.4.3 Agricultural inputs and extension services

Most of the PAHs engaged in agriculture have access to all essential equipment, implements and agricultural inputs including fertilizer and pesticides. A few PAHs own certain agricultural machinery (e.g., tractors) for limited use. Other households are also able to hire machinery upon demand. The PAHs are able to procure agrochemicals through local retail stores and suppliers. The main agricultural constraint for crop-farming PAHs in Nurobod District is water, due to the lack of perennial rivers in the arid tracts of cultivated land, and unstable rainfall patterns.

Further, PAHs employed in livestock breeding and herding currently have access to basic facilities and services required for livestock upkeep. Pastoral land plots are available in the project-affected districts, particularly within Nurobod and Pastdargom, where land is relatively less arable and not heavily exploited for crop farming. Most of the land is formally held by livestock-oriented clusters (large state-controlled companies), whereas the rest of local

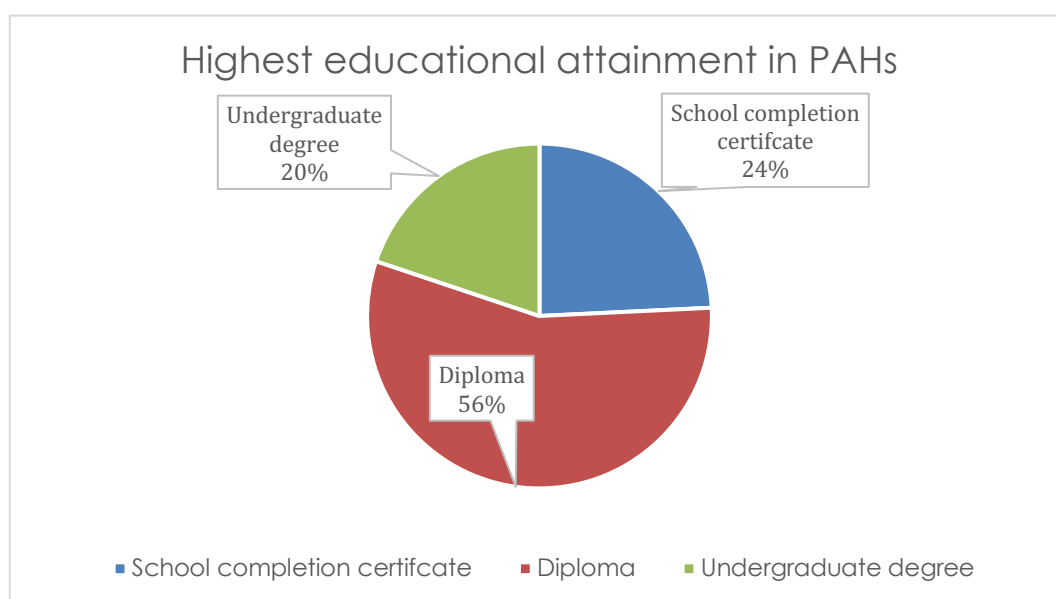
pastures are seasonally available on privately held cropland post harvesting. To undertake grazing on private farmland, herders have to seek prior permission and/or agreements with the property owners. Fodder is also cultivated within the project-affected areas and the surrounding districts.

Shelters for herding stop-overs are also located within intensely grazed pastures, mostly those held by livestock farmers. In some cases, informal arrangements can be made to allow herders from the surrounding communities to utilize idle shelters on land formally registered under corporate livestock breeding enterprises. Communal and private watering points for livestock farmers and herders include natural pools/ ponds, springs, and watering points attached to groundwater wells. The vast majority of livestock farmers and herders receive veterinary care services from private service providers. Self-employed and community-employed herders who undertake grazing on an informal basis usually contribute towards regular services. Otherwise, little to no extension services are provided to remote livestock dealers and herders.

#### 5.4.4 Educational Attainment

A generally high literacy rate was noted within PAHs, and minors within PAHs were reported to be attending school. The highest educational attainment (reported by respondents who opted to address relevant questions) within the majority of PAHs is a diploma. Secondary school and undergraduate degree qualifications were reported by the remaining 24% and 20% of PAHs respectively.

The plot below provides an overview of the highest educational status reported within PAHs, in total.



**Figure 5-6 Highest educational qualifications reported by PAHs**



#### 5.4.5 Settlement patterns and housing quality

The PAHs are based are largely based within residential clusters in the project-affected communities. Resident dwellings can be categorized as detached, single-storey buildings. Locally, construction is undertaken by hired contractors, and in some cases by household members with construction skills.

Some of the buildings exhibit moderate to high civil standards, including brick walls, iron sheet or tile roofing. Rudimentary housing is commonplace in the rural parts on Nurobod District, particularly in residential communities with relatively low-income statuses. The vast majority of residential buildings are owned rather than rented.



**Figure 5-7 Residential housing types in affected communities within Nurobod and Syrdarya**

#### 5.4.6 Socioeconomically vulnerable households

The household-level socioeconomic surveys undertaken as part of the LALRP study entailed a vulnerability analysis to identify PAHs whose livelihoods may be impacted disproportionately due to one or more pre-existing elements of socioeconomic instability, marginalization, and proneness to impoverishment.

The following criteria were applied for the identification of socioeconomically vulnerable PAHs:

- Household with one or more physically and/or mentally disabled members
- Household with one or more chronically sick members

- Household with an overall monthly income level that is below the national poverty line (UZS 621,000)
- Household with informal tenure of landholdings potentially impacted by the project
- Household with female headship
- Household with child headship
- Household with an Indigenous People (IP) or refugee status

**Note:** Qualifying chronic illnesses include (but are not limited to) cancer, severe cardiovascular diseases, and Tuberculosis, while qualifying disabilities include handicapped, blind, deaf, paralyzed conditions, and/or mental disability.

All PAHs which met one or more of the above criteria were designated as vulnerable households in the context of the LALRP, and supplementary, targeted assistance for households with limited resilience and exceptional livelihood risks. The vulnerability analysis also placed attention on elevated vulnerability from the intersectionality of multiple vulnerability factors.

The matrix below provides the count of vulnerable PAHs identified over the course of the LALRP survey, and the frequency of each vulnerability element. A total of 60 PAHs were categorized as vulnerable.

**Table 5-2 Number of vulnerable PAHs by socioeconomic vulnerability category**

No	ELEMENT OF VULNERABILITY <sup>1</sup>	NUMBER OF PAHS
1	Physical and/or mental disability	25
2	Chronic illness	16
3	Female household headship    child	11
4	Child-headed households	-
5	Informal tenure of affected landholdings/ resources	23
6	Extreme poverty	-
7	IP or refugee status	-
<b>Total number of vulnerable PAHs</b>		<b>60</b>

<sup>1</sup> A number of PAHs are double counted due to multiple reported elements of vulnerability

## 6 ASSET INVENTORY SURVEYS AND VALUATION

### 6.1 Valuation Expertise

In line with the pertinent legislation, the Consultant, on behalf of the Project Developer, engaged a locally based, licensed company for the asset inventory and valuation surveys integrating into the LALRP. The company is registered as Sirdaryo Mustaqil Baholash Va Ekspertiza LLC and is headquartered in Gulistan.

The company and expert valuers have extensive experience in rendering asset inventory and valuation services for international developers within the power sector, in line with mandatory requirements and national guidelines.

### 6.2 Valuation Standards

The fundamental valuation of surveyed and inventoried landholdings and fixed assets was undertaken in conformity with procedures and methods prescribed in pertinent laws and regulations. Where regulatory requirements fall short of valuation and compensation requirements set out in performance standards pertaining to the Project Lenders, the gaps were bridged in order to meet the more stringent, internationally recognized standards.

The following sub-sections provide a purposive overview of the principles, methods and guiding standards used for the valuation of project-affected landholdings, immovable assets fixed on affected land plots, and related income losses.

#### 6.2.1 Valuation of residential land

In Uzbekistan, private residential land is held on a freehold basis (i.e., with lifetime, inheritable ownership rights). The valuation methodology for project-affected residential land plots follows the technical guidance established in laws and regulations, which include the following:

- Order of the Director of the State Assets Management Agency of the Republic of Uzbekistan (dated 28.12.2023, registration number: 3487, unified national standard of valuation and methodology of the Republic of Uzbekistan)
- Law of the Republic of Uzbekistan on Valuation Activity, (Decree of 19.08.1999 N 811-I)
- Decree of the Cabinet of Ministers of the Republic of Uzbekistan from 16.11.2019 N 911 (dated June 29. 2022. -Law RK-781 on procedures for withdrawal of land plots for public needs as compensation)

The method aims to establish the full replacement value of residential land, based on the current market price of residential land on real estate trade platforms within the project-

affected districts. Technical adjustments are applied methodically, to derive the full cost of replacement land plots, according to the pre-existing conditions of project-affected residential land plots.

### 6.2.2 Valuation of agricultural land

All private agricultural land in Uzbekistan legally utilized on a leasehold basis. Rights holders enter into short-, medium- and long-term Land Lease Agreements (LLAs) with the Khokimiyats of resident districts. The LLAs specify the type of land-use permitted within the agricultural land parcels, the term of the stipulated land-use, and associated tax payments (and other applicable duties). An exception to this tenure system is tomorka land, which refers to very small-scale agricultural land nested within residential land plots for gardening or horticultural utility.

The valuation methodology for project-affected agricultural land plots follows the technical guidance established in laws and regulations, which include the following:

- Decree of the Cabinet of Ministers of the Republic of Uzbekistan (Decree of 25.05.2011 N 146)
- Law of the Republic of Uzbekistan on Valuation Activity (Decree of 19.08.1999 N 811-I)
- Decree of the Cabinet of Ministers of the Republic of Uzbekistan from 16.11.2019 N 911, (June 29. 2022)
- Law RK-781 on procedures for withdrawal of land plots for public needs as compensation

As agricultural land is leased, pertinent compensation methods do not serve to establish the full replacement cost of affected land parcels, rather the valuation aims to provide full compensation for the loss or absence of agricultural income over the transitional period which takes into account, inter alia, the non-profitable time required to procure, register, survey and develop replacement agricultural land such that it attains the same value and productivity as that of the project-affected land.

The net income from pre-project crop farming on affected land plots is calculated based on the extent of cultivation and corresponding yield (i.e., kilogram per hectare), for each type of crop, and the current local market price (i.e., UZS per kilogram) of each crop. The net income derived from each crop is multiplied by the transitional term of four years, to arrive at the compensation for the loss or reduction in agricultural income over this period. The total compensation combines the net income loss from each crop cultivated within a given affected land plot.

### 6.2.3 Valuation of livestock feed

The valuation of livestock feed that would be required in the absence of replacement pastoral land (i.e., in-kind compensation) is guided by the following pertinent laws:

- Decree of the Cabinet of Ministers of the Republic of Uzbekistan, (Decree of 25.05.2011 N 146),
- Decree of the Cabinet of Ministers of the Republic of Uzbekistan from 16.11.2019 N 911 and Decree Number 235.

The methodology aims to derive the full cost of purchasing livestock feed following the withdrawal of pastoral land for grazing and livestock rearing. The workings take into account the types and quantity of reared livestock, the fodder demand for each livestock category, and the pastoral yield of project-affected pastoral land parcels.

### 6.2.4 Valuation of buildings and fixtures

The valuation of residential and non-residential buildings and fixtures is based on procedures and methods specified in the following laws and regulations:

- Order of the Director of the State Assets Management Agency of the Republic of Uzbekistan (dated 28.12.2023, registration number: 3487, unified national standard of valuation and methodology of the Republic of Uzbekistan)
- Law of the Republic of Uzbekistan on Valuation Activity (Decree of 19.08.1999 N 811-I)
- Decree of the Cabinet of Ministers of the Republic of Uzbekistan from 16.11.2019 N 911 (dated June 29.2022)
- Law RK-781 on procedures for withdrawal of land plots for public needs as compensation

The method aims to establish the replacement cost of various buildings constructed on project-affected land plots. The valuation procedures take into account, inter alia, the types of construction materials, quantity of each, and the current market price of the materials within local markets.

To align the regulatory methodology with performance requirements of Project Lenders, depreciation was not factored into the compensation analysis, such that the valuation does not undercut the full replacement value of buildings on withdrawn land.

### 6.2.5 Valuation of standing perennial crops (trees)

The valuation of standing perennial crops (i.e., fruit and ornamental trees) was conducted in accordance with the following laws and regulations:

- Order of the Director of the State Assets Management Agency of the Republic of Uzbekistan (dated 28.12.2023, registration number: 3487, unified national standard of valuation and methodology of the Republic of Uzbekistan)
- Law of the Republic of Uzbekistan on Valuation Activity, (Decree of 19.08.1999 N 811-I). Decree of the Cabinet of Ministers of the Republic of Uzbekistan from 16.11.2019 N 911 dated June 29, 2022
- Law RK-781 on procedures for withdrawal of land plots for public needs as compensation

The valuation procedures and workings aim to establish the present value of standing trees. Parameters factored into the compensation include, inter alia, the number of trees (per crop type) in withdrawn land parcels, the maturity and yield of the trees, and the current price of crop yield (i.e., UZS per kilogram) within local markets. On this basis, the full replacement cost of irrecoverable trees on project-affected land is worked out.

## 6.3 Survey Process

### 6.3.1 Survey objectives

As outlined in Section 5.2, the asset inventory and valuation survey was conducted in parallel with the advanced LALRP census and socioeconomic survey. The survey was carried out sequentially, one project site at a time. In general, the PV power plant, sub-station, and BESS sites were surveyed earlier than the OTL corridors.

The objectives of the asset inventory survey include the following:

- To delineate and value land owned by PAPs on a freehold basis, to determine due compensation for permanent loss of residential land.
- To inventory and value all constructed (immovable) structures and fixtures on residential and non-residential land plots, to determine due compensation for loss of built assets attached to potentially withdrawn land.
- To delineate and inventory the cultivation of annual and perennial crops, to determine compensation for (i) standing perennial crops, and (ii) the loss of agricultural income from all cultivated crops during the intervening period leading up to the re-instatement of pre-project productivity on replacement land.
- To inventory livestock fed on potentially withdrawn pastoral land, by formal and/or informal land rights holders employed in herding and/or livestock rearing, to determine compensation for the loss of pastoral resources and associated income diminution.
- To inventory all employees that are subject to a loss of employment from substantial withdrawal of productive land and income-generating establishments, to determine transitional support prior to the absorption of severed workers into new jobs/ labour.



The overall purpose of the asset inventory and valuation survey was to establish compensation entitlements for all land rights holders that had access to residential and economically useful land parcels, prior to the start of land expropriation.

**Note:** The prior rounds of asset inventory and valuation surveys excluded specific valuation for permanent land-take associated with the establishment of OTL towers (pylons), as details on the tower design and locations were not established at the time of the survey. Nevertheless, provisional valuation and compensation entitlements were set for all privately held land parcels falling within the OTL impact corridor, based on land-take delineated for the HPZ, GSZ, and construction footprint.

### 6.3.2 Survey timeline

A cut-off date was established and publicized within affected communities ahead of the surveys. The cut-off date can be defined as that which marks the completion of asset inventory and valuation surveying within each project site. Any investments into project-affected land parcels past the cut-off date will not qualify for additional valuation and due compensation. The cut-off date establishment is a precautionary measure which seeks to ensure the following:

- To prevent opportunistic land developments by pre-existing land users, which may be undertaken to inflate compensation entitlements.
- To prevent opportunistic land developments by informal entities that did not have any access to project-affected land prior to the start of land expropriation, for spurious compensation claims.

The durations and cut-off dates for survey rounds within different project sites (and corridors) were therefore issued to both PAPs identified through the initial census, and to the project-affected communities in their entirety. The announcement of the cut-off date within local communities was assisted by local makhalla leaders and the district-level khokimiyats.

**Note:** No moratoriums on crop farming were imposed in connection with the cut-off date, considering the lengthy intervening period between asset inventory and construction.

The asset inventory and valuation survey notices were provided to PAPs in form of official letters and, wherever possible, Telegram broadcasts by makhalla leaders. A two-week notice period was set, to allow PAPs reasonable time to make arrangements for participation in the survey. The following table provides an overview of the survey timelines and cut-off dates, by project site.

**Table 6-1 Duration and cut-off dates of asset inventory surveys by project site**

No.	PROJECT SITE	ASSET INVENTORY SURVEY PERIOD	CUT-OFF DATE
1	500 MW PV plant site	5 January – 6 January, 2024	7 January 2024
2	Nurobod sub-station site	2 September – 9 September 2023	10 September 2023
3	70-km OTL corridor (sam II)	31 October – 9 November 2023	10 November 2023
4	350-km OTL corridor	6 January – 20 April 2024	19 January – 30 April 2024
5	Khalq'a sub-station site	Ongoing	[TBA]
6	Karakul BESS and underground cable sites	N/A <sup>2</sup>	N/A

### 6.3.3 Survey procedures

The asset inventory and valuation survey was conducted by an expert team including expert valuers from a licensed service provider. Household heads and other designated representatives from all PAP categories were engaged in the survey.

The asset inventory surveys were conducted within the physical footprint of the project facilities. Surveys along the OTL corridor cover both the physical footprint, and the health and grid security setbacks as relevant.

### 6.3.4 Verification of LALRP entitlements

Prior to the final disclosure of LALRP packages to all PAPs and subsequent signature of bilateral compensation agreements, the Consultant will undertake a verification (asset inventory and valuation) survey, with the aim of verifying individual and collective entitlements of PAPs to

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<sup>2</sup> No private, affected landholdings and PAPs were identified as part of the LALRP census for the Karakul BESS, underground cable and access road sites

compensation and supplementary assistance (i.e., transitional support and livelihood restoration initiatives).

#### 6.3.4.1 Compensation

Following the completion of the on-site asset inventory survey rounds, an initial valuation analysis was carried out to determine the compensation due, in line with mandatory requirements.

An additional round of valuation was conducted subsequently, to bridge the gaps between mandatory compensation requirements and relevant standards stipulated by Project Lenders (i.e., EBRD PR 5, ADB SPS and IFC PS 5). Please refer to Sections 6.2 and 8.1 of this LALRP, for an overview of compensation entitlements incorporated on the basis lender-related compensation principles (i.e., eligibility criteria and valuation standards). The total sums for compulsory and conditional monetary compensation, which were established through the valuation analysis, are presented in Section 9.1 of this LALRP.

Following the completion of the valuation analysis, the LALRP survey team will organize verification (asset inventory and valuation) engagements, (by project site) with all surveyed PAPs, to enable a transparent review of the compensation entitlements with PAPs, prior to final disclosure of packages for subsequent compensation agreements, and the finalization of the LALRP for approval and endorsement by the Project Developer and Project Lenders respectively.

With regard to compensation entitlements, where PAPs contest the asset inventory and valuation results, the following remedial measures will be implemented, depending on the validity of the objections raised:

- In the event that a valid objection is raised on the basis of apparent valuation gaps and/or errors, a validation survey will be carried out on site, prior to the revision of valuation workings and relevant compensation entitlements.
- In the event that the objection raised is not valid (i.e., based on a misunderstanding or misinterpretation of applicable valuation and compensation criteria and parameters), the LALRP team will provide due clarification to address any such objections.

**Note:** The verification of asset survey results and review of compensation entitlements with PAPs will involve follow-up asset inventory and valuation surveys to quantify additional compensation entitlements for permanent land-take associated with the establishment of OTL towers along the impact corridor of the planned OTLs.

This aspect of valuation was not feasible at the time of previous asset inventory and valuation surveys, due to the pending detailed design of OTL facilities. The locations of the OTL towers, and land-take at each OTL tower location are anticipated to be available prior to the subsequent verification surveys.

#### **6.3.4.2 Supplementary assistance**

The verification-stage disclosure will further allow PAPs to provide feedback on entitlements related to transitional support and livelihood restoration initiatives. This set of LALRP entitlements will be revisited on a collective basis (i.e., through FGDs with relevant PAP groupings), wherever possible.

#### **6.3.4.3 Management of related grievances**

During the review and validation process, all additional requests and objections will be addressed during bilateral and collective meetings with PAPs.

PAPs will have the opportunity to lodge grievances where the remedial response is deemed unsatisfactory and subject to further corrective action. All such grievances will be investigated and redressed through a systematic process involving the Consultant's technical experts, Project Developer, and where necessary, the LALRP committee, in accordance with the Project's Grievance Redress Mechanism (GRM).

### **6.4 Final Disclosure of LALRP Aid Packages**

Following the verification of monetary compensation and transitional support entitlements, final disclosure of LALRP aid packages will be organized with PAPs, on an individual and collective basis, as relevant. This line of disclosure will be held within strategic Project Information Centres (PICs) in project-affected districts.

## 7 PHYSICAL AND ECONOMIC DISPLACEMENT

### 7.1 Overview of Impacts

#### 7.1.1 Physical displacement

The legal basis for eminent domain and the resettlement of any Project-Affected Persons (PAPs) with primary residential property in the project footprint includes the following:

- Permanent land-take for the operational footprint of project facilities, in furtherance of the Land Code, Presidential Resolution 208 and subsequent Land Allotment Order (LAO)
- Permanent restriction on residential buildings within the HPZ and SSZ of high-voltage overhead powerlines, to safeguard (i) public health and safety and (ii) grid utility assets, pursuant with the SanPin 0236-07 and Resolution No. 1050. The setback (lateral) buffers for 220kV and 500 kV OTLs measure 15 metres and 30 metres from the outermost OTL conductors line respectively

As narrated in Section 4.1.1 of this Plan, a series of siting and routing alternatives were taken into consideration over the course of feasibility and design studies. The avoidance of priority E&S receptors, including residential assets, was guided by early-stage E&S screenings for project alternatives. The screenings were based on rapid surveys within originally targeted sites, which involved field reconnaissance and cross-cutting consultations with key authorities (i.e., resident district khokimiyats etc.). The outcomes of the E&S screenings were incorporated into the iterative design process, and provisionally identified residential property was avoided accordingly.

Subsequent ESIA-stage and LALRP surveys confirmed the absence of any residential landholdings within the project sites and OTL corridors. The footprint of the PV power plant, sub-stations, BESS, dedicated access roads and OTLs overlap agricultural land, reserved land, and patches of forested land. None of the project facilities will therefore trigger any physical displacement.

#### 7.1.2 Economic displacement

The majority of project assets will be established within tracts of land originally designated agriculture, and the acquisition of requisite land potentially triggers economic displacement (i.e., permanent and/or temporary loss of assets and income earnings from withdrawn land and common resources). The legal basis for eminent domain and the consequent relocation of economically significant landholdings and land-use includes the following:

- Permanent land-take for the operational footprint of project facilities, in furtherance of the Land Code, Presidential Resolution 208 and subsequent Land Allotment Order (LAO)
- Permanent restrictions on trees and high-rise machinery within the SSZ of high-voltage overhead powerlines, to safeguard grid utility assets, pursuant with the Resolution No. 1050. The setback (lateral) buffers for 220kV and 500 kV OTLs measure 5 metres and 30 metres from the outermost OTL conductors respectively
- Temporary restriction of third-party access to construction areas within the project sites during construction, pursuant with the Land Code and Law No. 781

Across the regions of Samarkand, Jizzakh, Syrdarya and Tashkent, the project sites and corridors fall within land parcels that are almost exclusively used for agriculture. The project facilities within Bukhara region fall within undeveloped parcels of reserved and industrial land in Karakul District.

As narrated in Section 4.1.1 of this Plan, a series of siting and routing alternatives were taken into consideration over the course of feasibility and design studies. Design efforts to avoid priority E&S receptors, mainly high-value commercial farms, orchards, aquacultural farms and alluvial quarries, were guided by early-stage E&S screenings for project alternatives. The screenings were in themselves based on rapid surveys within originally targeted sites, which involved field reconnaissance and cross-cutting consultations with key authorities (i.e., resident district khokimiyats, Ministry of Mining etc.). The outcomes of the E&S screenings were incorporated into the iterative design process and provisionally identified, high-value livelihood and commercial assets were avoided to the extent feasible, taking into account overriding technical constraints. Due to fundamental technical constraints and the ubiquity of sensitive commercial establishments along the 70-km and 350-km OTL corridors, total avoidance was not achievable. The optimal OTL routes were selected on the basis of minimum relative impact on private property.





**Figure 7-1 Crop farm along the 350-km OTL corridor in Samarkand (top left), Syrdarya (bottom left), and grazing with the 500 MW PV plant site (right)**

The 350-km OTL corridor accounts for the majority of potentially displaced PAPs. Permanent economic displacement is notably limited to the PV power plant, sub-station, and BESS sites. While the majority of inventoried landholdings are involved in crop farming, the land-use in the PV power plant, sub-station and BESS sites is mostly livestock oriented.

In the absence of mitigation, the termination and restriction of access to agricultural land can lead to the impoverishment of affected households, considering the centrality of land-based livelihoods in the vast majority of project-affected communities, and the limited availability of high-yielding agricultural land in certain affected districts.

### 7.1.2.1 Crop farming

Little to no active crop farming was recorded within the PV power plant, sub-station, and BESS sites, due to the poor (saline, arid) quality of resident soils, absence of irrigation infrastructure, and a downtrend in regular precipitation. According to agricultural experts from the Samarkand region khokimiyat, targeted land parcels constitute some of the least productive agricultural land lots within the districts of Nurobod and Pastdargom.

Extensive land take which potentially defeats the economic viability of affected crop-farming establishments is categorized as total economic displacement, which requires the acquisition of replacement landholdings with equivalent or higher economic productivity. The less extensive but permanent restriction on the cultivation of certain trees and use of high-rise machinery within the GSZ of OTLs will undercut agricultural income from orchards and similar property. Likewise, small but permanent land-take for the establishment of OTL towers may curtail crop farming within small-scale cultivation establishments (such as dekhani and tomorka farms) disproportionately.

In addition, site clearance and restrictions on agriculture within the temporary construction footprint poses the potential for (i) long-term income losses from a material reduction in perennial cultivation, and/ or (ii) short term income losses from missed agricultural cycles for annual crops. Overall, economic impacts on project-affected entities involved in livestock production include the following:

- Diminution of income levels due to material reduction or total loss of landholdings established for commercial and subsistence cultivation
- Income losses associated with the removal of standing, perennial crops
- Losses from the demolition of immovable crop farming structures
- Expenses associated with the transportation of movable crop farm assets to replacement property
- Losses associated with work stoppage and disrupted agricultural cycles for annual crops, during construction

Potential impacts on relevant establishments along the OTL corridors are subject to review and confirmation, following the establishment of OTL tower locations and related micro-siting efforts.

### 7.1.2.2 Livestock farming and pastoralism

With regard to potentially affected herders, the withdrawal of pastoral land can intensify existing pressures on remnant pastures, as a large fraction of the resident population in Nurobod and Pastdargom capitalizes on herding and livestock farming, due to the relatively low agrarian potential of local land parcels. A chronically stiff competition for pastoral

resources can result in a non-sustainable exploitation of pastures, higher pricing of imported and locally grown fodder, and lower pastoral productivity. The pastoral yield of land utilized for seasonal grazing within Nurobod and Pastdargom District is notably poor, and livestock herds are therefore rotated across extensive landscapes within the reach of local herders.

Seasonal herders who are potentially impacted by the loss of access to usable grazing areas within the Nurobod sub-station and 500 MW PV plant sites are largely based in the communities of Saroy, Chortut, Sazagan, Olga and Chorvador. In this connection, several alternative pastoral areas were investigated over the course of LALRP-stage consultations with officials from the resident khokimiyat and SWID offices, and with representatives from local livestock breeding enterprises and affected communities.

Livestock watering sources were not identified within grazing areas in the Nurobod sub-station and 500 MW PV plant sites. A few immovable structures established for on-site herding, mainly fences and temporary shelters, are nonetheless present within the sites. Consultations with local herders seasonal grazing patterns and stock routes in and around the PV plant and the sub-station sites did not indicate the potential for severance of access to other pastoral sites during construction and operation, as a number of small community roads radiate from the main tracks located alongside the project sites.

Further, a number of other livestock farming enterprises are potentially impacted by permanent land-take for the establishment of the PV plant, sub-station, and OTL facilities, and/or land-use restrictions within temporary construction footprints. These include corporate livestock breeding businesses, some of which were notably idle at the time of the ESIA. Potential impacts on several aquaculture establishments along the 350-km OTL are subject to review and confirmation, following the establishment of OTL tower locations and related micro-siting efforts.

Overall, economic impacts on land-users involved in livestock production can be categorized as follows:

- Diminution of income due to material reduction or total loss of landholdings established for livestock farming
- Diminution of income from the reduction in usable grazing land and seasonal pastures
- Losses from the demolition of immovable livestock farming and/or herding structures within the project footprint
- Expenses associated with the transportation of movable livestock farming assets to replacement property or grazing areas

Potential impacts on relevant establishments along the OTL corridors are subject to review and confirmation, following the establishment of OTL tower locations and related micro-siting efforts.

### 7.1.2.3 General impacts

In the absence of mitigation, construction-phase and permanent restrictions on access to privately held agricultural land and informally designated communal pastures will undermine agricultural productivity and related earnings. Economically displaced PAPs with pre-existing socioeconomic vulnerability (e.g., disability, chronic illness, female or headship, informal tenure, and extreme poverty) are particularly prone to extreme hardship and destitution, given a substantially lower capacity to cope with economic shocks resulting from the loss of livelihood assets and associated income streams. Further, PAPs directly engaged in land-based livelihoods are inherently less resilient to the loss of productive landholdings.

Risk factors relevant to the re-establishment of impacted livelihoods to an equivalent or larger extent in relation to the PAP's pre-project income earning capacity and living standards include (but are not limited to) the following:

- Lack of timely compensation for the reinstatement of livelihood assets at full replacement value (e.g., demolished buildings, closed boreholes etc.)
- Provision of in-kind compensation (replacement property) with a lower productive potential or profitability, relative to that of withdrawn property, and/or unviable distance from PAP's residential locations
- Once-off disbursement of cash compensation without the delivery of basic financial management trainings to PAPs with land-based livelihoods, low-income background, little to no banking experience, and limited knowledge of real estate procurement and investment means to insure against financial dependency
- Lack of transitional support over the time period leading up to the restoration of prior income levels (e.g., relocation/ transportation assistance, capacity development trainings for pre-project or alternative livelihoods, credit facilities etc.).



## 7.2 Impacts by Site

The following sub-sections elaborate on land use and PAPs recorded within each project site and corridor.

**Note:** For the purposes of this analysis, the following coding system has been applied for PAP identification:

- **O-1, O-2, O-3** etc. – The O- prefix stands for formal and informal landowners and landholders, who have own property on affected land parcels.
- **H-1, H-2, H-3** etc. – The H- prefix stands for informal herders, who do not own any property on affected land parcels but use the land for grazing of livestock.
- **W-1, W-2, W-3** etc – The W- O- prefix stands for workers who are employed in farms located on affected land. These PAPs do not have ownership of any on-site assets, nor do they engage in informal herding.

### 7.2.1 Nurobod sub-station site

LALRP surveys within the site enumerated a total of three (3) PAPs. The following sub-sections describe the pre-project land-use and land tenure within affected locales, and the magnitude of potential livelihood impacts on all affected entities with an economic dependency on impacted land.

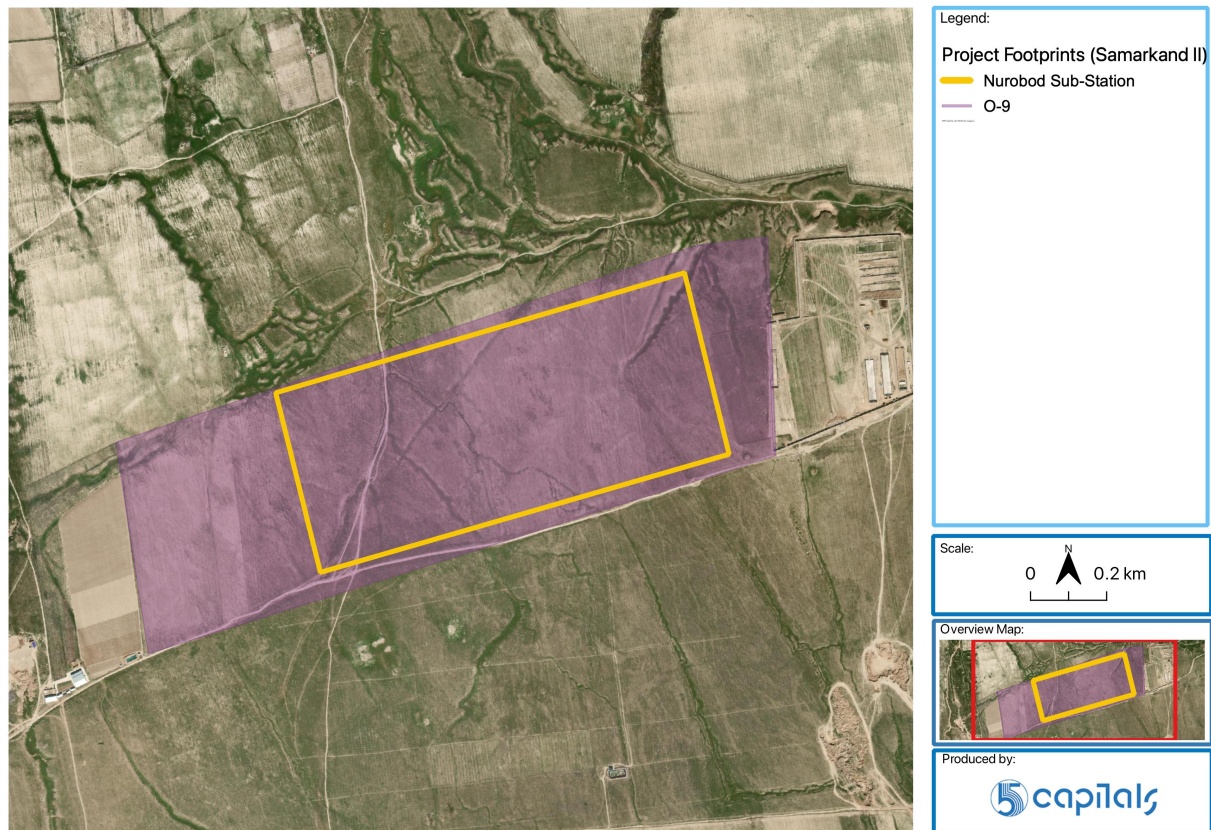
#### 7.2.1.1 Affected land users

##### FORMAL LAND USERS

The Nurobod sub-station site falls within one privately held land parcel.

The plot is held by a crop farming business registered as Charos Agro Uzumlari LLC, which entered into a 49-year Land Lease Agreement (LLA) with the Nurobod District Khokimiyat, in 2016. The leasehold was not fully effective at the time of the LALRP survey, as the land expropriation process had commenced following the issue of the Land Allotment Order by the Nurobod District Khokimiyat in July 2023.

The site entirely comprises fallow land, and the valuation surveys showed no evidence of cultivation over the past two years. The landholder stands to lose 55% of their land parcel.



**Figure 7-2 Formal landholdings within the Nurobod sub-station site**



## INFORMAL LAND USERS

Site surveillance and consultation with local community leaders in Saroy, Elbek and Dustlik MFY indicated that informal grazing is undertaken within the site, on a seasonal basis.

A total of two herders hired by residents in the nearby communities herd sheep and goats from March through November, depending on the availability of pastures within nearby grazing areas. Their annual earnings from paid herding ranges between UZS 2,6000,000 to 6,250,000 per month.

The herders confirmed that pastoral land within the site is a minor fraction of the overall grazing areas available to them, in and around the site.



**Figure 7-3 Fallow land and seasonal herding within the Nurobod sub-station site**

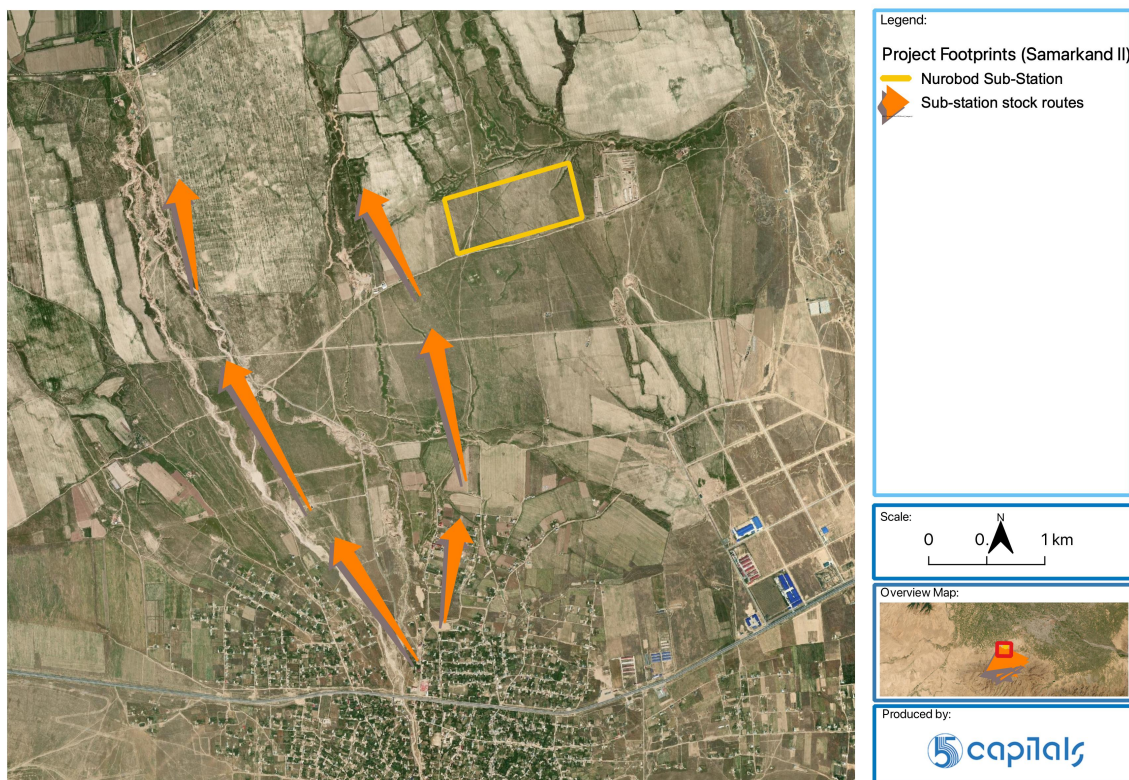
**Table 7-1 Magnitude of livelihood impacts for landholders associated with the Nurobod sub-station site**

No.	PAP CODE	MAKHALLA	ENTITY TYPE	LAND USE	TOTAL AREA OF AFFECTED PLOT (HA)	IMPACTED AREA OF AFFECTED PLOT (HA)	% LAND TAKE	LAND TENURE	DISPLACEMENT CATEGORY	IMPACT DURATION	AFFECTED CROPS	AFFECTED LIVESTOCK	AFFECTED STRUCTURES
1	<b>O-9</b>	Qushchinor	Limited company	Crop farming	101	54.5	55%	Formal leasehold	Economic displacement	Permanent	-	-	1
2	<b>H-14</b>	Saroy	Household	Herding			<20%	Informal use	Economic displacement	Permanent	-	350 sheep	-
3	<b>H-15</b>	Saroy	Household	Herding			<20%	Informal use	Economic displacement	Permanent	-	315 sheep, 23 cattle	-

## ACCESS SEVERANCE

According to FGDs with the affected herders, existing stock routes to and from the remaining grazing areas will not be severed by the establishment of the Nurobod sub-station. However, existing stock routes will deviate (westward) away from the project area.

Alternative stock routes connecting the remaining pastures to the herders' residential locations are depicted in the figures below.



**Figure 7-4 Stock routes for herding towards remaining pastures around the project site**

## 7.2.2 500 MW PV Plant

### 7.2.2.1 Affected land users

LALRP surveys within the site enumerated a total of 29 PAPs. The following sub-sections describe the pre-project land-use and land tenure within affected locales, and the magnitude of potential livelihood impacts on all categories of affected land rights holders.

#### FORMAL LAND USERS

A total of three (3) legally registered land parcels were identified within the site.

The plots are held by three landowners, who have entered into long-term leasehold agreements with the Nurobod Khokimiyat. The leasehold terms range between 30 and 49 years, and the LLAs were established between 2018 and 2022. The leaseholds were not fully effective at the time of the LALRP survey, as the land expropriation process had commenced following the issue of the Land Allotment Order by the Nurobod District Khokimiyat in July 2023.



**Figure 7-5 Livestock farm assets within the 500 MW PV plant site**

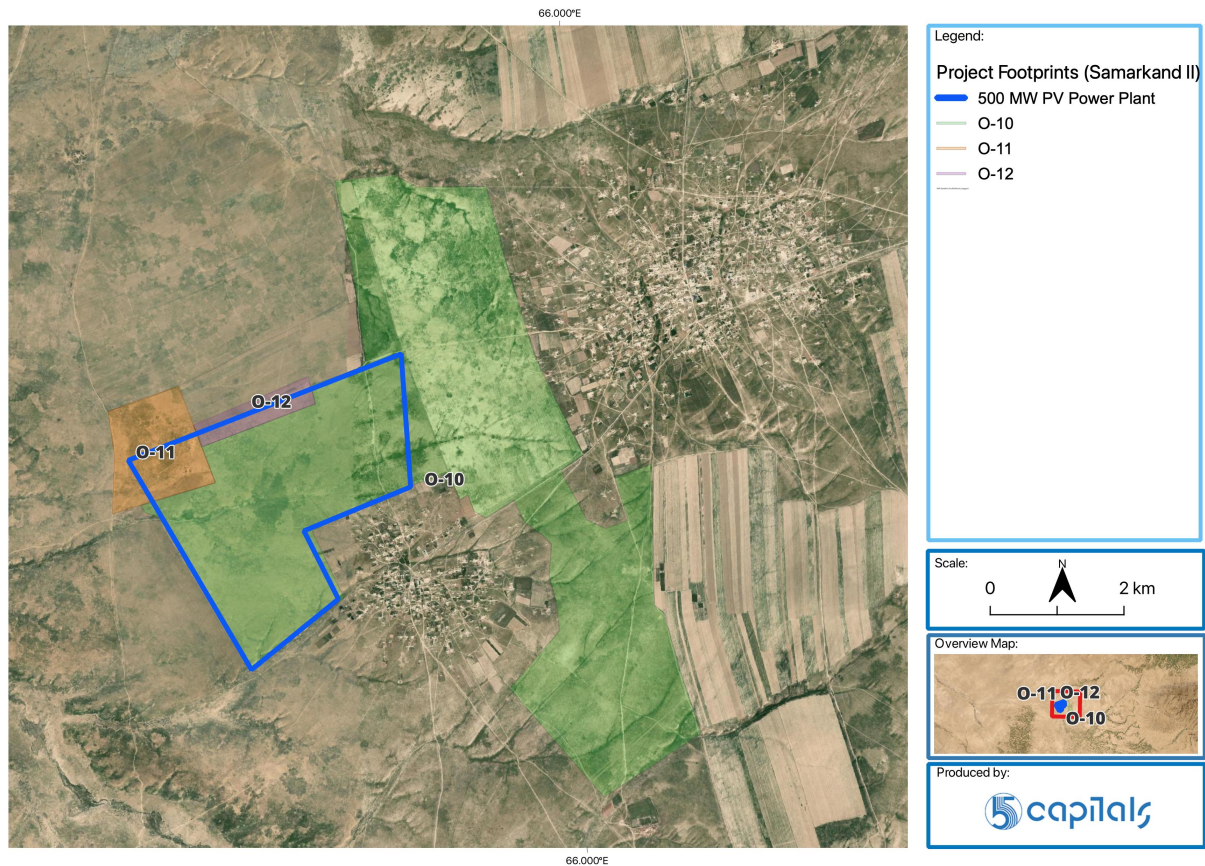
One of the landholders is a corporate entity involved in commercial livestock farming, whereas the remaining two landholders are small enterprises owned by two locally based households. Altogether, local establishments set up by these landholders are centred on the rearing of sheep for wool and meat harvesting. The expansive land parcels within the site are almost entirely undeveloped, with open range lands maintained for grazing. One of the parcels nevertheless includes a cluster of livestock farm structures including pens, sheds, wells, and watering chambers.

The PAPs stand to lose 32% to 57% of their landholdings within the location. The largest company reported having a pool of pastoral land parcels with a total area of 14,000 hectares.

Grazing and watering is carried out within an allocated zone, mostly between March and November. In the winter, herder households use stored hay, which is supplemented with home-grown and purchased fodder.

The herders have not developed any structures for their exclusive use within the project site.





**Figure 7-6 Formal landholdings within the 500 MW PV plant site**

#### INFORMAL LAND USERS

Furthermore, the largest land parcel registered under the commercial PAP O-10 is used by a total of 21 herders, based on a verbal (informal) sub-lease agreement.

The herders are based within the nearby communities of Olga and Chorvador, and deal in the rearing of sheep, goats and cattle for subsistence and profit. The herders pay an annual fee for using the land, at UZS 15,000 per livestock head. The fees are collected by the main herder, who transfers collective annual payments to the commercial entity who owns the land parcels (i.e., PAP O-10).

**Table 7-2 Magnitude of livelihood impacts for landholders associated with the 500 MW PV plant and pooling station sites**

No.	PAP CODE	MAKHALLA	ENTITY TYPE	LAND USE	TOTAL AREA OF AFFECTED PLOT (HA)	IMPACTED AREA OF AFFECTED PLOT (HA)	% LAND TAKE	LAND TENURE	DISPLACEMENT CATEGORY	IMPACT DURATION	AFFECTED CROPS	AFFECTED LIVESTOCK	AFFECTED STRUCTURES
1	O-10	Olga and Chorvador	Limited company	Livestock farming	2780	877	32%	Formal leasehold	Economic displacement	Permanent	-	750 sheep	-
2	O-11	Olga	Household	Livestock farming	200	76	38%	Formal leasehold	Economic displacement	Permanent	-	400 sheep	-
3	O-12	Olga	Household	Livestock farming	70	40	57%	Formal leasehold	Economic displacement	Permanent	-	250 sheep, 70 goats, 2 cattle	Sheds, pens, well, watering chambers, and fence
4	H-16	Chorvador	Household	Herding			80%	Informal use	Economic displacement	Permanent	-	28	-
5	H-17	Chorvador	Household	Herding			80%	Informal use	Economic displacement	Permanent	-	20 sheep, 10 goats, 4 cattle	-
6	H-18	Chorvador	Household	Herding			80%	Informal use	Economic displacement	Permanent	-	N/A	-
7	H-19	Chorvador	Household	Herding			80%	Informal use	Economic displacement	Permanent	-	30 sheep, 20 goats	-
8	H-20	Chorvador	Household	Herding			80%	Informal use	Economic displacement	Permanent	-	30 sheep, 50 goats	-
9	H-21	Chorvador	Household	Herding			80%	Informal use	Economic displacement	Permanent	-	30 sheep, 50 goats	-



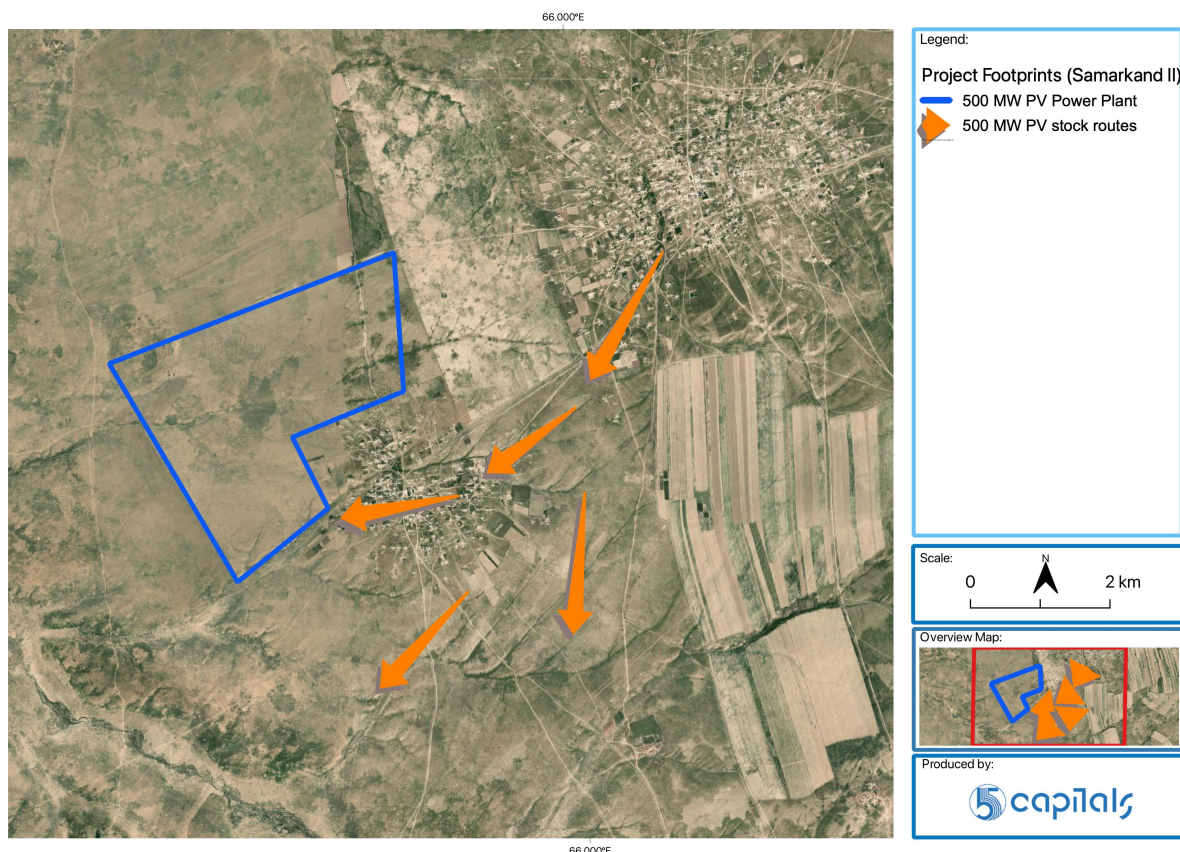
No.	PAP CODE	MAKHALLA	ENTITY TYPE	LAND USE	TOTAL AREA OF AFFECTED PLOT (HA)	IMPACTED AREA OF AFFECTED PLOT (HA)	% LAND TAKE	LAND TENURE	DISPLACEMENT CATEGORY	IMPACT DURATION	AFFECTED CROPS	AFFECTED LIVESTOCK	AFFECTED STRUCTURES
10	H-22	Chorvador	Household	Herding			80%	Informal use	Economic displacement	Permanent	-	15 sheep, 5 cattle	-
11	H-23	Chorvador	Household	Herding			80%	Informal use	Economic displacement	Permanent	-	100 sheep	-
12	H-24	Chorvador	Household	Herding			80%	Informal use	Economic displacement	Permanent	-	60 sheep, 55 cattle	-
13	H-25	Chorvador	Household	Herding			80%	Informal use	Economic displacement	Permanent	-	35 sheep, 10 cows	-
14	H-26	Chorvador	Household	Herding			80%	Informal use	Economic displacement	Permanent	-	N/A	-
15	H-27	Chorvador	Household	Herding			80%	Informal use	Economic displacement	Permanent	-	30 sheep, 1 cow	-
16	H-28	Chorvador	Household	Herding			80%	Informal use	Economic displacement	Permanent	-	1 cow	-
17	H-29	Chorvador	Household	Herding			80%	Informal use	Economic displacement	Permanent	-	N/A	-
18	H-30	Chorvador	Household	Herding			80%	Informal use	Economic displacement	Permanent	-	N/A	-
19	H-31	Chorvador	Household	Herding			80%	Informal use	Economic displacement	Permanent	-	70 sheep, 20 goats, 5 cattle	-
20	H-32	Chorvador	Household	Herding			80%	Informal use	Economic displacement	Permanent	-	20 sheep,	-

No.	PAP CODE	MAKHALLA	ENTITY TYPE	LAND USE	TOTAL AREA OF AFFECTED PLOT (HA)	IMPACTED AREA OF AFFECTED PLOT (HA)	% LAND TAKE	LAND TENURE	DISPLACEMENT CATEGORY	IMPACT DURATION	AFFECTED CROPS	AFFECTED LIVESTOCK	AFFECTED STRUCTURES
21	H-33	Chorvador	Household	Herding			80%	Informal use	Economic displacement	Permanent	-	3 goats, 2 cows	-
22	H-34	Chorvador	Household	Herding			80%	Informal use	Economic displacement	Permanent	-	100 sheep, 50 goats, 10 cattle	-
23	H-35	Chorvador	Household	Herding			80%	Informal use	Economic displacement	Permanent	-	50 sheep, 15 goats, 2 cattle	-
24	H-36	Chorvador	Household	Herding			80%	Informal use	Economic displacement	Permanent	-	400	-
												N/A	-

## ACCESS SEVERANCE

Focus Group Discussions (FGDs) with the affected herders indicated that the establishment of the PV power plant will result in the loss of the herders' main grazing area, and partially sever access to remnant pastures located West of the site. Herders will therefore have to range over longer distances to access leftover pastures East, South, and West of the site.

The stock routes leading towards the existing pastoral areas, including deviations that may be established following the development of the SPP projects are shown in the following figure.



**Figure 7-7 Stock routes for herding towards remaining pastures around the project site**

### 7.2.2.2 Affected workers

A total of five farm workers are employed in livestock rearing labour within the three potentially impacted land parcels held by the PAPs O-23, O-24, and O-25. The workers currently hold formal, open-ended labour agreements with the landholder.

The workers engage in farm work between March and October, earning an average monthly of UZS 3,000,000. Related labour involves grazing, watering, fodder purchase and storage, marketing of livestock, and other maintenance services including veterinary arrangements.

The LALRP surveys indicate that the workers do not stand to lose employment, as their employer (PAP O-23) will allocate an adjacent plot of leased land for continued grazing and other relevant labour. The establishments developed for the commercial livestock farm will continue to operate within the remnant piece of land outside of the project site.

**Table 7-3 Magnitude of livelihood impacts for workers associated with the 500 MW PV plant site**

NO.	PAP CODE	MAKHALLA	AFFECTED LIVELIHOOD	DURATION OF IMPACT	PAP CODE OF EMPLOYER	EMPLOYMENT MODE	PERIOD OF EMPLOYMENT	SEASONALITY	NUMBER OF JOBS
1	<b>W-15</b>	Chorvador	Livestock rearing	Permanent	O-23	Formal agreement	Unlimited	March – October	1
2	<b>W-16</b>	Chorvador	Livestock rearing	Permanent	O-23	Formal agreement	Unlimited	March – October	1
3	<b>W-17</b>	Chorvador	Livestock rearing	Permanent	O-23	Formal agreement	Unlimited	March – October	1
4	<b>W-18</b>	Olga	Livestock rearing	Permanent	O-25	Formal agreement	Unlimited	March – October	1
5	<b>W-19</b>	Olga	Livestock rearing	Permanent	O-24	Formal agreement	Unlimited	March – October	1

### 7.2.3 70-km OTL corridor

LALRP surveys along the OTL corridor enumerated a total of eighty (80) PAPs. The following sub-sections describe the pre-project land-use and land tenure within affected locales, and the magnitude of potential livelihood impacts on all categories of affected land rights holders.

#### 7.2.3.1 Affected land users

The 70-km OTL corridor stretches across an agricultural landscape comprising grassland and farm establishments. The impact corridor (OTL towers, GSZ and HPZ) traverses a total of 80 land plots, which belong to 80 different landowners. The landowners established formal leaseholds with the Nurobod District Khokimiyat between 2000 and 2023. Most of the leaseholds are based on long-term LLAs effective for 20 to 49 years.

Seven of the 80 PAPs are commercial entities dealing in crop and livestock farming, whereas 72 PAPs are households based in the communities of Olga, Chorvador, Jom, Sarikul, Ulus, Urtabuz, Sazagan, Yangiobod, Zarafshan, Oqsoy, Parchachandir, and Dimishqi bola. One of the 80 landholders is the Nurobod District Khokimiyat (Ecology Department).

The majority of affected landholders engage in crop farming, mainly wheat production, with a minority of the PAPs cultivating apple trees and grapevines, which are clustered within orchards. A total of three landholders are commercial entities specializing in sheep and goat rearing for meat and wool production.

No built-up assets were recorded along the impact corridor.



**Figure 7-8 Fallow and cultivated land along the 70-km OTL corridor**



**Table 7-4 Magnitude of livelihood impacts associated with the 70-km OTL**

LIVELIHOOD IMPACT ASSESSMENT CRITERIA		NUMBER OF PAPs	% OF ALL PAPs
<b>Entity</b>	Private entity (i.e., household or company)	79	99
	Public (i.e., government or utility)	1	1
	Total	80	N/A
<b>Impact type<sup>3</sup></b>	Physical displacement	0	0
	Economic displacement	79	99
	Total	79	99
<b>Impacted land use</b>	Crop farming	77	96
	Livestock farming and/or herding	3	4
	Mixed – Crop and livestock farming	0	0
	‘Other’ commercial establishment	0	0
	Residential establishment	0	0
	Governmental establishment/ reserve	1	1
	Land	80	100
	Annual crops	76	95
	Perennial crops (trees)	3	4
	Structures (built assets)	0	0
<b>Impact duration</b>	Temporary (construction)	80	100
	Permanent (construction through operation)	[TBC]	[TBC]
<b>Temporary land-take</b>	More than 20% of total land plot area	0	0
	Less than 20% of total land plot area	80	100
<b>Permanent land-take</b>	More than 20% of total land plot area	0	0
	Less than 20% of total land plot area	80	100
<b>Land tenure of PAPs (private entities only)</b>	Formal – Agricultural leasehold	79	99
	Formal – Governmental order	1	1
	Formal – Title deed	0	0
	Formal – Tenancy contract	0	0
	Informal – No legal rights	0	0

### 7.2.3.2 Affected workers

As shown in Table 7-4 above, land-take across the impact corridor does not exceed 20% of the total area of each privately held, affected land parcel. Further, potential livelihood impacts are largely limited to the construction phase, and very small areas of land will be expropriated for the installation of OTL towers on a permanent basis.

Taking the above into account, LALRP surveys involving affected landholders indicated that potential livelihood impacts will not result in the loss of labour and employment within existing

<sup>3</sup> For private or communal property only (i.e., excluding state assets)

agricultural establishments. Further, no manual labour was observed and reported at the time of the LALRP surveys.

#### 7.2.4 350-km OTL corridor

LALRP surveys along the OTL corridor enumerated a total of 637 PAPs. The following sub-sections describe the pre-project land-use and land tenure within affected locales, and the magnitude of potential livelihood impacts on all categories of affected land rights holders.

##### 7.2.4.1 Affected land users

The 350-km OTL corridor extends across a vast agricultural landscape, which largely comprises irrigated crop farms and orchards. The impact corridor (OTL towers, GSZ and HPZ) traverses a total of 630 land plots, which belong to 630 different landowners.

The landowners established formal leaseholds with their respective district khokimiyats between 1992 and 2023. Most of the leaseholds are based on long-term LLAs effective for 30 to 49 years. Of the 630 recorded landholders, only 5 are corporate entities. These medium to large enterprises are dedicated to crop and livestock production.

Nearly 90% of the landholders are involved in crop farming, with the remainder of landholdings distributed between livestock farming and governmental land reserves. Annual crops cultivated within potentially impacted farmland include wheat, barley, cotton, corn, alfalfa and paddy, whereas perennial cultivation is dominated by grapevines, apple, cherry and poplar trees. Livestock reared on farms along the impact belt include sheep, cattle and goats, with sheep accounting for the majority of livestock production.

Built up assets surveyed within the impact belt include fencing components (i.e., wire mesh and concrete pillars), wells, and a few livestock pens.



**Figure 7-9 Crop farming along the 350-km corridor**

**Table 7-5 Magnitude of livelihood impacts associated with the 350-km OTL**

LIVELIHOOD IMPACT ASSESSMENT CRITERIA		NUMBER OF PAPs	% OF ALL PAPs
<b>Entity</b>	Private entity (i.e., household or company)	617	97
	Public (i.e., government or utility)	20	3
	Total	637	N/A
<b>Impact type</b>	Physical displacement	0	0
	Economic displacement	617	97
<b>Impacted land use</b>	Crop farming	568	89
	Livestock farming and/or herding	15	2
	Fish farming	5	1
	Mixed – Crop and livestock farming	29	5
	'Other' commercial establishment	0	0
	Residential establishment	0	0
	Governmental establishment/ reserve	20	3
	Land	637	100
	Annual crops	471	75
	Perennial crops (trees)	97	15
<b>Impacted (immovable) assets</b>	Structures (built assets)	4	1
	Temporary (construction)	637	100
	Permanent (construction through operation)	TBC	TBC
<b>Impact duration</b>	More than 20% of total land plot area	0	0
	Less than 20% of total land plot area	637	100
<b>Temporary land-take</b>	More than 20% of total land plot area	TBC	TBC
	Less than 20% of total land plot area	TBC	TBC
<b>Permanent land-take<sup>4</sup></b>	More than 20% of total land plot area	TBC	TBC
	Less than 20% of total land plot area	TBC	TBC
<b>Land tenure of PAPs (private entities only)</b>	Formal – Agricultural leasehold	624	98
	Formal – Governmental order	13	2
	Formal – Title deed	0	0
	Formal – Tenancy contract	0	0
	Informal – No legal rights	0	0

#### 7.2.4.2 Affected workers

As shown in Table 7-5 above, land-take across most of the impact corridor does not exceed 20% of the total area of each privately held, affected land parcel. Further, potential livelihood impacts are largely limited to the construction phase, and very small areas of land will be expropriated for the installation of OTL towers on a permanent basis.

<sup>4</sup> For private or communal property only (i.e., excluding state assets).

Taking the above into account, LALRP surveys involving affected landholders indicated that potential livelihood impacts will not result in the loss of labour and employment within existing agricultural establishments. Further, no manual labour was observed and reported at the time of the LALRP surveys.

#### 7.2.5 Khalq'a sub-station site

[TBA]

#### 7.2.6 Karakul BESS and interconnection cable sites

Further to the findings of the ESIA-stage land-use assessment, an additional round of land-use investigation was completed as part of the LALRP census and asset inventory surveys, which involved KIs with cadastral, socioeconomic and agricultural departments of the Karakul district khokimiyat, FGDs with residents in the communities of Chekirchi, Khujalar, and Tinchlik, serial site surveillance visits, and final asset inventory surveys along the interconnection cable and access road impact corridors.

The LALRP-stage surveys confirmed the absence of any private land-use and assets within the Karakul BESS site, and along the BESS interconnection cable and access road, prior to the start of project-related land acquisition. Land within the BESS site falls within a vegetation reserve, while land strips along the access road corridor encompass the Right of Way (RoW) of the existing track and road segments. Further, impacted land strips along the interconnection cable route are mostly situated within an industrial zone, with a limited intersection with existing railway and highway RoWs.



**Figure 7-10 Sparse scrub cover within the Karakul BESS site (left) and existing track for access to the site (right)**

## 8 ENTITLEMENTS TO COMPENSATION AND SUPPLEMENTARY ASSISTANCE

Following feasibility studies, detailed design and the analysis of project alternatives, a number of land parcels have been designated for the Project, on the basis of technical, economic and E&S selection criteria.

The footprint of the Project's main, ancillary, and associated facilities will trigger economic displacement, due to the temporary occupation of private landholdings during construction, and/or permanent land-take for the operation of project facilities through legal expropriation protocols.

Pursuant to national legislation and DFI performance requirements relating to land access and involuntary resettlement, the Project Developer will ensure the implementation of mitigation and offset measures to abate livelihood impacts. These measures can be categorized as follows:

- **Compensation** for loss of privately held physical assets and legally recognized income streams, for the re-instatement of pre-project livelihood statuses.
- **Livelihood restoration initiatives**, for the re-instatement or enhancement of pre-project livelihood statuses, in addition to, or in the absence of, compensation.
- **Transitional support**, for short-term mitigation against immediate losses associated with physical and/or economic displacement.

### 8.1 Entitlements Framework

The applicability and scope of the above measures differs according to the magnitude of livelihood impacts and pre-existing tenure of the project-impacted landholdings and/or common resource property.

Accordingly, the entitlements matrix provided as Table 8-1 sets out the eligibility criteria for specific aids constituting the overarching compensation, livelihood restoration initiatives and transitional support measures.



**Table 8-1 Entitlement matrix for various PAP categories subject to loss of land access and related livelihood impacts**

SN	LIVELIHOOD OR LIVELIHOOD ASSET	LIVELIHOOD IMPACT	IMPACTED ENTITY	ENTITLEMENTS FOR IMPACT MITIGATION
1	Residential land	Permanent loss of access to residential land	Formal landholders (residence owners) with title deeds for freehold	<p><b>Compensation</b></p> <ul style="list-style-type: none"> <li>- <b>Option 1</b> – Monetary compensation for loss of residential land, based on the current price of land of equivalent or greater value within local markets.</li> <li>- <b>Option 2</b> – In-kind compensation, with replacement land of equivalent or greater value within local markets.</li> </ul> <p><b>Additional requirements</b></p> <ul style="list-style-type: none"> <li>- Provision of a written notice of land withdrawal at least six months prior to eviction.</li> <li>- Delivery of monetary compensation at full replacement value prior to eviction.</li> <li>- Disbursement of monetary compensation, including applicable taxes, to the registered bank accounts of PAPs.</li> <li>- Recourse to the judicial system (i.e., court of law) for appeals against the decision for land expropriation will not be obstructed.</li> </ul>
			Informal landholders (residence owners) without title deeds for freehold	Provision of a written notice of land withdrawal at least six months prior to eviction.
2	Cropland	Permanent loss of access to agricultural land for cultivation, and associated income losses	Formal landholders (crop farm owners) with lease agreements or	<p><b>Compensation</b></p> <p>Monetary compensation for loss of average annual net income (profit) from impacted agricultural production, for a transitional period of four years.</p>

SN	LIVELIHOOD OR LIVELIHOOD ASSET	LIVELIHOOD IMPACT	IMPACTED ENTITY	ENTITLEMENTS FOR IMPACT MITIGATION
			allocation orders for fixed-term leasehold	<p><b><u>Transitional support</u></b></p> <ul style="list-style-type: none"> <li>- Provision of pre-construction notices to allow crop harvesting prior to land clearance.</li> <li>- Recruitment in project labour.</li> </ul> <p><b><u>Livelihood restoration initiatives</u></b></p> <ul style="list-style-type: none"> <li>- Agronomy trainings – For crop farm owners that stand to lose more than 20% of their cultivated land holdings permanently.</li> <li>- Financial literacy and SME development trainings – For crop farm owners that stand to lose more than 20% of their cultivated land holdings permanently.</li> <li>- Post-construction land restoration.</li> </ul> <p><b><u>Additional requirements</u></b></p> <ul style="list-style-type: none"> <li>- Delivery of monetary compensation at full replacement value prior to land withdrawal.</li> <li>- Disbursement of monetary compensation, including applicable taxes, to the registered bank accounts of PAPs.</li> <li>- Recourse to the judicial system (i.e., court of law) for appeals against the decision for land expropriation will not be obstructed.</li> </ul>
			Informal landholders (crop farm owners) without fixed-term leasehold agreements or allocation orders	<p><b><u>Compensation</u></b></p> <p>Monetary compensation for loss of average annual net income (profit) from impacted agricultural production, for a transitional period of four years.</p> <p><b><u>Transitional support</u></b></p> <ul style="list-style-type: none"> <li>- Provision of pre-construction notices to allow crop harvesting prior to land clearance.</li> <li>- Recruitment in project labour.</li> </ul>

SN	LIVELIHOOD OR LIVELIHOOD ASSET	LIVELIHOOD IMPACT	IMPACTED ENTITY	ENTITLEMENTS FOR IMPACT MITIGATION
				<p><b><u>Livelihood restoration initiatives</u></b></p> <ul style="list-style-type: none"> <li>- Agronomy trainings – For crop farm owners that stand to lose more than 20% of their cultivated land holdings permanently.</li> <li>- Financial literacy and SME development trainings – For crop farm owners that stand to lose more than 20% of their cultivated land holdings permanently.</li> <li>- Post-construction land restoration.</li> </ul> <p><b><u>Additional requirements</u></b></p> <ul style="list-style-type: none"> <li>- Delivery of monetary compensation at full replacement value prior to land withdrawal.</li> <li>- Disbursement of monetary compensation, including applicable taxes, to the registered bank accounts of PAPs.</li> </ul>
		<p><b>Temporary loss of access to agricultural land for cultivation, and associated income losses</b></p>	<p><b>All crop farmers</b> (formal and informal) with potentially impacted cropland</p>	<p><b><u>Compensation</u></b></p> <p>Monetary compensation for loss of average annual net income (profit) from impacted agricultural production, for the duration of agricultural disruption (i.e., maximum of one year for annual crops).</p> <p><b><u>Transitional support</u></b></p> <ul style="list-style-type: none"> <li>- Provision of pre-construction notices to allow crop harvesting prior to land clearance.</li> <li>- Recruitment in project labour.</li> </ul> <p><b><u>Additional requirements</u></b></p> <ul style="list-style-type: none"> <li>- Delivery of monetary compensation at full replacement value prior to land withdrawal.</li> <li>- Disbursement of monetary compensation, including applicable taxes, to the registered bank accounts of PAPs.</li> </ul>

SN	LIVELIHOOD OR LIVELIHOOD ASSET	LIVELIHOOD IMPACT	IMPACTED ENTITY	ENTITLEMENTS FOR IMPACT MITIGATION
3	Pastural land	Permanent loss of access to pastural land, and associated income losses	Formal landholders (cluster and livestock farm owners) with lease agreements or allocation orders for fixed-term leasehold	<p><b>Compensation</b></p> <p><b>Note:</b> SWID has the mandate to establish new land leaseholds, for alternative pastural land plots to which formal livestock farm enterprises must be relocated. No additional charges apply to the re-establishment of LLAs on remaining/ alternative pastural land under the ownership of SWID.</p> <p><b>Transitional support</b></p> <p>Reimbursement of moving expenses for relocation of livestock to distant livestock farming establishments.</p> <p><b>Additional requirements</b></p> <ul style="list-style-type: none"> <li>- Provision of a written notice of land withdrawal at least six months prior to site handover.</li> <li>- Recourse to the judicial system (i.e., court of law) for appeals against the decision for land expropriation will not be obstructed.</li> </ul>
			Informal landholders (informal herders) without fixed-term leasehold agreements or allocation orders	<p><b>Transitional support</b></p> <p>Recruitment in project labour.</p> <p><b>Livelihood restoration initiatives</b></p> <ul style="list-style-type: none"> <li>- For informal herders in the communities of Olga and Chorvador exclusively, a Pasture Management Program, which will include coordinated efforts to formalize herders' access to remnant pastural lands nearby affected communities, amongst other measures.</li> <li>- Livestock and poultry husbandry trainings.</li> <li>- Fodder recovery scheme for PV plant site maintenance.</li> <li>- Financial literacy and SME development trainings.</li> <li>- Agronomy trainings (upon request).</li> </ul>

SN	LIVELIHOOD OR LIVELIHOOD ASSET	LIVELIHOOD IMPACT	IMPACTED ENTITY	ENTITLEMENTS FOR IMPACT MITIGATION
		Temporary loss of access to pastoral land, and associated income losses	All livestock farmers and herders (formal and informal) with potentially impacted pastoral land	Post-construction land restoration.
4	Built assets	Loss of immovable built assets/ structures, and associated income losses	All landholders (formal and informal) with potentially impacted buildings/ structures	<p><b><u>Compensation</u></b> Monetary compensation for loss of built assets (structures), based on the current price of building materials within local markets and related expenses for re-construction.</p> <p><b><u>Transitional support</u></b> Disruption allowance amounting to 5% of the compensation for replacement of immovable built assets. This mandatory allowance will cover moving expenses associated with transfer of moveable assets and salvaged materials to replacement property, among other incidental expenditures.</p> <p><b><u>Additional requirements</u></b></p> <ul style="list-style-type: none"> <li>- Provision of a written notice of land withdrawal at least six months prior to eviction.</li> <li>- Delivery of monetary compensation at full replacement value prior to eviction.</li> <li>- Disbursement of monetary compensation, including applicable taxes, to the registered bank accounts of PAPs.</li> </ul>
5	Perennial crops	Loss of standing perennial crops (i.e., fruit and	All crop farmers (formal and informal) with	<b><u>Compensation</u></b>

SN	LIVELIHOOD OR LIVELIHOOD ASSET	LIVELIHOOD IMPACT	IMPACTED ENTITY	ENTITLEMENTS FOR IMPACT MITIGATION
		<b>ornamental trees), and associated income losses</b>	potentially impacted trees and/or orchards	<p>Monetary compensation for loss (felling) of standing trees, based on the number and maturity of fruit-bearing and ornamental trees and their projected value within local markets.</p> <p><b><u>Transitional support</u></b></p> <p>Disruption allowance amounting to 5% of the compensation for the replacement of felled trees. This mandatory allowance will cover moving expenses associated with transfer of salvaged remains (e.g., timber, fuel wood) to storage or market locations, among other incidental expenditures.</p> <p><b><u>Additional requirements</u></b></p> <ul style="list-style-type: none"> <li>- Delivery of monetary compensation at full replacement value prior to eviction.</li> <li>- Disbursement of monetary compensation, including applicable taxes, to the registered bank accounts of PAPs.</li> </ul>
6	Employment	<b>Loss of employment and associated income streams, due to permanent land take</b>	All retrenched workers within potentially impacted agricultural enterprises (i.e., crop and livestock farming establishments)	<p><b><u>Transitional support</u></b></p> <p>Monthly severance allowance equalling the national minimum wage, for a transitional period not exceeding 3 months.</p> <p><b><u>Additional requirements</u></b></p> <p>Disbursement of monetary compensation, including applicable taxes, to the registered bank accounts of PAPs.</p>
5	Income streams for vulnerable PAHs	<b>Destitution due to critical declines in income-earning capacity resulting from land-take</b>	All vulnerable project-affected households with potentially impacted residential,	<p><b><u>Transitional support</u></b></p> <p>Provision of a subsistence allowance equalling the national minimum wage, for a transitional period not exceeding 3 months.</p> <p><b><u>Additional requirements</u></b></p>



SN	LIVELIHOOD OR LIVELIHOOD ASSET	LIVELIHOOD IMPACT	IMPACTED ENTITY	ENTITLEMENTS FOR IMPACT MITIGATION
			agricultural or pastoral landholdings	<ul style="list-style-type: none"> <li>- Payments will be staggered at monthly intervals.</li> <li>- Disbursement of monetary compensation, including applicable taxes, to the registered bank accounts of PAPs.</li> </ul>

### 8.1.1 Compensation for loss of assets and income streams

As indicated in the LALRP Entitlements Matrix, various PAP categories are eligible for differential compensation for the loss of immovable assets and income streams resulting from land withdrawal and the disruption of pre-project livelihoods and living conditions.

**Note:** All compensation payments will be discharged prior to eviction or restriction of access to project-affected land, assets, and resources.

#### 8.1.1.1 Compensation for loss of agricultural land and associated income

Compensation for the permanent withdrawal of agricultural land with crop farming establishments will not include a reimbursement for the procurement of replacement land parcels, as all agricultural land in Uzbekistan is leased and not owned indefinitely. Nevertheless, due compensation covers the potential loss of agricultural net income over the transitional length of time leading up to the re-establishment of pre-project crop productivity on replacement land. As established in the legal framework of Uzbekistan, the transitional time required for the acquisition, survey and agricultural priming of new arable land plots is three years. Accordingly, PAPs will be compensated for a three years' loss of their average annual profit, in the intervening period.

Further, PAPs whose will lose access to their croplands on a temporary basis, during construction, are eligible to compensation equalling their average annual net income from pre-project crop farming. In this case, one year is taken as the maximum duration of interrupted agricultural cycles and related income earnings.

These compensation streams will be disbursed to PAPs with formal and informal tenure of crop farming land. As part of key transitional aids, the PAPs will be given a timely notice of land withdrawal to allow for pre-construction harvesting of ripe produce (see Section 8.1.2 below). Additional compensation for the clearance of any standing perennial crops within the temporary (construction-phase) and permanent footprint of the project facilities is described in Section 8.1.1.4.

This compensation stream will be discharged prior to the onset of access restrictions and intrusive construction activities.

### **8.1.1.2 Compensation for loss of pastoral land and associated income**

Livestock farm owners and herders that are subject to the permanent withdrawal of pastoral lands are not entitled to compensation for the loss of land as grazing land is leased or otherwise utilized informally, and not owned on a freehold basis. Nevertheless, these PAPs are eligible for assistance in procuring secure leaseholds for remnant (unaffected) or replacement pastoral land plots. For individual PAPs such as herders and small livestock farm owners, targeted assistance will seek to ensure the delivery of equally accessible replacement grazing land within a viable distance from the residential locations of herder households or livestock shelters of small livestock farming enterprises. Further information on supplementary livelihood restoration assistance for this set of PAPs is provided in Section 8.1.3 of this Plan.

This compensation stream, if applicable, will be discharged prior to the onset of access restrictions and intrusive construction activities.

### **8.1.1.3 Compensation for loss (demolition) of built assets**

All PAPs with built assets within the temporary (construction-phase) and permanent footprint of the project facilities are eligible for compensation for the investment losses and replacement cost relating to constructed structures which will be abandoned and demolished. The permanent of the Project's interconnection facilities (i.e., all OTLs) includes the Grid Security Zone (GSZ) and Health Protection Zone (HPZ), in which residential buildings are legally prohibited.

Compensation for buildings and structures subject to vacation and/or decommissioning is derived with a view to defraying the full cost of re-constructing these assets on replacement land, based on the current market pricing of related materials and incidental expenses associated with such re-establishment.

As noted in Section 8.1.2, transitional support to this end includes a proportionate add-on allowance, for the reimbursement of transportation expenses involved relocating salvaged materials and further relief from other inconveniences and incidental expenses related to the deconstruction of built assets. In addition, the resident district khokimiyats are obliged to issue a written notice of land withdrawal at least six months prior to demolition, to allow relevant PAPs time for due preparation. Both formal and informal landholders with potentially impacted structures are subject to pertinent compensation at full replacement cost.

This compensation stream will be discharged prior to the onset of access restrictions and intrusive construction activities.

#### 8.1.1.4 Compensation for loss (felling) of standing perennial crops (trees)

Where temporary (construction-phase) or permanent is required for the Project, site preparation will require the clearance of fruit and ornamental trees within the direct project footprint. Further, the establishment of OTLs will introduce a GSZ, in which the cultivation of trees with a maximum height exceeding four metres is legally prohibited.

All PAPs with potentially impacted trees are entitled to compensation to cover the investment losses and replacement cost relating to standing trees, which will be felled on a temporary basis (for construction enabling) or permanently (for operational footprint). The compensation is derived based on the intrinsic value of trees, taking into account their quantity and level of maturity (productivity), with a view to defraying the cost of fresh cultivation and subsequent investments for restoring pre-project productivity of fruit-yielding trees. This compensation is payable to all PAPs with impacted trees, irrespective of the legitimacy of tenure of affected landholdings.

This compensation stream will be discharged prior to the onset of access restrictions and intrusive construction activities.

#### 8.1.2 Transitional support

Besides the compensation entitlements discussed in the sections above, the Project Developer will extend differential transitional support to various PAP categories. The objective of monetary and non-monetary transitional assistance is to provide for incidental, short-term income losses and latent expenses, which can be expected to occur following temporary and/or permanent restrictions on access to productive land and irrecoverable assets attached to withdrawn landholdings.

Table 8-2 provides an overview of transitional support measures that will be rendered for different PAP categories (beneficiaries) as relevant. These measures will be offered and delivered on a case-by-case/ ad-hoc basis, through continual engagement with PAPs prior to the start of construction, and for 6 months thereafter.

**Table 8-2 Overview of transitional support measures, relevant beneficiaries, and respective project sites**

No	TRANSITIONAL SUPPORT	DESCRIPTION	RELEVANT PAH CATEGORY	PROJECT SITES
1	<b>Monthly subsistence allowance</b>	<p>The Project Developer will provide a monthly subsistence allowance to disproportionately impacted PAHs, over a period of three months from the onset of temporary and/or permanent land withdrawal.</p> <p>The allowance will serve to strengthen the coping capacity of vulnerable PAHs over the transitional term in which the households will have to invest into replacement property and/or incur income losses from the stoppage of agricultural or commercial activity within withdrawn land parcels.</p> <p>Note: The value of the allowance will equal the national minimum wage.</p>	<ul style="list-style-type: none"> <li>Vulnerable project-affected households</li> </ul>	<ul style="list-style-type: none"> <li>All project sites</li> </ul>
2	<b>Monthly severance allowance</b>	<p>The Project Developer will deliver a monthly severance allowance for workers/ employees indirectly disadvantaged by the permanent withdrawal of privately held land.</p> <p>The allowance will serve to alleviate income losses over the transitional period in which relevant PAHs will have to seek new jobs.</p> <p>Note: The value of the allowance will equal the national minimum wage.</p>	<ul style="list-style-type: none"> <li>Formal and informal employees subject to permanent loss of employment on project-affected crop and livestock farms</li> </ul>	<ul style="list-style-type: none"> <li>500 MW PV plant site</li> </ul>
3	<b>Reimbursement of moving expenses for relocation of livestock to distant livestock farming establishments</b>	<p>The Project Developer will reimburse expenditures pertaining to the relocation of livestock from the project-affected livestock farm plots to new (replacement) land plots located a significant</p>	<ul style="list-style-type: none"> <li>Formal and informal livestock farm owners</li> <li>Informal herders</li> </ul>	<ul style="list-style-type: none"> <li>500 MW PV plant site</li> </ul>

NO	TRANSITIONAL SUPPORT	DESCRIPTION	RELEVANT PAH CATEGORY	PROJECT SITES
		distance away from the original livestock farm assets. The refunds will be issued on an ad-hoc basis, and according to payment sums documented in receipts.		
4	<b>Pre-construction notice for timely crop harvesting</b>	<p>The Project Developer will ensure that the EPC Contractor disseminates advance notices to all PAHs with project-affected affected crop farms, regarding the start dates for site handover, land clearance and construction.</p> <p>A notice period of at least two weeks will allow crop farmers to harvest annual crops or fruit produce within affected land, and thereby secure income from the last agricultural cycle leading up to construction.</p> <p>The EPC Contractor's Community Liaison Officers (CLOs) will collaborate with community leaders and district-level khokimiyats in creating comprehensive broadcasts for PAHs.</p>	<ul style="list-style-type: none"> <li>Formal and informal crop farm owners</li> </ul>	<ul style="list-style-type: none"> <li>All project sites</li> </ul>
5	<b>Project employment (i.e., recruitment for construction labour)</b>	<p>All PAHs subject to economic displacement will be given special consideration for employment in the Project's construction and operational labour. Community Liaison Officers (CLOs) under the Project Company and EPC Contractor will maintain regular contact with the PAHs, to (i) create awareness around qualification criteria and procedures for job application, and (ii) enable timely updates on potentially suitable employment opportunities, which may be of interest to members of the PAHs.</p>	<p>All project-affected households, particularly:</p> <ul style="list-style-type: none"> <li>All PAHs subject to permanent loss of land exceeding 50% of the original land plot</li> <li>All PAHs subject to permanent loss of employment on project-affected crop and livestock farms</li> </ul>	<ul style="list-style-type: none"> <li>500 MW PV plant site</li> <li>Nurobod sub-station</li> </ul>



No	TRANSITIONAL SUPPORT	DESCRIPTION	RELEVANT PAH CATEGORY	PROJECT SITES
		The recruitment of PAH members in project labour is anticipated to not only supplement household income over the transitional period but also deliver new occupational skills to augment and sustain wage-based livelihoods at the household level.		

### 8.1.3 Livelihood restoration initiatives

Beyond compensation for loss of assets and transitional support to directly impacted land rights holders, the Project Developer will implement livelihood restoration initiatives. This line of assistance includes long-term measures designed to reinstate and further enhance the income earning capacity of PAHs within pre-existing (project-affected) livelihoods and/or alternative income sources.

The livelihood development initiatives proposed as part of this LALRP are based on consultations with PAHs and local leadership within project-affected communities and wider districts. These initiatives are therefore tailored to the livelihood context and specific needs of the different PAH categories.

By default, PAHs will be offered livelihood restoration initiatives relevant to their respective project-impacted livelihoods. However, where PAHs opt to pursue alternative livelihoods within agriculture or general SME, livelihood restoration initiatives will be allocated on the basis of preference. This assistance will be provided over a period of two years, starting from the month of compensation payments.

The following matrix provides a summary description of the various planned livelihood restoration initiatives, and their target beneficiaries.

**Note:** The Project Developer will ensure best efforts to encourage female members of PAHs to participate in the livelihood restoration trainings, with a view to ensuring equitable capacity-building at the household level and higher returns from an increased economic involvement of female household members.

**Table 8-3 Livelihood restoration initiatives dedicated to various project-affected households and livelihoods**

NO	LIVELIHOOD RESTORATION INITIATIVES	DESCRIPTION	RELEVANT PAH CATEGORY	PROJECT SITES
1	<b>Livestock and poultry husbandry trainings</b>	<p>The Project Developer will engage a local expert for delivery of collective livestock and poultry husbandry trainings to relevant PAHs.</p> <p>The trainings will focus on strengthening capacity in livestock nutrition, breeding, and veterinary care for livestock (i.e., sheep, goats, cattle) and poultry, in the context of the local agricultural sector, value chains and markets.</p>	<ul style="list-style-type: none"> <li>Formal and informal small to medium livestock farm owners</li> <li>Informal herders</li> </ul>	<ul style="list-style-type: none"> <li>500 MW PV plant site</li> <li>Nurobod sub-station</li> </ul>
2	<b>Pasture Management Program</b>	<p>The Project Developer will partner with SWID, Nurobod District Khokimiyat and Samarkand Regional Khokimiyat in the development of a contextual pasture management program, to enable the sustainable use of remaining pastoral lands by PAHs seeking to maintain and reinstate herding and livestock rearing activities.</p> <p>The program will be centred on technical and/or financial assistance to enable the following:</p> <ul style="list-style-type: none"> <li>Formalization of communal herding through the establishment of leasehold contracts between informal herders and SWID, on remnant pastoral land around affected pastoral communities (for the communities of Olga and Chorvador exclusively)</li> </ul>	<ul style="list-style-type: none"> <li>Formal and informal small to medium livestock farm owners</li> <li>Informal herders</li> </ul>	<ul style="list-style-type: none"> <li>500 MW PV plant site</li> <li>Nurobod sub-station</li> </ul>

No	LIVELIHOOD RESTORATION INITIATIVES	DESCRIPTION	RELEVANT PAH CATEGORY	PROJECT SITES
		<ul style="list-style-type: none"> <li>Fertilization of remnant and alternative pastoral land parcels (for the communities of Olga and Chorvador exclusively)</li> <li>Development of communal fodder storage facilities and/or livestock watering points, on a needs/ ad-hoc basis (for the communities of Olga and Chorvador exclusively)</li> <li>Development of community roads for any convenient, new stock routes for accessing alternative/ remaining grazing land.</li> <li>Communal trainings in sustainable grazing systems, agroecology and weed management</li> </ul>		
3	<b>PV plant site maintenance program including a fodder recovery scheme</b>	The Project Company will seek to set-up a PV power plant site maintenance program, which will involve the recovery of fodder (i.e., biomass refuse) from landscaping operations by the O&M Company.	<ul style="list-style-type: none"> <li>Informal herders in Nurobod District</li> </ul>	<ul style="list-style-type: none"> <li>500 MW PV plant site</li> </ul>
3	<b>Agronomy trainings</b>	<p>The Project Developer will engage a local expert for delivery of collective agronomy trainings to relevant PAHs.</p> <p>The trainings will focus on strengthening capacity in soil fertilization, drought-resistant crop varieties, greenhouse farming and horticulture, in the context of the local agricultural sector, value chains and markets.</p>	<ul style="list-style-type: none"> <li>Formal and informal crop farm owners that stand to lose more than 20% of their cultivated land holdings permanently.</li> </ul>	<ul style="list-style-type: none"> <li>All project sites</li> </ul>

No	LIVELIHOOD RESTORATION INITIATIVES	DESCRIPTION	RELEVANT PAH CATEGORY	PROJECT SITES
6	<b>Financial literacy and SME development trainings</b>	<p>The Project Developer will engage a local expert for delivery of collective trainings in financial literacy and Small-to-Medium Enterprise (SME) development.</p> <p>As a minimum, relevant training modules will encompass the following:</p> <ul style="list-style-type: none"> <li>• Book-keeping fundamentals</li> <li>• Locally available budgeting, saving and credit facilities</li> <li>• Financial investment</li> <li>• Preparation of business plans</li> <li>• Entrepreneurship and business management principles</li> <li>• Business tax</li> </ul> <p>Financial literacy trainings will be delivered in advance of the disbursement of compensation payments to target PAHs, in efforts to (i) ensure that the PAHs have the capacity to manage the funds, and (ii) prevent the risk of short-term consumption for expenditures outside of targeted livelihood recovery investments.</p>	<ul style="list-style-type: none"> <li>• Formal and informal land users that stand to lose more than 20% of their cultivated land holdings permanently.</li> </ul>	<ul style="list-style-type: none"> <li>• All project sites</li> </ul>
8	<b>Post-construction land restoration</b>	<p>Where privately held land is withdrawn temporarily (for construction footprint), the Project Developer will ensure that the EPC Contractor undertakes the necessary site clean-up and rehabilitation activities to restore land conditions that are suitable</p>	<p>All PAHs that with temporary loss of access to land for crop farming, livestock farming, herding, or fish farming, due to the Project's construction footprint.</p>	<ul style="list-style-type: none"> <li>• 70-km OTL</li> <li>• 350-km OTL</li> </ul>

No	LIVELIHOOD RESTORATION INITIATIVES	DESCRIPTION	RELEVANT PAH CATEGORY	PROJECT SITES
		for crop farming, livestock rearing, herding and/or fish farming.		



## 8.2 Livelihood Restoration Preferences

The vast majority of surveyed PAPs with extensive land loss (i.e., exceeding 50%) and the remainder of affected landholders indicated a strong preference for monetary compensation, rather than in-kind compensation, due to the limited availability of replacement land upon demand, and/or small-scale land withdrawal.

Pastoral households in the communities of Olga and Chorvador are a potential exception, as some of the herders expressed reservations about the availability of replacement land and fodder production capacity for sustaining their primary pastoral income. These herders also understand that they are not eligible for land-based compensation due their informal, pre-project land tenure, according to national law. A like-for-like livelihood restoration strategy is therefore being prioritized for this set of PAPs.

## 8.3 Availability of Replacement Land

### 8.3.1 Arable land

Cumulative results from the LALRP survey analysis indicate that only one crop farming landholder will lose more than 50% of their cultivated land. Based on the LALRP-oriented stakeholder consultations conducted with the administrative offices of the project-affected regions and districts, replacement arable land for crop-farming leaseholds is not readily available, as the most productive land reserves have already been allotted to locally based crop farmers.

Nevertheless, remnant arable land plots within from government reserves and any additional lands released from voluntary termination of existing LLAs may become available for acquisition via on the online platform for agricultural land auctions (i.e., electronic auction system). At present, district and regional khokimiyats do not have the mandate to allocate arable land leaseholds to prospective lessees. Rather, all newly available arable land parcels are procured through the competitive, procedural online auction.

Once greenfield plots of arable land within government reserves are surveyed and valued for agricultural privatization, they are transferred to the auction platform, for an open (public) auction. Evaluation criteria for cropland leasehold bidders are based around previous agricultural performance, production assets, and creditworthiness. While the bid price is partially paid upfront, and the remainder is paid in instalments, bid payments are warranted and negotiated on a case-by-case basis. Oftentimes, winning bidders who meet the key

evaluation criteria are granted an exemption from settling the default starting price of secured land parcels, in instances where demand and competition is low.

Therefore, PAPs who stand to lose all or part of their arable landholdings due to expropriation (rather than temporary access restriction during construction) will be able to seek replacement agricultural land leaseholds via the auction system, with ongoing monitoring to identify suitable assets as they become available.

### 8.3.2 Pastoral land

Nationally, pastoral land is more available than arable land, particularly within zones situated further away from rivers and associated irrigation systems. Despite this abundance, pastoral land tracts are often remote and not entirely accessible to pastoral communities and households. Further, herding and livestock rearing on open or reachable rangelands is limited by the availability of enabling infrastructure, such as watering wells and herding shelters. Water points and stopover shelters are essential for livestock herding in hot and arid areas, and stock routes typically require at least one watering location within a 3-5 kilometres' distance. The pastoral yield of rangelands also varies considerably, depending on climatic and soil conditions, and the carrying capacity of grazing land is a key limitation for pastoral land use.

According to survey results available at the time of this assessment, a total of 24 pastoral PAPs are subject to pastoral land-take exceeding 50%, and 21 of these entities are households without legal rights to the land. The enterprises and herders are located in Nurobod District, Samarkand Region. According to consultations completed with the district's agricultural department and the SWID committee, replacement pastoral land in Nurobod District is in short supply, due to the limited extent of pastoral infrastructure developed to date. Most of the existing livestock pens, wells and fodder storage sheds are strategically located on land holdings leased by corporate livestock farms enterprises. Therefore, the relocation of formal livestock business establishments to suitable leftover pastoral land plots will necessitate the translocation and re-establishment of essential assets on replacement/ remaining land.

Informal, community-based herders, on the other hand, do not have any legitimate claims to existing or replacement pastoral land, and related assets. They are also not able to enter into direct leaseholds with SWID (i.e., national custodian of pastoral land) for infrastructural benefits, as they do not meet the criteria inherent in these leaseholds. Informal herders can only gain formal and secure access to pastoral land, through prospective, joint LLAs with corporate livestock breeding enterprises. Since corporate enterprises require adequate grazing land for their own operations, share-herding with community-based herders through sub-lease agreements does not serve the interests of these commercial entities, and any such agreements would need to be incentivized or arranged by SWID,

Furthermore, the cumulative pressure on remnant grazing land within a convenient and economically viable distance from pastoral communities may exceed the carrying capacity of this land. Overexploitation of the already disadvantaged land can render it completely barren, with consequent economic fallout within pastoral communities that rely on this land. At the time of this assessment, consultations with various stakeholders in Nurobod District were underway to confirm the availability of potentially viable pastoral land for the restoration of project-affected livelihoods and those of the informal herders in particular. While cadastral reviews and prior consultations indicate the presence of remaining pastoral land around the project sites, these grazing areas may not offer an equivalent or greater adequacy in terms of enabling infrastructure and soil fertility.

## 8.4 Compensation Payments

Monetary compensation and transitional support packages will be disbursed by bank transfer to the registered bank accounts of PAPs (i.e., beneficiaries from PAHs and corporate entities). As detailed in Section 8.1, compensation payments will be discharged prior to eviction or the start of restrictions on site access. Additionally, income tax and any other charges applicable to the transfer of compensation funds to the PAPs will be settled in full, at the time of the compensation disbursement.

All financial records pertaining to compensation payments (i.e., payment slips) will be archived for the purposes of internal monitoring and audits discussed in Section 0 of this Plan. Any grievances or claims related to outstanding compensation payments will be registered, investigated, and resolved through the Project's external (community) Grievance Redress Mechanism (GRM) outlined in Section 10.2.1.

## 8.5 Delivery of Supplementary Assistance

Supplementary assistance including transitional support and livelihood restoration initiatives discussed in Sections 8.1.2 and 8.1.3 of this Plan will be delivered according to the timeline presented in Section 12.

Monitoring and reporting related to the implementation of these measures will meet the requirements discussed in Section 0. Any grievances or claims related to the execution and outcomes of supplementary assistance will be registered, investigated, and resolved through the Project's external (community) Grievance Redress Mechanism (GRM).

## 9 BUDGET AND RESOURCES

This section provides an overview of the funding and staffing requirements for the implementation of the LALRP.

### 9.1 Implementation Budget

#### 9.1.1 Cost breakdown

The total budget for the implementation of the LALRP includes numerous direct costs and indirect expenses associated with the delivery of compensation, transitional support, and livelihood restoration initiatives.

Table 9-1 below provides an itemized budget for the project LALRP.

**Note:** The LALRP surveys were not complete at the time of this assessment. The LALRP budget will be provided as part of the updated LALRP.

**Table 9-1 LALRP implementation cost breakdown**

No.	LALRP COMPONENT	Cost (USD)
1	Compensation for the loss of non-residential built assets	[TBA]
2	Compensation for the loss of standing perennial crops (trees)	[TBA]
3	Compensation for the loss of agricultural income	[TBA]
4	Transitional support payments – Disruption allowances	[TBA]
5	Transitional support payments – Subsistence allowances	[TBA]
6	Transitional support payments – Severance allowances	[TBA]
7	Livelihood restoration initiatives	[TBA]
8	Management of LALRP implementation, including: <ul style="list-style-type: none"> <li>• Full-time CLOs</li> <li>• Consultancy services for livelihood restoration trainings</li> <li>• Consultancy services for independent E&amp;S monitoring</li> <li>• Consultancy services for completion audits consultancy)</li> </ul>	[TBA]
9	Contingency sum	[TBA]
<b>Total LALRP cost</b>		<b>[TBA]</b>

### 9.1.2 Contingency Sum

The LALRP delivery budget detailed in Section 9.1.1 above is provisional, considering the following current limitations and contingencies:

- Incomplete design of the planned OTL infrastructure.

Details regarding the physical footprint of the OTL towers (pylons), access roads and laydown areas were not available at the time of this assessment, due to the early status of relevant design.

- Potential livelihood impacts relating to accidental encroachment of private landholdings and property damage, during construction.

The Project's construction phase poses a number of risks related to property damage resulting from accidental encroachment of private crop land, degradation of fish farms, flood-related damage to crop farms due to construction-phase drainage works, roadkill from project traffic etc.

On this basis, a total sum of UZS [TBA] is additionally allocated towards the LALRP budget, to provide for the management of additional and contingent livelihood impacts, which cannot be definitively assessed at this stage.

The delivery of compensation, transitional support and livelihood restoration initiatives for livelihood impacts which are not covered in the current issue of the project LALRP will follow the principles and criteria set out in Section 8.1 of the LALRP.

## 9.2 Human Resources

The Project Company will establish an E&S department, which will undertake the development and implementation of the project Environmental and Social Management System (ESMS), for the duration of the Project.

The E&S department will include a team of specialists that will be responsible for the implementation of LALRP-related commitments. Relevant in-house staff will include:

- Project Company E&S Manager
- Project Company Community Liaison Officers (CLOs)

In addition, the Project's EPC Contractor will also set-up an internal E&S organization, which will include CLOs. While the EPC Contractor does not have any direct involvement in land acquisition and livelihood restoration, the Contractor's CLOs will support the LALRP delivery through the observation of eviction and construction timelines, and the management of any livelihood impacts associated with property damage during construction.

The Project Company will also engage independent consultants over the course of LALRP implementation, including:

- Specialized local consultant(s) for the provision of expert trainings constituting the livelihood restoration initiatives described in Section 8.1.3 of this Plan.
- The Lenders' Environmental and Social Advisor (LESA) designated for E&S monitoring post ESDD completion, which will include a focus on the progress and outcomes of LALRP.

Please refer to Section 11.1 for a comprehensive description of relevant roles and responsibilities.



## 10 STAKEHOLDER ENGAGEMENT

This section provides a summary narrative on stakeholder engagement in connection with the LALRP preparation. Further information on stakeholder engagement integrating into the project ESIA, and the forward, overall plan for stakeholder engagement (i.e., post completion of ESIA and LALRP) are provided in the project Stakeholder Engagement Plan (SEP).

### 10.1 Prior Stakeholder Engagement

Stakeholder engagement relating to land acquisition and the assessment of livelihood impacts was carried out progressively, during various engagements feeding into the mandatory EIA, ESIA and LALRP studies. The Table 10-1 provides an overview of stakeholder engagement undertaken by the time of this LALRP issue and the outcomes of relevant engagements.

**Table 10-1 Stakeholder engagement conducted to date in relation to the LALRP**

TARGET STAKEHOLDER	STAKEHOLDER ENGAGEMENT MODE	TIMEFRAME	AGENDA AND FEEDBACK
PAPs	Project leaflets	May 2023; November, 2023	<p><b>Subject:</b> Project information leaflets were issued to residents and leaders of project-affected communities to inform them about:</p> <ul style="list-style-type: none"> <li>• The project title, project developers, and project development objective.</li> <li>• Location of planned project facilities and land-take.</li> <li>• The project Grievance Redress Mechanism (GRM) process, and GRM contacts.</li> </ul>
	Correspondence letters	May 2023 – February 2024	<p><b>Subject:</b> LALRP survey notices were issued to PAPs identified through the initial LALRP census, to inform them about:</p> <ul style="list-style-type: none"> <li>• The project background, land expropriation process and purpose of the LALRP.</li> <li>• Upcoming LALRP surveys, including the advanced census, socioeconomic and asset inventory and valuation surveys.</li> <li>• The cut-off date for the LALRP surveys, and the assets inventory and valuation survey in particular.</li> </ul>
	LALRP census, socioeconomic, and asset inventory surveys	30 August 2023 – ongoing	<p><b>Agenda:</b> Request for information regarding the constitution, income level, and livelihoods of PAPs (households and medium to large corporate entities), as well as the inventory of affected assets and income streams for valuation purposes.</p> <p><b>General feedback:</b> The results of the LALRP surveys are presented in Section 5.4 and Section 7.2.</p>

TARGET STAKEHOLDER	STAKEHOLDER ENGAGEMENT MODE	TIMEFRAME	AGENDA AND FEEDBACK
	<b>Official announcements via Telegram broadcasts</b>	15 August 2023 – ongoing	<p><b>Agenda:</b></p> <p>LALRP survey notices were issued to PAPs and the wider project-affected communities, to notify them about:</p> <ul style="list-style-type: none"> <li>The upcoming LALRP census, socioeconomic and asset inventory surveys, in relation to project-related land expropriation.</li> <li>The cut-off date for the LALRP census and asset inventory surveys, which precludes compensation for any investments (or developments) on affected land past this time limit.</li> </ul>
<b>All project-affected communities</b> (detailed in Section 5.4.1)	<b>Project leaflets</b>  <b>Focus Group Discussions</b>  Focus groups including: <ul style="list-style-type: none"> <li>Men</li> <li>Women</li> <li>Informal herders</li> </ul>	May 2023; November, 2023  30 August 2023 – March 2024	<p><b>Subject:</b></p> <p>Project information leaflets were issued to residents and leaders of project-affected communities to inform them about:</p> <ul style="list-style-type: none"> <li>The project title, project developers, and project development objective.</li> <li>Location of planned project facilities and land-take.</li> <li>The project Grievance Redress Mechanism (GRM) process, and GRM contacts.</li> </ul> <p><b>Agenda:</b></p> <p>Request for information on project-affected livelihoods, informal land-use, socioeconomic context of local communities (i.e., demographic, access to social services, vulnerable groupings etc), and for project-related concerns and feedback.</p> <p><b>General feedback:</b></p> <ul style="list-style-type: none"> <li>Affected communities and PAPs provided general information regarding project-affected land-use (i.e., both formal and informal tenure), livelihoods, common resources (please refer to Section 7.1 for further details).</li> </ul>

TARGET STAKEHOLDER	STAKEHOLDER ENGAGEMENT MODE	TIMEFRAME	AGENDA AND FEEDBACK
			<ul style="list-style-type: none"> <li>Communities and PAPs provided general information regarding access to social services (please refer to Section 5.4 for further details).</li> <li>Representatives from all of the affected communities requested for project employment for men and women alike. Women can accept semi-skilled project work (i.e., cookery, cleaning, landscaping).</li> </ul> <p><b><u>Specific feedback from affected communities and PAP groupings:</u></b></p> <ul style="list-style-type: none"> <li>Resident women in Karakul district requested for entrepreneurial support for the establishment of vegetable and fruit drying workshops.</li> <li>Resident men and women in Nurobod district both requested for project assistance in revamping local infrastructure such as roads, existing OTLs.</li> <li>Resident women in the communities of Olga and Chorvador (Nurobod District) noted that some women are involved in seasonal herding within the project site, as a significant fraction of men have emigrated in search of better income earning opportunities.</li> <li>Herders resident in the communities of Olga and Chorvador (Nurobod District) noted that a large of their current grazing area will be permanently lost due to the project.</li> </ul> <p>These herders do not have formal tenure of the grazing land, however they contribute funds for informal, annual sub-lease agreements with one of the livestock farms with an official leaseholder.</p> <p>Due to the lack of arable land in these communities and the low-income status of most resident households, these PAHs expressed their concerns over the fate of their pastoral income sources, and noted that they require alternative grazing areas, or monetary compensation, to recover from the land loss.</p>

TARGET STAKEHOLDER	STAKEHOLDER ENGAGEMENT MODE	TIMEFRAME	AGENDA AND FEEDBACK
	Official announcements via Telegram broadcasts	15 August 2023 – ongoing	<p><b>Agenda:</b></p> <p>LALRP survey notices were issued to PAPs and the wider project-affected communities, to notify them about:</p> <ul style="list-style-type: none"> <li>The upcoming LALRP census, socioeconomic and asset inventory surveys, in relation to project-related land expropriation.</li> <li>The cut-off date for the LALRP census and asset inventory surveys, which precludes compensation for any investments (or developments) on affected land this time limit.</li> </ul>
Cadastral department of the Samarkand, Jizzakh, Syrdarya and Tashkent regional khokimiyats	Correspondence letters	June, 2023	<p><b>Subject:</b></p> <p>Request for information on development zones, land use and land ownership within the project sites and corridors, prior to the start of project-related land expropriation.</p> <p><b>Feedback:</b></p> <p>Prior to land expropriation, the vast majority of affected land parcels are privately held for crop farming and pastoral use, with the exception of a few parcels of reserved government land. The request for administrative boundaries and cadastral information was passed down to the relevant district khokimiyats.</p>
Cadastral departments of the Nurobod, Pastdargom, and Karakul district khokimiyats	Correspondence letters	June 2023  December, 2024	<p><b>Subject:</b></p> <p>Request for information on development zones, land use, and land tenure within the project sites and corridors.</p> <p><b>Feedback from Nurobod District:</b></p> <ul style="list-style-type: none"> <li>Affected land parcels lie within an agricultural zone.</li> </ul>

TARGET STAKEHOLDER	STAKEHOLDER ENGAGEMENT MODE	TIMEFRAME	AGENDA AND FEEDBACK
			<ul style="list-style-type: none"> <li>No residential land is located within the project sites and corridors.</li> <li>The list of entities with legal tenure of affected land and cadastral information on the boundaries of their affected land plots were provided.</li> </ul> <p><b><u>Feedback from Pastdargom District:</u></b></p> <ul style="list-style-type: none"> <li>In general, affected land parcels lie within an agricultural zone.</li> <li>An alternative route should be considered to avoid physical displacement within this area.</li> <li>The list of entities with legal tenure of affected land and cadastral information on the boundaries of their affected land plots were provided.</li> </ul> <p><b><u>Feedback from Karakul District:</u></b></p> <ul style="list-style-type: none"> <li>The BESS site lies within reserved (government-owned) land.</li> <li>The interconnection cable for the BESS lies partly within reserved land and in part within an industrial zone.</li> <li>Cadastral maps on landholders and landowners located nearby the BESS site, interconnection cable and access road were provided.</li> </ul>
<b>Nurobod District Khokimiyat</b>  Focal line departments including: <ul style="list-style-type: none"> <li>Cadastral department</li> <li>Agricultural department</li> </ul>	Key Informant Interviews	August, 2023	<p><b><u>Agenda:</u></b></p> <p>Request for information on local land-use, demographics, economy and livelihoods, unemployment rates, social services, morbidity, and cultural heritage/ resources, and the status of land expropriation.</p> <p><b><u>Feedback:</u></b></p>



TARGET STAKEHOLDER	STAKEHOLDER ENGAGEMENT MODE	TIMEFRAME	AGENDA AND FEEDBACK
<ul style="list-style-type: none"> <li>Makhalla/ socioeconomic department</li> <li>Women and domestic affairs department</li> </ul>			<ul style="list-style-type: none"> <li>Affected land tracts are largely used for grazing and livestock farming, and to a lesser extent, for crop farming (particularly along the planned OTL corridors).</li> <li>Arable land within the district amounts to 66,922 ha, however crop yields are very low due to absence of irrigation systems, soil aridity and salinity.</li> <li>Main cultivated crops include cotton, wheat, legumes, potatoes, tomatoes, corn, and alfalfa.</li> <li>The district has large areas of dry pastoral land (357,000 ha), which is mainly exploited for rearing sheep and goats, given the relatively low yield of some grazing lands.</li> <li>The least productive land has been earmarked for the Project, therefore no additional alternative project sites are being considered.</li> <li>Information on alternative grazing areas was provided.</li> <li>PAPs, particularly those with permanent and extensive land loss should be assisted through compensation.</li> <li>Socioeconomically vulnerable households are monitored and listed on three (Temir, Ayollar and Yoshlar) registers, for welfare assistance, which includes both monetary and material support.</li> <li>Formal employment in Nurobod District is notably low, and the Project is anticipated to undertake local recruitment, with priority consideration of local community candidates in semi-skilled labour.</li> <li>No burial sites are found within the project areas.</li> </ul>
<b>Pastdargom District Khokimiyat</b>  Focal line departments including:	<b>Key Informant Interviews</b>	<b>August, 2023</b>	<b>Agenda:</b> Request for information on local land-use, demographics, economy and livelihoods, unemployment rates, social services, morbidity, and cultural heritage/ resources, and the status of land expropriation.

TARGET STAKEHOLDER	STAKEHOLDER ENGAGEMENT MODE	TIMEFRAME	AGENDA AND FEEDBACK
<ul style="list-style-type: none"> <li>• Cadastral department</li> <li>• Agricultural department</li> <li>• Makhalla/ socioeconomic department</li> <li>• Women and domestic affairs department</li> </ul>			<p><b>Feedback:</b></p> <ul style="list-style-type: none"> <li>• Affected land tracts are largely used for crop farming, however a limited fraction of the land is used for livestock rearing, and mining.</li> <li>• Arable land within the district amounts to 45,000 ha, 90% of which is irrigated.</li> <li>• Agricultural produce mainly includes cotton and grain, with other produce including vegetables, corn, alfalfa, and grapes.</li> <li>• The area of pastoral land within the district totals 3,600 ha, and overall grazing within the district and project-affected communities is very limited.</li> <li>• Animal farming includes sheep and goats, and to a lesser extent cattle and poultry farming.</li> <li>• In terms of economic displacement, the least productive land has been earmarked for the Project, therefore no additional alternative project sites are being considered.</li> <li>• PAPs should be assisted through compensation.</li> <li>• Socioeconomically vulnerable households are monitored and listed on three (Temir, Ayollar and Yoshlar) registers, for welfare assistance, which includes both monetary and material support.</li> <li>• The Project is anticipated to provide employment opportunities, to alleviate unemployment rates.</li> <li>• No burial sites are found within the project areas.</li> </ul>
<p><b>Karakul District Khokimiyat</b></p> <p>Focal line departments including:</p>	Key Informant Interviews	December, 2023	<p><b>Agenda:</b></p> <p>Request for information on local land-use, demographics, economy and livelihoods, unemployment rates, social services, morbidity, and cultural heritage/ resources, and the status of land expropriation.</p>

TARGET STAKEHOLDER	STAKEHOLDER ENGAGEMENT MODE	TIMEFRAME	AGENDA AND FEEDBACK
<ul style="list-style-type: none"> <li>• Cadastral department</li> <li>• Agricultural department</li> <li>• Makhalla/ socioeconomic department</li> <li>• Women and domestic affairs department</li> </ul>			<p><b>Feedback:</b></p> <ul style="list-style-type: none"> <li>• No private land use exists within the Karakul BESS site and along the interconnection cable sites.</li> <li>• Most of the project area is situated within an industrial zone, which notably includes a developing Free Economic Zone (FEZ) East and South of the BESS area.</li> <li>• The BESS site was recently drawn into the district's forest reserve fund, in order to protect the resident Saxaul scrub, as part of a wider strategy to control the erosion of dessert soils.</li> <li>• The nearest three local communities are employed within formal labour related to industry, retail, and civil services.</li> <li>• Very limited agricultural activity occurs within the communities, mostly the cultivation of vegetables and certain fruit trees as well as livestock husbandry, on tomorka land.</li> <li>• Crop farming is situated around the existing irrigation canals, over 1 kilometre West of the BESS site, however the quantity and quality of local produce is limited due to the arid, saline soils.</li> <li>• No herding activity is present within the sites, and the vegetation within the BESS site is protected from any degradation.</li> <li>• Socioeconomically vulnerable households are monitored and listed on three (Temir, Ayollar and Yoshlar) registers, for welfare assistance, which includes both monetary and material support.</li> <li>• The Project is anticipated to provide employment opportunities, which can benefit men and women alike, as some of the existing employment opportunities are temporary (seasonal), others are based in very distant locations.</li> <li>• No burial sites are found within the project areas.</li> </ul>

TARGET STAKEHOLDER	STAKEHOLDER ENGAGEMENT MODE	TIMEFRAME	AGENDA AND FEEDBACK
<b>Other district khokimiyats</b> (detailed in Section 5.4.1)  Focal line departments including: <ul style="list-style-type: none"> <li>• Cadastral department</li> <li>• Agricultural department</li> <li>• Makhalla/ socioeconomic department</li> <li>• Women and domestic affairs department</li> </ul>	Key Informant Interviews	December 2023 – April 2024	<p><b>Agenda:</b> Request for information on local land-use, demographics, economy and livelihoods, unemployment rates, social services, morbidity, and cultural heritage/ resources, and the status of land expropriation.</p> <p><b>Feedback:</b></p> <ul style="list-style-type: none"> <li>• Affected land strips along the OTL corridors are largely used for crop farming.</li> <li>• Local production is predominantly based on the cultivation of cotton, wheat, barley, paddy, and a host of fruit trees.</li> <li>• A small number of fish farms are found within a section of the 350-km OTL corridor in Syrdarya region.</li> <li>• The agricultural expanse is well developed with an extensive system of irrigation canals and channels stemming from some six rivers, including the Zarafshan River and Syrdarya River.</li> <li>• PAPs should be assisted through compensation.</li> <li>• Socioeconomically vulnerable households are monitored and listed on three (Temir, Ayollar and Yoshlar) registers, for welfare assistance, which includes both monetary and material support.</li> <li>• General information of the employment of men, women, and youth within the project-affected districts was provided.</li> <li>• No burial sites are found within the project sites.</li> </ul>
<b>SWID Committee, Nurobod District</b>	Key Informant Interviews	December 2023; April 2024	<p><b>Agenda:</b> Request for information on land use and land tenure within project-affected land parcels controlled by SWID, within Nurobod District.</p> <p><b>Feedback:</b></p>

TARGET STAKEHOLDER	STAKEHOLDER ENGAGEMENT MODE	TIMEFRAME	AGENDA AND FEEDBACK
			<ul style="list-style-type: none"> <li>• Basic information on the extent of land parcels held by the SWID Committee was provided during the KII.</li> <li>• The Committee has a mandate to privatize and regulate the livestock breeding industry in Uzbekistan. The Committee is therefore a custodian of state-owned pastoral land.</li> <li>• Regulation involves allocating parcels of grazing land to corporate (legal) livestock farming companies, based on their breeding capacity (quantity of livestock). Formal livestock businesses are nationally important producers of high-quality meat, dairy and wool products.</li> <li>• Pastoral leaseholders pay an annual fee of UZS 15,000 per livestock head, in accordance with the Land Lease Agreements (LLAs). This is not a commercial (profit-oriented) arrangement, as this fully expended on tax and on the maintenance of any state-owned pastoral assets established on leased grazing lands (e.g., wells, pens, grazing shelters etc.).</li> <li>• The Committee does not establish LLAs with individual, community-based herders, as they do not meet the qualification criteria for direct pastoral LLAs. Nevertheless, on a goodwill basis, informal herders are not barred from using pastoral lands leased by corporate businesses opportunistically, on condition that the livestock quantity is kept minimal (subsistence-level).</li> <li>• The livestock farming company impacted by the project have been relocated to remaining pastoral land areas outside of the project sites.</li> <li>• Relocation of all affected pastoral entities is challenged by constraints such as a limited number of livestock watering wells (requisite minimum of 1 well every 3-5km), limited pastoral yield (carrying capacity) and distance from farmer or herder bases.</li> <li>• Compensation and livelihood restoration should include sustainable solutions.</li> </ul>

## 10.2 Forward Stakeholder Engagement

The following table provides an overview of subsequent stakeholder engagements in the context of the LALRP development and implementation.

**Table 10-2 Subsequent stakeholder engagement in relation to the LALRP**

TARGET STAKEHOLDER	STAKEHOLDER ENGAGEMENT MODE	TIMEFRAME	AGENDA AND FEEDBACK
<b>All PAPs except affected workers</b>	Verification (asset inventory and valuation) survey	May, 2024	Agenda: <ul style="list-style-type: none"> <li>For all PAPs, review and verification of the LALRP asset inventory and valuation survey results.</li> <li>For PAPs with OTL tower impacts, follow-up asset inventory (validation) on property within the pylon footprint.</li> </ul>
<b>All PAPs subject to permanent land-take exceeding 20%</b>	Verification FGDs  FGDs for focus groups including: <ul style="list-style-type: none"> <li>Affected crop farmers</li> <li>Affected livestock farmers</li> <li>Affected informal herders</li> </ul>	May, 2024	Agenda: Request for feedback regarding transitional support and livelihood restoration initiatives proposed in Sections 8.1.2 and 8.1.3 of this Plan.
<b>All PAPs</b>	Collective meetings for final disclosure	May/June, 2024	Agenda: Final disclosure of the LALRP aid packages for each PAP. Disclosure sessions will be convened within select PICs.
<b>District Khokimiyats</b> Focal line departments including: <ul style="list-style-type: none"> <li>Cadastral department</li> <li>Agricultural department</li> <li>Makhalla/ socioeconomic department</li> <li>Women and domestic affairs department</li> </ul>	Key Informant Interviews	May, 2024	Agenda: Request for feedback regarding transitional support and livelihood restoration initiatives proposed in Sections 8.1.2 and 8.1.3 of this Plan.



TARGET STAKEHOLDER	STAKEHOLDER ENGAGEMENT MODE	TIMEFRAME	AGENDA AND FEEDBACK
SWID Committee	Key Informant Interviews	May, 2024	Agenda: Request for feedback regarding transitional support and livelihood restoration initiatives proposed in Sections 8.1.2 and 8.1.3 of this Plan.

## 10.2.1 External Grievance Redress Mechanism

### 10.2.1.1 Objectives of the GRM

The Project's external Grievance Redress Mechanism (GRM) was established at the outset of the ESIA study, with the following key objectives:

- To enable the receipt of concerns and complaints regarding the Project's performance on the management of potential or ongoing E&S impacts, from to Project's third-party stakeholders (e.g., affected communities, PAPs, and authorities).
- To provide timely and responsive resolution for third-party E&S grievances, through corrective measures and/or remedial clarification through the provision of key project information.

### 10.2.1.2 Guiding principles

The GRM process involves the collection, investigation, and follow-up engagement with aggrieved parties for subsequent resolution. The system was structured based on the following key principles:

- **Community-oriented** – The system serves to address the needs and interests of the project-affected communities, and the familiarization of local communities with the GRM is an essential aspect of stakeholder engagement.
- **Risk-proportionate** – The capacity of the system is commensurate to the scale and severity of the Project's potential impacts.
- **Prompt** – The system is designed to resolve concerns and complaints as quickly as possible.
- **Understandable and transparent** – Grievance redressal is set to follow clear, standard, and documented procedures, which involve relevant parties and guarantee a remedial response that entails the disclosure of correct and meaningful information.
- **Consultative** – The platforms for grievance collection are designed to capture essential information for an effective resolution, which must be demonstrated through follow-up engagements and feedback requests.

- **Culturally appropriate** – The system involves multiple platforms for the delivery of grievances, and at least one female CLO is involved in the GRM. Grievances can be submitted in both Uzbek and Russian.
- **Readily accessible** – The system includes information channels, which are conveniently available to all sections of the project-affected communities. Grievances can be conveyed in both oral and written form.
- **Free of charge** – Using the system does not carry any service charges or expenses.
- **No retribution** – The system prohibits any acts of reprisal against third parties who issue grievances, and aggrieved parties are allowed the option to submit grievances anonymously.
- **No barriers to alternative remedies** – Where all tiers of remedial actions in the scheme of the project GRM fail to deliver a resolution that is satisfactory to the aggrieved party, recourse to external arbitration and/or the judicial system will not be impeded by any means.

### 10.2.1.3 Platforms for grievance issue

The GRM includes a range of channels for the receipt of grievances, which are meant to provide convenient GRM access to all sections of communities and stakeholders. These platforms include:

- Phone calls.
- Email correspondence.
- General consultation forums (i.e., KIs, FGDs, wider community meetings).
- During construction and operations, grievance boxes at project site entry points.
- During construction and operations, submission of grievance forms through in-person meetings with project CLOs or security personnel<sup>5</sup>.

### 10.2.1.4 Grievance management process

The grievance redressal process includes three tiers of management. If the grievance is not resolved upon the first resolution attempt, the grievance is escalated for a high-level review involving the Project Company's E&S Manager (as well as other top management representatives as relevant). In the event that resolution is not attained at this level, the grievance is issued to the designated LALRP Committee, for another round of joint review and deliberation. The final concerted course of remedial action or investigation report is then conveyed to the grievant.

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<sup>5</sup> Security personnel will receive the necessary induction for handling community grievances and assisting the completion of grievance forms (upon grievants' request).

In the unlikely event that the final redressal attempt fails to establish a resolution that is acceptable to the grievant, the grievant will be allowed to seek administrative or judicial recourse (i.e., outside of the project organization).

**Table 10-3 Overview of the GRM process**

ACTION	TIMELINE
Grievance is received/submitted.	-
<ul style="list-style-type: none"> <li>Grievance is logged.</li> <li>The grievant is contacted for acknowledgement of receipt and the response timeline is confirmed.</li> </ul>	Within 7 working days of grievance being submitted
<ul style="list-style-type: none"> <li>Grievance is investigated by the Consultant and Project Company's CLOs.</li> <li>A decision on remedial action is made.</li> </ul>	Within 14 working days of grievance being submitted*
<ul style="list-style-type: none"> <li>Proposed remedial action or due clarification is conveyed to grievant.</li> <li>Grievant is requested to provide feedback regarding the remedial action or clarification.</li> </ul> <p><b>Note:</b> The course of action below will be taken in the event that the grievant is not satisfied with the first response.</p>	Within 14 working days of grievance being submitted
<b>The following procedures will be followed in the event of negative feedback on first remedial response</b>	
<ul style="list-style-type: none"> <li>The grievant's feedback is recorded on the grievance register (i.e., reason for dissatisfaction).</li> <li>If the grievant has a request for an alternative solution, this request is noted as part of the feedback.</li> </ul>	Within 14 working days of grievance being submitted
<ul style="list-style-type: none"> <li>The grievance is revisited by the Consultant and Project Company's E&amp;S Manager.</li> <li>New proposed remedial action or final decision with additional</li> </ul>	Within 28 working days of grievance being submitted

ACTION	TIMELINE
clarification/ substantiation is internally prepared.	
<ul style="list-style-type: none"> <li>A new proposed solution or final decision with additional clarification/ substantiation conveyed to the grievant.</li> </ul> <p><b>Note:</b> The course of action below will be taken in the event that the grievant is not satisfied with the second response.</p>	Within 28 working days of grievance being submitted
<b>The following procedures will be followed in the event of negative feedback on second remedial response</b>	
The grievance and relevant investigation reports are submitted to the LALRP Committee for review.	Within 30 working days of grievance being submitted
A consensus on the proposed solution.	Within 40 working days of grievance being submitted
<p>Final decision is conveyed to grievant on concerted remedial measures.</p> <p><b>Note:</b> The course of action below will be taken in the event that the grievant is not satisfied with the third response.</p>	Within 40 working days of grievance being submitted
<b>The following procedures will be followed in the event of negative feedback on third remedial response</b>	
The grievant is informed about their liberty to pursue alternative recourse for the resolution of the outstanding grievance or claim, outside of the project organization.	-
*In the event that certain complexities result in protracted investigation and remedies, the Grievant will be informed of this delay and advised on the updated timeline to response.	

### 10.2.1.5 GRM points of contact

At the ESIA and LALRP development stage, the Consultant's designated Community Liaison Officers (CLOs) will support the Project Company in publicizing and implementing the GRM.

The Project Company will be notified about each grievance and involved in subsequent investigation to determine an appropriate remedial response. All grievances lodged by

project stakeholders (including PAPs) and related redressal procedures and outcomes will be documented in the Project's external (community) grievance register, which will be monitored by the Project Company.

Upon the completion of the ESIA and LALRP studies, the Project Company will take full charge of the external GRM. This handover will be publicized within the project-affected communities (through official announcements by local leadership and FGDs), and the communities will be familiarized with the Project Company's succeeding CLOs. New GRM contact information will be circulated via project leaflets and appropriate social media broadcasts. The Project Company's CLOs will also be inducted into their role in the LALRP Committee (please refer to Section 11.2).

**Table 10-4 Contact details for GRM points of contact**

COMPANY	CONTACT DETAILS
Project Company	Name: [TBA] Tel: [TBA] Email: [TBA]
EPC Contractor	Name: [TBA]
O&M Company	Tel: [TBA]

# 11 INSTITUTIONAL ARRANGEMENTS

## 11.1 Institutional Framework

This section describes the institutional set-up for the implementation of the LALRP.

While the Project Developer is overall responsible for the assessment, management and monitoring of livelihood impacts associated with the Project, a range of other entities have designated roles which should be fulfilled as part of the LALRP implementation.

Table 11-1 below identifies the LALRP implementing parties, with a non-exhaustive overview of their respective roles and responsibilities.

**Table 11-1 Institutional framework for the delivery of the LALRP and key roles and responsibilities**

ENTITY	LALRP ROLES AND RESPONSIBILITIES
<b>Project Developer (including Project Company/ Special Purpose Vehicle)</b>	<p>The Project Developer has a spearheading role in the development and implementation of the LALRP.</p> <p>On the Project Company level, responsibilities are mainly distributed between top management and technical staff dedicated to the LALRP.</p> <p><b>Chief Executive Officer of</b></p> <p>The PC/SPV CEO will serve an executive role in the implementation of the LALRP, in line with corporate and project-level E&amp;S policies. Relevant responsibilities include:</p> <ul style="list-style-type: none"> <li>• Execution of the Project Company's Land Lease Agreements (LLAs) with the Ministry of Energy and Regional Khokimiyats.</li> <li>• Oversight of corporate social responsibility engagements, including the management of livelihood risks and impacts through the implementation of the LALRP.</li> <li>• Allocation of sufficient resources for the implementation of the LALRP.</li> <li>• Coordinating with the Off-Taker (NEGU) for the implementation of LALRP safeguards related to the Project's associated facility (i.e., Khalq'a sub-station).</li> <li>• Signature of compensation agreements for PAPs entitled to compensation and other monetary assistance.</li> </ul> <p><b>E&amp;S Manager</b></p> <p>The E&amp;S Manager will be entrusted with the management of the Project Company's E&amp;S department, which includes in-house social specialists responsible for the implementation of the LALRP.</p>



ENTITY	LALRP ROLES AND RESPONSIBILITIES
	<p>This duty involves, among other responsibilities, technical oversight and support for the implementation of social safeguards in line with the project E&amp;S policy, ESIA, LALRP and ESAP, as well as the coordination of E&amp;S resources, throughout the Project's lifetime.</p> <ul style="list-style-type: none"> <li>• Disclosure of the LALRP reports within strategic public information centres in the project-affected communities, and on the Project Developer's official website.</li> <li>• Coordination with the Project Company's top management for the establishment of an E&amp;S team within the Project Company, which will include CLOs who will be directly involved in the implementation of the LALRP.</li> <li>• Coordination with the Project Company's top management for the recruitment of external experts required for the delivery of livelihood restoration initiatives for PAPs.</li> <li>• Coordination with the Project Company's top management for the engagement of Lenders' E&amp;S Advisor, for undertaking regular, independent monitoring of the LALRP and the final LALRP completion audit.</li> <li>• Institution of the project-level E&amp;S Policy, which will include a commitment towards the management of livelihood impacts in line with legal requirements and compliance obligations.</li> <li>• Development of the LALRP (i.e., through updates or addenda) over the course of the project implementation, in the event that additional assessment and mitigation is required for additional impacts, or inadequately mitigated impacts.</li> <li>• Coordination with the Project Company's financial department for the disbursement of tax-inclusive payments for monetary commitments specified in the LALRP (i.e., internal funding for compensation, transitional support, and livelihood restoration initiatives).</li> <li>• Coordination with the Project Company's Human Resource (HR) Department and the EPC Contractor's E&amp;S Manager to ensure the delivery of transitional support for PAPs through project employment.</li> <li>• Review of compensation agreements, in coordination with the Project Company's legal department.</li> <li>• Coordination with the Project Company's EPC Contractor to ensure the provision of construction updates to project-affected communities, and timely construction notices to PAPs.</li> <li>• Participation in site visits and stakeholder engagements integrating into internal and external E&amp;S monitoring related to the LALRP.</li> <li>• Review of regular internal E&amp;S monitoring reports, which will include information relating to livelihood impacts and the progress of relevant mitigation.</li> </ul>

ENTITY	LALRP ROLES AND RESPONSIBILITIES
	<ul style="list-style-type: none"> <li>• Maintaining an inventory of LALRP documents, internal E&amp;S monitoring reports and grievance registers.</li> <li>• Review of external (community) grievances in relation to land access and livelihood impacts, and oversight of remedial action, in coordination with the Project's EPC Contractor and NEGU, as relevant.</li> <li>• Management of Corrective Action Plans (CAPs) for any LALRP-related non-conformances during the project implementation.</li> </ul> <p><b>Community Liaison Officer</b></p> <p>Designated CLOs play a subordinate role in the execution of the LALRP, under the oversight of the E&amp;S Manager.</p> <ul style="list-style-type: none"> <li>• Development of the LALRP database, and the collection/ completion of contact and banking information for all PAPs registered in the LALRP census.</li> <li>• Preparation of any outstanding compensation agreements for PAPs.</li> <li>• Ensuring that a six-month eviction notice has been delivered to PAPs subject to physical displacement, and economic displacement involving the demolition of built assets.</li> <li>• Engagement with PAPs for the signature of bilateral compensation agreements between the PAPs and Project Company.</li> <li>• Monitoring of compensation and transitional support payments, and follow-up with PAPs to ensure compensation receipt, prior to eviction and/or site handover to the EPC Contractor.</li> <li>• Implementation of transitional support commitments and livelihood restoration initiatives, in collaboration with the EPC Contractor and expert consultants, as relevant.</li> <li>• Registration and management of LALRP-related grievances, as well as related record-keeping via grievance forms and the grievance register.</li> <li>• Preparation of internal E&amp;S monitoring reports, which will include information pertaining to LALRP implementation.</li> <li>• Implementation of CAP commitments.</li> </ul>
<b>Ministry of Energy; NEGU</b>	<p>As a third-party with principal involvement in the development of the Project, the Ministry of Energy and NEGU will deliver on the following responsibilities with regard to the LALRP implementation.</p> <ul style="list-style-type: none"> <li>• Review and approval of the detailed design of the Project's planned OTLs.</li> <li>• Initiation of land expropriation procedures where permanent land-take is required for the establishment of project facilities.</li> </ul>

ENTITY	LALRP ROLES AND RESPONSIBILITIES
	<ul style="list-style-type: none"> <li>• Signature of Land Lease Agreements (LLAs) with the Project Developer for the duration of the Project's construction and operational phases.</li> <li>• Enforcement of any regulatory land-use restrictions within the Grid Security Zone.</li> <li>• Implementation of LALRP commitments (i.e., compensation, transitional support, and livelihood restoration initiatives) pertaining to the Project's associated facility (i.e., Khalq'a sub-station), in line with the project LALRP.</li> <li>• Management of LALRP-related grievances pertaining to the Project's associated facilities.</li> </ul>
<b>EPC Contractor</b>	<p>While the EPC Contractor does not have a direct involvement in land acquisition for the Project's construction and operational phases, the EPC Contractor's E&amp;S department will fulfil the following responsibilities in relation to the LALRP.</p> <ul style="list-style-type: none"> <li>• Provision of a two-week notice ahead of land clearance within project sites, to allow for pre-construction harvesting by affected crop farmers.</li> <li>• Provision of a follow-up, two-week notice to PAPs subject to economic displacement involving the demolition of built assets, to allow for recovery of moveable assets and recovery of reusable materials after demolition.</li> <li>• Development of a Soil and Erosion Management Plan and Water Management Plan, to avoid accidental damage to private assets on land holdings nearby the project sites, during earthworks and drainage works.</li> <li>• Development of a Traffic Management Plan, to avoid accidental damage to private assets on land holdings nearby the project sites, the disruption of herding movements and roadkill involving local livestock.</li> <li>• Inspection of buildings within the Area of Influence of ground vibration impacts, for repairs of any damage attributable to project-related vibration.</li> <li>• Reporting any LALRP-related incidents (e.g., land-related community protests and work stoppage) to the Project Company.</li> <li>• Preparation of regular E&amp;S monitoring reports, which should include any impacts related to accidental property damage and related mitigation.</li> <li>• Site restoration following the completion of construction activities, to enable continued crop farming, grazing or fish farming within agricultural land within the Project's temporary (construction) footprint.</li> </ul>
<b>Samarkand Regional Khokimiyats</b>	<p>The regional khokimiyats are charged with land-use planning and the oversight of development within their respective jurisdictions.</p>

ENTITY	LALRP ROLES AND RESPONSIBILITIES
	<p>The regional administration of Samarkand, Jizzakh, Syrdarya and Tashkent will support the LALRP implementation in the following capacity:</p> <ul style="list-style-type: none"> <li>• Provision of high-level baseline information on the demographic and socioeconomic context of the project-affected districts and communities.</li> <li>• Coordination of the land expropriation process within the project-affected regions and districts.</li> <li>• Review and approval of the site-selection process as part of project design, to ensure minimum impact on high-value/ priority livelihood assets and development zones, in advance of project-related land expropriation.</li> <li>• Review and approval of Land Allotment Orders for the re-allocation of land parcels to the Project.</li> <li>• Signature of tripartite Land Lease Agreements (LLAs) for the Project Developer's use of designated project sites (i.e., PV power plant, BESS and OTL sites) during operation.</li> <li>• Provision of strategic commitment to the delivery of joint livelihood restoration initiatives.</li> <li>• High-level engagement in the resolution of LALRP-related grievances and land-take objections from PAPs.</li> </ul>
<b>State Assets Management Agency (SAMA)</b>	<p>The State Assets Management Agency (SAMA) is responsible for the administration of state assets, and the privatization of state-owned land in particular.</p> <p>The Agency does not have any direct obligations as far as the implementation of the LALRP, however, it is involved in the transfer of surveyed and valued land from government reserves to the electronic land auction system of Uzbekistan, to enable the establishment on new agricultural land leaseholds.</p> <p>SAMA will therefore serve an administrative role in provisioning replacement agricultural (arable) land through the online land market, in collaboration with the following key institutions:</p> <ul style="list-style-type: none"> <li>• Uzdaveroiyiha State Research and Design Institute</li> <li>• District khokimiyats</li> <li>• Chamber of State Cadastres of the Cadastre Agency</li> <li>• State Unitary Enterprise – Center for Organization of the Electronic Online Auctions</li> </ul>
<b>District Khokimiyats</b>	<p>The district khokimiyats are charged with land-use planning and the oversight of development projects within their respective jurisdictions.</p> <p>The district administration in each project-affected district will support the LALRP implementation in an administrative and advisory capacity, as detailed below:</p>

ENTITY	LALRP ROLES AND RESPONSIBILITIES
	<ul style="list-style-type: none"> <li>• Coordination of the land allocation and expropriation process within the project-affected regions and districts.</li> <li>• Assistance in the site-selection process constituting project design, to ensure minimum impact on high-value/ priority livelihood assets and development zones, in advance of project-related land expropriation.</li> <li>• Provision of cadastral information for the LALRP census, for the preliminary identification of project-affected landholdings and PAPs.</li> <li>• Provision of baseline information and statistics concerning the demography, livelihoods, income levels, social services, and socioeconomically vulnerable households within project-affected communities.</li> <li>• Provision of feedback regarding contextually appropriate livelihood restoration initiatives at the household and community levels.</li> <li>• Provision of contact information for legal landholders who are not readily reachable for LALRP surveys (including absent landholders).</li> <li>• Facilitation in convening Focus Group Discussions (FGDs) and other ad-hoc meetings related to the LALRP development and monitoring.</li> <li>• Termination of LLAs with legal landholders with rights to affected agricultural land parcels, through (i) issuance of notices of land expropriation, and (ii) approval of voluntary applications for the return of agricultural land to state-owned land reserves.</li> <li>• Signature of tripartite Land Lease Agreements (LLAs) for the Project Developer's use of designated project sites (i.e., PV power plant, BESS, and OTL sites) during operation.</li> <li>• Preparation and issue of Land Allotment Orders for the re-allocation of land parcels to the Project.</li> <li>• Assistance in the identification of socioeconomically vulnerable households for preferential recruitment in project-related employment.</li> <li>• Provision of welfare assistance for socioeconomically vulnerable households, women, and youth with project-affected communities (i.e., those listed on the Temir, Ayollar and Yoshlar registers).</li> <li>• Provision of strategic support in the delivery of joint livelihood restoration initiatives.</li> <li>• Enforcement of the Health Protection Zone (HPZ) of project facilities, in collaboration with the Sanitary Epidemiological and Public Health Service (SES).</li> <li>• Registration and issue of high-priority community grievances, through the project GRM.</li> <li>• Ad-hoc engagement in the resolution of LALRP-related grievances and land-take objections from PAPs.</li> <li>• Allocation of government land reserves for agricultural land use and leaseholds, through the electronic land auction system of Uzbekistan.</li> </ul>

ENTITY	LALRP ROLES AND RESPONSIBILITIES
<p><b>Makhalla (community) leadership</b> Including Makhalla chairpersons, Aksaqals, and Makhalla women's representatives</p>	<p>The local community leadership will maintain a supporting role in the following LALRP commitments:</p> <ul style="list-style-type: none"> <li>• Identification of land users potentially affected by land-take, particularly informal settlers, and land users (e.g., informal free-range herders).</li> <li>• Assistance in the identification of socioeconomically vulnerable households, as part of the initial LALRP census.</li> <li>• Community-wide announcement of cut-off dates for the LALRP census, socioeconomic and asset inventory surveys, prior to the start of the surveys.</li> <li>• Provision of feedback regarding contextually appropriate livelihood restoration initiatives at the household and community levels.</li> <li>• Provision of contact information for legal landholders who are not readily reachable for LALRP surveys (including absent landholders).</li> <li>• Facilitation in convening Focus Group Discussions (FGDs) and other ad-hoc meetings related to the LALRP development and monitoring.</li> <li>• Registration and issue of community grievances, through the project GRM.</li> <li>• Assistance in the announcement of project-related employment during construction, within project-affected communities.</li> <li>• Identification of vulnerable households, women, and youth with project-affected communities for relevant updates to the Temir, Ayollar and Yoshlar registers, and enrolment of such households into welfare assistance.</li> <li>• Engagement in E&amp;S monitoring pertaining to LALRP delivery.</li> </ul>
<p><b>LALRP Committee</b></p>	<p>Please refer to Section 11.2 below.</p>
<p><b>State Committee for Sericulture and Wool Industry Development (SWID)</b></p>	<p>SWID is a state committee which is responsible for the development of the sericulture and wool production sector in Uzbekistan. The Committee has a mandate to privatize and regulate the livestock breeding industry and is therefore a custodian of state-owned pastoral land.</p> <p>This regulation involves allocating parcels of grazing land to corporate (legal) livestock farming companies, based on their breeding capacity (quantity of livestock).</p> <p>As the Committee is entrusted with the administration of the country's pastoral land, it has a bearing the restoration of livestock-related livelihoods in terms of:</p> <ul style="list-style-type: none"> <li>• Support in the identification of legal leaseholders potentially impacted by the project-related expropriation of pastoral land.</li> </ul>



ENTITY	LALRP ROLES AND RESPONSIBILITIES
	<ul style="list-style-type: none"> <li>• Provision of feedback regarding the availability of replacement pastoral land for displaced livestock farmers and herders.</li> <li>• Strategic assistance in the formalization of grazing land-use by individual herders, through the establishment and renewal of land leasehold agreements with intermediate livestock farming companies operating on (or relocated to) alternative pastoral land parcels.</li> </ul>
<b>Independent E&amp;S Consultant</b>	<p><b>Project Developer's ESIA and LALRP Consultant</b></p> <p>The Project Developer has appointed an E&amp;S consultant for undertaking the project ESIA and LALRP, in line with mandatory requirements and compliance obligations tied to E&amp;S performance standards stipulated by the Project Lenders.</p> <ul style="list-style-type: none"> <li>• The Consultant is responsible for the conduct of LALRP-oriented data collection, expert valuation surveys, and the formulation of a responsive LALRP, to ensure the implementation of avoidance, mitigation and offset measures for livelihood impacts related to project-related land expropriation.</li> <li>• As part of the LALRP completion, the Consultant will undertake the disclosure of the LALRP compensation and assistance packages to the PAPs, for the PAPs' reference and feedback, in advance of subsequent compensation agreements.</li> <li>• Past the completion of the LALRP and its acceptance by the PAPs, Project Developer and Project Lenders at the ESDD stage, the Consultant will be tasked with providing updates or addenda to the project LALRP, for any additional impacts associated with project facilities which are not included in this LALRP.</li> <li>• The Consultant will also be primarily responsible for implementing stakeholder engagement and grievance management in relation to land-take and livelihood restoration, in line with the Project SEP, up to the time of the LALRP completion and acceptance. The Project Company's and EPC Contractor's E&amp;S staff will take over this task, upon the finalization of the LALRP.</li> </ul>
	<p><b>Local Consultant for Specialized Livelihood Restoration Trainings</b></p> <p>At the LALRP implementation stage, the Project Company will engage competent local consultants for the delivery of specialized trainings to PAPs, as part of the planned livelihood restoration initiatives. These trainings potentially include:</p> <ul style="list-style-type: none"> <li>• Financial literacy and SME start-up trainings.</li> <li>• Bespoke agronomy trainings.</li> <li>• Bespoke livestock husbandry trainings</li> </ul>

ENTITY	LALRP ROLES AND RESPONSIBILITIES
	<p><b>Lenders' Environmental and Social Advisor (LESA)</b></p> <p>External E&amp;S consultants (i.e., competent international and local companies) will be engaged for the following technical support in the capacity of LESA:</p> <ul style="list-style-type: none"> <li>• ESDD-stage review of the ESIA and LALRP, prior to public disclosure and subsequent finalization for implementation.</li> <li>• Independent monitoring the LALRP implementation outputs, outcomes, and impacts, post ESDD, which will involve the review of E&amp;S monitoring reports prepared by the Project Company and the EPC Contractor, and verification site visits.</li> <li>• Formulation of Corrective Action Plans (CAPs) for LALRP-related non-conformances, in coordination with the Project Lenders.</li> </ul> <p>Following the completion of the LALRP and related ESDD, independent E&amp;S monitoring will serve to ensure the success of mitigation commitments identified in the project ESIA and the LALRP.</p> <p>Any significant residual impacts on the livelihoods of project-affected households, reflected by a decline from pre-project livelihood status (e.g., critical failure of livelihood restoration, impoverishment, homelessness etc), will be addressed by Corrective Action Plans (CAPs) during the E&amp;S monitoring term.</p>
<p><b>Project Lenders</b></p>	<p>The Project Lenders will seek to ensure that the LALRP and its implementation effectively address significant, project-related livelihood impacts, in line with mandatory and the lenders' E&amp;S performance policies and standards. This oversight involves:</p> <ul style="list-style-type: none"> <li>• Review and endorsement of the project ESIA and LALRP, at the ESDD stage.</li> <li>• Ensuring online and community-based public disclosure of the LALRP documents, for any additional stakeholder feedback which may require updates to the LALRP prior to its implementation.</li> <li>• Review of Corrective Action Plans (CAPs) for any LALRP-related non-conformances, in coordination with the LESA.</li> </ul>

## 11.2 LALRP Committee

An LALRP Committee will be established to support the delivery of the project LALRP. The Committee will be established for PAPs associated with land expropriation within the PV power

plant, sub-station, and BESS sites exclusively, as extensive permanent land-take presenting the most significant livelihood impacts will be limited to these sites.

The LALRP Committee will be instituted on the basis of the following objectives:

- To support the investigation and verification of any future claims to LALRP compensation and supplementary assistance, from entities that which were not included in the LALRP census, socioeconomic and asset inventory surveys.
- To provide an additional line of LALRP implementation monitoring, in the interests of PAPs, to ensure that all compensation and supplementary assistance is executed in line with the LALRP program.
- To highlight any severe, residual livelihood impacts on project-affected households (particularly PAHs identified as vulnerable), over the course of LALRP implementation monitoring, to ensure urgent remedial livelihood restoration assistance.
- To provide advisory inputs to the enhancement of livelihood measures established in the LALRP, in the event of a critical failure to meet LALRP outcome targets.
- To support the resolution of LALRP-related grievances, as part of the Project's external GRM.
- To support the mediation or any LALRP-related social incidents during construction.

The LALRP committee will therefore function in an intermediary and advisory capacity, to ensure an effective implementation of LALRP safeguards.

The Committee will consist of the following key constituencies:

- At least one elected representative of PAHs with impacted grazing land.
- At least one elected representative of PAHs with impacted cropland.
- At least one representative of commercial entities (i.e., medium to large enterprises) with impacted agricultural assets (i.e., crop and/or livestock farms).
- Designated representatives from the district khokimiyats, and the focal departments dealing with agriculture, socioeconomic development, and women and domestic affairs.
- Designated representatives from local community (makhalla) leadership.
- One CLO from the Project Company.

The LALRP committee will be established upon the completion of the LALRP and its role will prevail for the entire duration of the LALRP implementation program.

## 12 IMPLEMENTATION SCHEDULE

The developing LALRP will be finalized and implemented to ensure that livelihood impacts resulting from project-related land expropriation are abated, such that the productivity, income earning capacity and general living standards of PAHs are improved to the extent feasible, or otherwise restored, in relation to the pre-project baseline.

The LALRP implementation entails the delivery of compensation and supplementary assistance, associated monitoring and evaluation, as well as the management of grievances related to displacement and livelihood restoration. A forward schedule for the implementation of these activities is presented in the Gantt chart overleaf.

**Table 12-1 LALRP implementation schedule**

LALRP Tasks	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
	2024									2025									2026						
Preparation of the LALRP																									
Review and approval of LALRP by project lenders																									
Online and community disclosure of LALRP and LALRP aid packages																									
Signing of individual compensation agreements																									
Payment of compensation to PAPs LALRP																									
Implementation Compliance Report																									
Implementation of Livelihood Restoration Initiatives																									
Submission of quarterly and annual monitoring reports to Project Lenders																									
Completion audit																									

## 13 MONITORING, EVALUATION AND REPORTING

Monitoring and Evaluation (M&E), and associated reporting, are an integral aspect of the LALRP implementation. The M&E system framed for the LALRP would serve to assess the progress and effectiveness of mitigation commitments developed to address the adverse livelihood impacts of project-induced displacement.

The overall goal of the LALRP measures (i.e., compensation and supplementary assistance) is to ensure that the economic status and living conditions of PAPs are restored, or ideally, improved, relative to baseline conditions. Household-level baseline socioeconomic information gathered over the course of the LALRP surveys provide a benchmark for subsequent M&E.

Upon the approval and public disclosure of the project LALRP, the Project Company will assume the overall responsibility for the institution of the M&E framework for the LALRP. The framework will consist of specific objectives, corresponding Key Performance Indicators (KPIs), time-bound targets, Means of Verification (MoV), reporting schedule, and entities involved in M&E arrangements. A preliminary M&E framework for the Project is presented in Table 13-1 overleaf.

Internal and external (independent) monitoring will be carried out over the course of LALRP implementation by the Project Company and the Lenders' Environmental and Social Advisor (LESA) respectively. LALRP monitoring and audit rounds will largely focus on pre-defined LALRP targets. Upon the completion of the LALRP, a final, completion audit will be undertaken by an independent E&S consultant, with a focus on LALRP outputs, outcomes and impacts altogether.



**Table 13-1 Provisional Monitoring and Evaluation (M&E) framework for the implementation of the LALRP**

KPI No.	KEY PERFORMANCE INDICATORS (KPIs)	TARGETS	TARGET TIMEFRAME	MEANS OF VERIFICATION (MOV)	M&E FREQUENCY	RESPONSIBILITY
1.	Number of full-time LALRP implementation staff	≥2	Continuously up to the completion of the LALRP	Project Company staff records; Monthly E&S Monitoring Report	Monthly	<ul style="list-style-type: none"> <li>Project Company</li> <li>Independent E&amp;S Consultant</li> <li>Project lenders</li> </ul>
2.	Percentage of PAHs that have received full compensation	100%	Before site handover to EPC Contractor	Project Company financial records; Monthly E&S Monitoring Report	Monthly	<ul style="list-style-type: none"> <li>Project Company</li> <li>Independent E&amp;S Consultant</li> <li>Project lenders</li> </ul>
3.	Percentage of PAHs that have received financial literacy trainings	100%	Before site handover to EPC Contractor	Timesheets of SME finance expert; Monthly E&S Monitoring Report	Monthly	<ul style="list-style-type: none"> <li>Project Company</li> <li>Independent E&amp;S Consultant</li> <li>Project lenders</li> </ul>
4.	Percentage of informal herders in Olga and Chorvador communities, who have secured a leasehold on alternative pastoral land	100%	6 months from start of construction	Minutes of meeting with SWID Committee and Nurobod District Khokimiyat; LDP progress report; Quarterly E&S Monitoring Report	Quarterly	<ul style="list-style-type: none"> <li>Project Company</li> <li>Independent E&amp;S Consultant</li> <li>Project lenders</li> </ul>
5.	Percentage of informal herders in Olga and Chorvador communities, who have received trainings in livestock husbandry and	100%	6 months from start of construction	Timesheets of livestock farming/ SME expert; LDP progress report; Quarterly E&S Monitoring Report	Quarterly	<ul style="list-style-type: none"> <li>Project Company</li> <li>Independent E&amp;S Consultant</li> <li>Project lenders</li> </ul>
6.	Percentage of female participants in Livelihood Restoration Initiatives	≥50%	Continuously up to completion of livelihood	Livelihood Restoration Initiatives progress/ mid-term report; Quarterly E&S Monitoring Report	Quarterly	<ul style="list-style-type: none"> <li>Project Company</li> <li>Independent E&amp;S Consultant</li> </ul>

			restoration initiatives			<ul style="list-style-type: none"><li>• Project lenders</li></ul>
7.	Percentage of grievances closed out (resolved) within the timeframe specified in the Grievance Redress Mechanism (GRM)	>90%	Continuously up to the completion of the LALRP program	Grievance logs; Monthly E&S Monitoring Report	Monthly	<ul style="list-style-type: none"><li>• Project Company</li><li>• Independent E&amp;S Consultant</li><li>• Project lenders</li></ul>
8.	Percentage of PAHs registered on the community Iron Registers six months after construction	<5%	Continuously up to completion of livelihood restoration initiatives	LDP progress report; Quarterly E&S Monitoring Report	Quarterly	<ul style="list-style-type: none"><li>• Project Company</li><li>• Independent E&amp;S Consultant</li><li>• Project lenders</li></ul>
9.	PAHs' satisfaction with transitional support and livelihood restoration initiatives	High	Upon the completion of the LALRP implementation	Completion Audit Report	Once-off; Upon completion of LALRP implementation	<ul style="list-style-type: none"><li>• Project Company</li><li>• Independent E&amp;S Consultant</li><li>• Project lenders</li></ul>
10	Household livelihoods, income status and living conditions have been improved, or restored, in relation to pre-project conditions.	100% of affected households agree	Upon the completion of the LALRP implementation	Completion Audit Report	Once-off; Upon completion of LALRP implementation	<ul style="list-style-type: none"><li>• Project Company</li><li>• Independent E&amp;S Consultant</li><li>• Project lenders</li></ul>

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## APPENDIX A – PRESIDENTIAL RESOLUTION FOR THE PROJECT

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## APPENDIX B – LAND ALLOTMENT ORDERS