



Add certification label
(if the project is
certified)

Assessment Report

Project Name: Boz-Uchuk HPP

Installed Capacity: 5.4 MW

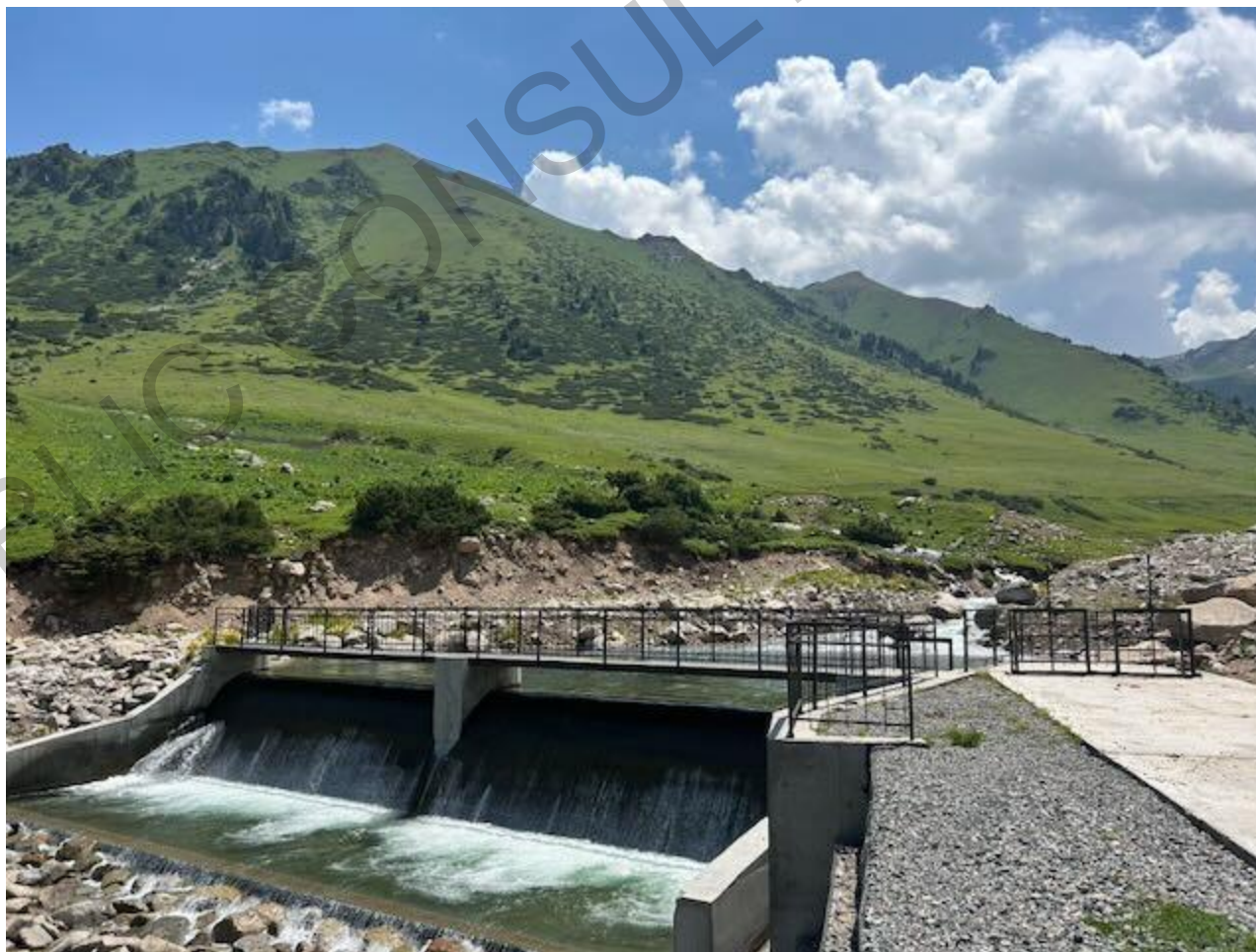
Country: Kyrgyzstan

Add project sponsor
logo
(if applicable)

Project Sponsor: Ananyevo GES LLC

Report Author: Joerg Hartmann, Afsona
Atobekova, Mavluda Mamadatoeva

Report Date: September 8, 2026



Operation

Boz-Uchuk HPP, 5.4 MW, Kyrgyzstan

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The findings in this report are based on an independent assessment conducted in compliance with the processes set out in the Hydropower Sustainability Assurance System.



Hydropower Sustainability Standard

About the HSS	The Hydropower Sustainability (HS) Standard is the normative document that sets out the performance requirements of the Hydropower Sustainability Certification System, a global labelling and certification scheme outlining the expectations for hydropower projects around the world. The HS Standard recognises hydropower projects for their environmental, social and governance (ESG) performance by setting minimum and advanced performance requirements for the sector and acknowledging projects for meeting these requirements. The HS Standard is aligned with the safeguards of key lenders (e.g. IFC and World Bank) and can be used to attract climate-aligned finance through green bonds certified by the Climate Bonds Initiative and support electricity sales to RE100 companies. The HS Standard is managed by the Hydropower Sustainability Alliance. The HS Alliance was established in October 2023 to act as the independent and multistakeholder standard-setting body that oversees the Hydropower Sustainability Certification System.
Intended users and uses	The HS Standard includes three separate stages: Preparation, Implementation and Operation. These reflect the different stages of hydropower development and have been designed to be used as standalone documents. Each reporting template provides an action plan to help project teams address any gaps against minimum (good practice) and advanced requirements (best practice). Official HS Standard assessments are carried out by Accredited Assessors, who take an evidence-based approach based on data triangulation. All findings are supported by objective evidence, which is factual, reproducible, objective and verifiable. The HS Standard is most effective when operators and developers commit to implement the recommendations provided and resolve identified significant gaps. Hydropower development and operation may involve public entities, private companies or combined partnerships, and responsibilities may change as the project progresses through its life cycle. It is intended that the organisation with the primary responsibility for a project at its particular life-cycle stage will have a central role in any HS Standard assessment.
Structure of the reporting template	The HS Standard comprises 12 sections that cover the environmental, social, governance and climate change impacts, both negative and positive, that arise from hydropower development and operation. Summary sections at the beginning of the report include: (A) Assessment Overview, (B) Project Details, (C) Performance against Minimum Requirements, (D) Performance against Advanced Requirements, (E) Environmental and Social Action Plan and (F) Abbreviations and Acronyms. The summary sections are followed by the 12 ESG sections where requirements for good and best practices are presented and project findings are provided. The report finishes with three appendixes that list the types of evidence used in the assessment.
Supporting resources	Additional guidance on the structure, content and history of the HS Standard can be found online at: www.hs-alliance.org
Version date	October 2023

A. Assessment Overview

Assessor(s)	Joerg Hartmann (Sustainable Water & Energy LLC), Afsona Atobekova (Pamir Energy Co), Mavluda Mamadatoeva (PMG Rogun)
Assessment objective	Identifying opportunities to improve the environmental and social quality of the Boz-Uchuk HPP and the capacity and reputation of the joint venture partners, in order to facilitate financing, permitting and stakeholder relations for future projects
Assessment dates	June 15-18, 2026
Assessment report date	September 8, 2026
Summary of key findings	HSS-1: The location, design and operations of the Boz-Uchuk HPP result in small negative E&S impacts, and a newly developed ESMP provides a framework to monitor and manage any residual impacts. The developer is committed to ensuring full implementation of the ESMP through appropriate staffing and funding, and to finishing construction and clean-up of project sites. The project maintains good relations with local stakeholders, by providing support to local communities. HSS-2: The Boz-Uchuk HPP has a small number of staff, as it is a remotely operated power station with periodic maintenance provided by a licensed contractor. It has been in operation for one year, and the operator promotes local employment by building the capacity of a local individual for recruitment as a permanent employee. While interviews with employees indicated satisfaction with working conditions and remuneration, there are plans to upgrade the facilities at the site. HSS-3: The Boz-Uchuk HPP is located on a river with very limited sediment transport and water quality issues, and does not cause significant impacts on water quality, erosion or sedimentation. HSS-4: Negative community impacts associated with the Boz-Uchuk HPP are very limited and are being managed through operational controls and community engagement. No physical displacement occurred, and the limited impacts on forest resources were addressed through compensation and reforestation. The project continues to provide benefits to the local community through employment, support to local institutions and contribution to electricity generation. The project design is inherently safe, and the ESMP establishes management measures for infrastructure safety, emergency preparedness, and stakeholder engagement. Opportunities for improvement include routine disclosure of community agreements and project benefits, demonstrating implementation of emergency preparedness measures, and completing public safety measures, including fencing and warning signage, during site rehabilitation. HSS-5: Not relevant HSS-6: Biodiversity issues associated with operation of the Boz-Uchuk HPP have been identified and are managed through the environmental permit conditions and design measures. Key management measures include maintenance of environmental flows and compensatory reforestation for the permanent loss of protected forest. Implementation of the ESMP will allow verification of the long-term effectiveness of mitigation and compensation measures, and acceptable biodiversity outcomes.

	HSS-7: Not relevant HSS-8: Not relevant HSS-9: Overall governance and procurement responsibilities within the project partnership are assigned to LLC "Ananyevo". During the operational phase of the Boz-Uchuk HPP, procurement activities are limited, and services are procured through direct contracts based on the availability of qualified service providers within the district. HSS-10: The project maintains constructive engagement with local stakeholders, and has established processes for communication with project-affected communities and relevant authorities. Communication arrangements are being upgraded through the ESMP and SEP, providing a systematic framework for stakeholder engagement, information disclosure and grievance management during operation. HSS-11: The project has a very small headpond and only affects river flows in the bypass reach, where a minimum flow equivalent to the estimated lowest natural flows is provided, and there are no indications for any adverse social or ecological impacts of this flow level. HSS-12: Due to its design and location, the Boz-Uchuk HPP is resilient against the effects of climate change and supports Kyrgyzstan's efforts to reduce the carbon intensity of the power sector.
Limitations of the assessment	As a small HPP following Kyrgyz Republic permitting requirements and without additional financier requirements, and as the first project by a newly formed company, the Boz-Uchuk HPP has limited documentation on ESG issues, and could therefore not be assessed against advanced requirements.

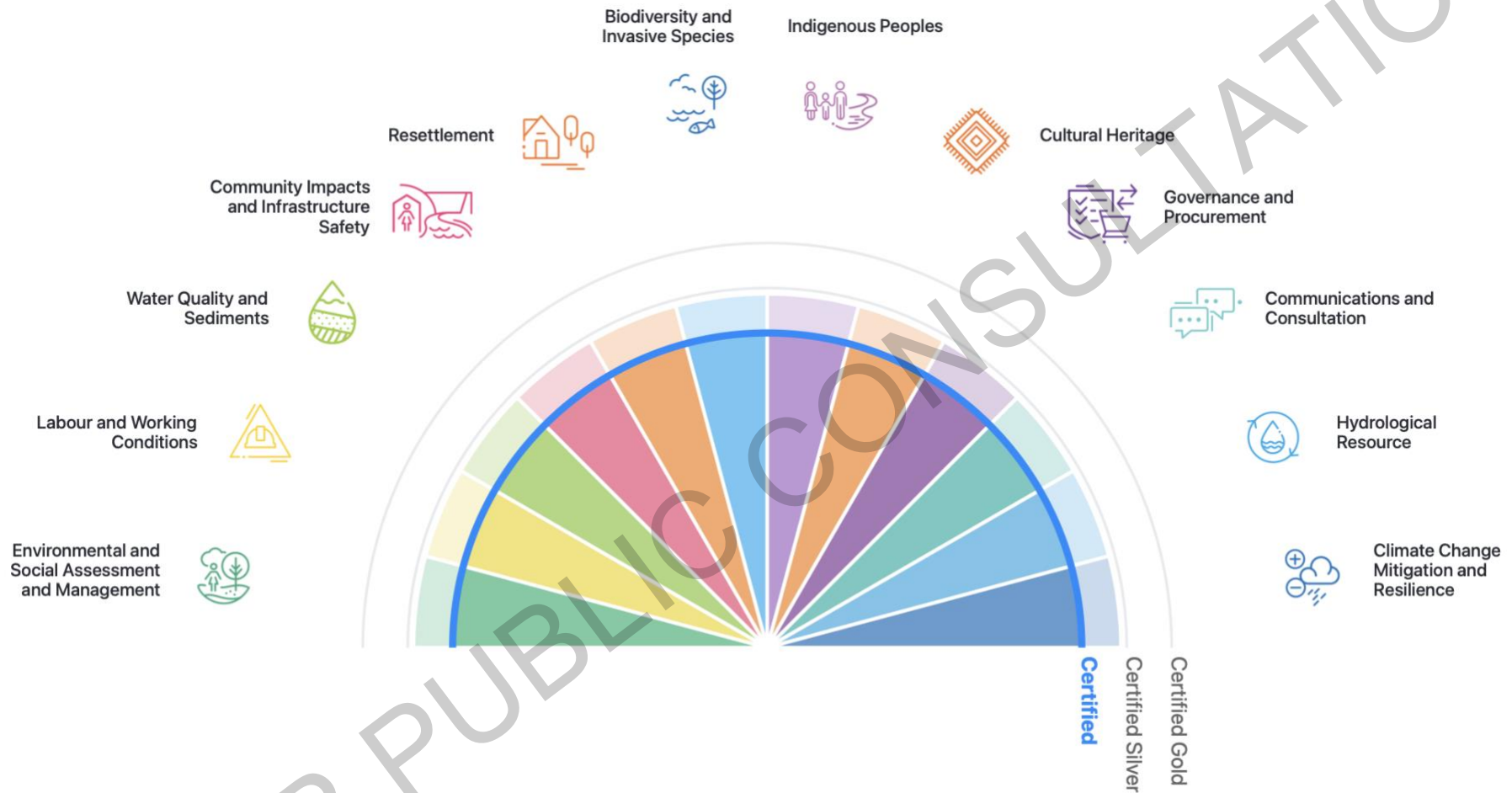


Figure 1 – Hydropower Sustainability Standard (HSS) Results Diagram

B. Project Details

Project name	Boz-Uchuk HPP
Country	Kyrgyzstan
Location	Boz-Uchuk River, Khan-Teniri rural municipality, Ak-Suu district, Issyk-Kul region
Purpose	Hydropower generation
Developer / Owner	Ananyevo GES LLC, owned 50% by OU Hydroenergetica (Estonia) and 50% by Forward GES LLC (Kyrgyzstan)
Financer(s)	Equity from Ananyevo GES LLC, loan from Russian-Kyrgyz Development Fund
Installed capacity (MW)	5.4 MW
Construction start date (planned or actual)	2023
Commercial operations date (planned or actual)	2025
Annual average generation (GWh / year)	29.7 GWh
Associated infrastructure: road(s) (length)	The project infrastructure is located along an existing unpaved road in the Boz-Uchuk valley, that was improved and widened to lay the penstock into the roadway. Short additional access roads were built to the powerhouse and intake.
Transmission lines and sub-stations (names, lengths and capacities)	8 km 35 kV line to the closest substation
Total cost (USD m)	USD 4.2 million (planned)
Annual operating costs (USD m)	Not available
Specific investment cost (USD m / MW)	0.78
Levelised energy cost (USD / kWh)	Not available
Dam type	Concrete weir
Dam height (m)	2 m
Dam length at crest (m)	21.5 m (at base)
Units (number, type, MW)	1 Pelton unit, 5.4 MW
Reservoir area at Full Supply Level (FSL) (km ²)	FSL at 2,688.5 masl, small intake pond largely within the natural riverbanks
Average net head at FSL (m)	Gross head 599.9 m, net head 532.8 m
Average flow (m ³ / s)	50% dependable average flow 1.2 m ³ /s
Design flow (m ³ / s)	Between 120 l/s and 1.2 m ³ /s
Load factor	63% (planned); 48% (first year of operations)
Number of physically displaced households	none
Power density (W / m ²)	5,400
Emissions intensity (gCO ₂ e / kWh)	Very low

Contacts / website

Ananyevo GES LLC: <https://bozuchukges.kg/>. Some project partners and suppliers such as <https://hydroenergetica.com/en/>, <https://www.bh.kg> and <https://www.cink-hydro-energy.com> have their own websites.

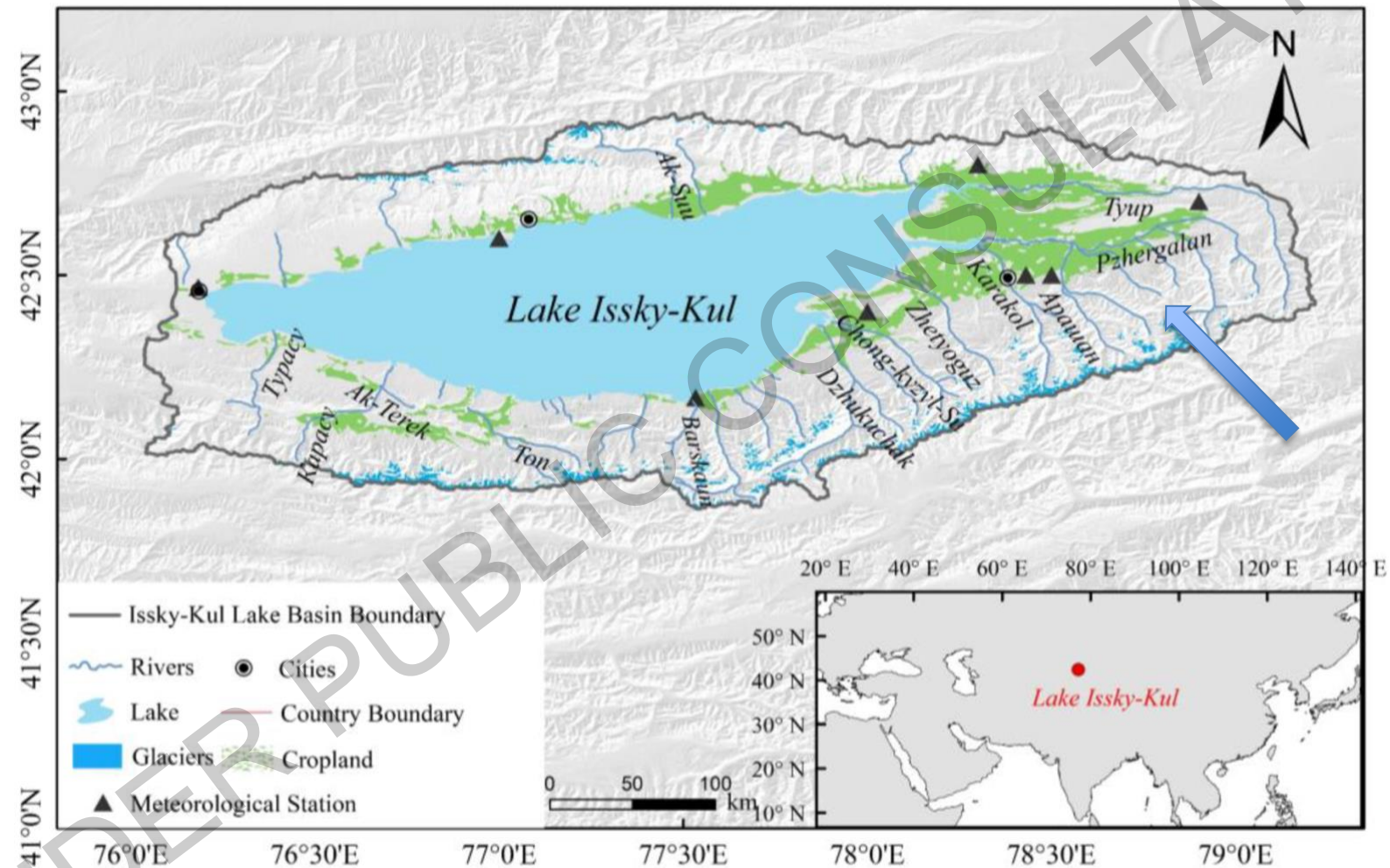


Figure 2 – Catchment of the Issyk-Kul endorheic lake. The Boz-Uchuk River is a tributary of the Jyrgalan River (note spelled Pzhergalan in map), highlighted in east (source: Zhang et al 2022)



Figure 3 – Google Earth image of Boz-Uchuk valley, view towards south, with village in foreground

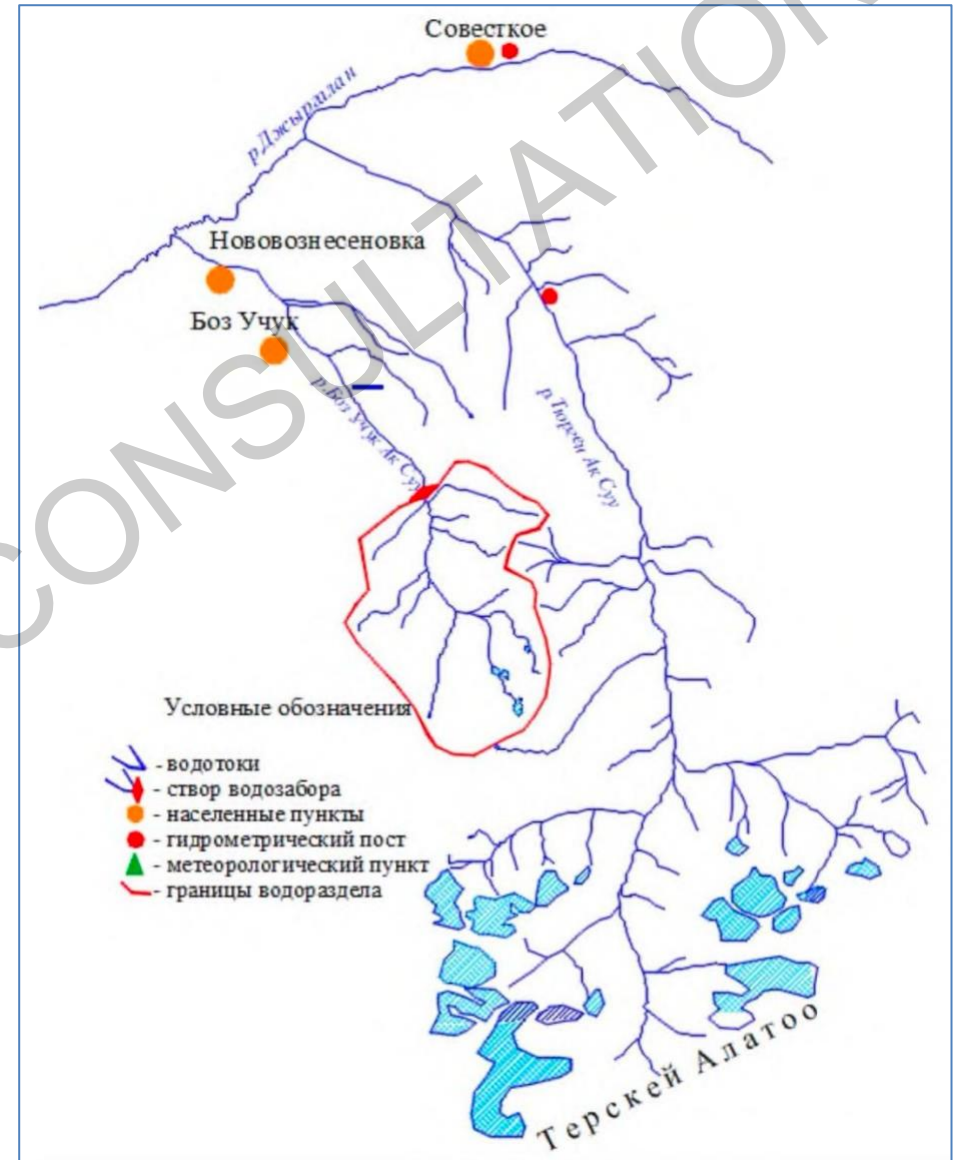


Figure 4 – Boz-Uchuk river system, with catchment area at headworks in red

C. Performance against Minimum Requirements

Not required since there are no significant gaps against the Minimum Requirements.

Boz-Uchuk HPP, 5.4 MW, Kyrgyzstan

D. Performance against Advanced Requirements

Advanced requirements were not assessed.

E. Environmental and Social Action Plan (ESAP)

Not required since there are no significant gaps against the Minimum Requirements.

F. Abbreviations and Acronyms

ESMS	Environmental and Social Management System
ESMP	Environmental and Social Management Plan
E&S	Environmental and social
GLOF	Glacial Lake Outburst Flood
HPP	Hydropower Plant
ILO	International Labour Organization
LLC	Limited Liability Company
n/a	Not applicable
NDC	Nationally Determined Contribution
OHS	Occupational Health and Safety
O&M	Operations and Maintenance
SEP	Stakeholder Engagement Plan

1 Environmental and Social Assessment and Management



Scope and Principle

This section addresses the plans and processes for environmental and social issues management. The principle is that negative environmental and social impacts associated with the hydropower facility are managed; avoidance, minimisation, mitigation, compensation and enhancement measures are implemented; and environmental and social commitments are fulfilled.

Background

Identify the main environmental and social issues during operation	The Boz-Uchuk HPP has very limited environmental and social issues during operations. It has a small footprint, located entirely on public forest lands, and did not cause economic or physical displacement. It affects the Boz-Uchuk River along a reach with limited social and environmental uses and values. Nevertheless, it requires some monitoring of impacts, engagement with local communities, and standard environmental, health and safety management measures.
Identify the environmental regulator	Issyk-Kul Regional Department of the Ministry of Natural Resources, Ecology and Technical Supervision
Identify other regulators (e.g. on land, water use, Indigenous Peoples)	Karakol State Forestry Enterprise, Forestry Service under the Ministry of Agriculture

Summarise the ESIA regulatory requirements	The project was licensed by the environmental authority, based on an environmental and social assessment submitted by the developer, including evaluations by several specialised government agencies (district administration as well as national ministries of natural resources, emergency situations, culture, and agriculture). The transmission line is subject to a separate license. In 2024, the Government of the Kyrgyz Republic temporarily suspended routine inspections of business entities, including HPP operators. Environmental compliance is maintained through (i) unannounced inspections initiated by the District Prosecutor, with the involvement of the relevant environmental authorities where required, and (ii) the investigation of environmental complaints or grievances submitted by local residents.
Describe the non-physical cultural heritage in the project area	Following life under the Soviet Union and independence in 1991, the population in the project area has maintained some elements of traditional lifestyles and cultural identity, for example related to nomadic herding, clothing and arts (see also sections 7 and 8). However, the area is also currently undergoing rapid development, for example construction of residential buildings and infrastructure such as roads, hydropower projects and ski resorts.

Minimum Requirements			Advanced Requirements		
Requirement is met: yes (✓) or no (✗)	Findings and Observations		Requirement is met: yes (✓) or no (✗)	Findings and Observations	
ASSESSMENT					
Systematic processes are in place to identify any ongoing or emerging environmental and social issues associated with the operating hydropower facility	✓	At the time of the field assessment of Boz-Uchuk HPP, no formal Environmental and Social Management System (ESMS) was in place. However, the operation team has started establishing an ESMS with the development of an Environmental and Social Management Plan (ESMP).	Processes to identify ongoing and emerging environmental and social issues take into account broad considerations, and both risks and opportunities	Select	Not assessed
The processes utilise appropriate expertise	✓	Staff responsibilities in the current operation team are not yet fully defined, but the developer is committed to ensuring adequate resourcing, by appointing a designated E&S specialist or contracted E&S expertise to implement the ESMP, including monitoring programmes.			

Minimum Requirements			Advanced Requirements		
Requirement is met: yes (✓) or no (✗)		Findings and Observations	Requirement is met: yes (✓) or no (✗)		Findings and Observations
Monitoring programmes are in place for identified issues	✓	See above.			
MANAGEMENT					
Environmental and social management system is in place to manage measures to address identified environmental and social issues	✓	Because of the low project impacts, a simple but functional ESMS is sufficient. The ESMP covers all E&S risks through monitoring and management measures. The developer is committed to ensuring implementation of the ESMP, to address any emerging risks, issues, or non-conformities that may require corrective action.	Processes are in place to anticipate and respond to emerging risks and opportunities	Select	Not assessed
This management system is implemented utilising appropriate expertise (internal and external)	✓	See above.	Plans and processes are embedded within an internationally recognised environmental management system which is third party verified, such as ISO 14001	Select	Not assessed
CONFORMANCE AND COMPLIANCE					
Processes and objectives in environmental and social management plans have been and are on track to be met with:			There are no non-compliances	Select	Not assessed
• no major non-compliances	✓	The developer was recently fined by the District Prosecutor for unfinished clean-up of solid waste after the construction works. However, there are no indications that this issue caused significant environmental impacts, and the developer is committed to finishing construction and clean-up shortly (which were delayed due to urgent works on other			

Minimum Requirements			Advanced Requirements		
Requirement is met: yes (✓) or no (✗)		Findings and Observations	Requirement is met: yes (✓) or no (✗)		Findings and Observations
		projects), hence this is not considered a major non-compliance.			
• no major non-conformances	✓	There are no indications for major non-conformances.			
Environmental and social commitments have been or are on track to be met	✓	Obligations under general environmental regulations (such as site clean-up) and under license conditions (such as forestry compensation) are on track to be met. Voluntary social commitments are also being met.	There are no non-conformances	Select	Not assessed
Environmental and social funding commitments have been or are on track to be met	✓	See above.			
OUTCOMES					
Negative environmental and social impacts associated with hydropower facility operations are avoided, minimised and mitigated	✓	Due to their location and design, the HPP and associated facilities have low E&S impacts. Residual impacts are covered by the ESMP's monitoring and mitigation measures. Arrangements with service providers for machine maintenance and solid waste disposal are in place.	Negative environmental and social impacts associated with hydropower facility operations are avoided, minimised, mitigated and compensated	Select	Not assessed
Land disturbance associated with development of the hydropower project is rehabilitated or mitigated	✓	During the construction phase, an area of pastureland was temporarily used for the construction camp. The area has been rehabilitated, and compensation was provided to the affected land user in accordance with the agreed arrangements. The areas around the powerhouse and switchyard, and around the intake still			

Minimum Requirements			Advanced Requirements		
Requirement is met: yes (✓) or no (✗)		Findings and Observations	Requirement is met: yes (✓) or no (✗)		Findings and Observations
		require finishing and rehabilitation (see above). No operational activities requiring additional land disturbance are expected.			
The operating hydropower facility or the corporate entity to which it belongs can pay for social and environmental commitments	✓	The developer maintains the required environmental permits and pays the applicable compensation and environmental fees in accordance with regulatory requirements. Project beneficiaries confirm that the developer is meeting its social commitments, including the timely provision of agreed compensation, other obligations, and project benefits.			

List of significant gaps against Minimum Requirements	Number of Advanced Requirements met
None	n/a

Summary of findings and other notable issues
The location, design and operations of the Boz-Uchuk HPP result in small negative E&S impacts, and a newly developed ESMP provides a framework to monitor and manage any residual impacts. The developer is committed to ensuring full implementation of the ESMP through appropriate staffing and funding, and to finishing construction and clean-up of project sites. The project maintains good relations with local stakeholders, by providing support to local communities.

Relevant evidence	
Interview	1, 5-8, 11
Document	4, 14, 16, 18, 21
Photo	1, 7, 12, 15, 16, 18, 27, 29, 30, 31, 32, 40, 41, 42, 43, 45



2 Labour and Working Conditions

Scope and Principle

This section addresses labour and working conditions, including employee and contractor opportunity, equity, diversity, health and safety. The principle is that workers are treated fairly and protected.

2.1 Background

Labour requirements during operation (full-time equivalent)	The Boz-Uchuk HPP has 5 staff permanently assigned (the project director, technical supervisor and three security guards). Remaining construction and clean-up work will be undertaken by the civil works contractor. Maintenance is outsourced to a licensed service provider.
Applicable key human resources regulations	The key legislation is the Labour Code of Kyrgyzstan, in its latest version from 2025. Kyrgyzstan is a member of the International Labour Organization (ILO) and has ratified 53 ILO Conventions.
Applicable key occupational health and safety (OH&S) regulations	Law of the Kyrgyz Republic on Labour Protection / Occupational Safety and Health (2026)
Identify the regulator for labour law and OH&S	Occupational Safety and Health Centre of the Kyrgyz Republic

Minimum Requirements			Advanced Requirements		
Requirement is met: yes (✓) or no (✗)	Findings and Observations		Requirement is met: yes (✓) or no (✗)	Findings and Observations	
ASSESSMENT					
A periodically updated assessment has been undertaken of human resource and labour management requirements for the operating facility	✓	Shareholders hold monthly meetings to discuss project-related matters, including labour and occupational health and safety (OHS) issues.	Identification of ongoing or emerging labour management issues takes broad considerations into account, and both risks and opportunities	Select	Not assessed
The assessment included project occupational health and safety issues, risks, and management measures	✓	The design and location of the HPP and its associated facilities result in a relatively low risk profile for workers. Except for the security guards, the HPP is unmanned and remotely			

Minimum Requirements			Advanced Requirements		
Requirement is met: yes (✓) or no (✗)		Findings and Observations	Requirement is met: yes (✓) or no (✗)		Findings and Observations
		operated, with periodic visits for O&M and monitoring.			
Monitoring is being undertaken to assess if management measures are effective	✓	The project has been operational for one year, and thus far labour-related monitoring has shown satisfactory results, with no significant accidents, conflicts, or legal proceedings.			
Ongoing or emerging labour management issues have been identified	✓	A key issue in the region is the scarcity of skilled workers. However, 1) this affects mainly projects in the construction stage, rather than the operation stage, and 2) the current labour arrangements, with remote operations and outsourced maintenance, appear to be a good solution, and 3) the operator is developing in-house capacity through the training of a future permanent employee.			
MANAGEMENT					
Human resource and labour management policies, plans and processes are in place to address all labour management planning components	✓	Labour requirements are met through a combination measures as described above. The ESMP outlines mitigation actions to address risks to the labour force of the HPP. The developer provides collective accident insurance covering occupational injury, disability, occupational disease, and death. OHS training is conducted in accordance with regulatory guidance.	Processes are in place to anticipate and respond to emerging risks and opportunities	Select	Not assessed
Human resource and labour management policies, plans and processes of contractors,	✓	The civil works contractor who is also a shareholder of Boz-Uchuk HPP, is building another small hydropower			

Minimum Requirements			Advanced Requirements		
Requirement is met: yes (✓) or no (✗)		Findings and Observations	Requirement is met: yes (✓) or no (✗)		Findings and Observations
subcontractors and intermediaries are in place		project (Jyrgalang HPP) in the same district. Appropriate labour camp facilities and accommodation are provided for the on-site workforce as part of the company's efforts to enhance its attractiveness as an employer and support workforce recruitment and retention. There are no concerns regarding labour conditions for the workers of this contractor. There are also no indications for any issues regarding labour conditions of the maintenance contractor.			
CONFORMANCE AND COMPLIANCE					
Processes and objectives relating to human resource and labour management have been and are on track to be met with:					
• no major non-compliances	✓	There are no indications for major non-compliances. A minor non-compliance is that the regulatory guidance on OHS requires refresher training at least every six months, while training records indicated that refresher training was conducted once per year.	There are no non-compliances	Select	Not assessed
• no major non-conformances	✓	There are no indications for major non-conformances.			
Any labour related commitments have been or are on track to be met	✓	At the time of the site assessment, the accommodation and sanitary facilities for the workforce at the HPP were still inadequate. The project became operational earlier than initially planned, and hence some	There are no non-conformances	Select	Not assessed

Minimum Requirements			Advanced Requirements		
Requirement is met: yes (✓) or no (✗)		Findings and Observations	Requirement is met: yes (✓) or no (✗)		Findings and Observations
		construction works need to be finished, including facilities for workers. These works are planned to be completed shortly.			
OUTCOMES					
There are no identified inconsistencies of labour management policies, plans and practices with internationally recognised labour rights	✓	No labour rights issues were identified. Interviews with employees confirmed their motivation for their work and satisfaction with conditions provided by the developer, noting that the level of remuneration was comparable to that available for similar employment opportunities in Bishkek, making local employment an equally attractive option.	Labour management policies, plans and practices are demonstrated to be consistent with internationally recognised labour rights	Select	Not assessed

List of significant gaps against Minimum Requirements	Number of Advanced Requirements met
None	n/a

Summary of findings and other notable issues
The Boz-Uchuk HPP has a small number of staff, as it is a remotely operated power station with periodic maintenance provided by a licensed contractor. It has been in operation for one year, and the operator promotes local employment by building the capacity of a local individual for recruitment as a permanent employee. While interviews with employees indicated satisfaction with working conditions and remuneration, there are plans to upgrade the facilities at the site.

Relevant evidence	
Interview	2-6, 11, 12
Document	4, 9, 21, 23-25
Photo	20, 21, 23, 33, 36, 38

3 Water Quality and Sediments



Scope and Principle	
This section addresses the management of water quality, erosion and sedimentation issues associated with the operating hydropower facility. The principle is that water quality in the vicinity of the operating hydropower facility is not adversely impacted by activities of the operator, that erosion and sedimentation caused by the project are managed responsibly and do not present problems with respect to other social, environmental and economic objectives, and that commitments to address water quality, erosion and sedimentation issues are fulfilled.	

Background	
Water Quality	
Description of water quality	The Boz-Uchuk River is a largely snow-fed river originating in the Teskey Ala-Too Range (part of the Tien Shan mountain system), which rises to more than 5,000 masl. Except for some livestock herders and recreational hikers, there are no anthropogenic sources of pollution, and the water is of high quality.
Key water quality issues	There are no significant water quality issues in the river reach affected by the HPP. The village of Boz-Uchuk and other settlements downstream of the HPP partly depend on river water, in particular for irrigation purposes. Issyk-Kul Lake downstream has no outlet, and despite its massive volume of 1,736 km ³ is affected by increasing pollution, from the growth of population and economic activities in the catchment.
Main influences on water quality	No relevant water quality issues have been caused or are expected to be caused by the project, if current practices and plans are followed. There is limited wastewater treatment in the region, and planned developments such as the ski resort could result in pollution, if not adequately managed.
Sedimentology	
Key sediment issues	During peak runoff (2/3 of annual flow occurs between May and August), there are elevated turbidity levels.
Sediment load (tonnes/year)	There are some sediment load data from nearby rivers from Soviet times, but no specific and up-to-date information for the Boz-Uchuk River. The feasibility study estimated a sediment load (suspended and bedload) of 780 tons/year. Operational experience will show how often the headpond must be flushed.
Catchment area at the dam	56.8 km ² , with an average elevation of 3,410 masl

Minimum Requirements		Advanced Requirements	
Requirement is met: yes (✓) or no (✗)	Findings and Observations	Requirement is met: yes (✓) or no (✗)	Findings and Observations
ASSESSMENT			
Ongoing or emerging issues have been identified in the following areas:		Select.	Not assessed

Minimum Requirements			Advanced Requirements		
Requirement is met: yes (✓) or no (✗)		Findings and Observations	Requirement is met: yes (✓) or no (✗)		Findings and Observations
• water quality	✓	There are no significant ongoing or emerging water quality issues. There are no records of spills or other incidents during construction, but the developer is aware that as long as the construction sites is not cleaned up, there is an ongoing risk of contamination, in particular from oil/fuel left behind.	Identification of ongoing or emerging water quality issues takes into account both risks and opportunities		
• erosion and sedimentation	✓	There are no signs of significant erosion near the headworks or tailrace. There is likely some minor additional erosion caused by runoff from disturbed areas; site rehabilitation is addressed in sections 1 and 6. In principle, there are ongoing sedimentation risks from upstream natural hazards such as landslides, but these have not materialized.			
If management measures are required then monitoring is being undertaken to assess if management measures are effective for:					
• water quality	✓	There is no need for water quality monitoring by the project. Disposal of hazardous waste (in particular used oil) by the maintenance contractor will be monitored.	Identification of ongoing or emerging erosion and sedimentation issues takes into account both risks and opportunities	Select.	Not assessed
• erosion and sedimentation	✓	Since the beginning of operations, very little sediment has accumulated in the headpond, and there has been no need for flushing.			
MANAGEMENT					

Minimum Requirements			Advanced Requirements		
Requirement is met: yes (✓) or no (✗)		Findings and Observations	Requirement is met: yes (✓) or no (✗)		Findings and Observations
Measures are in place to manage the following identified issues:			Processes are in place to anticipate and respond to emerging risks and opportunities relating to:		
• water quality	✓	Domestic wastewater at the powerhouse site will be disposed in a septic tank as soon as site cleanup is finalized and a small staff building completed. Regular solid waste will be disposed of through municipal collection. There will be minimal storage of chemicals, fuels, or lubricants at the powerhouse site. The maintenance contractor will be responsible for oil changes and hazardous waste disposal. The substation is properly designed for containment of any spills.	• water quality	Select.	Not assessed
• erosion and sedimentation	✓	Sediment accumulated in the desander and headpond can be flushed when required. There is no need for bank protection. Site rehabilitation and reforestation are addressed in sections 1 and 6.	• erosion and sedimentation	Select.	Not assessed
CONFORMANCE AND COMPLIANCE					
Processes and objectives in place to manage each of the following have been and are on track to be met:			There are no non-compliances relating to:		
• water quality, with no major non-compliances	✓	There are no indications for major non-compliances.	• water quality	Select.	Not assessed
• water quality, with no major non-conformances	✓	There are no indications for major non-conformances.			
• erosion and sedimentation, with no major non-compliances	✓	There are no indications for major non-compliances.	• erosion and sedimentation	Select.	Not assessed

Minimum Requirements			Advanced Requirements		
Requirement is met: yes (✓) or no (✗)		Findings and Observations	Requirement is met: yes (✓) or no (✗)		Findings and Observations
• erosion and sedimentation, with no major non-conformances	✓	There are no indications for major non-conformances.			
Commitments related to the following have been or are on track to be met:			There are no non-conformances relating to:		
• water quality	✓	There are no indications otherwise.	• water quality	Select.	Not assessed
• erosion and sedimentation	✓	There are no indications otherwise.	• erosion and sedimentation	Select.	Not assessed
OUTCOMES					
Negative water quality impacts arising from activities of the operating hydropower facility are avoided, minimised and mitigated	✓	There are no indications for negative water quality impacts, but there is a need to ensure that the site is cleaned up and proper procedures for domestic waste (liquid and solid) and hazardous waste (in particular, oils/lubricants) are put in place, as described in the ESMP.	Water quality in the area affected by the operating hydropower facility is of a high quality	Select.	Not assessed
			The facility has contributed or is on track to contribute to addressing water quality issues beyond those impacts caused by the operating hydropower facility	Select.	Not assessed
Erosion and sedimentation issues are avoided, minimised and mitigated	✓	There are no indications for significant erosion issues, and site rehabilitation and reforestation will further reduce runoff from the small disturbed areas. Sedimentation is less than expected, and can be handled by flushing.	Erosion and sedimentation associated with operating facility do not present ongoing problems for environmental, social and economic objectives of the facility or the project-affected areas	Select.	Not assessed
List of significant gaps against Minimum Requirements			Number of Advanced Requirements met		
None			n/a		

Summary of findings and other notable issues	
The Boz-Uchuk HPP is located on a river with very limited sediment transport and water quality issues, and does not cause significant impacts on water quality, erosion or sedimentation.	
Relevant evidence	
Interview	2, 6, 8, 10, 13, 14
Document	4, 6, 8, 14, 18, 20, 21, 28, 31
Photo	1-7, 11-14, 16-18, 44, 45

4 Community Impacts and Infrastructure Safety



Scope and Principle

This section addresses how impacts of development of the hydropower facility on project-affected communities have been addressed, in cases where these commitments are well-documented against a pre-project baseline. These impacts include economic displacement, impacts on livelihoods and living standards, public health impacts, impacts to rights, risks and opportunities of those affected by the project, infrastructure safety risks and additional benefits that can arise from a hydropower facility. The principle is that livelihoods and living standards impacted by the project have been improved relative to pre-project conditions for project-affected communities, that commitments to project-affected communities have been fulfilled, and that life, property and community assets and resources are protected from the consequences of dam failure and other infrastructure safety risks. This section does not address requirements that relate to physical displacement or to Indigenous Peoples, which are addressed in Section 5 and 7. Other interested parties and groups are addressed in Section 10.

In the case of older projects, commitments to project-affected communities and project benefits refer to commitments made at the time of project development (if they were well-documented) as well as to more recent commitments.

Background

In the case of older projects, commitments to project-affected communities and project benefits refer to commitments made at the time of project development (if they were well-documented) as well as to more recent commitments.

Community Impacts and Benefits

Description of project-affected communities and how they are affected (distinguish between physically displaced (addressed in Section 5), economically displaced and other project-affected communities and include estimated number of people and households)

The Boz-Uchuk HPP is located in the Khan-Teniri Ayil Okmotu (rural municipality, consisting of three villages including Boz-Uchuk village), Ak-Suu District, Issyk-Kul Region. The nearest community is Boz-Uchuk village. Project-affected communities comprise local residents, livestock owners, tourist businesses and tourists, and other users of local access roads and river resources in the Boz-Uchuk valley. Temporary impacts during construction included increased traffic, noise, dust, temporary access restrictions and disturbance associated with construction activities. No households were permanently physically or economically displaced, but the project required the conversion of a limited area of forest land, resulting in a loss of forest resources and ecosystem services. These impacts were addressed through compensation payments and compensatory reforestation. During operation, potential community impacts are limited and relate primarily to public safety around operational infrastructure and maintenance of environmental flows. The project is generating socio-economic benefits through local employment and procurement where feasible, support for community initiatives, a future royalty program (1% of energy generated), and an increased and more reliable electricity supply to the national grid.

Agencies relevant to land acquisition	Ak-Suu District State Administration (Akimat) – coordination and approval at the district level Khan-Teniri Ayil Okmotu (rural municipality) – local authority involved in land allocation and coordination with affected land users State Agency for Land Resources, Cadastre, Geodesy and Cartography of the Kyrgyz Republic (through the local cadastral office) – land registration, cadastral records, and land administration State Agency for Environmental Protection and Forestry / Forestry Service (Karakol Forestry Enterprise) – responsible for approval of the permanent conversion of forest land, compensation for forest losses, and compensatory reforestation where forest land is affected
Agencies relevant to livelihood restoration and project benefits	Local government agencies (see above)
Infrastructure Safety and Public Health	
Type of dam	Concrete weir
Dam height (m)	3 m
Probable maximum flood (m ³ / s)	Not available
Design flood (expressed as estimated flood with return period)	Design flood (1-in-100 years): 16.4 m ³ /s
Spillway capacity (m ³ / s)	The free overflow weir is designed for the 1-in-100 years flood. Larger floods would overtop and divert around the structure.
Spillway height (masl)	2 m
Headrace length (m)	6 km steel penstock, at 1-3 m depth in roadway
Headrace width (m)	1,000 mm / 800 mm / 700 mm
Headrace capacity (m ³ / s)	1.2 m ³ /s
Seismicity	Kyrgyzstan is generally subject to high seismic hazards, and the project documentation indicates seismicity of 9 points; however the areas of highest seismic risks are elsewhere in the country.
Geology	Predominantly boulder-cobble deposits with sand infill, dense alluvial material and metamorphic/igneous rock formations
Dam safety regulatory authorities	- Ministry of Emergency Situations of the Kyrgyz Republic - State construction and technical supervision authorities
Local presence/capacity of emergency services	Local emergency response services are available within Ak-Suu District, under the Ministry of Emergency Situations and local governments.
Potential safety risks in this context	Potential public safety risks include unauthorised access to the diversion weir, intake, desander, penstock, powerhouse and substation. Additional hazards include high flows during extreme flood events, electrical hazards associated with operational facilities, natural hazards such as earthquakes and landslides, and road traffic hazards. During the assessment, unrestricted access to some operational infrastructure was observed while site rehabilitation is not yet

	finished. The developer has committed to installing appropriate public safety measures, including fencing and warning signage, as part of the site rehabilitation works.
Degree of risk of dam failure and in what way	Low. The project consists of a small run-of-river diversion weir with headpond. Failure of the diversion structure would result primarily in localized impacts on project infrastructure and the immediate downstream area.
Population at risk of dam break (locations, numbers)	Low. No significant downstream population at risk was identified.
Dam safety standards followed	National design and construction standards of the Kyrgyz Republic
Agencies relevant to dam safety	- Ministry of Emergency Situations of the Kyrgyz Republic – responsible for emergency preparedness, response and coordination during emergency situations - State Construction and Technical Supervision authorities – responsible for technical oversight and compliance with applicable construction and infrastructure safety requirements - Ak-Suu District Emergency Services – local emergency response and coordination during incidents
Other infrastructure safety issues	See above
Description of key public health issues	No significant public health impacts are associated with project operation.
Agencies relevant to public health	- Ministry of Health of the Kyrgyz Republic - Ak-Suu District Centre for Disease Prevention and State Sanitary and Epidemiological Supervision - Ak-Suu District Health Services (including emergency medical services)

Minimum Requirements		Advanced Requirements	
Requirement is met: yes (✓) or no (✗)	Findings and Observations	Requirement is met: yes (✓) or no (✗)	Findings and Observations
ASSESSMENT			
Community Impacts and Benefits			
Monitoring is being undertaken to assess if the following commitments have been delivered and if management measures are effective:			
commitments to project-affected communities	Commitments to affected communities are monitored through regular engagement with community representatives and local institutions. No outstanding community commitments and unresolved issues were identified. The project maintains ongoing communication with local stakeholders to identify and address community concerns.	Identification of ongoing or emerging issues for project-affected communities takes into consideration both risks and opportunities, and interrelationships among issues	Select Not assessed

Minimum Requirements			Advanced Requirements		
Requirement is met: yes (✓) or no (✗)		Findings and Observations	Requirement is met: yes (✓) or no (✗)		Findings and Observations
• commitments to project benefits	✓	The project continues to implement community benefit initiatives in coordination with local authorities and community institutions. A royalty program (1% of energy generated) has been announced at national level, but implementing regulations still have to be confirmed.			
Ongoing or emerging issues relating to the following have been identified:			Identification of ongoing or emerging issues relating to project benefits takes into account both risks and opportunities	Select	Not assessed
• issues that affect project-affected communities	✓	Issues monitored include community safety around project infrastructure, environmental flow maintenance, maintenance of the access road, livestock movement and community requests for local employment and support.			
• delivery of project benefits	✓	The project continues to monitor the delivery of community benefits through ongoing engagement with local authorities and community representatives. Community support initiatives are reviewed periodically, and additional assistance is provided in response to identified local priorities and requests.			
Infrastructure Safety and Public Health					
Ongoing or emerging issues relating to the following have been identified:			Identification of ongoing or emerging safety issues takes into account a broad range of scenarios and both risks and opportunities	Select	Not assessed
• dam and other infrastructure safety	✓	There is no evidence of any structural safety deficiencies or operational incidents affecting community safety. The project utilises automated			

Minimum Requirements			Advanced Requirements		
Requirement is met: yes (✓) or no (✗)		Findings and Observations	Requirement is met: yes (✓) or no (✗)		Findings and Observations
		monitoring and control systems together with outsourced routine maintenance activities to support infrastructure safety. During the site visit, opportunities for improvement were identified regarding public access control, warning signage and documentation of emergency preparedness arrangements.			
• public health issues associated with the operating hydropower facility	✓	No public health impacts or health-related complaints associated with operation of the hydropower facility were identified during the assessment.			
Routine monitoring of dam and infrastructure safety is being undertaken to identify risks and assess the effectiveness of management measures	✓	Routine operational inspections are undertaken for the diversion weir, intake structures, penstock, powerhouse and associated electrical equipment. Infrastructure safety is supported through automated monitoring and control systems, fire detection and alarm systems, and scheduled maintenance activities.			
If public health issues require management measures then monitoring is being undertaken to assess if management measures are effective	✓	No public health management measures are required.	Identification of ongoing or emerging public health issues takes into account public health system capacities, access to health services, and health needs, risks and opportunities for different community groups	Select	Not assessed
MANAGEMENT					

Minimum Requirements			Advanced Requirements		
Requirement is met: yes (✓) or no (✗)		Findings and Observations	Requirement is met: yes (✓) or no (✗)		Findings and Observations
Community Impacts and Benefits					
Measures are in place to deliver commitments:			Processes are in place to anticipate and respond to emerging risks and opportunities relating to project-affected communities and project benefits	Select	Not assessed
• to project-affected communities	✓	No unresolved community concerns were identified during the assessment.			
• to project benefits	✓	The project continues to implement community benefit initiatives in cooperation with local authorities and community institutions. These include provision of heating equipment for the local medical centre, sports equipment for the community sports complex, paving materials for the kindergarten, musical equipment for the local school, financial support for girls from low-income families, annual distribution of New Year gifts for local children, and specific support (e.g. water supply) to neighbours. Additional benefits include local employment opportunities during construction and operation, procurement of local goods and services where feasible, and electricity generation contributing to the national grid.			
Measures are in place to manage any identified issues relating to these commitments:					
• to project-affected communities	✓	Processes are in place to manage issues relating to commitments through ongoing engagement between the developer, community			

Minimum Requirements			Advanced Requirements		
Requirement is met: yes (✓) or no (✗)		Findings and Observations	Requirement is met: yes (✓) or no (✗)		Findings and Observations
		representatives and local institutions. Community concerns are communicated directly to relevant company personnel and addressed through routine interaction with local stakeholders; the newly established ESMP will provide a systematic permanent framework. No outstanding issues requiring additional management measures were identified.			
• to project benefits	✓	Processes to deliver benefits commitments are in place between the developer and local stakeholders. Community support initiatives are identified and implemented in response to locally identified needs and priorities.			
If there are any formal agreements with project-affected communities, these are publicly disclosed	✓	Formal agreements with project-affected communities are those concluded during meetings with authorities and local institutions and thus disclosed to residents.			
Commitments to project benefits are publicly disclosed	✓	See above. There are some opportunities to document and publicise community support initiatives and follow-up actions more broadly and routinely, for example through the new website.			
Infrastructure Safety and Public Health					
Dam and other infrastructure safety management plans and	✓	Infrastructure safety management measures are incorporated into the	Processes are in place to anticipate and respond to	Select	Not assessed

Minimum Requirements			Advanced Requirements		
Requirement is met: yes (✓) or no (✗)		Findings and Observations	Requirement is met: yes (✓) or no (✗)		Findings and Observations
processes have been developed in conjunction with relevant regulatory and local authorities		ESMP including the Emergency Response Plan, as well as Operation and Maintenance procedures (for example, through preventive maintenance). These documents were prepared in accordance with applicable national regulatory requirements and include coordination with the Ministry of Emergency Situations and other competent authorities where required.	emerging infrastructure safety risks and opportunities		
These plans and processes provide for communication of public safety measures	✓	The ESMP includes provisions for communication with stakeholders through the Stakeholder Engagement Plan (SEP), public information procedures, and the Emergency Preparedness and Response Plan. It provides for informing local communities about emergency preparedness, planned works, safety-related issues and emergency situations.	Public safety measures are widely communicated in a timely and accessible manner	Select	Not assessed
Emergency response plans and processes include awareness and training programmes and emergency response simulations	✓	The ESMP includes an Emergency Preparedness and Response Plan covering emergency procedures, assigned responsibilities, staff awareness and training, and regular emergency response drills for a range of potential emergency scenarios. Opportunities remain to strengthen documentation of emergency preparedness activities, periodic			

Minimum Requirements			Advanced Requirements		
Requirement is met: yes (✓) or no (✗)		Findings and Observations	Requirement is met: yes (✓) or no (✗)		Findings and Observations
		emergency response exercises, and public safety communication.			
Measures are in place to manage identified public health issues	✓	No public health measures are required.	Processes are in place to anticipate and respond to emerging public health risks and opportunities	Select	Not assessed
CONFORMANCE AND COMPLIANCE					
Community Impacts and Benefits					
Processes and objectives in place to manage the following have been and are on track to be met:			There are no non-compliances relating to:		
• delivery of commitments to project-affected communities, with no major non-compliances	✓	There are no indications for major non-compliances.	• project-affected communities	Select	Not assessed
• delivery of commitments to project-affected communities, with no major non-conformances	✓	There are no indications for major non-conformances.			
• project benefits, with no major non-compliances	✓	There are no indications for major non-compliances.	• project benefits	Select	Not assessed
• project benefits, with no major non-conformances	✓	There are no indications for major non-conformances.			
Commitments have been or are on track to be met relating to:			There are no non-conformances relating to:		
• project-affected communities	✓	There are no indications otherwise.	• project-affected communities	Select	Not assessed
• project benefits	✓	There are no indications otherwise.	• project benefits	Select	Not assessed
Infrastructure Safety and Public Health					
Processes and objectives in place to manage the following have been and are on track to be met:			There are no non-compliances relating to:		

Minimum Requirements			Advanced Requirements		
Requirement is met: yes (✓) or no (✗)		Findings and Observations	Requirement is met: yes (✓) or no (✗)		Findings and Observations
• dam and other infrastructure safety, with no major non-compliances	✓	There are no indications for major non-compliances.	• dam and other infrastructure safety	Select	Not assessed
• dam and other infrastructure safety, with no major non-conformances	✓	There are no indications for major non-conformances.			
• public health issues, with no major non-compliances	✓	There are no indications for major non-compliances.	• public health	Select	Not assessed
• public health issues, with no major non-conformances	✓	There are no indications for major non-conformances.			
Commitments have been or are on track to be met relating to:			There are no non-conformances relating to:		
• dam and other infrastructure safety	✓	There are no indications otherwise. Finishing of construction and site clean-up will include fencing and signage measures.	• dam and other infrastructure safety	Select	Not assessed
• public health	✓	Project benefits have included support to the local health centre.	• public health	Select	Not assessed
OUTCOMES					
Community Impacts and Benefits					
Livelihoods and living standards impacted by the project have been or are on track to be improved	✓	The project has contributed to local livelihoods and living standards through employment opportunities during construction and operation, procurement of local goods and services where feasible, and implementation of community support initiatives benefiting local health, education and social infrastructure. Interviews with local stakeholders indicated that these initiatives have contributed positively	The measures put in place to improve livelihoods and living standards are on track to become self-sustaining in the long-term	Select	Not assessed

Minimum Requirements			Advanced Requirements		
Requirement is met: yes (✓) or no (✗)		Findings and Observations	Requirement is met: yes (✓) or no (✗)		Findings and Observations
		to the local community. No adverse livelihood impacts requiring restoration were identified during the assessment.			
Economic displacement has been fairly compensated, preferably through provision of comparable goods, property or services	✓	Areas temporarily used for construction were rented, rehabilitated and returned. Forest resources on permanently used state forest land are being replaced.			
Communities directly affected by the development of the hydropower facility and any other identified beneficiary of the facility have received or are on track to receive benefits	✓	Communities affected by the project have received benefits through local employment opportunities, support to education, healthcare, sports and other community initiatives, and improved access to reliable electricity generation contributing to the national grid. Interviews with community representatives confirmed that these initiatives have contributed positively to local health, education, sports and community development. The impact may be broadened by the announced 1% royalty programme.	Benefits are significant and sustained for communities affected by the project	Select	Not assessed
Infrastructure Safety and Public Health					
Safety risks have been avoided, minimised and mitigated with no significant gaps	✓	Safety risks associated with operation of the hydropower facility are managed through engineering design, routine operational inspections, preventive maintenance, automated monitoring and control systems, and implementation of the Emergency Response Plan. No significant safety	Safety risks have been avoided, minimised and mitigated with no identified gaps	Select	Not assessed
			Safety issues have been addressed beyond those risks caused by the operating facility itself	Select	Not assessed

Minimum Requirements			Advanced Requirements		
Requirement is met: yes (✓) or no (✗)		Findings and Observations	Requirement is met: yes (✓) or no (✗)		Findings and Observations
		incidents have been noted. Opportunities remain to further strengthen public safety communication, emergency preparedness exercises, and access control around operational infrastructure.			
Negative public health impacts arising from activities of the operating hydropower facility are avoided, minimised and mitigated	✓	No project-related public health impacts have been identified.	Where opportunities have been identified, measures to address public health issues beyond those impacts caused by the operating hydropower facility have been or are on track to be achieved	Select	Not assessed

List of significant gaps against Minimum Requirements	Number of Advanced Requirements met
None	n/a

Summary of findings and other notable issues
Negative community impacts associated with the Boz-Uchuk HPP are very limited and are being managed through operational controls and community engagement. No physical displacement occurred, and the limited impacts on forest resources were addressed through compensation and reforestation. The project continues to provide benefits to the local community through employment, support to local institutions and contribution to electricity generation. The project design is inherently safe, and the ESMP establishes management measures for infrastructure safety, emergency preparedness, and stakeholder engagement. Opportunities for improvement include routine disclosure of community agreements and project benefits, demonstrating implementation of emergency preparedness measures, and completing public safety measures, including fencing and warning signage, during site rehabilitation.

Relevant evidence	
Interview	1, 3, 4, 9-13
Document	1, 7-14, 18-25, 29, 34
Photo	2, 5-8, 19, 21, 23, 26, 29, 30, 31

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5 Resettlement



Scope and Principle

This section addresses how the physical displacement arising from development of the hydropower facility has been addressed, in cases where resettlement occurred and commitments are well-documented against a pre-project baseline. The principle is that the dignity and human rights of those physically displaced have been respected; that these matters have been dealt with in a fair and equitable manner; that livelihoods and standards of living for resettles and host communities have been improved; and that commitments made to resettles and host communities have been fully fulfilled. This section does not address those that are only economically displaced, who are addressed in Section 4.

Background

Did the project require or result in any physical displacement of people? Please state the evidence on which this determination is made.

Yes, this section is relevant (for older projects, see note below)

[Click here to enter text.](#)

No, this section is not relevant

No physical displacement of people was required to implement the Boz-Uchuk HPP.

6 Biodiversity and Invasive Species



Scope and Principle

This section addresses ecosystem values, habitat and specific issues such as threatened species and fish passage in the catchment, reservoir and downstream areas, as well as potential impacts arising from pest and invasive species associated with the operating hydropower facility. The principle is that there are healthy, functional and viable aquatic and terrestrial ecosystems in the area that are sustainable over the long-term; that biodiversity impacts arising from the operating hydropower facility are managed responsibly; that ongoing or emerging biodiversity issues are identified and addressed as required; and that commitments to implement biodiversity and invasive species measures are fulfilled.

Background

Short description of the ecological region in the project area	The project is located on the Boz-Uchuk River in the Ak-Suu District of Issyk-Kul Region, Kyrgyz Republic, within the Teskey Ala-Too mountain range. The project area comprises a mountainous river valley characterised by alpine and subalpine vegetation, mountain grasslands, rocky slopes, and riparian habitats. All affected lands belong to the State Forest Fund under the management of the Karakol Forestry Enterprise. According to the project evaluation by this agency, the land allocation covers 4.49 ha, including 0.86 ha of protected forest consisting primarily of dwarf Siberian pine (<i>Pinus pumila</i>) and Tien Shan spruce (<i>Picea schrenkiana</i>)
Protected areas (national parks and reserves etc) and their distance from the project	No protected areas are directly affected by the small footprint of the project. Several protected areas, key biodiversity areas, and state forest lands are located nearby, covering similar ecosystems.
Critical habitats in the project area, including important bird areas, hotspots of endemism etc.	None identified
# threatened species in the directly affected area: terrestrial	None identified
# threatened species: aquatic	None identified
Any other species of conservation importance	Protected forest vegetation includes dwarf Siberian pine (<i>Pinus pumila</i>) and Tien Shan spruce (<i>Picea schrenkiana</i>), which contribute to local habitat diversity and ecosystem services.
Migratory pathways	None identified
Invasive species: terrestrial	None identified
Invasive species: aquatic	None identified
Key threats to biodiversity	The mountain forests and rivers in the project region are experiencing some cumulative pressure from tourism, hydropower development, and climate change. The Boz-Uchuk project contributes, although in a relatively minor way, to permanent vegetation clearance, including of some protected forests, and alteration of aquatic habitats.

Agencies involved in biodiversity conservation	Ministry of Natural Resources, Ecology and Technical Supervision of the Kyrgyz Republic (Issyk-Kul–Naryn Regional Department) Karakol Forestry Enterprise (Leskhoz) Institute of Biology of the National Academy of Sciences of the Kyrgyz Republic (scientific support for ichthyological and hydrobiological assessments)
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Minimum Requirements			Advanced Requirements		
Requirement is met: yes (✓) or no (✗)	Findings and Observations		Requirement is met: yes (✓) or no (✗)	Findings and Observations	
ASSESSMENT					
Ongoing or emerging biodiversity issues have been identified	✓	Ongoing biodiversity issues have been identified through the project's environmental studies, including the Forest Management Conclusion, the State Ecological Expertise and the Ichthyological Report. The principal biodiversity issues during operation relate to protection of aquatic habitats through maintenance of environmental flows, management of the permanently affected State Forest Fund land through compensatory reforestation, and protection of terrestrial and aquatic ecosystems from any other impacts. Routine inspections and regulatory oversight provide mechanisms for identifying emerging biodiversity issues during operation.	Identification of ongoing or emerging biodiversity issues takes into account both risks and opportunities	Select	Not assessed
If management measures are required, then monitoring is being undertaken to assess if management measures are effective	✓	There is general environmental oversight by the Forestry Enterprise and regulatory authorities. Biodiversity management measures have been established through the environmental licensing process and the ESMP, including compensatory			

Minimum Requirements			Advanced Requirements		
Requirement is met: yes (✓) or no (✗)		Findings and Observations	Requirement is met: yes (✓) or no (✗)		Findings and Observations
		reforestation and maintenance of environmental flows. The ESMP has been newly established, and monitoring records relating to compensatory reforestation outcomes or operational biodiversity monitoring of aquatic or terrestrial habitats are not yet available. This makes it difficult to assess whether these measures are effective, which is a gap. However, the gap is considered not significant as 1) the developer has made a commitment to implement the monitoring programme, and 2) it is plausible that the measures will be effective in mitigating the impacts.			
MANAGEMENT					
Measures are in place to manage identified biodiversity issues	✓	Biodiversity management measures are established through the environmental permit conditions, Forest Management Conclusion and ESMP. Surveys identified the presence of native fish species in the Boz-Uchuk River, but the project documentation concluded that construction of a fish passage was not required, as 1) fish cannot access the upper reaches of the river (near the intake) because of natural barriers, 2) no Red Book or migratory fish species occur within the affected reach. Environmental	Processes are in place to anticipate and respond to emerging risks and opportunities	Select.	Not assessed

Minimum Requirements			Advanced Requirements		
Requirement is met: yes (✓) or no (✗)		Findings and Observations	Requirement is met: yes (✓) or no (✗)		Findings and Observations
		flows are incorporated into project operations (see section 11). Compensatory reforestation requirements include the planting of 5,753 Tien Shan spruce seedlings. Some land that was temporarily affected (e.g. for the construction camp) has already been rehabilitated.			
CONFORMANCE AND COMPLIANCE					
Processes and objectives in place to manage biodiversity issues have been and are on track to be met with:			There are no non-compliances	Select.	Not assessed
• no major non-compliances	✓	There are no indications for major non-compliances.			
• no major non-conformances	✓	There are no indications for major non-conformances.	There are no non-conformances	Select.	Not assessed
Biodiversity related commitments have been or are on track to be met	✓	The ESMP has been formulated only recently, but commitments appear to be on track.			
OUTCOMES					
Negative biodiversity impacts arising from activities of the operating facility are avoided, minimised, mitigated, and compensated	✓	There are no significant residual negative biodiversity impacts during operations.	There are healthy, functional and viable aquatic and terrestrial ecosystems in the area affected by the hydropower facility that are sustained over the long-term	Select.	Not assessed
			The facility has contributed or is on track to contribute to addressing biodiversity issues beyond those impacts caused by the operating hydropower facility	Select.	Not assessed

List of significant gaps against Minimum Requirements	Number of Advanced Requirements met
None	n/a

Summary of findings and other notable issues
Biodiversity issues associated with operation of the Boz-Uchuk HPP have been identified and are managed through the environmental permit conditions and design measures. Key management measures include maintenance of environmental flows and compensatory reforestation for the permanent loss of protected forest. Implementation of the ESMP will allow verification of the long-term effectiveness of mitigation and compensation measures, and acceptable biodiversity outcomes.

Relevant evidence	
Interview	1, 8, 13, 14
Document	4-8, 10, 14, 15, 17, 18, 19, 20, 35
Photo	10, 11, 13, 25, 26, 27, 40, 41

7 Indigenous Peoples



Scope and Principle

This section addresses the rights at risk and opportunities of Indigenous Peoples with respect to the hydropower facility, recognising that as social groups with identities distinct from dominant groups in national societies, they are often the most marginalized and vulnerable segments of the population. The principle is that the operating facility respects the dignity, human rights, aspirations, culture, lands, knowledge, practices and natural resource-based livelihoods of Indigenous Peoples in an ongoing manner throughout the project life.

Background

Are any of the affected people Indigenous Peoples? Please state the evidence on which this determination is made.

Yes, this section is relevant

[Click here to enter text.](#)

No, this section is not relevant

The Boz-Uchuk valley has historically been and is currently inhabited by ethnic Kyrgyz, the majority population in the Kyrgyz Republic. While the wider Issyk-Kul region includes minority populations (such as Russians, Dungans and Uyghurs), these are not affected by the project.

8 Cultural Heritage



Scope and Principle

This section addresses cultural heritage, with specific reference to physical cultural resources, associated with the hydropower facility. The principle is that physical cultural resources are identified, their importance is understood, and measures are in place to address those identified to be of high importance. This section does not address non-physical cultural resources, which are addressed in Section 1 and/or in Sections 5 and 7 when relevant.

Background

Does the project affect any physical cultural resources? Please state the evidence on which this determination is made.

Yes, this section is relevant	Click here to enter text.
No, this section is not relevant	According to a 'state expertise' issued by the Ministry of Culture before construction, no significant historic or archaeological sites are affected by the project, and none were found during construction. The wider Issy-Kul region contains a number of ancient settlements, petroglyphs and other tangible cultural heritage, and is the heartland of the Kyrgyz yurt, a symbol of nomadic civilization, inscribed on the UNESCO Representative List of the Intangible Cultural Heritage of Humanity.

9 Governance and Procurement



Scope and Principle

This section addresses corporate and external governance considerations for the operating hydropower facility. The principle is that the owner/operator has sound corporate business structures, policies and practices; addresses transparency, integrity and accountability issues; can manage external governance issues (e.g. institutional capacity shortfalls, political risks including transboundary issues, public sector corruption risks); and can ensure compliance.

Background

Key information on political context and public sector risks	According to the World Bank's Worldwide Governance Indicators (2024), Kyrgyzstan is characterized by moderate scores on voice and accountability, political stability, regulatory quality, and rule of law, and low scores (below 40) on government effectiveness and control of corruption.
Key information on corporate ownership and governance	The project is implemented through the joint venture Ananyevo GES LLC (here called the developer) with offices in Bishkek, under an arrangement for the development of a series of small hydropower projects in the Kyrgyz Republic,

	between the Kyrgyz partner Forward GES LLC and the OU Hydroenergetica, a company registered in Estonia and operating across Eastern Europe and Central Asia.
Details of the concession, if applicable	n/a
Key licenses or permits	Environmental license Electricity sales license

Minimum Requirements			Advanced Requirements		
Requirement is met: yes (✓) or no (✗)	Findings and Observations		Requirement is met: yes (✓) or no (✗)	Findings and Observations	
ASSESSMENT					
Ongoing or emerging political and public sector governance issues have been identified	✓	The developer Ananyevo GES LLC is well aware of political and public sector governance issues, which are still fluid as private small hydropower projects have only recently become possible. The company has joined the Small Hydropower Association of Kyrgyzstan to strengthen engagement on governance and regulatory matters and to access legal and technical support where required.	There are no significant opportunities for improvement in the assessment of political and public sector governance issues and corporate governance requirements and issues	Select	Not assessed
Corporate governance requirements and issues have been identified	✓	The corporate governance arrangements are proportionate to the size and complexity of the project. Responsibilities are allocated between the partners throughout the project lifecycle.			
Monitoring is being undertaken to assess if corporate governance measures are effective	✓	The Boz-Uchuk HPP has been in operation for one year, and no external audits have been conducted to date. However, the operating companies hold monthly meetings during which corporate governance and operational matters including procurement are discussed and agreed.			

Minimum Requirements			Advanced Requirements		
Requirement is met: yes (✓) or no (✗)		Findings and Observations	Requirement is met: yes (✓) or no (✗)		Findings and Observations
MANAGEMENT					
Processes are in place to manage the following:					
• corporate, political and public sector risks	✓	Based on the partnership agreement between the shareholders, Ananyevo GES LLC is responsible for tracking political and regulatory risks and opportunities.			
• compliance	✓	Given the size of the project, compliance requirements are relatively limited. Responsibilities for meeting and monitoring these requirements have been assigned to Ananyevo GES LLC, throughout the operational phase, as well as for other hydropower projects currently under preparation and construction.			
• social and environmental responsibility	✓	The project design and location minimize impacts, which are further reduced through rehabilitation, compensation, and operational management measures. In addition, the developer is implementing voluntary social commitments. Within the project partnership, Ananyevo GES LLC is responsible for allocating the budget, receiving community requests, and coordinating the implementation of these commitments. Decisions regarding budget allocation and implementation are made during monthly meetings of the shareholders.			
			Processes are in place to anticipate and respond to emerging risks and opportunities		

Minimum Requirements			Advanced Requirements		
Requirement is met: yes (✓) or no (✗)		Findings and Observations	Requirement is met: yes (✓) or no (✗)		Findings and Observations
• procurement of goods and services	✓	Procurement is managed through decisions agreed by the shareholders. It is a relatively minor concern during operations, with the two main contracts currently for outsourced maintenance services and municipal waste collection.	Contractors are required to meet or have consistent policies as the developer	Select	Not assessed
• grievance mechanisms	✓	Ongoing processes are in place for stakeholders to raise concerns and receive feedback through direct engagement with personnel of the developer, local authorities and the grievance mechanism described in the ESMP.			
• ethical business practices	✓	Procurement is relatively minor during operations, and no procurement-related issues were identified during the assessment. Although no explicit references to anti-corruption measures or commitments were identified in the project documentation, procurement decisions are taken jointly between project partners, which further reduces risks.			
• transparency	✓	District and central government authorities have reviewed and approved the project documentation. One of the objectives of the Stakeholder Engagement Plan (SEP) in the ESMP is transparency. Some project information is communicated through engagement with local	Procurement processes include anti-corruption measures as well as sustainability and anti-corruption criteria specified in pre-qualification screening	Select	Not assessed

Minimum Requirements			Advanced Requirements		
Requirement is met: yes (✓) or no (✗)		Findings and Observations	Requirement is met: yes (✓) or no (✗)		Findings and Observations
		authorities and community representatives.			
Policies and processes are communicated internally and externally as appropriate	✓	The developer is a privately held, small start-up company with limited policies and processes. There is no formal process for sharing these, which is a gap. However, it is not significant at the moment, as there are no indications for a lack of access to information internally, and no concerns expressed by stakeholders.			
In case of capacity shortfalls, appropriate external expertise is contracted for additional support	✓	The developer outsources the maintenance of key facilities, including the generating equipment, transmission line, and substation, to licensed local contractors. These were selected through direct procurement based on their technical expertise and the limited availability of qualified service providers in the region.			
CONFORMANCE AND COMPLIANCE					
The project has no major non-compliances	✓	There are no indications for major non-compliances.	The project has no non-compliances	Select	Not assessed
OUTCOMES					
There are no significant unresolved corporate and external governance issues identified	✓	There are no indications for any significant unresolved governance issues. The project partners have successfully built and commissioned the Boz-Uchuk HPP and are continuing to develop additional hydropower projects together, which	There are no unresolved corporate and external governance issues identified	Select	Not assessed

Minimum Requirements			Advanced Requirements		
Requirement is met: yes (✓) or no (✗)		Findings and Observations	Requirement is met: yes (✓) or no (✗)		Findings and Observations
		indicates that governance issues are well managed.			

List of significant gaps against Minimum Requirements	Number of Advanced Requirements met
None	n/a

Summary of findings and other notable issues
Overall governance and procurement responsibilities within the project partnership are assigned to Ananyevo GES LLC, a member of the Small Hydropower Association of Kyrgyzstan. During the operational phase of the Boz-Uchuk HPP, procurement activities are limited, and services are procured through direct contracts based on the availability of qualified service providers within the district.

Relevant evidence	
Interview	1, 6, 8, 9, 12
Document	11, 16, 17, 21, 26, 32, 33
Photo	38, 42

10 Communications and Consultation



Scope and Principle			
This section addresses ongoing engagement with project stakeholders, both within the company as well as between the company and external stakeholders (e.g. affected communities, governments, key institutions, partners, contractors, catchment residents, etc). The principle is that stakeholders are identified and engaged in the issues of interest to them, and communication and consultation processes maintain good stakeholder relations throughout the project life.			
Background			
Directly affected community-level stakeholders	Local stakeholders including residents of Boz-Uchuk village, farmers and tourism businesses located near the project area, livestock owners, users of local roads and grazing areas, local community institutions (school, kindergarten, medical centre and sports complex), workers employed by the project and local companies providing services to the project, district residents benefiting from improved power supply and project benefits		
Directly affected institutional-level stakeholders	Khan-Teniri Ayil Okmotu Ak-Suu District State Administration Central government agencies including Ministry of Natural Resources, Ecology and Technical Supervision; Ministry of Emergency Situations Karakol Forestry Enterprise (Leskhoz) Other government agencies, business partners, media etc.		

Minimum Requirements		Advanced Requirements	
Requirement is met: yes (✓) or no (✗)	Findings and Observations	Requirement is met: yes (✓) or no (✗)	Findings and Observations
ASSESSMENT			
Ongoing or emerging issues relating to hydropower facility communications and consultation have been identified	✓ Concerns and requests are identified through regular engagement with community representatives and relevant government authorities. No significant unresolved communication or consultation issues were identified during the assessment.	The stakeholder mapping takes broad considerations into account	Select. Not assessed
Requirements and approaches are determined through a periodically	✓ Stakeholders and consultation needs were identified through an informal but functional process during project		

Minimum Requirements			Advanced Requirements		
Requirement is met: yes (✓) or no (✗)		Findings and Observations	Requirement is met: yes (✓) or no (✗)		Findings and Observations
updated assessment process involving stakeholder mapping		preparation, construction, and the early stages of operations. The SEP in the recently developed ESMP formalizes ongoing engagement with local communities and relevant authorities during project operation. There is limited evidence that stakeholder mapping is systematically and periodically reviewed, or that approaches are being revised based on changes in stakeholder interests, project activities or emerging issues, which is a gap. However, given the limited scale and scope of issues and the small number of stakeholders, it is not considered significant.			
Effectiveness is monitored	✓	There has been no systematic monitoring of effectiveness to date, other than gauging stakeholder attitudes during meetings. However, the recently developed ESMP provides for monitoring by annual tracking of a series of indicators, such as numbers of requests and complaints.			
MANAGEMENT					
Communications and consultation plans and processes are in place to manage communications and engagement with stakeholders	✓	Consultation activities were conducted during project planning and continue during operation to communicate project information, address community concerns and identify opportunities for community support.	Communication and consultation plans and processes show a high level of sensitivity to communication and consultation needs and	Select.	Not assessed

Minimum Requirements			Advanced Requirements		
Requirement is met: yes (✓) or no (✗)		Findings and Observations	Requirement is met: yes (✓) or no (✗)		Findings and Observations
			approaches for various stakeholder groups and topics		
They include an appropriate grievance mechanism	✓	Community members may raise concerns through direct communication with the developer, local authorities and the established grievance mechanism. A formal grievance mechanism was recently introduced as part of the ESMP, and includes handling procedures, response times, responsibilities, and formats for grievance submission forms and a grievance log.	Processes are in place to anticipate and respond to emerging risks and opportunities	Select.	Not assessed
They outline communication and consultation needs and approaches for various stakeholder groups and topics	✓	The ESMP identifies key stakeholder groups and outlines communication and consultation approaches appropriate to the project lifecycle. Engagement activities include consultation with local communities, government authorities and other relevant stakeholders using appropriate methods.			
STAKEHOLDER ENGAGEMENT					
The project operation stage involves engagement with directly affected stakeholders	✓	As described, the developer continues to engage with directly affected stakeholders through regular communication with community representatives and relevant government authorities. Engagement focuses on operational issues, community concerns, project benefits and ongoing communication regarding project activities	Engagement is inclusive and participatory	Select.	Not assessed

Minimum Requirements			Advanced Requirements		
Requirement is met: yes (✓) or no (✗)		Findings and Observations	Requirement is met: yes (✓) or no (✗)		Findings and Observations
Engagement is:					
• appropriately timed and scoped	✓	There are no indications otherwise.	Negotiations are undertaken in good faith	Select.	Not assessed
• often two-way	✓	There are no indications otherwise.			
• undertaken in good faith	✓	There are no indications otherwise.			
The business interacts with a range of directly affected stakeholders to understand issues of interest to them	✓	The developer maintains ongoing interaction with directly affected stakeholders and any interested parties.	The assessment and management process for downstream flow regimes has involved appropriately timed and two-way engagement with directly affected stakeholders	Select.	Not assessed
Ongoing processes are in place for stakeholders to raise issues and get feedback	✓	Ongoing processes are in place through multiple channels such as direct engagement with personnel of the developer, local authorities and the grievance mechanism described in the ESMP.	Ongoing processes are in place for stakeholders to raise issues with downstream flow regimes and get feedback	Select.	Not assessed
Ongoing processes are in place for:			Feedback on how issues raised have been taken into consideration has been thorough and timely	Select.	Not assessed
• environmental and social issues	✓	See above			
• project-affected communities	✓	See above	Project-affected communities have been involved in decision-making around relevant issues and options	Select.	Not assessed
• resettles and host communities	✓	Not relevant	Resettles and host communities have been involved in decision-making	Select.	Not assessed
• Indigenous Peoples	✓	Not relevant			

Minimum Requirements			Advanced Requirements		
Requirement is met: yes (✓) or no (✗)		Findings and Observations	Requirement is met: yes (✓) or no (✗)		Findings and Observations
• employees and contractors on human resources and labour management issues	✓	Employees and contractors can raise labour issues and seek resolution through internal company procedures and the grievance mechanism described in the ESMP, which specifically covers labour protections and violations of workers' rights.	around relevant issues and options		
• management of climate risks	✓	There are no indications that climate risks in relation to the project is a concern for stakeholders, but the processes described above would cover these issues.			
Channels of communication with Indigenous Peoples are maintained	✓	Not relevant	Directly affected Indigenous Peoples have been involved in decision-making around relevant issues and options	Select.	Not assessed
These channels are:					
• appropriately timed	✓	Not relevant			
• culturally appropriate	✓	Not relevant			
• two-way	✓	Not relevant			
A mutually-agreed disputes procedure is in place with Indigenous Peoples	✓	Not relevant	The business publicly reports on project performance in sustainability areas of high interest to its stakeholders	Select.	Not assessed
Public disclosure:					
• the business makes significant project reports publicly available	✓	Significant project reports have been made available to government agencies and local authorities during the licensing process, and information can be accessed through these institutions. The ESMP provides for			

Minimum Requirements			Advanced Requirements		
Requirement is met: yes (✓) or no (✗)		Findings and Observations	Requirement is met: yes (✓) or no (✗)		Findings and Observations
		disclosure of the following documentation upon request: ESMP, SEP, grievance mechanism, emergency response plan, corporate environmental policy, and annual environmental and social reports (if available). A website for the project has recently been created.			
• the business publicly reports on project performance, in some sustainability areas	✓	Information on project activities is communicated through engagement with local authorities and community representatives. Also, the ESMP provides for annual E&S reporting on the project, and for public disclosure upon request.			
• power density calculations, estimated GHG emissions, and / or the results of a site-specific assessment are publicly disclosed	✓	The power density is very high at 5,400 (see section 12) and reservoir emissions are practically non-existent.	The assessment of project resilience is publicly disclosed	Select.	Not assessed
CONFORMANCE AND COMPLIANCE					
Processes and objectives relating to communications and consultation have been and are on track to be met with:			There are no non-compliances	Select.	Not assessed
• no major non-compliances	✓	There are no indications for major non-compliances.			
• no major non-conformances	✓	There are no indications for major non-conformances.	There are no non-conformances	Select.	Not assessed
Communications related commitments have been or are on track to be met	✓	Communications-related commitments have been met through ongoing engagement with project-affected communities, local authorities and relevant government agencies. It is widely acknowledged			

Minimum Requirements			Advanced Requirements		
Requirement is met: yes (✓) or no (✗)		Findings and Observations	Requirement is met: yes (✓) or no (✗)		Findings and Observations
		that the developer responds to community requests and maintains constructive working relationships with local stakeholders. There are opportunities to strengthen communications through more systematic periodic stakeholder mapping, grievance management, monitoring of communication effectiveness, public disclosure, provision of a website etc, and the developer is committed to doing so by implementing the SEP as part of the ESMP.			

List of significant gaps against Minimum Requirements	Number of Advanced Requirements met
None	n/a

Summary of findings and other notable issues
The project maintains constructive engagement with local stakeholders, and has established processes for communication with project-affected communities and relevant authorities. Communication arrangements are being upgraded through the ESMP and SEP, providing a systematic framework for stakeholder engagement, information disclosure and grievance management during operation.

Relevant evidence	
Interview	1-14
Document	14, 15, 20-23
Photo	6, 9, 29, 30, 31, 34, 40, 42

11 Hydrological Resource



Scope and Principle

This section addresses hydrological resource availability and reliability, reservoir management, and downstream flow regimes in relation to the operating hydropower facility. The principle is that power generation planning and operations take into account hydrological resource availability and reliability in the short- and long-term, that the reservoir is well managed taking into account power generation operations, environmental and social management requirements, and multi-purpose uses where relevant, and that issues with respect to downstream flow regimes are identified and addressed.

Background

Hydrology and flows

Average flow at dam (m ³ / s)	No direct observations on the Boz-Uchuk River; estimated 50% dependable average flow 1.2 m ³ /s
Minimum monthly average flow (m ³ / s)	Estimated average flow in March (50% dependable) 0.36 m ³ /s
Maximum monthly average flow (m ³ / s)	Estimated average flow in August (50% dependable) 3.29 m ³ /s
Lowest observed flow (m ³ / s)	Estimated lowest flow (95% exceedance probability) 0.23 m ³ /s
Highest observed flow (m ³ / s)	Estimated highest flow (1-in-100 years) 16.4 m ³ /s
Design flow (m ³ / s)	Between 120 l/s and 1.2 m ³ /s
Affected river reaches (start/end and how affected)	Small headpond; approximately 6 km bypass reach; no impacts downstream of tailrace
Proposed downstream flow regimes for environmental or social objectives	230 l/s (equivalent to estimated lowest natural flow) discharged through a permanently open gate at intake

Reservoir

Reservoir length (km)	Less than 100 m
Minimum operating level MOL (masl)	The headpond level varies within a small range from the FSL at 2,688.5 masl.
Normal operating level (masl)	See above
Full supply level FSL (masl)	See above
Reservoir area at FSL (km ²)	Not available; rough estimate 1,000 m ²
Reservoir area at MOL (km ²)	See above
Volume at FSL (million m ³)	Not available; rough estimate 1,000 m ³
Volume at MOL (million m ³)	See above
Average retention time in days	17 minutes at average inflow
Number of days for filling	N/A

Minimum Requirements			Advanced Requirements		
Requirement is met: yes (✔) or no (✘)		Findings and Observations	Requirement is met: yes (✔) or no (✘)		Findings and Observations
ASSESSMENT					
Ongoing or emerging issues in the following areas have been identified:			Issues that may impact on water availability or reliability have been comprehensively identified	Select.	Not assessed
• hydrological resource availability and reliability	✔	One year into operations, no issues with hydrological resource availability have been identified.			
• reservoir management	✔	There is no active management of the small headpond (other than occasional sediment flushing and trashrack cleaning).			
• downstream flow regimes	✔	In the summer, river water is occasionally used by recreational users such as horse riders or hikers, and by families herding their livestock on high summer pastures. The river flows are also potentially relevant for fish and wildlife, particularly in the lower river reaches near the powerhouse (see section 6 on the absence of fish in the upper river reaches). In the winter, when flows are low and sometimes only the minimum flow is provided, fish and wildlife are less active and dependent on flows, and there are no human visitors to the upper valley.	Scenarios, uncertainties and risks for water availability and reliability are routinely and extensively evaluated over the short- and long-term	Select.	Not assessed
If management measures are required then monitoring is being undertaken to assess if management measures are effective:					
• reservoir management	✔	Sediment and debris accumulation is assessed visually.			
• downstream flow regimes	✔	There are no indications that any management measures are			

Minimum Requirements			Advanced Requirements		
Requirement is met: yes (✔) or no (✘)		Findings and Observations	Requirement is met: yes (✔) or no (✘)		Findings and Observations
		required. Variability of flows is assured through frequent spilling as well as springs and other tributaries.			
Monitoring is being undertaken of hydrological resource availability and reliability	✔	Monitoring is currently undertaken through generation records. It is planned to also install a water level sensor with a fibre-optic cable to the powerhouse at the headworks.	Identification of ongoing or emerging reservoir management issues takes into account both risks and opportunities	Select.	Not assessed
Inputs to this monitoring include:			Issues identification relating to downstream flow regimes takes into account both risks and opportunities	Select.	Not assessed
• field measurements	✔	See above	An assessment has been undertaken that includes identification of the flow ranges and variability to achieve different environmental, social and economic objectives based on field studies as well as relevant scientific and other information	Select.	Not assessed
• appropriate statistical indicators	✔	The hydrological study that was done as part of the Feasibility Study included multiple statistical indicators.			
• issues which may impact on water availability or reliability	✔	Weather forecasts are taken into account by operators.			
• a hydrological model	✔	An empirical hydrological model was used as part of the Feasibility Study; this is no longer required in the operations stage.			
MANAGEMENT					
Measures are in place to guide generation operations that are based on:			Planning of generation operations has a long-term perspective	Select.	Not assessed
• analysis of the hydrological resource availability	✔	Because of the pure run-of-river nature and priority dispatch of this power plant, hydrological forecasting is not required.			

Minimum Requirements			Advanced Requirements		
Requirement is met: yes (✓) or no (✗)		Findings and Observations	Requirement is met: yes (✓) or no (✗)		Findings and Observations
• a range of technical considerations	✓	The sizing and design of the headworks, waterways and turbine took a range of technical considerations into account, by an engineering firm with substantial experience in small hydro plants.	Planning of generation operations fully optimises and maximises efficiency of water use	Select.	Not assessed
• an understanding of power system opportunities and constraints	✓	The developer negotiated a PPA for baseload delivery with the public power sector companies. Occasionally energy cannot be delivered because of grid constraints.	Planning of generation operations has the flexibility to adapt to anticipate and adapt to future changes	Select.	Not assessed
Measures are in place to manage identified reservoir management issues	✓	Other than occasional sediment flushing and trashrack cleaning, no measures are required.	Processes are in place to anticipate and respond to emerging risks and opportunities for reservoir management	Select.	Not assessed
Measures are in place to address identified downstream flow issues	✓	The only required measure is the opening of the e-flows/sediment flushing gate to a set level calculated to deliver 230 l/s.	Processes are in place to anticipate and respond to emerging risks and opportunities for downstream flow regimes	Select.	Not assessed
Where formal commitments have been made to downstream flow regimes, these are publicly disclosed	✓	No formal commitments have been made.	Commitments are made in relation to downstream flow regimes that include the flow objectives; the magnitude, range and variability of the flow regimes; the locations at which flows will be verified; and ongoing monitoring	Select.	Not assessed
CONFORMANCE AND COMPLIANCE					
Processes and objectives in place to manage each of the following have been and are on track to be met:			There are no non-compliances relating to:		

Minimum Requirements			Advanced Requirements		
Requirement is met: yes (✔) or no (✘)		Findings and Observations	Requirement is met: yes (✔) or no (✘)		Findings and Observations
• reservoir management, with no major non-compliances	✔	There are no indications for any major non-compliances.	• reservoir management	Select.	Not assessed
• reservoir management, with no major non-conformances	✔	There are no indications for any major non-conformances.			
• downstream flow regimes, with no major non-compliances	✔	There are no indications for any major non-compliances.	• downstream flow regimes	Select.	Not assessed
• downstream flow regimes, with no major non-conformances	✔	There are no indications for any major non-conformances.			
Commitments relating to the following have been or are on track to be met:			There are no non-conformances relating to:		
• reservoir management	✔	There are no related commitments.	• reservoir management	Select.	Not assessed
• downstream flow regimes	✔	The commitment to provide 230 l/s as permanent minimum release has been met.	• downstream flow regimes	Select.	Not assessed
OUTCOMES					
Downstream flow regimes take into account environmental, social and economic objectives	✔	The minimum release of 230 l/s takes all objectives into account. In practice, summer releases are much higher, so that variability is maintained.	Downstream flow regimes and commitments are an optimal fit amongst environmental, social and economic objectives within practical constraints of the present circumstances	Select.	Not assessed
Where relevant, they also take agreed transboundary objectives into account	✔	The project has no transboundary effects.			
List of significant gaps against Minimum Requirements			Number of Advanced Requirements met		
None			n/a		

Summary of findings and other notable issues	
The project has a very small headpond and only affects river flows in the bypass reach, where a minimum flow equivalent to the estimated lowest natural flows is provided, and there are no indications for adverse social or ecological impacts of this flow level.	
Relevant evidence	
Interview	1, 2, 10, 13, 14
Document	1, 2, 4, 6, 14, 15, 18, 21, 27, 30
Photo	1-3, 11, 19, 22, 25, 26, 44, 45

12 Climate Change Mitigation and Resilience



Scope and Principle	
This section addresses the estimation and management of the project's greenhouse gas (GHG) emissions, analysis and management of the risks of climate change for the project, and the project's role in climate change adaptation. The principle is that the project's GHG emissions are consistent with low carbon power generation, the project is resilient to the effects of climate change, and the project contributes to wider adaptation to climate change.	
Background	
Climate Change Mitigation	
Capacity (MW) (or additional capacity in case of expansion/ rehabilitation projects)	5.4 MW
Average reservoir area	Not available; rough estimate 1,000 m ²
Power density (W / m ²)	5,400
Emissions intensity (gCO ₂ e / kWh)	Not available, but very low
National and regional policies, plans and commitments relevant to mitigation	Kyrgyzstan contributes less than 0.034% to global greenhouse gas emissions. The country's 3 rd Nationally Determined Contribution (NDC 3.0) from 2025 includes commitments to reduce emissions unconditionally by 16%, and conditionally by 39% by 2035. Carbon neutrality is planned to be achieved by 2050. Key sectors for mitigation include renewable energy and energy efficiency.
Climate Change Resilience	
Hydrological data available for the project site and the basin, and observed climate trends	While most rivers contributing to Lake Issyk-Kul are not gauged, the lake volume, level and area itself are good indicators for regional hydrological conditions. The water level of the lake Issyk-Kul fluctuated between 1606.06 masl and 1608.32 masl during 1958–2020, first experiencing a decreasing trend of 0.05 m/year from 1958 to 1998 (attributed to water consumption primarily for irrigation), then a rising trend by 0.10 m/year during 1998–2006 (attributed to reduced abstraction and increases in precipitation and glacial melt), followed by a fluctuating decline. Temperatures, precipitation and evaporation have all followed upward trends. The climate in the Issy-Kul region, while continental and dry, is relatively mild and runoff is less seasonal than in other Central Asian catchments. There are hundreds of glacial lakes and there have been recent large drainage events in the Teskey mountain range, but the Boz-Uchuk catchment specifically shows relatively low glaciation (less than 1% of catchment), and has not had recorded GLOFs.

Regional and basin-level climate models relevant to the project location, if any	Climate projections can be accessed through the World Bank's Climate Knowledge Portal: https://climateknowledgeportal.worldbank.org/watershed/ECA005030 . There has been no specific modelling for the project location.
Any climate change predictions for the project location, and degree of consistency	Total precipitation and variability of precipitation are likely to increase. Warming temperatures will lead to higher winter flows, increased glacial melt, and earlier spring melt.
National policies, plans and commitments relevant to adaptation and resilience	Kyrgyzstan's NDC 3.0 prioritizes water resources, agriculture, disaster risk reduction, public health, energy, forests and biodiversity, and cities and settlements for adaptation. Regarding energy, the document states that: "The energy sector of the Kyrgyz Republic has historically been based on hydropower, which makes it highly vulnerable to changes in hydrological regimes and climate risks. Global warming, glacier retreat, and fluctuations in river runoff threaten the stability of electricity generation at HPPs. Extreme weather events—mudflows, landslides, avalanches, hurricanes, icing, and heavy snowfalls—can disable transmission lines, damage generating equipment, and cause disruptions in power supply. Additional risks arise under conditions of abnormal heatwaves and cold spells, which increase the load on the grid and pose a threat of accidents and outages."

Minimum Requirements		Advanced Requirements	
Requirement is met: yes (✓) or no (✗)	Findings and Observations	Requirement is met: yes (✓) or no (✗)	Findings and Observations
ASSESSMENT			
Climate Change Mitigation			
If power density is below 5 W/m ² , net GHG emissions (gCO ₂ e) of electricity generation are calculated, independently verified and periodically updated	✓ Not applicable, power density is very high	If a site-specific assessment is required, it incorporates a broad range of scenarios, uncertainties and risks	Select. Not assessed
If power density is below 5 W/m ² and estimated emissions are above 100 gCO ₂ e/kWh, a site-specific assessment of GHG emissions is undertaken and periodically updated	✓ Not applicable, power density is very high		

Minimum Requirements			Advanced Requirements		
Requirement is met: yes (✔) or no (✘)		Findings and Observations	Requirement is met: yes (✔) or no (✘)		Findings and Observations
Climate Change Resilience					
An assessment of the project's resilience to climate change is undertaken and periodically updated	✔	There has been no project-specific assessment, and there are no plans to undertake a formal assessment in the future. This gap is considered non-significant because 1) of the small size of the project, with limited implications for system reliability, 2) its inherently simple and resilient design and location, with a free overflow weir and no significant dam safety concerns, the location of the powerhouse above the floodplain, and the low dependence of runoff on glacial melt, 3) the overall growing amount of precipitation, continuing a recent trend. Under these circumstances, the conscious choice to forego a climate resilience assessment is justifiable.	Assessment of resilience incorporates sensitivity analysis, project specific hydrological modelling using recognised climate models	Select.	Not assessed
The assessment:					
• incorporates an assessment of plausible climate change at the project site	✔	See above			
• identifies a range of climatological and hydrological conditions at the project site	✔	See above			
• applies these conditions in a	✔	See above			

Minimum Requirements			Advanced Requirements		
Requirement is met: yes (✓) or no (✗)		Findings and Observations	Requirement is met: yes (✓) or no (✗)		Findings and Observations
documented risk assessment or stress test					
The risk assessment or stress test encompasses:			The project's opportunities to provide adaptation services are considered on an ongoing basis	Select.	Not assessed
• dam safety	✓	See above			
• other infrastructural resilience	✓	See above			
• environmental and social risks	✓	See above			
• power generation availability	✓	See above			
MANAGEMENT					
Climate Change Mitigation					
If GHG emissions estimates assume design and management measures, these measures are in place	✓	Not applicable	Management measures are in place to respond to risks and opportunities including offsetting emissions	Select.	Not assessed
			Plans are in place to monitor parameters used in GHG emissions estimates or to monitor GHG stocks	Select.	Not assessed
Climate Change Resilience					
Measures are in place to avoid or reduce identified climate risks	✓	General known risks such as climate-triggered natural hazards are avoided and reduced through project location and design.	Measures take account of a broad range of risks and interrelationships	Select.	Not assessed
			Processes are in place to respond to unanticipated climate change	Select.	Not assessed
			Plans are in place to provide adaptation services if necessary	Select.	Not assessed
CONFORMANCE AND COMPLIANCE					
Climate Change Mitigation					
Processes and objectives relating to mitigation have been and are on track to be met with:			There are no non-compliances	Select.	Click here to enter text.

Minimum Requirements			Advanced Requirements		
Requirement is met: yes (✓) or no (✗)		Findings and Observations	Requirement is met: yes (✓) or no (✗)		Findings and Observations
• no major non-compliances	✓	There are no indications for major non-compliances.			
• no major non-conformances	✓	There are no indications for major non-conformances.			
Mitigation-related commitments have been or are on track to be met	✓	Electricity consumption in Kyrgyzstan is currently approximately 20,000 GWh/year. Boz-Uchuk HPP will contribute approximately 30 GWh/year on average, or 0.15%. Generation over the first operational year (since testing in May 2025) was 22.5 GWh. Renewable energy is directly competing with imports and with coal, both for power generation and for heating (individual and district heating), including old and planned new coal plants in Karakol, the regional centre.	There are no non-conformances	Select..	Not assessed
Climate Change Resilience					
Processes and objectives relating to resilience have been and are on track to be met with:					
• no major non-compliances	✓	There are no indications for major non-compliances.	There are no non-compliances	Select.	Not assessed
• no major non-conformances	✓	There are no indications for major non-conformances.			
Resilience-related commitments have been or are on track to be met	✓	There are no specific resilience-related commitments.	Not assessed	Select.	Not assessed
OUTCOMES					
Climate Change Mitigation					

Minimum Requirements			Advanced Requirements		
Requirement is met: yes (✓) or no (✗)		Findings and Observations	Requirement is met: yes (✓) or no (✗)		Findings and Observations
The project's GHG emissions are demonstrated to be consistent with low carbon power generation	✓	The emissions intensity has not been calculated. This gap is not significant as the intensity is extremely low, given the characteristics of the project.	Project net emissions are minimised or project operations facilitate system emissions reductions	Select.	Not assessed
Climate Change Resilience					
Findings of the climate change assessment indicate that the project is resilient to climate change	✓	See above. While the resilience has not been specifically assessed, the characteristics of the project make it less vulnerable.	The project is resilient under a broad range of scenarios	Select.	Not assessed
			The project will contribute to climate change adaptation at a local, regional or national levels	Select.	Not assessed
List of significant gaps against Minimum Requirements			Number of Advanced Requirements met		
None			Click here to enter text.		
Summary of findings and other notable issues					
Due to its design and location, the Boz-Uchuk HPP is resilient against the effects of climate change and supports Kyrgyzstan's efforts to reduce the carbon intensity of the power sector.					
Relevant evidence					
Interview	1, 2, 13				
Document	6, 15, 27, 28, 30, 31, 36				
Photo	-				

Appendix 1 – Interviews

Ref	Interviewee/s, Position	Organisation	Date	Location
1	Ulugbek Zhumashev, Director and Co-founder	LLC "Ananyevo"	15/06/2026	Bishkek, Kyrgyzstan
2	Sarkis Gabayan, Director	LLC "Berg House"	16/06/2026	Boz-Uchuk, Issyk-Kul Oblast
3	Tokombaev Zholdoshibek, Security Guard	LLC "Ananyevo"	16/06/2026	Boz-Uchuk, Issyk-Kul Oblast
4	NN	Family spending summer near intake	16/06/2026	Boz-Uchuk, Issyk-Kul Oblast
5	Daniel Leonidovich, Head of Quality Control	LLC "Berg House"	16/06/2026	Jyrgalang, Issyk-Kul Oblast
6	Monich Yuriy, Head of the Geodesy Department	LLC "Berg House"	16/06/2026	Jyrgalang, Issyk-Kul Oblast
7	Likova Tatyana, Human Resource Manager	LLC "Berg House"	16/06/2026	Jyrgalang, Issyk-Kul Oblast
8	Nursalbek Dushenbiev, Director	Karakol State Forestry Enterprise, Forestry Service under the Ministry of Agriculture	17/06/2026	Karakol, Issyk-Kul Oblast
9	Kanatbek Kaldaraliev, Head of District Administration	Aksu District Administration	17/06/2026	Aksu District
10	Zinatgul Dushenbieva, Executive Secretary	Boz-Uchuk Local Council	17/06/2026	Boz-Uchuk village
11	Toqtakunova Nurgul, Director	Boz-Uchuk kindergarten	17/06/2026	Boz-Uchuk village
12	Askar Demirbekov, Occupational Health and Safety	LLC "Ananyevo"	17/06/2026	online
13	Ashot Petrosyan, Director	LLC "Hydroenergetika"	17/06/2026	online
14	Melis Kalmamatovich, Deputy Director	Issyk-Kul Regional Department of the Ministry of Natural Resources, Ecology and Technical Supervision	08/07/2026	online

Appendix 2 – Documents

Ref	Author	Year	Title	Notes / links / language
1	Hydroenergetika Representation in the Kyrgyz Republic / LLC “Ananyevo HPP”	n.d.	Passport – Boz-Uchuk Small Hydropower Plant	Project key data included in the project design package; Russian
2	Hydroenergetika Representation in the Kyrgyz Republic / LLC “Ananyevo HPP”	n.d.	Volume 2 – Calculations (Расчёты)	Project design calculations; Russian
3	Hydroenergetika Representation in the Kyrgyz Republic / LLC “Ananyevo HPP”	n.d.	Volume 3 – Geology	Geological and geotechnical documentation; Russian
4	Hydroenergetika Representation in the Kyrgyz Republic / LLC “Ananyevo HPP”	n.d.	Volume 4 – Environmental Impact Assessment (OBOC)	Environmental impact assessment documentation; Russian
5	Hydroenergetika Representation in the Kyrgyz Republic / LLC “Ananyevo HPP”	n.d.	Volume 5 – Topography	Topographical survey and related design information; Russian
6	Hydroenergetika Representation in the Kyrgyz Republic / LLC “Ananyevo HPP”	n.d.	Volume 6 – Hydrology	Hydrological assessment and supporting data; Russian
7	Hydroenergetika Representation in the Kyrgyz Republic / LLC “Ananyevo HPP”	n.d.	Volume 7 – General Plan (ГП)	General layout / site planning documentation; Russian
8	Hydroenergetika Representation in the Kyrgyz Republic / LLC “Ananyevo HPP”	n.d.	Volume 8 – Water Intake, Sections 1.1–9.1	Design documentation for the water intake structures; revised version; Russian

9	Hydroenergetika Representation in the Kyrgyz Republic / LLC “Ananyevo HPP”	n.d.	Volume 8 – HPP Building	Architectural and structural design documentation for the powerhouse; Russian
10	Hydroenergetika Representation in the Kyrgyz Republic / LLC “Ananyevo HPP”	n.d.	Volume 8 – Diversion / Headrace, Sections 10.1– 13.2	Design documentation for the diversion/headrace system; revised version; Russian
11	Hydroenergetika Representation in the Kyrgyz Republic / LLC “Ananyevo HPP”	n.d.	Volume 9 – Project Organisation and Construction (ПОС)	Construction organisation documentation; Russian
12	Hydroenergetika Representation in the Kyrgyz Republic / LLC “Ananyevo HPP”	n.d.	Volume 10 – Electrical Systems (ЭС)	Electrical systems design documentation; revised version; Russian
13	Hydroenergetika Representation in the Kyrgyz Republic / LLC “Ananyevo HPP”	n.d.	Volume 11 – Technological Part (Технологическая часть)	Hydromechanical and technological equipment documentation; Russian
14	Issyk-Kul-Naryn Regional Department, Ministry of Natural Resources, Ecology and Technical Supervision of the Kyrgyz Republic	2023	Conclusion of State Ecological Expertise for the Boz-Uchuk HPP	State ecological expertise conclusion dated 08 June 2023; Russian
15	LLC “Ananyevo HPP”	n.d.	Generation data	Screenshots for 2025 and 2026 from online plant management system
16	State Forestry Service / Ministry of Emergency Situations of the Kyrgyz Republic	2024	Forest Management Conclusion for the additional land plot	Covers the additional 4.49 ha State Forest Fund land allocation and compensatory reforestation requirements; Russian
17	Hydroenergetika / Forward GES	2022	Cooperation Agreement for implementation of small hydropower projects in Kyrgyzstan	Agreement dated 04 May 2022; Russian

18	Institute of Biology, National Academy of Sciences of the Kyrgyz Republic	2023	Ichthyological and hydrobiological study of the Boz-Uchuk River	Report dated June 2023; Russian
19	Hydroenergetika Representation in the Kyrgyz Republic / LLC “Ananyevo HPP”	n.d.	As-built documentation – General Plan (Исполнительная Боз-Учук PDF-ГП)	As-built general-plan drawing/documentation; Russian
20	Hydroenergetika Representation in the Kyrgyz Republic / LLC “Ananyevo HPP”	n.d.	As-built documentation – Water Intake (Исполнительная Боз-Учук ГП- PDF)	As-built water-intake drawing/documentation; Russian
21	Hydroenergetika Representation in the Kyrgyz Republic / LLC “Ananyevo HPP”	2026	Environmental and Social Management Plan (ESMP) – Small HPP on the Boz-Uchuk River	Russian
22	LLC “Ananyevo HPP” / Ak-Suu District State Administration	2026	Community support correspondence – support to the Ak-Suu district youth chess team	Evidence of community support; letter dated 25 June 2026; Kyrgyz
23	LLC “Ananyevo HPP”	2026	Social package and staffing information for Boz-Uchuk HPP	Operational staffing and social package information; Excel file
24	LLC “Ananyevo HPP”	n.d.	Workplace Occupational Health and Safety Instruction Registration Journal	Records of initial and repeated occupational health and safety briefings for Boz-Uchuk HPP personnel; started on 12 June 2025; Russian
25	LLC “Ananyevo HPP”	2026	Operational occupational health and safety records	Workplace and introductory H&S instruction registration journals reviewed during the assessment; Russian
26	Hydroenergetika LLC	2026	Information Letter	Introduction to company and list of projects in Kyrgyz Republic
27	Yujie Zhang et al.	2022	The Dynamic Changes of Lake Issyk-Kul from 1958 to 2020 Based on Multi-Source Satellite Data	https://www.mdpi.com/2072-4292/14/7/1575

28	Mirlan Daiyrov et al.	2018	Regional Geomorphological Conditions Related to Recent Changes of Glacial Lakes in the Issyk-Kul Basin, Northern Tien Shan	https://www.mdpi.com/2076-3263/8/3/99
29	World Bank	2017	Measuring Seismic Risk in Kyrgyz Republic / Seismic Risk Reduction Strategy	https://documents1.worldbank.org/curated/en/689251517034023101/pdf/Measuring-seismic-risk-in-Kyrgyz-Republic-seismic-risk-reduction-strategy.pdf
30	Pierre Chevallier et al.	2023	Current and future water balance of a mountain subcatchment of Issyk-Kul Lake, Tien Shan range, Kyrgyzstan	https://www.sciencedirect.com/science/article/abs/pii/S0048969723039864
31	The Times of Central Asia	2025	Kyrgyzstan Drafts Program to Preserve Lake Issyk-Kul	https://timesca.com/kyrgyzstan-drafts-program-to-preserve-lake-issyk-kul/
32	Akchabar.kg	2025	The State Development Bank financed the construction of the Zhergez small hydroelectric power plant	https://www.akchabar.kg/en/news/gosbank-razvitiya-profinansiroval-stroitelstvo-maloj-gez-zhergez-yndfialgemizhyppo
33	Trend.az	2023	Russian-Kyrgyz Development Fund backs construction of small HPP in Kyrgyzstan	https://www.trend.az/casia/kyrgyzstan/3839432.html
34	Qazaq Green	2025	Kyrgyzstan: Local residents to receive 1 percent of energy from new HPPs as aid	https://qazaggreen.com/en/news/central-asia/2682/
35	Protected Planet	n.d.	Information on protected areas in Kyrgyzstan	https://www.protectedplanet.net/country/KGZ
36	Kyrgyz Republic	2025	NDC 3.0	https://unfccc.int/sites/default/files/2025-10/NDC3.0_Kyrgyzstan_English_30-09-2025%20%282%29.pdf

Appendix 3 - Photographs



Photo 1: Pastures upstream of headworks



Photo 2: Boz-Uchuk HPP headworks area



Photo 3: Headpond as seen from weir



Photo 4: View downstream from spillway



Photo 5: Woman fetching water from river



Photo 6: Interview with family spending summer near intake



Photo 7: Water quality risks from materials not yet cleaned up at intake



Photo 8: Road to intake, improved by project and with penstock on right hand side



Photo 9: Tourism enterprises between powerhouse and intake



Photo 10: Former diversion channel



Photo 11: High summer flows in bypass reach



Photo 12: Construction materials to be cleaned up at powerhouse



Photo 13: Forest habitat in bypass reach



Photo 14: Area to the right of powerhouse with latrine, retaining wall to be built



Photo 15: Temporary storage of logs in powerhouse area



Photo 16: Construction material to be cleaned up



Photo 17: Switchyard next to powerhouse



Photo 18: Construction material to be cleaned up



Photo 19: Powerhouse interior



Photo 20: Operator room at powerhouse, with head of construction company



Photo 21: CCTV monitoring from operator's room



Photo 22: Pelton turbine



Photo 23: Safety signage



Photo 24: Housekeeping



Photo 25: Tailrace channel from powerhouse



Photo 26: Tailrace discharge



Photo 27: Restored former work camp area



Photo 28: Boz-Uchuk road sign, view directly towards project area



Photo 29: Boz-Uchuk health centre, donated by Kuwait and with heating installed by developer



Photo 30: Paving materials for Boz-Uchuk kindergarten entrance area donated by developer



Photo 31: Horse rider on Boz-Uchuk main street, with streetlights donated by developer



Photo 32: Certificates of appreciation at contractor's office for Jyrgalang HPP



Photo 33: Bangladeshi workers at Jyrgalang HPP



Photo 34: Meeting with secretary of Boz-Uchuk council



Photo 35: Jyrgalang HPP camp



Photo 36: Assessment team with head of construction company at Jyrgalang HPP camp



Photo 37: Contractor staff canteen for Jyrgalang HPP



Photo 38: Conversation with HR officer at Jyrgalang HPP camp



Photo 39: Ski resort access road and penstock for Jyrgalang HPP construction



Photo 40: Meeting with head of the regional forest enterprise in Karakol



Photo 41: Map showing plots managed by forest enterprise



Photo 42: Meeting with head of Ak-Suu District in Teploklyuchenka



Photo 43: Defunct coal power and heating plant in Karakol



Photo 44: Beach on Lake Issyk-Kul downstream, the 2nd largest high-altitude lake in the world



Photo 45: Assessment team