

**ICE Investment Program: Smart Metering – COSTA RICA
Environmental and Social Action Plan (ESAP)**

No.	Aspect	Action	Deliverable	Delivery date
PS 1: Assessment and Management of E&S Risks and Impacts				
1.1	Environmental licenses	1. Obtain: i) the environmental licenses from the SETENA-MINAE-SINAC; ii) the declaration of national interest (DCN, in Spanish); iii) the drinking water and sewerage availability applications; and iv) the temporary permits to extract water for the Construction phase, as well as any other relevant one.	1. A copy of each document	1. A month prior to participating in the relevant activity
		2. Execute the actions required by each permit obtained.	2. Evidence of execution	2. As part of the Environmental and Social Compliance Report (ESCR)
1.2	Environmental and Social Management System	1. Design a Project-specific environmental and social management system (ESMS) in line with the existing one.	1. Project-specific ESMS handbook	1. 6 months after the first disbursement
		2. Adopt the ESMS for the Project.	2. Evidence of implementation	2. As part of the ESCR
1.3	Management programs	1. Update the environmental and social management plan (ESMP) for the Ventanas – Garita hydroelectric plant modernization project (MPHVG, in Spanish).	1. Updated ESMP	1. December 2025
		2. Implement the ESMP.	2. Evidence of the implementation	2. As part of the ESCR
		3. Produce a program to manage the recovery or disposition of old meters (PMRDOM).	3. PMRDOM	3. December 2025
		4. Implement the PMRDOM.	4. Evidence of the implementation	4. As part of the ESCR
1.4	Stakeholders Management and Engagement Plan	1. Report on the results of the consultation process in the ESMP for the extraction of sediments in the San Miguel reservoir.	1. Report on the results of the engagement processes	1. 6 months prior to the effective date of the hydroelectric plant decommissioning
		2. Prepare a Project-specific external grievance mechanism.	2. Proposed grievance mechanism	3. Q2 2026
		3. Implement the external grievance mechanism.	3. Evidence of the implementation	4. As part of the ESCR

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PS 2: Labor and Working Conditions				
2.1	Internal grievance mechanism	1. Prepare an internal grievance mechanism.	1. Proposed grievance mechanism	1. Prior to the first disbursement
		2. Implement the internal grievance mechanism.	2. Evidence of the implementation	2. As part of the ESCR
PS 3: Resource Efficiency and Pollution Prevention				
3.1	Greenhouse gases	1. Produce an inventory of greenhouse gases (GHG) Scope 1, 2 and 3 emissions for the Construction and Operation phases of the Project.	1. GHG report (Construction and Operation phases)	1. 6 months after the first disbursement for the Construction phase and later as part of the ESCR for the Operation phase
3.2	Pollution prevention	1. Submit the environmental and social assessment for the sites to dispose of the sediments that will be mechanically extracted from the San Miguel reservoir.	1. ESMP for sediment extraction activities	1. 1 year prior to the effective date of the hydroelectric plant decommissioning
		2. Produce the ESMP for the extraction of sediments that will be mechanically extracted from the San Miguel reservoir.	2. Specific ESMP	2. 7 months prior to the effective date of the hydroelectric plant decommissioning
		3. Execute the actions established in the specific ESMP.	3. Evidence of execution	3. As part of the ESCR
PS 4: Community Health and Safety				
4.1	Design, infrastructure and equipment safety, dam safety, and emergency management	1. Prepare an operations manual to include a bottom outlet safe operation plan for the San Miguel reservoir.	1. PHVG operations manual	1. 3 months after the San Miguel reservoir starts operating after its rehabilitation – modernization
		2. Implement the operations manual.	2. Evidence of implementation	2. As part of the ESCR
		3. Submit the emergency action plan for the PHVG.	3. Emergency action plan for the PHVG	3. 6 months before the execution of any work or activities in the PHVG
		4. Implement the emergency action plan.	4. Evidence of implementation	4. As part of the ESCR

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		5. Analyze the effects of climate change on the watershed feeding the PHVG.	5. Emergency action plan and operations manual updated with the results of the analysis of climate change effects	5. 6 months before the execution of any work or activities in the PHVG
		6. Produce an instrumentation plan or manual and monitoring protocols before and during the intervention, filling, and operation.	6. Instrumentation plan or manual and monitoring protocols before the intervention	6. 6 months before the execution of any work or activities in the PHVG
		7. Implement the instrumentation plan and monitoring protocols.	7. Evidence of implementation	7. As part of the ESCR
		8. Submit report with map of unstable areas and the plan for geotechnical monitoring and treatment of critical slopes in the PHVG.	8. Report with map of unstable areas and the plan for geotechnical monitoring and treatment of slopes	8. 6 months before the execution of any work or activities in the PHVG
		9. Produce the excess flow management plan for the San Miguel and Yurro Negro streams during the rehabilitation of the San Miguel reservoir.	9. ESMP for the sediment extraction activities with a flow management plan	9. 7 months prior to the effective date of the hydroelectric plant decommissioning
		10. Produce the bottom outlet safe operation plan for the San Miguel reservoir, as part of the operations manual for the PHVG, focusing on limiting the effects and communicating with users downstream, as well as measures to prevent and mitigate risks under normal and exceptional operational conditions.	10. Operations manual to include a bottom outlet safe operation plan for the San Miguel reservoir	10. 3 months after the San Miguel reservoir starts operating after rehabilitation – modernization
		11. Implement the bottom outlet safe operation plan.	11. Evidence of implementation	11. As part of the ESCR
4.2	Security personnel	1. Prepare a security management plan.	1. A security management plan for the PHVG	1. June 2026
		2. Implement the security management plan.	2. Evidence of implementation	2. As part of the ESCR
PS 5: Land Acquisition and Involuntary Resettlement				
5.1		1. Submit the land acquisition plan for the disposal of the sediments extracted from the San Miguel reservoir.	1. Land acquisition plan	1. 1 year prior to the effective date of the hydroelectric plant decommissioning

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	Land acquisition and involuntary resettlement	2. Implement the land acquisition plan.	2. Evidence of implementation	2. As part of the ESCR
		3. Prepare a resettlement plan in case of physical or economic displacement.	3. Resettlement plan	3. Before any physical or economic displacement
		4. Implement the resettlement plan when necessary.	4. Evidence of the implementation	4. As part of the ESCR
PS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources				
6.1	Protection and conservation of biodiversity	1. Develop a forestry management procedure to include an inventory of the trees to be cut down, as well as measures to avoid, mitigate and compensate for any impact on vulnerable species.	1. Forestry management procedure	1. Prior to the first disbursement
		2. Implement the forestry management procedure.	2. Evidence of the implementation	2. As part of the ESCR
6.2	Invasive alien species	1. Develop a protocol for the early detection of and fast response to invasive alien species (waste disposal sites).	1. Protocol for the early detection of and fast response to invasive alien species	1. Prior to the first disbursement
		2. Implement the protocol.	2. Evidence of the implementation	2. As part of the ESCR
PS 8: Cultural Heritage				
8.1	Chance finds	1. Include a chance finds protocol in the ESMP.	1. Updated ESMP	1. Before intervening new sites
		2. Implement the protocol when necessary.	2. Evidence of the implementation	2. As part of the ESCR