Bukhara Road Network Improvement Project - Phase 2,
M37 National Highway Rehabilitation Project
The Asian Infrastructure Investment Bank Funded

TERMS OF REFERENCES
for Environmental and Social Impact Assessment (ESIA) and Paris Alignment and Climate Finance Assessment

1. Background

The Government of the Republic of Uzbekistan is preparing for a proposed investment loan from the Asian Infrastructure Investment Bank (AIIB) to finance the project " Bukhara Road Network Improvement Project, Phase 2, M37 National Highway Rehabilitation " The AIIB has provided a loan for project preparation in accordance with the General Procurement Notice issued on September 27, 2019. The Government of the Republic of Uzbekistan intends to use part of the loan funds for consulting services.

The Road Committee (RC) is the line authority for all motor vehicle roads in Republic of Uzbekistan and will be responsible for the management and implementation of the improvement of Bukhara Road Network, Phase 2, M37 National Highway Rehabilitation Project.

2. Project Description

The Project will rehabilitate about 158 km of the M37 highway. The M37 highway road branches off from Samarkand and extends through Navoiy and Bukhara, ultimately reaching the border with Turkmenistan. 158 km project road is planned to rehabilitate the road which crossed partially from Navoiy Region and mainly from Bukhara Region. The proposed project entails the enhancement of a 158 km segment of the M37 road, spanning from km 207 to km 365, right up to the Turkmenistan border. The existing road is a dual carriageway with 4 lanes, featuring asphalt pavement that ranges from fair to poor condition. To improve road condition and safety the road will be reconstructed and the missing link to complete the bypass of Bukhara will be constructed. The project road will be reconstructed as technical category IB road with 2 x 2 lanes and a design speed of 120 km/h. The typical cross-section parameters are as follows:

Traffic lane width:	4 x 3.75 m
Median width	2.60 m including 2 x 1 paved median
Shoulder width:	3.75 m including 0.75 m paved shoulder
Total road width:	25.10 m

To enhance road safety, grade separated interchanges and U-turn are considered as well as acceleration and decelerations lanes and implementation of collector roads for local population to restore the connectivity in residential areas. To facilitate design preparation and procurement of the works, the road has been subdivided into 5 distinct lots. The length of the Lots are as follows:

Road	Lot 1	Lot 2	Lot 2 (new addition)	Lot 3	Lot 4	Lot 5
Section	Km 207 – 249	Km 249 - 276		Km 276 - 311	Km 311 - 346	Km 346 - 365
Section length	42 km	27 km	4.9 km	35 km	35 km	19 km
Road category	IB	IB	IB	IB	IB	IB
No. of lanes*	2 x 2 (22km) 3 x 3 (20 km)	2 x 2	2 x 2	2 x 2	2 x 2	2 x 2
U-Turns	9	4	0	6	1	1
Interchanges	4	4	2	1	3	0
Railway overpass	0	0	0	0	1	0
No. of pedestrian underpasses	27	8	0	19	21	0
Pedestrian road	35,815	9,750	0	0,632	19,139	9,477

Additionally, there is high probability of replanting trees and low probability of land acquisitions, cutting trees. The Project Institute under Road Committee of Uzbekistan Republic is working on it in order to minimize or avoid E&S negative impacts.

3. Objectives of the Assignment

The objectives of the assignments are 2-fold:

Part 1: Preparation of an Environmental and Social Impact Assessment, and
Part 2. Carry out the Paris Alignment and Climate Finance Assessment

Under Part 1, an Environmental and Social Impact Assessment (ESIA) report will be developed under this assignment, accompanying with an Environmental and Social Management Plan (ESMP) and Stakeholder Engagement Plan (SEP) in line with AIIB's Environmental and Social Framework (ESF) requirements. The assignment shall also identify the possible resettlement and loss of livelihood issues that each sub-project and activity are likely to generate. A Resettlement Action Plan (RAP) will be prepared to prescribe the rules for securing land required by the Project and the resettlement of the project affected people (PAPs).

The overall objective of the ESIA is to provide inputs on potential adverse environmental and social impacts to the project design to enhance the benefits of the project, equally for men and women, youth and other vulnerable and disadvantaged groups, and to ensure that the adverse impacts associated with the construction and operation phases of the project on physical, biological, and human environment are avoided, minimized, mitigated or compensated. This process aims to integrate the environmental and social considerations into the project implementation procedures during all phases of the project. The assessment also aims to comply with the national and AIIB's ESF requirements and consistent with international good practice, as reflected in internationally recognized standards, such as the World Bank Group Environmental, Health and Safety Guidelines (EHSGs) with respect to environmental and social assessment and management.

The detailed tasks of this assignment are elaborated in the following section. The indicative structure of the ESIA is outlined in **Annexure A**.

Under Part 2, the Consultant will work closely with the AIIB Project Team (PT) to carry out the Paris Alignment and Climate finance assessment of the different project components included on the deal following AIIB's methodology. The consultant must evaluate:

i. The alignment of the project component with the mitigation goals of the Paris agreement following AIIB's 4-steps-methodology (BB1).
ii. The alignment of the project component with the adaptation goals of the Paris agreement following AIIB's 3-steps-methodology (BB2).
iii. The project possible qualification as Climate adaptation finance and the percentage of climate adaptation finance following the JMDB's common principles for climate adaptation finance and AIIB's latest proportional approach.
iv. The project possible qualification as Climate mitigation finance and the percentage of climate mitigation finance following the JMDB's common principles.
v. The Estimate of the GHG relative emissions of the project.

4. Uzbekistan Environmental Legislation

The rights and obligations of the citizens of Uzbekistan in the field of environmental protection and natural resources management are stipulated by Articles 50 and 55 of the Constitution of Uzbekistan. There are also more than 100 laws, about 50 Decrees of the President and Decrees of the Cabinet of Ministers of the Republic of Uzbekistan and other bylaws and standard documents, forming the environmental legislation of Uzbekistan.

Requirements of the Republic of Uzbekistan on environmental assessment

The environmental assessment (state ecological examination) is regulated by the laws of the Republic of Uzbekistan on nature protection, ecological examination, and other laws and legal acts. The specified documents establish the types of projects and activities which are subject to environmental assessment with the following categories:

Category 1 – high risk;
Category 2 – middle risk;
Category 3 – low risk;

Category 4 – local impact.

The national legislations call for the environmental assessment to include technical assessment, assessment of institutional set up, and development of the Environmental Management Plan.

5. AIIB Environmental and Social Framework

The Project has been **preliminarily classified as Category A** under AIIB's Environmental and Social Policy (ESP). It will require the application of Environmental and Social Standard (ESS) 1 – Environmental and Social Assessment and Management, and ESS 2 – Involuntary Resettlement (including land acquisition). ESS 3 – Indigenous Peoples is not applicable in the context of Uzbekistan; this should be briefly justified in the Environmental and Social Impact Assessment (ESIA). The Project is also subject to the provisions of AIIB's Environmental and Social Exclusion List and the Policy on the Project-affected People's Mechanism. The ESSs provide the mandatory environmental and social requirements applicable to the Project, as outlined below.

The ESS 1 aims to ensure the environmental and social soundness and sustainability of Projects and to support the integration of environmental and social considerations into the Project decision-making process and implementation. ESS 1 is applicable if the Project is likely to have adverse environmental and social risks and impacts. Reference should be made to the Environmental and Social Coverage provided under ESS1 in the ESF, while identifying the risks. The scope of the environmental and social assessment and management measures are proportional to the risks and impacts. Thereafter, effective mitigation and monitoring measures during the course of Project implementation are formulated. The ESS 1 defines the detailed requirements of the environmental and social assessment to be carried out for any project to be financed by the Bank.

The ESS 2 is applicable if the Project's screening process reveals that the Project would involve Involuntary Resettlement (including Involuntary Resettlement of the recent past or foreseeable future that is directly linked to the Project). Involuntary Resettlement covers physical displacement (relocation, loss of residential land or loss of shelter) and economic displacement (loss of land or access to land and natural resources; loss of assets or access to assets, income sources or means of livelihood) as a result of: (a) involuntary acquisition of land; or (b) involuntary restrictions on land use or on access to legally designated parks and protected areas. It covers all displacements whether they are full or partial, permanent or temporary. The ESS 2 defined detailed requirements of resettlement planning of the projects involving involuntary resettlement.

6. Key Tasks

Part 1: Preparation of an Environmental and Social Impact Assessment (ESIA)

Scope of ESIA. The ESIA will include assessment, management and monitoring of environmental and social risks and impacts of the Project-supported activities. It will be prepared in line with applicable legislation of the Republic of Uzbekistan and the ESF and ESSs of the Bank.

The scope of the ESIA and ESMP will be proportional to the risks and impacts of the Project. According to AIIB's ESP, the ESIA is required to have the following key elements/tasks:

a. description of the Project;
b. description of the applicable policies, procedures, and legislation of the Republic of Uzbekistan and AIIB ESP and ESSs;
c. scoping, including stakeholder identification and consultation plan;
d. analysis of alternatives, including the "without Project" situation;
e. analysis of associated facilities;
f. collection and analysis of environmental and social baseline data;
g. evaluation of environmental and social risks and impacts;
h. public consultation and information disclosure; and
i. development of mitigation, monitoring and management measures and actions in the form of an ESMP.

The details of the above key tasks are provided below.

Task 1: Description of Project. This task involves understanding the project (as described in Section 2) and its various components. Focus should be given to the components that potentially have environmental and social impacts in the project area, including but not limited to:

i) The proposed alignment and alternatives;
ii) Bridges crossing the rivers, irrigation canals, water bodies, and watercourses;
iii) Drainage design including box culverts, drains and detention ponds, etc.;
iv) Design of pedestrian corridor and crossings;
v) Design of interchanges;
vi) Link roads and access roads;
vii) Designed traffic flow and relevant traffic parameters;
viii) Construction camps: proposed locations, scale, and number of workers;
ix) Plans for water use and other construction materials during construction and operation & maintenance phases;
x) Batching or asphalt plants, borrow areas and disposal areas: proposed locations, scale and layouts;
xi) Construction methods, schedule and costs; and
xii) The operation and maintenance plan.

Close coordination with the RC and their design engineers should be maintained.

Task 2: Review of Country's Legal Framework and AIIB Environmental and Social Framework. Under this task, applicable national laws, regulations, standards and policies as well as international conventions will be reviewed, in terms of road construction and environmental protection, wildlife and climate, social and labor in Uzbekistan and Bukhara. It will be important to identify among others legal regulations of Bukhara and Uzbekistan pertaining to conservation of cultural heritage and historical sites. In addition, the consultant will review the AIIB ESF and applicable ESSs. A gap analysis will also be carried out to determine the differences between the national and local legal framework and AIIB standards and to recommend ways and means to address these differences and gaps. A comparison summary will be presented in tabular format.

Furthermore, the environmental quality standards as well as emission/discharge and fuel standards in Bukhara region (e.g. noise level, ambient air quality, surface water and groundwater quality, vehicle emission and effluent standards) will be summarized and compared with relevant World Bank Group Environmental, Health and Safety Standards.

Task 3: Screening and Scoping. Under this task, screening of project activities under each subproject components/elements will be carried out and the activities that potentially have environmental and social impacts during pre-construction, construction and operation phases will be identified. Under scoping, impacts of each project activity and the key stakeholders will be identified. The scoping will include the following work:

- The interaction between the screened activities and key environmental and social/socioeconomic resources/elements will be charted out in a matrix. A list of the potential environmental and social issues likely to arise because of the Project will be developed and the significance will be defined based upon their nature and severity. Special attention will be paid to the provisions of drainage systems in the road network design and possible impact on population and agricultural fields due to lack of proper drainages.
- The stakeholder analysis/mapping will also be carried out. The key stakeholders will be identified and their respective importance and influence on the Project will be analyzed and presented in a matrix. A tentative list of stakeholders can be derived from the desk review and a reconnaissance survey of the proposed project locality. Once the list of key stakeholders is prepared, it should be confirmed through consultations with policy-makers, governmental representatives, local NGOs, elected local government representatives and officials. The subgroups (age, gender, etc.) within each stakeholder group that face different constraints with respect to access, safety, affordability, availability, and health impacts and have different demands will also need to be identified.

Task 4: Analysis of Project Alternatives and Associated Facilities. Under this task, firstly, various project alternatives, including no-project alternative, will be analyzed for their technical, economic,

financial, environmental and social considerations. These alternatives may be associated with the road alignment, number of lanes, types of pavement, drainage, tolling arrangements, construction methodology, and construction scheduling. Through this analysis, justification and rationale of the selected alternative will be provided.

Secondly, the associated facilities to this Project will be identified and due diligence of them will be conducted. The associated facilities may include but not limited to other works (e.g. bridges being rehabilitated with government funding) being or to be conducted in the 158-km alignment of M37, with other funding sources. The due diligence will include the review of E&S clearance, impacts and mitigation measures of the associated facilities. The Consultant will also evaluate to what extent the RC could manage the E&S risks and impacts of the associated facilities. The recommendations of E&S risk management will be proposed accordingly.

Task 5: Environmental and Socioeconomic Baseline Analysis. This task involves collecting necessary environmental and socioeconomic information from primary and secondary sources to establish an environmental and socioeconomic baseline for project area. Any changes anticipated in the baseline conditions before the project commencement should also be identified and determined. The current and proposed development activities within the project area but not directly connected to the project should also be reviewed. The trends in the key environmental and social parameters of the area should also be analyzed. Data should be relevant to decisions about project location, design, and operation. For this purpose, secondary data shall be collected while primary data will also be needed, through techniques such as instrument monitoring and reconnaissance surveys.
The baseline analysis will cover the following:

- Physical environment: land use, land form, topography, geology and soils, climate and weather, seismic, water resources, water quality, floods, ambient air quality, noise, and vehicular traffic on the existing roads. In particular, a 24-hour monitoring of noise and ambient air quality along the project alignment of M37, sampling and measurement of surface water quality (e.g. for irrigation canals) and soil and groundwater quality monitoring at the batching plant location shall be conducted. The monitoring plans will be reviewed and approved by the AIIB prior to the commencement of the monitoring.
- Biological environment: ecosystem, natural vegetation cover, critical and natural habitats, wildlife habitats and protected areas in the Project area, near water resources and flora and fauna. In particular, the details of protected areas in the study area and protected wildlife (IUCN red list status and protection status, etc.) shall be introduced. Mapping tools will be used to present the overlap of the protected areas and the Project.
- Socioeconomic baseline: Demographical profile of the region will be developed with sample survey of major interconnectivities, indicating presence of residential and commercial units. The sample survey should also present household level data on income, expenditures and access to basic facilities. Income of the commercial units should also be captured in the survey. In addition, the socioeconomic baseline data, gender-segregated where applicable, will be collected through a combination of secondary literature review and appropriate primary data collection techniques such as surveys and interviews, on the following parameters/aspects, as appropriate and relevant:
    - population and demography,
    - vulnerable groups and poverty profile,
    - health,
    - education,
    - occupations and economy data,
    - pattern of land use and natural resources including agriculture, land tenure system, land ownership, use and transaction practice as well as the local formal and informal institutions and traditional practices related to land use and land acquisitions,
    - livestock, grazing,
    - forestry,
    - industry, occupational structure
    - expenditure and income from formal and informal economic activities (e.g. industrial, business, services, trade; quarrying, tourism, transport, home-based work, etc.);
    - household characteristics including production systems, labor, household organization;
    - standard of living;

- access to social services (education, health, communication); status of education, health, vaccination/immunization and social well-being (i.e. distance to schools, to primary health facility/nearest hospital);
- transport facilities, traffic pattern and traffic count on major roads of the project area;
- law and order and security profile;
- local government institutions; community organizations and patterns of social interaction, such as social networks and support systems, and service delivery related complaints resolution;

- **Gender**. A gender survey will also be carried out to determine the gender issues and trends in the project area. The baseline will include but not limited to the project affected persons (PAPs). Gender baseline data should include (but may not be limited to) indicators of women's mobility; gender differences in constraints faced in accessing transport facilities; and gender differences in preferences for/ concerns on pedestrian crossing facilities. See Gender Action Plan section below for more gender related analysis.
- **Cultural Resources**: a list of cultural heritage, archaeology, objects and places of special interest in the project area (e.g. World Heritage Sites/Buildings listed by UNESCO, masjid and monuments; and others) will be developed. Any cultural resources in the immediate vicinity of the project area (road corridor, construction camps, borrow areas, any other project-related facility) will be described in a greater detail.
- **Road Safety**: A baseline on Road Safety will be presented, indicating fatalities and injuries with a qualitative representation of the causes of accidents. Interaction with the Roads department will be needed to understand the present practices in providing road safety measures, signages in the road and measures for speed control in critical junctures.

Task 6: Impact Assessment and Mitigation Measures. This task builds upon the initial scoping and analyses carried out during Scoping (Task 3). This task aims to assess all direct and indirect impacts and risks in both the short-term and the long-term resulting from pre-construction, construction and operation phases of the Project. Tools like Leopold Matrix will be used to determine the interaction of the project activities with various environmental and social aspects. Based on its nature and likelihood of occurrence, significance of each potential impact will be assessed as severe, moderate, mild, or negligible. Qualitative approaches and where necessary/appropriate, quantitative techniques will be used to assess the potential impacts, and significant positive and negative impacts, direct and indirect impacts, and short-term and long-term impacts will be distinguished, particularly those adverse impacts which are likely to be unavoidable or irreversible. The assessment will cover generic as well as project- and site-specific impacts. In addition, sensitive receptors will be identified in the project area with respect to environment, biodiversity, and socioeconomic aspects.

Direct and indirect impacts on biodiversity will also be assessed. The ecological impact assessment will particularly specify disturbance to the protected area and wildlife due to the road construction and operation and provide recommendations for synergizing the positive effects and minimizing short-term and long-term adverse impacts and possible integration with socio-economic development.

The scope of potential risks and impacts on cultural heritage sites/buildings identified in baseline analysis will be assessed. As far as possible, project design and/or construction methodology will be adjusted to avoid any impacts on the cultural resources.

The potential social and economic risks and impacts will also be assessed, both positive and adverse, direct and indirect, associated with the Project, not limited to Land Acquisition and Involuntary Resettlement. In order to address the potential land acquisition and involuntary resettlement issues, an RAP shall be prepared. The TOR of the RAP is provided in respective section below of this TORs.

The social impact assessment will include, but not be limited to, the following topics:

a. Analyze and address social development issues, and ensure accomplishing the outcomes in terms of inclusion, cohesion, equity, safety, security and accountability.
b. Conduct a Beneficiary Assessment comprising of collection of socioeconomic profiles at district and urban levels, project beneficiaries' assessment of the current status of road usage and expectations from the project.

c. Assess impacts on communities, e.g. temporary access limitation, disturbance to traffic and other public utilities due to construction. Impact on both residential and commercial units should be studied to understand the short- and medium-term disruptions due to construction.
d. Analyze labor health and safety as well as impacts of labor influx on the community.
e. Analyze risks on community health and safety during construction and operation phases.
f. Identify stakeholders at different levels, mapping key expectations, analyze impacts, issues and concerns as related to each stakeholder subgroups thereof.
g. Assess positive and negative social impacts likely to occur for different stakeholder sub-groups or beneficiaries as a result of project interventions, assessing and prioritizing impacts based on their significance and suggesting measures to minimize negative impacts and derive the maximum from positive impacts.
h. Identify potentially adverse gender-specific risks and impacts of the Project and develop mitigation measures to reduce these. Use gender disaggregated data and analysis and consider enhancing the design of the Project to promote equality of opportunity and women's socioeconomic empowerment, particularly with respect to provision of services and employment.
i. Identify risks to and impacts on vulnerable groups and develop measures for their mitigation.
j. Develop measures for the management of interactions between the communities and workers.

Road safety issues will be specifically assessed to identify appropriate interventions aimed at reducing accidents and enhancing user safety. Mitigation measures during the construction, operation, and maintenance phases should be guided by international best practices, including the Manual of the International Road Assessment Programme (iRAP), GOST standards, guidelines of the World Road Association (PIARC), benchmarks established by the International Road Congress, and other applicable national standards and regulations in Uzbekistan.

Subsequently, avoidance, mitigation, and/or compensatory measures, in this order of preference, will be identified to address each potential impact, in the context of the Project. The proposed mitigation measures should be project- and site-specific, practical, and cost effective. After determining the mitigation measures, residual impacts (ie, impacts after implementing the mitigation measures) will also be identified and their significance assessed based upon their severity and likelihood of occurrence. The mitigation and management measures for design, construction and operation phases will include but not limited to:

Design and Construction phase
- Run-off management, cross drainage
- Construction site management
- Labor camp management
- Avoidance of clearing vegetation and restoration of the site by planting trees/crops
- Protection of biodiversity
- Protection of Cultural Resources (including Chance Find Procedures): sensitize Project activities and facilities within the specific context of cultural and natural heritage
- Suppression of dust emission
- Control of stack and vehicular emissions
- Safe disposal of wastewater
- Safe disposal of solid wastes
- Soil pollution control
- Borrow area management and spoil disposal
- Noise abatement
- Occupational health and safety
- Community health and safety (including management of interactions between the communities and workers)
- Traffic management
- Impacts on road-side businesses, livelihood impacts
- Restoration of camp sites.

Operation phase
- Traffic noise abatement plan
- Vehicular emissions and air quality

- Occupational health and safety
- Community health and safety
- Landscaping to improve aesthetic of the sites
- Road safety management plan

The mitigation and control measures will be developed paying particular attention to the following aspects:

a. Address labor and working conditions of Project workers, as well as health and safety risks, such as sexual abuse and harassment and gender-based violence (GBV), to local communities in the area of the Project, with the goal of avoiding, or where avoidance is not possible, include measures to minimize adverse risks and impacts of the Project on the health and safety of local communities. Measures will be identified to ensure Project workers have safe and healthy working conditions, along with measures to prevent accidents, injuries, and disease in relation to the Project. Identify relevant occupational health and safety provisions of internationally recognized standards, and, as appropriate, industry-specific Environmental, Social, Health and Safety, to the Project. Propose a system for documentation and reporting on accidents and diseases.
b. Provide guidance for use of a labor management system for Project workers, consistent with relevant national law, which provides for:
    - Clear and understandable terms of employment made available to Project workers in an accessible manner;
    - Timely payment for Project work;
    - Adequate periods of rest;
    - Amicable termination of the working relationship;
    - Employment on the basis of the principle of equal opportunity, fair treatment and non-discrimination;
    - Compliance with national law relating to workers' organizations and collective bargaining;
    - An accessible, understandable and transparent grievance mechanism for raising Project workplace concerns that:
        i. Does not impede access to other judicial or administrative remedies that might be available under law or through existing arbitration or mediation procedures, or substitute for grievance mechanisms provided through workers unions or collective agreements;
        ii. Involves an appropriate level of management and addresses concerns promptly, using an understandable and transparent process that provides timely feedback to those concerned, without any retribution; and
        iii. Allows for confidential complaints to be raised and addressed; and
    - A suitable system designed to inform Project workers of the grievance mechanism at the time of hiring and make it easily accessible to them.

Task 7: Stakeholder Consultations and Disclosure. Subsequent to the stakeholder analysis carried out during Task 3 described earlier, consultation process will be undertaken involving a range of tools including focus group discussions, one-to-one interviews, consultation workshops, and socio-economic surveys. These consultations will be carried out with relevant departments and institutions, subgroups of local communities identified during Task 3, media persons, NGOs, academia, road users, and project-affected persons. Ideally, separate consultations would need to be carried out with women groups in the project area focusing on gender issues. Objectives of these consultations would be to share the project information and key finding of the ESIA with the stakeholders, to obtain their feedback about the project, perceived impacts and preferred mitigation measures, and to collect information on environmental, ecological, and socioeconomic baseline in the project area. Relevant technical and non-technical materials will be provided to the participants in a timely manner prior to the consultations and in a form and language (English and Uzbek) that is understandable and accessible to the groups being consulted. The entire consultation process will be documented. Sufficient measures shall be taken to overcome barriers and include vulnerable populations and women in the discussions on their participation at all stages of the project.

The draft ESIA should also be available in a public place accessible to the public and local NGOs as well as online. The draft ESIA in English, and its Executive Summary in Uzbek language will be disclosed. Following the disclosure of the draft ESIA, a consultation meeting (or meetings) will be arranged with the support from the Project proponent. Key stakeholders will be invited to provide their feedback as a mean

to elicit explicitly the views of the community. This shall be fed into the preparation of a final draft ESIA. All consultations should be properly documented, (for each consultation: date, venue, participants (by age, sex and any other relevant demographics), matrix of feedback and recommendations, dated photographs etc.) and submitted with the final report. The ESIA will be required to be reviewed and cleared by AIIB, in addition to the local review and clearance process.

In addition, a framework will be developed for the consultations to be carried out during the project implementation phase.

Task 8: Preparing Environmental and Social Management Plan. Subsequent to carrying out impact assessment, an ESMP will be prepared. This will be prepared in close coordination with the implementing agency and other relevant entities. It will also be made a part of the bidding documents for construction contracts and will be an obligation on the contractors to implement. The ESMP will include a mitigation plan, a monitoring plan, a capacity building program, and documentation and reporting protocol. The ESMP will propose institutional arrangements to manage environmental and social aspects of the project, and will provide mechanism for implementing the mitigation measures identified earlier in the assignment, conducting monitoring, reporting and capacity building programs.

The ESMP will also define the requirement of site-specific ESMP (SSESMP) that will be developed by the construction contractor(s). Outlines of sub-plans that need to be included in the SSESMP will also be provided in the ESMP; these would include camp management plan, traffic management plan, waste disposal plan, pollution prevention plan, borrow pit management plan, occupational health and safety plan, slope management plan, and others.

A multi-tier Project level Grievance Redress Mechanism (GRM) will be included in the ESMP. It should be outlined with clear roles, timelines, procedures and responsibilities. It should also describe the options available to PAPs for grievance redress regarding environmental, social and resettlement issues. The ESMP shall indicate how the information of GRM would be disseminated and accessible in a way that is clear and comprehensible to the PAPs. The GRM should include provisions to protect complainants from retaliation and to remain anonymous, if requested. Reference should be made to the Project-affected People's Mechanism Policy of the AIIB. It is important to constitute field level GRCs (Grievance Redress Committees) which can be easily accessed by the community members.

Task 9: Preparing a Resettlement Action Plan (RAP): Address impacts of the project land acquisition and involuntary resettlement, which may cause physical displacement (relocation, loss of land or shelter), and/or economic displacement (loss of land or assets, or restrictions on land use, assets and natural resources leading to loss of income sources or other means of livelihood) as per ESS2. If the land acquisition and involuntary resettlement is unavoidable, a RAP will be developed on the basis of the impacts survey to elaborate affected person's entitlements, income and livelihood restoration strategy, institutional arrangements, monitoring and reporting framework, budget and time-bound implementation schedule and provisions for grievance redress. A guide for presenting the RAP is provided in Annexure B. The RAP will include, but not be limited to, the following topics:

(i) Based on existing laws, regulations and decisions of the central and local government that apply to land acquisition and resettlement, determine if there are any good practices that could be adopted for the project. In addition, identify gaps between AIIB ESS2 and the national/local laws and regulations and specify gap-filling measures if gaps exist in order to meet ESS2;
(ii) Agree with the government and AIIB on a clear definition and criteria for vulnerable groups, e.g. female headed households, elderly and children, ethnic minority households, poor households, persons with disabilities) to ensure that they are properly identified; potential risks; special needs and concerns are assessed; and appropriate assistance that will be provided to them;
(iii) Conduct meaningful consultations. The section on consultation in the RAP should include the summary of consultation and disclosure activities carried out during planning, issues and concerns raised by the affected persons and other stakeholders, and a matrix on how feedbacks were used and incorporated in the RAP and overall project design;
(iv) Determine the number of PAP and obtain the socioeconomic conditions of affected households. Information on PAPs, regardless of tenure status, should include basic demographic and socioeconomic data, such as household size, age, gender (especially of the head of household),

ethnicity, occupation, household income, and vulnerability. In terms of physical or economic impacts, carry out inventory of affected assets located within the designated alignment or project area, including land of various types, businesses, houses, and other ground attachments where quantities are clearly determined;

(v) Justify whether the compensation standards and rates for land and non-land assets (houses, other buildings, utilities, trees, etc.) reflect replacement cost or considered adequate as per AIIB ESS2;

(vi) Prepare an entitlements matrix listing all likely effects, (permanent, temporary, restricted use or access). Establish criteria for the resettlement eligibility of affected people;

(vii) If there will be physical displacement, prepare a relocation strategy which builds upon the existing social, economic, and cultural parameters of the affected people;

(viii) In terms of income/livelihood loss/impacts, prepare income restoration strategy based on impact assessment and consultations with the affected people. Specifically, integrate suitable livelihood and development opportunities for the affected persons into the project design as much as the project may allow;

(ix) Assess existing grievance redress process of the government and agree with the government on a localized grievance redress mechanism with clear responsibilities, reporting requirements and budget necessary in order for the committee to function effectively. Carry out the required training specific to handling grievances and document them in the RAP;

(x) Establish clear responsibilities, key indicators, and a time frame for internal and external monitoring, reporting, and disclosure;

(xi) Prepare a schedule for resettlement activities in conjunction with the agreed implementation schedule for the project;

(xii) Prepare RAP cost estimates. Specify sources of funding, approval process, and timely disbursement of funds;

(xiii) Ensure endorsement of the executing agency and/or implementing agencies as well as relevant authorities of the RAP;

(xiv) Assist the PIU in the disclosure and confirm that disclosure of key information in the RAP were carried out in a form and language understandable to the affected persons;

(xv) For land that were already acquired or in the process of being acquired or any existing facilities, carry out due diligence by (i) assessing compliance with safeguards requirements of the Government and (ii) determine differences/gaps between Government laws and regulations and AIIB ESS2. Based on the assessment, prepare a due diligence report to present findings and assessment; and propose a corrective action plan to address any outstanding issues or gaps found to meet compliance with Government laws and requirements and AIIB ESS2; mitigation measures and related implementation plan should be developed in consultation with and endorsed by the client and relevant authorities;

(xvi) Assess if there are any impacts on livelihoods caused by project activities other than land acquisition and work closely with the environment team in the preparation of a livelihood management plan; and

(xvii) Capacity Building. Assess the capacity and commitment of responsible institutions to update and implement the RAP. Carry out orientation and training to executing agency, participating local government(s), and implementing agencies on AIIB's ESF policy requirements and procedures.

Task 10. Preparing a Gender Action Plan: The Consultant will conduct a Gender analysis focusing on understanding and documenting the differences in gender roles, activities, needs, and opportunities for this project. Based on the gender analysis, recommendations should be provided on gender features for the project as part of the social section of the project documents and Gender Action Plan, develop gender-responsive actions that mirror the design and monitoring framework with gender targets and indicators based on sound baseline data, timelines, assigned responsibilities, estimated cost and implementation arrangements.

The Consultant will identify potentially adverse gender-specific impacts of the Project and develop mitigation measures to reduce these. Wherever possible opportunities to enhance the positive impacts on women will be identified. Gender disaggregated data and analysis will be used and considered enhancing the design of the Project to promote equality of opportunity and women's socioeconomic empowerment, particularly with respect to provision of services and employment. The Consultant will assess socio-economic profile of women and young girls to understand how the Project can specifically benefit them,

develop methods for monitoring potential gender-specific risks and potential benefits, and prepare a GAP to be included in the ESIA.

Task 11: Preparing a Stakeholder Engagement Plan: The Consultant will prepare a Stakeholder Engagement Plan (SEP) in close coordination with the Client. The Consultant will follow a three-step approach in the preparation of SEP:

i. Stakeholder mapping: identify key stakeholders, classified into project affected and other interested parties;
ii. Consultation and feedback documentation for key stakeholders and stakeholder groups;
iii. Preparation of SEP: develop SEP document with detailed description of activities, roles and responsibilities, timeframe, and budget.

The SEP will include minimum the following key elements:

- Introduction / Project Description
- Regulations and Requirements
- Brief Summary of Previous Stakeholder Engagement Activities
- Stakeholder Identification and Analysis
- Stakeholder Engagement Program
- Roles, Responsibilities, and Resources for Stakeholder Engagement
- Grievance Redress Mechanism
- Monitoring and Reporting
- References

Annexes should include Sample minutes form/s from interviews and consultations conducted; Grievance Submission Form; Stakeholder Mapping, Diagram; documentation from correspondence, minutes of consultations conducted, e.g., workshops, roundtables, regional events, etc.

Part 2: Paris Alignment and Climate Finance Assessment

The Consultant shall carry out a comprehensive assessment to ensure the Project's alignment with the mitigation and adaptation goals of the Paris Agreement, as well as its potential qualification for climate finance. This work will follow AIIB's methodologies for Paris Alignment (BB1 and BB2) and the Joint MDB (JMDB) principles for tracking climate finance. The assessment builds on AIIB's initial analysis and shall be conducted in close coordination with the Client and the engineering design team.

2.1 Paris Alignment – Mitigation Goals (BB1)

AIIB's initial analysis indicates that the Project involves road capacity expansion, which means it cannot be considered *universally aligned* under BB1. Therefore, the Consultant must undertake a Specific Criteria Assessment using AIIB's five-step methodology (SC1–SC5), available at: https://www.aiib.org/en/about-aiib/who-we-are/partnership/_download/Methodology-for-Assessing-the-Alignment-of-AIIB-Investment-Operations-with-the-Paris-Agreemement.pdf

Specific Criteria Assessment (SC1–SC5):

- SC1 & SC2: NDC and LTS Alignment – Confirm that the Project is not inconsistent with Uzbekistan's Nationally Determined Contributions (NDCs), Long-Term Strategies (LTSs), and other national, regional, or sectoral low-carbon policies.
- SC3: Low Carbon Pathway Consistency – Assess the Project's alignment with the national decarbonization pathway for road transport.
- SC4a: Alternatives Test – Demonstrate that no more efficient transport infrastructure can meet the current and forecasted passenger/freight demand at a similar level of service.
- SC4b: Lock-in Test – Ensure the Project does not hinder future deployment of more efficient vehicle fleets or other Paris-aligned activities.
- SC5: Economic Viability – Demonstrate the Project's economic viability, considering the monetized cost of GHG emissions during construction and operation (valued at shadow carbon price).

Additional Requirement:

The Consultant must provide a quantitative estimate of goods transported through the road before and after Project implementation. The mix must show the percentage of fossil fuel vs. non-fossil fuel transport, to demonstrate that the Project will not result in an increase in fossil fuel transport volumes.

2.2 Paris Alignment – Adaptation Goals (BB2)

The Consultant will assess the Project's alignment with the adaptation goals of the Paris Agreement, following AIIB's three-step methodology for Climate Resilience Assessment (CRA), detailed in the same guidance above. The assessment shall draw on AIIB's and JMDB's frameworks and should incorporate the findings into the Project's design in close coordination with the design team.

Step 1: Climate Risk and Vulnerability Assessment (CRVA)

Conduct a full CRVA to identify exposure, sensitivity, and overall vulnerability to physical climate hazards that may impact the Project over its lifetime. The assessment will include:

- Boundary and scope definition
- Sensitivity Analysis: Identify relevant climate hazards (e.g., flood, drought, heatwaves, landslides) and their potential impacts on Project components and systems.
- Exposure Analysis: Use location-specific data, at least two emissions scenarios, and multiple climate models to evaluate hazard exposure.
- Vulnerability Analysis: Combine sensitivity and exposure findings to assess vulnerabilities, without including adaptive capacity (which is addressed in Step 2).

Step 2: Adaptation and Resilience Measures

Propose structural and non-structural adaptation measures to address identified climate risks. These may include:

- Engineering design enhancements (e.g., improved drainage, heat-resistant materials)
- Operational measures (e.g., emergency plans, early warning systems)
- Non-structural measures (e.g., capacity-building, maintenance protocols)

The Consultant must assess the application of engineering standards and hydrometeorological parameters, ensuring they reflect updated climate science. Only real and agreed-upon measures—those incorporated into the design in coordination with the client—will be considered.

Step 3: Consistency with Adaptation Policies

Assess whether the Project is consistent with national, regional, or sectoral policies and strategies for climate resilience and adaptation.

For further reference, please consult Annexure D.

2.3 Climate Finance Qualification

The Consultant shall estimate the portion of AIIB financing that qualifies as climate finance under the JMDB Common Principles for:

- Climate Mitigation Finance
- Climate Adaptation Finance

Links to methodologies:

- JMDB Climate Mitigation Finance
- JMDB Climate Adaptation Finance

Key Requirements:

- Each mitigation/adaptation activity must be clearly linked to a climate objective.
- The Consultant must apply either the incremental cost or proportional approach (as per JMDB guidance) to estimate qualifying climate finance.
- All climate finance estimates must be justified with evidence and references to the relevant category in the JMDB principles.

2.4 Greenhouse Gas (GHG) Emissions Assessment

The Consultant shall calculate the Project's GHG emissions to support both the BB1 alignment and climate finance assessments.

Requirements:

- Estimate baseline emissions (pre-project), project emissions (post-project), and net emissions (delta).
- Disaggregate emissions by:
  - Scope 1: Direct emissions
  - Scope 2: Indirect energy emissions
  - Scope 3: Other indirect emissions (e.g., user traffic)
- Include emissions during construction.
- Present results in a summary table showing all scopes and comparisons.

7. Required Qualification and Experience of Key Experts

The study team will have adequate experience in environmental, and social assessment as well as resettlement planning of transportation projects and climate finance assessment. The core team will include Environmental Specialist, Social/Resettlement Specialist, Gender Specialist and Climate Risk and Mitigation Specialists; other team members should include adequate number of field staff, surveyors, and enumerators. Additional environmental and social specialists may be included the team as needed. The core team for the assignment will be evaluated on the basis of their qualifications and experience related to earlier successfully completed assignments. Thus, the CVs of the specialists submitted in the proposal should have specific information in this respect.

	Key Expert	**Minimum Qualifications and Experience**
1	Environmental Specialist (Team Leader)	The candidate should preferably have master's degree or equivalent in environmental engineering/science with minimum 8 years of demonstrated experience in the preparation and implementation of ESIAs and ESMPs and relevant experiences in the roads sector via contracts based FIDIC. Fluency in English is required and Membership In Professional Assosiations regarding E&S will give privilege. The specialist should be conversant with the Environmental Codes of Practice in the context of the Road sector. The specialist should be conversant with Government of Uzbekistan regulations and guidelines on environmental and social management for road construction. Experience in the environmental and social assessment and management with multilateral development banks (MDBs) is required. Experiences in development of environmental and social management framework is an asset.
2	Social Development Specialist / Resettlement Specialist	The candidate should preferably have Advanced university degree (Master's or equivalent) in Sociology, Social Anthropology, Human Geography, Development Studies, or other related social science disciplines and at least 8 years of experience working with social development, involuntary resettlement issues and Social Impact Assessments and Management Plans. Experience of working on MDB funded projects and Fluency in English is required. Membership In Professional Assosiations regarding E&S will give privilege. The specialist should demonstrate experience in social assessments, resettlement and land acquisition plans in projects in transport sector.
3	Gender specialist	The candidate should preferably have Advanced degree (Master's or equivalent) in Gender Studies, Social Sciences, Development Studies, Human Rights, or related fields and having at least 5 years of experience in the conduction of social assessments, including Gender Impact Assessments and formulation of Gender Action Plans. Fluency in English is required and Membership In Professional Assosiations regarding GAP projects will give privilege. Preference will be given to persons with experience of working on projects supported by multi-lateral/bilateral funding agencies such as the AIIB, ADB, World Bank, KFW etc.
4	Transportation/ Environmental Engineer (Advisory)	The candidate should preferably have Master's degree (or equivalent) in Environmental Engineering, Transportation Engineering, Civil Engineering, or a closely related field and 5 years of experience in road construction and their planning, construction and maintenance. Fluency in English is required and Membership In Professional Assosiations regarding Transport Infrastructure Sector will give privilege. The engineer should also have experience with the operation and maintenance of Roads. Experience in Road Safety issues will be preferred.
5	Climate Risk Specialist	The candidate should preferably have Advanced degree (Master's or higher) in Climate Science, Environmental Science, Meteorology, Climate Policy, Environmental Engineering, or related fields and minimum 5 years of experience on Climate Risk Assessment.

	Key Expert	Minimum Qualifications and Experience
		Experience working with multilateral development banks (MDBs) and Knowledge of international frameworks and agreements including Paris Agreement. Fluency in English is required and Membership In Professional Assosiations regarding Climate will give privilege.
6	Climate Mitigation Specialist	The candidate should preferably have Advanced university degree (Master's or equivalent) in Environmental Engineering, Climate Science, Energy Systems, Environmental Economics, Sustainability, or related field and minimum 5 years of experience on Climate Mitigation and GHG calculations. Experience on the road sector and working for IFIs would be desirable. Experience working with multilateral development banks (MDBs) and Knowledge of international frameworks and agreements including Paris Agreement. Fluency in English is required and Membership In Professional Assosiations regarding Climate or GHG will give privilege.

8. DELIVERABLES AND TIMELINES

	TASK	Timeline
1	Inception report[1] comprising of work plan, timelines, and field survey methodology.	2 weeks from start date
2	Draft ESIA, RAP and SEP reports including the Draft Executive Summaries and Paris Alignment and Climate Finance Assessment	3 months from start date
3	***Project proponent and AIIB will review and provide comments and clearance for disclosure of first draft report in not more than two weeks (if report is of sufficient quality).***	3.5 months from start date
4	***Conduct public consultation meeting on draft report***	4 months from start date
5	Final ESIA report including summary of public consultations, RAP, SEP, Paris Alignment and Climate Finance Assessment, executive summary and incorporating comments.	4.5 months from start date
6	***Project proponent and AIIB will provide clearance for disclosure of final draft reports in about two weeks (if report is of sufficient quality).***	5 months from start date

All reports will be prepared in English, with executive summaries translated into Uzbek and Russian. The number of copies will be provided as per the Client's request.

9. Knowledge Transfer and Training

The Consultant is expected to share knowledge with the Project owner, AIIB and other relevant stakeholders, provided such sharing does not violate any law on intellectual property protection.

[1] During the inception period the study team shall (a) study the project information to appreciate the context within which the ESIA should be carried-out, (b) identify the sources of secondary information on the project, on similar projects and on the project area, (c) select sample locations and carry out a reconnaissance survey, and (d) stakeholder mapping. The study team shall use the inception period to familiarize with the project details. The study team should also recognize that due care and diligence planned during the inception stage helps in improving the timing and quality of the ESIA reports.

ANNEXURE A

The proposed structure of ESIA is as follows:

i) Executive Summary

This should provide a general summary of the ESIA contents and key findings, in a vocabulary that is easily understood by the public at large. It should be clear and concisely describe all aspects of the report. The language of the executive summary should be both process-oriented and output-oriented. In other words, this should cover both what was done as well as what came out of it.

ii) Introduction

This chapter will introduce the ESIA describing its background, objectives, principles, process and methodology. This chapter should introduce the project proponents, the study team, the study methodology, and provide other relevant information. The layout of the ESIA report should also be described to facilitate its use. A project area map should be presented in this chapter.

iii) Legal and Administrative Framework and Gap Analysis

This chapter will present a review of the national laws, regulations and standards relating to environmental and social assessment and management including resettlement issues, as well as relevant international conventions and treaties. The chapter shall also identify the legally mandated institutions associated with these legal instruments and their respective roles. This should be at all levels where implementation of project activities is likely to take place. Particular attention should be given to local institutions and structures at the project site(s). The institutional arrangements will include implementation and monitoring mechanisms that ensure inclusiveness and participation of all affected people, groups and communities.

The chapter shall also spell out the AIIB's Environmental and Social Policy and Standards (Environmental and Social Standards 1 and 2) and assess how this applies in the specific case of the proposed Project. The chapter shall also present the gaps between the AIIB Standards and the national legislations in the country. This chapter shall explore gaps between the two sources of requirements and explain how the ESIA bridges the gaps. These shall be summarized in a tabular from.

iv) Description of Project

This chapter will provide a description of the project to place the ESIA in the relevant context. This would include a summary of the background to the project, its various components, construction activities, temporary and permanent facilities to be established as part of the project, manpower requirements and labor camps, machinery and plant to be used for construction, requirements of various supplies including water and fuels, borrowing materials, and wastes streams generated. The cost and implementation schedule of the project should be also introduced. All phases of the proposed project including design and engineering, construction, and operation and maintenance will be covered in this Chapter. Maps and drawings of the project area and project components will be provided as appropriate.

v) Analysis of Alternatives

In addition to the no-project scenario, all project alternatives that are reasonable and feasible shall be summarized and evaluated in the chapter. Particular attention will be given to the environmental and social consideration of each alternative. The summary of evaluation will be presented in tabular form also.

vi) Analysis of Associated Facilities

This chapter will identify associated facilities of this Project, review the E&S clearance, impacts and mitigation measures proposed for the facilities. This chapter will also discuss RC's capacity over the E&S risk and impact management of the associated facilities, followed by recommendations.

vii) Environmental and Social Baseline Analysis

This chapter of the ESIA will present findings of the literature review, environmental instrument monitoring, field surveys, social and economic surveys and data collection conducted at the various proposed sites. The description will cover physical, biological and socio-economic environment of the project area. This chapter will also include an estimated number and types of people likely to be affected or displaced by the project activities. Maps of adequate quality should be used where appropriate and needed.

Data and description should be relevant to decisions about project location, design, operation, and impact assessment. Furthermore, the trends in the key environmental parameters of the area should also be described.

viii) Impact Assessment and Mitigation Measures

This chapter will first present the process and outcome of the scoping carried out early during the study and identify which impacts are significant and the criteria used to make this judgment. This will be followed by describing the methodology and outcome of detailed impact assessment carried out during the assignment.

The chapter will present impact assessment during design phase, construction phase and operation phase respectively, on physical, biological, social-economic environment and the climate. The analysis will cover issues of the proposed project and associated on-site and off-site facilities (e.g., link and access roads, borrow pits, labor camps if any, transportation and storage of construction equipment and materials) if relevant. All generic and site-specific impacts should be assessed.

In addition, a separate section will be developed to summarize the findings of the cumulative and induced impact assessment. In light of IFC's Cumulative Impact Assessment Guidelines, this section will identify current and proposed activities and potentially induced strip development within the project area, analyze effects of those development and activities and the incremental effects of proposed project, estimate cumulative impacts and provide recommendations for managing the cumulative impacts.

Appropriate impact avoidance, minimization, mitigation, and/or compensatory measures will be detailed for each impact. The potential impacts, their significance, associated mitigation measures will also be presented in a tabular form.

ix) Environmental and Social Management Plan

ESMP will be the most important element of the ESIA report. The key elements of ESMP will include the following:

- Organizational setup from government department down to the implementation level, their respective responsibilities and staffing for environmental and social management.
- Mitigation plan, including measures for mitigating various impacts of each project activity, with responsibilities assigned for their implementation and monitoring/supervision, along with monitoring indicators.
- Internal monitoring and external monitoring arrangements with roles and responsibilities, monitoring methodology and frequency, and documentation requirements. Two types of monitoring will be described: compliance monitoring and effects monitoring.
- Capacity building requirements for various entities of the project.
- A GRM, its setup, operating modalities and procedures, taking into account availability of judicial recourse and traditional community dispute settlement mechanisms as well as how to ensure equitable access men and women and different population sub-groups.
- Documentation and reporting system.
- Cost of ESMP implementation.

x) Stakeholder Engagement

This chapter of the ESIA should present the objective, process, and outcome of the stakeholder consultations carried out during the ESIA and other associated activities. Particular emphasis should be given on documenting the views and comments of all categories of stakeholders including PAPs (men, women, young, those with disabilities, old and members of other population groups) and other stakeholders (presentative of government officials, NGOs and civil society organizations, etc.). This chapter will also explain how these comments have been or will be addressed. The record of consultation and participation should be attached as an annex to the final ESIA. The chapter shall compliment a stand-alone Stakeholder Engagement Plan that describes stakeholder engagement approach and program to be carried out with various stakeholders particularly PAPs during subsequent stages of project implementation (i.e., construction and O&M).

As part of this chapter, the consultants will also develop a program for the disclosure of the ESIA to facilitate the work of the client on this matter. The responsibility for both the disclosure and dissemination however lies with the client. Executive Summary of ESIA will be translated in Russian and Uzbek languages.

xi) Annexes

A set of annexes will be included providing details such as laboratory analysis, photographs of the project area, lists and photographs of participants of consultations, terms of reference of the study, and others.

ANNEXURE B: Indicative outline of a Resettlement Action Plan

The scope of requirements and level of detail of the resettlement plan vary with the magnitude and complexity of resettlement. The plan is based on up-to-date and reliable information about (a) the proposed project and its potential impacts on the displaced persons and other adversely affected groups, (b) appropriate and feasible mitigation measures, and (c) the legal and institutional arrangements required for effective implementation of resettlement measures.

Minimum elements of a RAP:
Description of the project. General description of the project and identification of the project area.
Potential impacts. Identification of: (a) the project components or activities that give rise to displacement, explaining why the selected land must be acquired for use within the timeframe of the project; (b) the zone of impact of such components or activities; (c) the scope and scale of land acquisition and impacts on structures and other fixed assets; (d) any project-imposed restrictions on use of, or access to, land or natural resources; (e) alternatives considered to avoid or minimize displacement and why those were rejected; and (f) the mechanisms established to minimize displacement, to the extent possible, during project implementation.

Objectives. The main objectives of the resettlement program.

Census survey and baseline socioeconomic studies. The findings of a household-level census identifying and enumerating affected persons, and, with the involvement of affected persons, surveying land, structures and other fixed assets to be affected by the project. The census survey also serves other essential functions:
(a) identifying characteristics of displaced households, including a description of production systems, labor, and household organization; and baseline information on livelihoods (including, as relevant, production levels and income derived from both formal and informal economic activities) and standards of living (including health status) of the displaced population;
(b) information on vulnerable groups or persons for whom special provisions may have to be made;
(c) identifying public or community infrastructure, property or services that may be affected;
(d) providing a basis for the design of, and budgeting for, the resettlement program;
(e) in conjunction with establishment of a cutoff date, providing a basis for excluding ineligible people from compensation and resettlement assistance; and
(f) establishing baseline conditions for monitoring and evaluation purposes.
As the Bank may deem relevant, additional studies on the following subjects may be required to supplement or inform the census survey:
(g) land tenure and transfer systems, including an inventory of common property natural resources from which people derive their livelihoods and sustenance, non-title-based usufruct systems (including fishing, grazing, or use of forest areas) governed by local recognized land allocation mechanisms, and any issues raised by different tenure systems in the project area;
(h) the patterns of social interaction in the affected communities, including social networks and social support systems, and how they will be affected by the project; and
(i) social and cultural characteristics of displaced communities, including a description of formal and informal institutions (e.g., community organizations, ritual groups, nongovernmental organizations (NGOs)) that may be relevant to the consultation strategy and to designing and implementing the resettlement activities.

Legal framework. The findings of an analysis of the legal framework, covering: (a) the scope of the power of compulsory acquisition and imposition of land use restriction and the nature of compensation associated with it, in terms of both the valuation methodology and the timing of payment; (b) the applicable legal and administrative procedures, including a description of the remedies available to displaced persons in the judicial process and the normal timeframe for such procedures, and any available grievance redress mechanisms that may be relevant to the project; (c) laws and regulations relating to the agencies responsible for implementing resettlement activities; and (d) gaps, if any, between local laws and practices covering compulsory acquisition, imposition of land use restrictions and provision of resettlement measures and ESS2, and the mechanisms to bridge such gaps.

Institutional framework. The findings of an analysis of the institutional framework covering: (a) the identification of agencies responsible for resettlement activities and NGOs/CSOs that may have a role in project implementation, including providing support for displaced persons; (b) an assessment of the

institutional capacity of such agencies and NGOs/CSOs; and (c) any steps that are proposed to enhance the institutional capacity of agencies and NGOs/CSOs responsible for resettlement implementation.

Eligibility. Definition of displaced persons and criteria for determining their eligibility for compensation and other resettlement assistance, including relevant cutoff dates.

Valuation of and compensation for losses. The methodology to be used in valuing losses to determine their replacement cost; and a description of the proposed types and levels of compensation for land, natural resources and other assets under local law and such supplementary measures as are necessary to achieve replacement cost for them.

Community participation. Involvement of displaced persons (including host communities, where relevant): (a) a description of the strategy for consultation with, and participation of, displaced persons in the design and implementation of the resettlement activities; (b) a summary of the views expressed and how these views were taken into account in preparing the resettlement plan; (c) a review of the resettlement alternatives presented and the choices made by displaced persons regarding options available to them; and (d) institutionalized arrangements by which displaced people can communicate their concerns to project authorities throughout planning and implementation, and measures to ensure that such vulnerable groups as indigenous people, ethnic minorities, the landless, and women are adequately represented.

Implementation schedule. An implementation schedule providing anticipated dates for displacement, and estimated initiation and completion dates for all resettlement plan activities. The schedule should indicate how the resettlement activities are linked to the implementation of the overall project.

Costs and budget. Tables showing categorized cost estimates for all resettlement activities, including allowances for inflation, population growth, and other contingencies; timetables for expenditures; sources of funds; and arrangements for timely flow of funds, and funding for resettlement, if any, in areas outside the jurisdiction of the implementing agencies.

Grievance redress mechanism. The plan describes affordable and accessible procedures for third-party settlement of disputes arising from displacement or resettlement; such grievance mechanisms should take into account the availability of judicial recourse and community and traditional dispute settlement mechanisms.

Monitoring and evaluation. Arrangements for monitoring of displacement and resettlement activities by the implementing agency, supplemented by third-party monitors as considered appropriate by the Bank, to ensure complete and objective information; performance monitoring indicators to measure inputs, outputs, and outcomes for resettlement activities; involvement of the displaced persons in the monitoring process; evaluation of results for a reasonable period after all resettlement activities have been completed; using the results of resettlement monitoring to guide subsequent implementation.

Arrangements for adaptive management. The plan should include provisions for adapting resettlement implementation in response to unanticipated changes in project conditions, or unanticipated obstacles to achieving satisfactory resettlement outcomes.
Additional planning requirements where resettlement involves physical displacement
When project circumstances require the physical relocation of residents (or businesses), resettlement plans require additional information and planning elements.

Additional requirements include:
Transitional assistance. The plan describes assistance to be provided for relocation of household members and their possessions (or business equipment and inventory). The plan describes any additional assistance to be provided for households choosing cash compensation and securing their own replacement housing, including construction of new housing. If planned relocation sites (for residences or businesses) are not ready for occupancy at the time of physical displacement, the plan establishes a transitional allowance sufficient to meet temporary rental expenses and other costs until occupancy is available.

Site selection, site preparation, and relocation. When planned relocation sites are to be prepared, the resettlement plan describes the alternative relocation sites considered and explains sites selected, covering: (a)

institutional and technical arrangements for identifying and preparing relocation sites, whether rural or urban, for which a combination of productive potential, locational advantages, and other factors is better or at least comparable to the advantages of the old sites, with an estimate of the time needed to acquire and transfer land and ancillary resources; (b) identification and consideration of opportunities to improve local living standards by supplemental investment (or through establishment of project benefit-sharing arrangements) in infrastructure, facilities or services; (c) any measures necessary to prevent land speculation or influx of ineligible persons at the selected sites; (d) procedures for physical relocation under the project, including timetables for site preparation and transfer; and (e) legal arrangements for regularizing tenure and transferring titles to those resettled, including provision of security of tenure for those previously lacking full legal rights to land or structures.

Housing, infrastructure, and social services. Plans to provide (or to finance local community provision of) housing, infrastructure (e.g., water supply, feeder roads), and social services (e.g., schools, health services); plans to maintain or provide a comparable level of services to host populations; any necessary site development, engineering, and architectural designs for these facilities.

Environmental protection and management. A description of the boundaries of the planned relocation sites; and an assessment of the environmental impacts of the proposed resettlement and measures to mitigate and manage these impacts (coordinated as appropriate with the environmental assessment of the main investment requiring the resettlement).

Consultation on relocation arrangements. The plan describes methods of consultation with physically displaced persons on their preferences regarding relocation alternatives available to them, including, as relevant, choices related to forms of compensation and transitional assistance, to relocating as individual households families or with preexisting communities or kinship groups, to sustaining existing patterns of group organization, and for relocation of, or retaining access to, cultural property (e.g., places of worship, pilgrimage centers, cemeteries).
Integration with host populations. Measures to mitigate the impact of planned relocation sites on any host communities, including: (a) consultations with host communities and local governments; (b) arrangements for prompt tendering of any payment due the hosts for land or other assets provided in support of planned relocation sites; (c) arrangements for identifying and addressing any conflict that may arise between those resettled and host communities; and (d) any measures necessary to augment services (e.g., education, water, health, and production services) in host communities to meet increased demands upon them, or to make them at least comparable to services available within planned relocation sites.
Additional planning requirements where resettlement involves economic displacement
If land acquisition or restrictions on use of, or access to, land or natural resources may cause significant economic displacement, arrangements to provide displaced persons with sufficient opportunity to improve, or at least restore, their livelihoods are also incorporated into the resettlement plan, or into a separate livelihoods improvement plan. These include:

Direct land replacement. For those with agricultural livelihoods, the resettlement plan provides for an option to receive replacement land of equivalent productive value, or demonstrates that sufficient land of equivalent value is unavailable. Where replacement land is available, the plan describes methods and timing for its allocation to displaced persons.

Loss of access to land or resources. For those whose livelihood is affected by loss of land or resource use or access, including common property resources, the resettlement plan describes means to obtain substitutes or alternative resources, or otherwise provides support for alternative livelihoods.

Support for alternative livelihoods. For all other categories of economically displaced persons, the resettlement plan describes feasible arrangements for obtaining employment or for establishing a business, including provision of relevant supplemental assistance including skills training, credit, licenses or permits, or specialized equipment. As warranted, livelihood planning provides special assistance to women, minorities or vulnerable groups who may be disadvantaged in securing alternative livelihoods.

Consideration of economic development opportunities. The resettlement plan identifies and assesses any feasible opportunities to promote improved livelihoods as a result of resettlement processes. This may include,

for example, preferential project employment arrangements, support for development of specialized products or markets, preferential commercial zoning and trading arrangements, or other measures. Where relevant, the plan should also assess the feasibility of prospects for financial distributions to communities, or directly to displaced persons, through establishment of project- based benefit-sharing arrangements.

Transitional support. The resettlement plan provides transitional support to those whose livelihoods will be disrupted. This may include payment for lost crops and lost natural resources, payment of lost profits for businesses, or payment of lost wages for employees affected by business relocation. The plan provides that the transitional support continues for the duration of the transition period.

ANNEXURE C: Alternative Test

SC4a Alternative Test

An existing[2] more efficient transport infrastructure cannot serve the current and forecasted passenger and/or freight demand, with a similar level of service (LOS).

This part of the assessment considers whether the project demand can or cannot be served by an existing less carbon intensive transport infrastructure with a similar LOS. If there is no comparable alternative to the proposed investment, then the SC4a test is passed.

The following steps should be followed:

Step 1: Identify what potential lower-carbon transport alternatives exist that provide access to the main origins and destinations (ODs) within the proposed road's influence area (RIA).

- First, the RIA should be defined, which refers to the spatial range of notable changes in traffic flow patterns following the construction or enhancement of a road facility[3]. This may include partial or entire administrative areas, such as municipalities, districts, or provinces.
- Once the RIA has been defined, the main ODs should be identified. ODs refer to the starting (origin) and ending (destination) points of a traveler's directional journey conducted within the RIA. The main ODs are those that generate and/or attract the majority of trips.
- Subsequently, the existing lower-carbon alternative transport infrastructure connecting the main ODs, within the RIA, should be identified and listed.
- Finally, the list of these identified alternatives should be screened to further identify those that can provide access to most of the main ODs within the RIA.

Step 2: Assess whether the alternatives identified in the previous step are comparable to the proposed project by comparing them to the project in terms of LOS. The alternatives should provide a similar LOS, which includes:

- Equal or greater passenger and/or freight capacity to serve the current and forecasted passenger and/or freight demand;
- Equal or lesser travel/transport time and /or cost;
- Equal or greater reliability and regularity of the transport services; and
- Equal or greater perception by passengers of the comfort and safety of the transport services.

Step 3: Analyze and document whether the project demand can or cannot be served by the lower-carbon alternative(s) identified with a similar LOS.

- Example 1: a rail line may or may not compete with a parallel road/highway, depending on the ODs that each serve, and the LOS provided.
- Example 2: A planned expressway may not be a substitute for a rural road, which provides a different LOS.

[2] Covering projects that are already in operation or in the investment phase (including design or the actual investment)

[3] Journal of the Eastern Asia Society for Transport Studies (Vol 8); "*Establishment of Influence Area using Select Link Analysis for Highway Investment Projects*"; 2010

ANNEXURE D: Template for reporting on PA alignment (BB2)[4]

This annex records the results of the assessment on the alignment of investment operations with the adaptation and climate resilience goals (BB2) of the PA.

Questions / assessment steps	Answer and justification
CRITERION 1: Establishment of Climate Risk and Vulnerability Context	
Step 1: Identifying and assessing physical climate risk Is the operation (including assets, stakeholders, and the system within which it takes place) at risk?	**Yes**. The physical climate risk assessment (CRA) was undertaken by XX and the overall results is considered ***medium/high*** risk, as some locations are prone to flooding. A detailed climate risk assessment was conducted, and adequate adaptation measures to address climate risks were integrated in project design. *A brief summary of the CRA findings in terms of climate exposure risks should be presented here*
CRITERION 2: Definition of the Climate Adaptation and Resilience Measures	
Step 2: Addressing physical climate risks and building climate resilience Have climate adaptation and resilience measures been identified to reduce material physical climate risks and contribute to building climate resilience?	**Yes.** Based on the CRA key adaptation and resilience measures to be implemented by the project include (i) upgrading the building materials to increase heat-resistance; (ii) installing sensors to detect physical damage of equipment during heavy rainfall spells; (iii) Adopting gust-resilient wind turbine design techniques; iv)…. In addition, to the extent possible, the project will promote holistic climate resilience, including nature-based solutions, community or social resilience, institutional resilience and financial resilience. *List all activities that include adaptation measures here*
CRITERION 3: Assessment of Inconsistency with a National/Broad Context for Climate Resilience	
Step 3: Assessing the broader climate resilience context Is the operation not inconsistent with relevant national policies/strategies, private sector or community-driven priorities for climate adaptation and resilience?	**Yes**. All project activities are not inconsistent with xx's national policies and strategies, private sector or community-driven priorities for climate adaptation and resilience. The proposed activities are fully consistent with draft national adaptation plan, and draft National Policy for Agricultural Development, 2022–2030; the National Strategic Development Plan 2019–2023; and the National Strategic Plan on Green Growth, 2013–2030. *Include analysis on the adaptation plans of the country/region and assessment of whether or not any of the proposed project activities is inconsistent with those*
Conclusion	*Aligned (or Not Aligned) as per BB2*

[4] Explanatory text in the table below is to be replaced with actual report.

ANNEXURE E: Template for reporting on adaptation finance of the project[5]

In line with the joint MDB methodology for tracking adaptation finance in MDB financed operations, the following details need to be provided to "qualify" the adaptation measures for which associated cost is estimated and reported as adaptation finance:

Overview	
Project name	
Sector and subsector	
Reported adaptation finance	
Qualifying adaptation activities	
Vulnerability context	(For an activity to be considered as adaptation activity, the context of climate change vulnerability to experienced and anticipated impacts of climate change must first be set out clearly using a robust evidence base. Project documents may refer to existing analyses and reports or to original, bespoke assessments of climate change vulnerability.)
Statement of intent	Once a project's context of vulnerability to climate change has been established, the project documents should set out the explicit intention to address the identified climate change vulnerabilities. This is an important step to ensure experienced and anticipated impacts of climate change are considered in a project.
Clear and direct link between climate change vulnerability and project activities	In line with the principles of the overall MDB climate finance tracking, adaptation finance estimations consider only the finance allocated to specific project activities that are clearly linked to the context of climate change vulnerability identified in Step 1 (vulnerability context). Therefore, where possible, projects are disaggregated into discrete activities. Adaptation finance is attributed only to the activities that clearly respond to the context of climate change vulnerability. Each project activity can then be assessed as an adaptation activity or not relevant for adaptation. When it is not possible to break a project down into activities, the project should instead be treated as a whole.
Estimating adaptation finance	
The cost associated with the "qualified" adaptation measures can be estimated using one of the following two approaches: • The **incremental approach** estimates the additional costs associated with the activities required to adapt the project to climate change against a hypothetical baseline where the project would aim to deliver expected results without addressing physical climate risks. • The **proportional approach** refers to adaptation finance estimated as a proportion of the MDB finance that corresponds to the adaptation activities included in a project. This may be informed by a range of trusted information sources, including assessments of the cost of adaptation in similar operations or expert knowledge on the relevant sectoral practice. MDBs will continue to share and exchange knowledge on the criteria that may be used to inform the use of the proportional approach.	

[5] Explanatory text in the table below is to be replaced with actual report.