

## ESMS Questionnaire & Screening Report - for field projects

### Project Data

The fields below are completed by the project proponent

Project Title:	Management of competing water uses and associated ecosystems in Pungwe, Buzi and Save Basins		
Project proponent:	IUCN-ESARO		
Executing agency:	Ministry of Public Work, Housing and Water Resources of Mozambique – ARA-Centro Ministry of Environment, Water and Climate Change of Zimbabwe – ZINWA		
Funding agency:	GEF		
Country:	Mozambique-Zimbabwe	Contract value (add currency):	6 million USD
Start date and duration:	2019 - 48 months	Amount in CHF:	5,9 million CHF
Has a safeguard screening or ESIA been done before?	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no	Provide details, if yes:	

### Step 1: ESMS Questionnaire

The fields below are completed by the project proponent; the questionnaire is presented in Annex A

	Name and function of individual representing project proponent	Date
ESMS Questionnaire completed by:	Isabelle Terrasson, BRLingénierie, assigned by IUCN-ESARO	07/09/2018
ESMS Screening is (tick one of the three options)	<p><b>1. <input checked="" type="checkbox"/> required because the project budget is ≥ CHF 500,000</b></p> <p><b>2. <input type="checkbox"/> required – despite being a small project (&lt; CHF 500,000) the project proponent has identified risks when completing the ESMS Questionnaire</b></p> <p>3. <input type="checkbox"/> not required because the project budget is &lt; CHF 500,000 and the project proponent confirms that no environmental or social risks have been identified when completing the ESMS Questionnaire</p>	

### Step 2: ESMS Screening

To be completed by IUCN ESMS reviewer(s); only needed when the options 1 or 2 above (marked in red) are ticked

	Name	IUCN unit and function	Date
IUCN ESMS Reviewer:	Linda Klare	ESMS Coordinator	21.11.2018
	Title		Date
Documents submitted at Screening stage:	1_PRODLOC_GEF_IUCN_9593_PuBuSa_V4_21112018		21.11.2018

## ESMS Screening Report

### Risk category:

 low risk

 moderate risk

 high risk

**Rationale:** Summarize findings from the questionnaire and explain the rationale of risk categorization

See the following sections of the questionnaire for details:

**Section A** for findings about the stakeholder engagement process,

**Section B** on the 4 Standards,

**Section C** on other E&S impacts and

**Section D** on risk issues related to Climate change

The project aims to strengthen transboundary cooperation and management of water resources and associated ecosystems for improved water security, climate change resilience and sustainable livelihoods in the shared Pungwe-Buzi-Save basins in Zimbabwe and Mozambique. The project activities are expected to be highly beneficial from an environmental but also from a social perspective as they shall contribute to actually reducing death casualties due to flooding every year in the basin and to strengthen the community resilience to drought.

The majority of project activities are dedicated to analysis (Transboundary Diagnosis Analysis, TDA), planning, knowledge development, capacity building and to monitoring. These activities don't have noteworthy safeguard relevance as they don't involve concrete action on the ground. However, the TDA will feed into the development of a Strategic Action Program (SAP) which might have unintended negative impacts when the proposed priority actions are being implemented. While the implementation of these actions is not part of the project, the ESMS does require that potential E&S impacts from downstream implementation of policies, plans and programmes are taken into account.

Some project activities involve direct impacts on the ground; these are activity 2.2 (Determination of e-flows for priority ecosystems in pilot sites), activity 2.4 (Strengthen capacity about environmental law enforcement related to mining) and to a minor extent activity 1.7 (Strengthen Early Warning Systems). The determination of objective flows in the pilot basins might involve setting restrictions of water uses. But this will only be known after having determined - for each pilot site – the environmental needs (e-flow), water uses (demands/needs) and after having identified the flow regulation possibilities. While it is the intention that any restrictions should first concern large-scale users, it cannot be fully excluded that also households might be affected; hence there is a low probability of livelihood risks, in particular on vulnerable groups, which will need to be assessed prior to the final determination of the objective flows and the development of national and transboundary regulatory framework for e-flows implementation.

Activity 2.4 includes strengthening capacities on environmental law enforcement with focus on mining pollution. Increasing enforcement might induce livelihood risks – though this is considered not highly likely as the main focus is the training of informal gold miners on adequate practices. Activity 1.7 includes the design of community-level interventions and implementation of the soft component (e.g. low tech monitoring systems, training, installation of sirens etc.). "Hard" interventions can be planned but their implementation is outside the scope of this project. Potential E&S impacts from their implementation, however, should still be taken into consideration when developing these plans.

Overall it is considered very unlikely that project activities will have significant adverse environmental and/or social impacts that are divers, irreversible, or unprecedented. It would have normally been rated as low risk project, if there wasn't a lack of clarity about some of the project activities that might have on the ground impacts (as described above). Hence it is classified as moderate risk project and the development of an Environmental and Social Management Framework (ESMF) is needed. Because risks from these yet unspecified activities are anticipated as moderate (at most), a short and succinct ESMF is deemed sufficient. It should highlight types of risk issues of the on the ground activities and mitigation measures, provide guidance for the SAP, establish the responsibilities for risk identification and assessment and describe measures for building the capacity of partner organizations in safeguard issues.

### Required assessments or tools

 Full Environmental and Social Impact Assessment (Full ESIA)

 Partial Environmental and Social Impact Assessment (Partial ESIA)

 Social Impact Assessment (SIA)

 Environmental and Social Management Plan (ESMP)

 Environmental and Social Management Framework (ESMF)

	<input type="checkbox"/> Other:	
<b>ESMS Standards</b>	<b>Trigger</b>	<b>Required tools or plans</b>
Involuntary Resettlement and Access Restrictions <i>(see section B1 for details)</i>	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no <input type="checkbox"/> TBD	<input type="checkbox"/> Resettlement Action Plan <input type="checkbox"/> Resettlement Policy Framework <input type="checkbox"/> Action Plan to Mitigate Impacts from Access Restriction <input type="checkbox"/> Access Restrictions Mitigation Process Framework
Indigenous Peoples <i>(see section B2 for details)</i>	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no <input type="checkbox"/> TBD	<input type="checkbox"/> Indigenous People Plan <input type="checkbox"/> Indigenous People Process Framework
Cultural Heritage <i>(see section B3 for details)</i>	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no <input type="checkbox"/> TBD	<input type="checkbox"/> Chance Find Procedures
Biodiversity Conservation and Sustainable Use Natural Resources <i>(see section B4 for details)</i>	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no <input type="checkbox"/> TBD	<input type="checkbox"/> Pest Management Plan

## Annex A: ESMS Questionnaire

### Project summary

<b>Project: Management of Competing Water Uses and Associated Ecosystems in Pungwe, Buzi and Save Basins - Mozambique, Zimbabwe</b>		
<b>Project objective:</b> to strengthen transboundary cooperation and management of water resources and associated ecosystems for improved water security, climate change resilience and sustainable livelihoods in the shared Pungwe-Buzi-Save basins (Zimbabwe and Mozambique)		
<b>Component</b>	<b>Outcomes</b>	<b>Outputs</b>
Component 1: Flood and Drought Warning and Mitigation	Outcome 1.1 - Floods and droughts management in the Pungwe, Save and Buzi basins is improved and related risks mitigated	Output 1.1.1 - Improved water resources monitoring, warning and information system in support of flood and drought risk management
		Output 1.1.2 - Flood risk & vulnerability characterised
		Output 1.1.3 - Flood and drought risk response capability strengthened
	Outcome 1.2 - Improved national and transboundary capacity for integrated management of floods and droughts	Output 1.2.1 - JWT, member States and communities' capacities for flood and drought management strengthened
	Outcome 1.3 - Component 1 is monitored and evaluated	Output 1.3.1 - Project progress towards outcomes documented and shared with all stakeholders
Component 2: Conserving and restoring ecosystems for sustainable livelihoods	Outcome 2.1 - Improved water ecosystems of the Pungwe, Save and Buzi basins for sustainable functions and services to people and nature	Output 2.1.1 - Shared diagnosis of ecosystems status, functioning and economic value established
		Output 2.1.2 - Strengthened Environmental Flow management Framework for improved decision making
		Output 2.1.3 – Environmental concerns mainstreamed into decision making Output 2.1.5 - Capacities are strengthened
	Outcome 2.2 - Component 2 is monitored and evaluated	Output 2.2.1 - Project progress towards outcomes documented and shared with all stakeholders
Component 3: Integrated basin planning for the Pungwe - Buzi – Save River Basins	Outcome 3.1 - Zimbabwe and Mozambique JWC agrees on updated shared water resources strategy and programme for joint ecosystem based management of the Pungwe- Buzi-Save river basins	Output 3.1.1 - Pungwe-Save-Buzi Transboundary diagnostic analysis (TDA) developed, building on existing Monographs, and Pungwe-Save-Buzi Strategic Action Program (SAP) developed, building on the TDA and IWRM regional (SADC) / basin / national plans & adopted at ministerial level (JWC)
		Output 3.1.2 - Institutional capacity for integrated planning strengthened
		Output 3.1.3 - Funds raised for SAP implementation
	Outcome 3.2 - Component 3 is monitored and evaluated	Output 3.2.1 - Project progress towards outcomes documented and shared with all stakeholders
Project Management Costs	Outcome 4.1 - Project is effectively and efficiently managed	Output 4.1.1 - Project management team established and functional
		Output 4.1.2 - Project evaluation and audit mission carried out

## A. Process of stakeholder engagement during project conceptualization

1. **Stakeholder Analysis:** Has a project stakeholder analysis been carried out and documented – identifying not only stakeholders' interests in the project and their influence but also whether they might be affected by the project? Does the stakeholder analysis differentiate between women and men, where relevant and feasible? It is recommended to add the stakeholder analysis to the documents submitted at screening stage.

*To be completed by project proponent*

A stakeholder landscape mapping has been carried to identify the key stakeholders involved in water resources management in the 3 basins, at local, basin, national and regional levels. The key stakeholders, including vulnerable communities, were then consulted and took an active part to the project design. They shared their needs and priorities for incorporation into the project design.

*IUCN ESMS Reviewer*

It is acknowledged that an analysis of high-level stakeholder has been carried out during the PPG phase. It will be important that during project implementation the work in the pilot sites will be preceded by an analysis of stakeholders present at the respective scales and areas of influence of the project activity.

2. **Stakeholder Consultation:** Has information about the project – objectives, activities, sites and potential risks – been shared with stakeholders? Have consultations been held with relevant groups to discuss the project concept and risks? Provide details about the groups involved. Were women involved or consulted separately? Did the consultations involve stakeholders that might be negatively affected by the project? Were consultations conducted in a culturally appropriate way? Have results of the consultations been documented? Were results used to inform project design?

*To be completed by project proponent*

The project components design process, during the PPG mission, benefited from the contributions of various regional, national and local stakeholders. Regional, national and local stakeholders from the national institutions; the private sector and the civil society have indeed been invited to share data and information on the transboundary environmental issues they face. They were also invited to express their needs in terms of capacity building, institutional strengthening and on-the-ground intervention to tackle these issues. Local and national consultations (national meetings in both countries in April 2018, field missions in April 2018 and May 2018, in Mozambique and Zimbabwe respectively) and dedicated work sessions during the regional workshops held in Pretoria, South Africa, 13/02/2018, Beira, Mozambique (07/05/2018) and Mutare, Zimbabwe (12/07/2018) in the framework of the PPG mission were specifically organised to ease this information sharing. The last workshop was dedicated to the review, amendment and validation of the proposed project design, in which the stakeholder contribution were duly integrated. A broad range of stakeholders took part to these exercises. The minutes of the consultations are detailed in the project scoping report. The detailed contributions provided during the workshop sessions are available in the workshop reports.

*IUCN ESMS Reviewer*

Similar to the comment above, the field work in the pilot sites needs to be preceded by adequate consultation of the relevant groups in each sites (women, youth, vulnerable groups, rights holders, potentially affected groups etc.) in order to understand the interests/needs and potential risks and to ensure that the relevant groups will be involved when planning the detailed design of the project activities.

In terms of the consultation and engagement process planned for the implementation phase: the engagement strategy is well presented in chapter 6. It is also worth mentioning that the Strategic Action Program (SAP) includes the development of a SH engagement plan as an inherent part of this methodology.

<b>B. Potential impacts related to ESMS standards</b>			
<b>B1: Standard on Involuntary Resettlement and Access Restrictions</b>			
	<b>Project proponent</b>		<b>IUCN ESMS Reviewer</b>
	Yes, no, n/a, TBD	Answer question, provide further detail where relevant	Comments, additional considerations
1. Will the project involve resettling peoples or communities? <b>if yes, answer a-b below</b>	no	Shaded cells do not need to be filled out	
a. Describe the project activities that require resettlement?			
b. Have alternative project design options for avoiding resettlement been rigorously considered?			
2. Does the project include activities that might restrict peoples' access to land or natural resources? Please consider the following activities: establishing new protected areas (PA) or extending the area of an existing PA, improving enforcement of PA regulations (e.g. training guards, providing monitoring and/or enforcement equipment, providing training/tools for improving management effectiveness), constructing physical barriers that prevent people accessing certain places; changing how specific natural resources are managed – to a management system that is more restrictive); <b>if yes, answer a-h below</b>	yes		
<b>Answer only if you answered yes to items 2, 3, or 4.</b>			
a. Describe project activities that involve restrictions and the respective resources to be restricted.		Environmental flows/objective flows management may restrict water use at some periods of the year. The determination of objective flows shall rely on the determination of environmental needs, priority water use and other uses, the identification of flow regulation possibilities before deciding the environmental flows/objective flows. The restriction of water uses may principally concern formal large-scale users, and not small-scale/unformal/traditional users.	
b. Has the legal framework regulating land tenure and access to natural resource been analysed, broken down by different groups including women and ethnic/indigenous groups? Are customary rights for land and natural resources recognized? Are there any groups at the project site whose rights are not legally recognized?		The legal framework for water resource management has been analysed. Local communities have a customary right for natural resources (including water resources) that are recognized in the both countries legislation. They will be taken into account as the communities will directly take part to the definition of the community-based early warning systems to be deployed.	
c. Have the implications of access restrictions on people's livelihoods been analysed? Explain who might be affected and describe impacts. Distinguish social groups (incl. vulnerable groups, indigenous peoples) and men and women.		Vulnerable groups shall benefit of the establishment of objective flows as it will increase the protection against floods and increase the availability of water. No vulnerable groups has been identified as possibly negatively impacted.	The implications of flow management and potential restrictions need to be carefully analysed in each pilot site, broken down by social groups with particular focus on vulnerable groups present in the respective sites
d. Have strategies been considered to avoid restrictions by making changes to project design?		Possible access limitations to small-scale users shall only be considered for extreme hydrological conditions. The main leverage of the establishment of objective flows is the regulation capacity of large hydraulic infrastructure.	

e. If it is not possible to avoid restrictions, will the project include measures to minimize or compensate for impacts from loss/ restrictions of access? Please describe the measures.		Yes. As described above, the mobilization of the flows discharged by large dams shall be calibrated to cover the communities' domestic needs.	
f. Are eligibility criteria established that define who is entitled to benefits or compensation? Are they transparent and fair (e.g. in proportion to their losses and to their needs if they are poor and vulnerable)?		N/A	
g. Are measures culturally appropriate and gender inclusive? Does the geographical scale of the measures match the scale of the restrictions (e.g. will measures be accessible to all groups affected by the restrictions)?		Yes	
h. Has a process been implemented or started to obtain free, prior and informed consent (FPIC) from groups that are likely to be negatively affected by restrictions? Please describe the process (who has been consulted and how).			
3. Will/might the project require the acquisition of land for project purposes (e.g infrastructure development)? If yes, describe the current legal status of the land (private/ public, occupied/unoccupied); will this impact people's livelihood or access to resources?	No		
4. Has any of the project partners involved in activities related to forced eviction, resettlement or access restrictions in the past been? If yes, specify.	No		

### Conclusion of ESMS Reviewer<sup>1</sup> on the Standard on Involuntary Resettlement and Access Restrictions

<b>Standard triggered? Yes / No / TBD</b> <b>What are the main risk issues? If possible indicate their probability (unlikely, likely, almost certain) and impact (minor, moderate, major).</b>	No	The establishment of environmental flows might involve restrictions of water use. As such restrictions are not associated with land acquisition or the establishment of protected areas the Standard is not triggered. The potential livelihood risks will be dealt with in Section C1 (other social impacts).
<b>Are assessments required to better understand the impacts and identify mitigation measures? What specific topics are to be assessed?</b>	n/a	
<b>Have measures for avoiding impacts already been considered? Are they sufficient?</b>	n/a	
<b>B2: Standard on Indigenous Peoples<sup>2</sup></b>		
	<b>Project proponent</b>	<b>IUCN ESMS Reviewer</b>

<sup>1</sup> If the project budget is < CHF 500,000 this field (and the equivalent fields below) needs to be completed by the project proponent (instead of the IUCN ESMS Reviewer).

<sup>2</sup>The coverage of indigenous peoples includes: (i) peoples who identify themselves as "indigenous" in strict sense; (ii) tribal peoples whose social, cultural, and economic conditions distinguish them from other sections of the national community, and whose status is regulated wholly or partially by their own customs or traditions or by special laws or regulations; and (iii) traditional peoples not necessarily called indigenous or tribal but who share the same characteristics of social, cultural, and economic conditions that distinguish them from other sections of the national community, whose status is regulated wholly or partially by their own customs or traditions, and whose livelihoods are closely connected to ecosystems and their goods and services

	Yes, no, n/a, TBD	Answer question, provide further detail where relevant	Comments, additional considerations
1. Is the project site in an area inhabited by or important to indigenous peoples, tribal peoples or other traditional peoples? <b>If yes, answer questions a-j</b>	No	In Zimbabwe, the Indigenous people are not located in the Pungwe Buzi and Save basins, but in the Zambezi basin (northern area) and in western Zimbabwe (Source: IWGIA). In Mozambique, field work did not confirm the presence of any group that could be considered as indigenous in the basins (Source: IWGIA, and the team's sociologist)	
2. Even if indigenous groups are not found at the project sites, is there still a risk that the project could affect the rights and livelihood of indigenous peoples? <b>If yes, answer questions a-j</b>	No		
Answer only if you answered yes to 1 or 2 above.			
a. Name the groups; distinguish, if applicable, the geographical areas of their presence (including the areas of resource use) and how these relate to the project's area of influence.			
b. What are the key characteristics that qualify the identified groups as indigenous groups? Do these groups identify themselves as indigenous?			
c. How does the host country's Government refer to these groups (e.g., indigenous peoples, minorities, tribes etc.)?			
d. Is there a risk that the project affects their livelihood through <b>access restrictions</b> ? While this is covered under the Standard on Involuntary Resettlement and Access Restrictions, if yes, please specify the indigenous groups affected.			
e. Is there a risk that the project affects their livelihood in some other means? E.g. by affecting their self-determination, cultural identity, values and practices, social cohesion, or by providing inequitable benefits?			
f. Does the project promote the use or development of natural resources on their lands or territories?			
g. Does the project intend to promote the use of indigenous peoples' traditional knowledge?			
h. Are indigenous groups living in voluntary isolation? Is there a risk that these groups might be affected by project activities?			
i. Have relevant indigenous peoples been consulted to discuss the project and better understand potential impacts upon them?			
j. Has a process been implemented or started to achieve free, prior and informed consent (FPIC) of indigenous peoples to planned activities?			
k. Explain whether opportunities are considered to provide benefits for indigenous peoples? If yes, is it ensured that this is done in a culturally appropriate and gender inclusive way?			

**Conclusion of ESMS Reviewer on the Standard on Indigenous Peoples**

<b>Standard triggered? Yes / No / TBD</b> <b>What are the main risk issues? If possible indicate their probability (unlikely, likely, almost certain) and impact (minor, moderate, major).</b>	No	According to data provided by the project design team's sociologist there is no presence of indigenous peoples in the targeted basins.
<b>Are assessments required to better understand the impacts and identify mitigation measures? What specific topics are to be assessed?</b>	n/a	
<b>Have measures for avoiding impacts already been considered? Are they sufficient?</b>	n/a	

### B3: Standard on Cultural Heritage<sup>3</sup>

	Project proponent	IUCN ESMS Reviewer
	<small>Yes, no, n/a, TBD</small> Answer question, provide further detail where relevant	Comments, additional considerations
1. Is the project located in or near a site officially designated or proposed as a cultural heritage site (e.g., UNESCO World Cultural or Mixed Heritage Sites, or Cultural Landscapes) or a nationally designated site for cultural heritage protection? <b>if yes, answer a-c below</b>	Yes	The project covers 3 river basins. 1 UNESCO World Cultural heritage site is located in one of them, the Save basin, in Zimbabwe: Great Zimbabwe National Monument.
2. Does the project site include important cultural resources such as burial sites, buildings or monuments of archaeological, historical, artistic, religious, spiritual or symbolic value? <b>if yes, answer a-c below</b>	No	
3. Does the project area site include any natural features or resources that are of cultural, spiritual, or symbolic significance (such as sacred natural sites, ceremonial areas, or sacred species)? <b>if yes, answer a-c below</b>	TBD	
a. Will the project involve development of infrastructure (e.g. roads, dams, slope restoration, landslides stabilisation) or construction of buildings (e.g. visitor centre, watch tower)?	No	
b. Will the project involve excavation or movement of earth, flooding or physical environmental changes (e.g., as part of ecosystem restoration)?	No	
c. Is there a risk that physical interventions described in items a. and b. might affect known or unknown (buried) cultural resources?	No	
4. Will the project restrict local users' access to cultural resources or natural features/sites with cultural, spiritual or symbolic significance?	No	
5. Is there a risk that the project might affect cultural values, norms or practices of local communities?	No	

<sup>3</sup> Cultural heritage is defined as tangible, movable or immovable cultural resource or site with paleontological, archaeological, historical, cultural, artistic, religious, spiritual or symbolic value for a nation, people or community, or natural feature or resource with cultural, religious, spiritual or symbolic significance for a nation, people or community associated with that feature.

6. Will the project promote the use of (or development of economic benefits) from cultural resources or natural features/sites with cultural significance?	No		
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### Conclusion of ESMS Reviewer on the Standard on Cultural Heritage

<b>Standard triggered? Yes / No / TBD</b> <b>What are the main risk issues? If possible indicate their probability (unlikely, likely, almost certain) and impact (minor, moderate, major).</b>	No	The standard is not triggered as there are no infrastructure works nor any other activities that might affect cultural heritage.
<b>Are assessments required to better understand the impacts and identify mitigation measures? What specific topics are to be assessed?</b>	n/a	
<b>Have measures for avoiding impacts already been considered? Are they sufficient?</b>	n/a	

### B4: Standard on Biodiversity Conservation and Sustainable Use of Natural Resources

	Project proponent	IUCN ESMS Reviewer
	Yes, no, n/a, TBD	Answer question, provide further detail where relevant
		Comments, additional considerations
1. Is the project located in or near areas legally protected or officially proposed for protection including reserves according to IUCN Protected Area Management Categories I - VI, UNESCO Natural World Heritage Sites, UNESCO Biosphere Reserves, Ramsar Convention on Wetlands? <b>If yes, provide details on the protection status and answer questions a-c</b>	No	
2. Is the project located in or near to areas recognised for their high biodiversity value and protected as such by indigenous peoples or other local users? <b>If yes, provide details and answer questions a-c</b>	Yes	Gorongosa, Gonarezhou & Zinave national parks The project aims at defining environmental flows for maintaining the functionality of these areas
3. Is the project located in/near to areas which are not covered in existing protection systems but identified by authoritative sources for their high biodiversity value <sup>4</sup> ? <b>If yes, provide details and answer questions a-c</b>	Yes	Pungwe-Buzi estuary & its mangrove (possibly connected with the <i>banco de Sofala</i> important maritime spawning area) The project aims at defining environmental flows for maintaining the functionality of these areas

Answer only if you answered yes to items 1, 2, or 3 above.

<sup>4</sup> Areas important to threatened species according to IUCN Red List of Threatened Species, important to endemic or restricted-range species or to migratory and congregatory species; areas representing key evolutionary processes, providing connectivity with other critical habitats or key ecosystem services; highly threatened and/or unique ecosystems (e.g. to be determined in future by the evolving IUCN Red List of Ecosystems); areas identified as Key Biodiversity Areas (KBA) and subsets such as important Bird and Biodiversity Areas (IBAs), important Plant Areas (IPAs), important Sites for Freshwater Biodiversity or Alliance for Zero Extinction (AZE) sites.

a. If the project aims to establish or expand a protected area (PA) or to change its management regime, is there a risk of negative impacts on natural resources in areas outside the PA?	No		
b. If the project plans any infrastructure in a PA or an area of high biodiversity value (e.g., watch tower, tourism facilities, access roads, small scale water infrastructure), is there a risk of negative impacts on biodiversity (e.g. on threatened species) during its construction and use?	No		
c. If the project promotes ecotourism, is there a risk of negative impacts on biodiversity (e.g., due to waste disposal, disturbance, slope erosion etc.)?	No		
4. If the project involves civil works or infrastructure development outside of PA or other areas of high biodiversity value, is there a risk of significant impact on biodiversity?	No		
5. Will the project include introduction or translocation of species (e.g. for erosion control, dune stabilisation or reforestation) or include production of living natural resources? <b>If yes, provide details and answer questions a-d</b>	No		
Answer only if you answered yes to items 4 or 5 above.			
a. Does this project involve non-native species or risk introducing non-native species by accident?			
b. If a.is yes, is there a risk that these species might develop invasive behaviour?			
6. Is there a risk that the project might create other pathways for spreading invasive species (e.g. through creation of corridors, import of commodities, tourism or movement of boats)?	No		
7. Is there a risk that the project negatively affects water flows through extraction, diversion or containment of surface or ground water (e.g., through dams, reservoirs, canals, levees, river basin developments, groundwater extraction) or through other activities?	Yes	The aim of implementing environmental flows is to manage water flows to preserve aquatic habitats and biodiversity.	
8. Is there a risk that the project negatively affects water dynamics, river connectivity or the hydrological cycle in ways other than direct changes of water flows (e.g., by affecting water infiltration, aquifer recharge or sedimentation)? Also consider reforestation projects as originators of such impacts.	No		
9. Is there a risk that the project affects water quality of surface or groundwater (e.g., contamination, increase of salinity) through irrigation/ agricultural run-off, water extraction practices, influence of livestock or other activities?	No		
10. If the project promotes the use of living natural resources (such as Non-Timber Forest Products), will the project ensure that harvest rates are controlled/ monitored?	No		

11. Does the project intend to use pesticides, fungicides or herbicides (biocides)? <b>If yes, provide details and answer questions a-b</b>	No		
a. Have alternatives to the use of biocides been rigorously considered or tested?			
b. Has a pest management plan been established?			
12. In case the project intends to use biological pest management techniques, is there a risk of adversely affecting biodiversity?	No		
13. Is there a risk that project activities lead to fragmentation of the landscape?	No		
14. Is there a risk that the project unintentionally causes adverse knock-on effects on biodiversity in a wider area of influence (landscape/ watershed, regional or global levels) including transboundary impacts?	No		
15. Is there a risk that consequential developments triggered by the project will have adverse impacts on biodiversity? Is there a risk of adverse cumulative impacts generated together with other known or planned projects in the sites?	No	It will have positive impact on biodiversity through the establishment of minimum environmental flows to preserve ecosystems functioning.	

### Conclusion of ESMS Reviewer on the Standard on Biodiversity Conservation and Sustainable Use of Natural Resources

<b>Standard triggered? Yes / No / TBD</b> <b>What are the main risk issues? If possible indicate their probability (unlikely, likely, almost certain) and impact (minor, moderate, major).</b>	No	The impacts on biodiversity and ecosystems are expected to be exclusively positive.
<b>Are assessments required to better understand the impacts and identify mitigation measures? What specific topics are to be assessed?</b>	n/a	
<b>Have measures for avoiding impacts already been considered? Are they sufficient?</b>	n/a	

## C. Other social or environmental impacts

### C1: Other social impacts

	Project proponent	IUCN ESMS Reviewer
	<small>Yes, no, n/a, TBD</small> Answer question, provide further detail where relevant	<i>Comments, additional considerations</i>
1. Is there a risk that the project negatively affects human rights (e.g., right to self-determination, to education, to health, or cultural rights) – other than issues related to indigenous peoples which are dealt with in the respective standard? Differentiate between women and men, where applicable.	No	The development of flood risk management plans and respective measures could disadvantage certain groups.

2. Will the project influence land tenure arrangements or community-based property rights to land or resources and is there a risk that this might adversely affect peoples' rights and livelihoods? Consider in particular impacts on transhumant pastoralist, vulnerable groups, different gender etc.?	No		While not affecting property rights, changes in environmental flow and the determination of objective flows/water allocation can affect the agricultural productivity of land (including water resources) to which communities have tenure rights.
3. Is there a risk that the project creates or aggravates inequalities between women and men or adversely impacts the situation or livelihood conditions of women or girls?	No		Decisions about water use as well as the development of flood risk management plans might discriminate or disadvantage women if not done in gender responsive way.
4. Explain whether the project use opportunities to secure and, when appropriate, enhance the economic, social and environmental benefits to women?			The project should use further opportunities to strengthen women rights such as ensuring appropriate participation of women in bodies set-up by the project (national inter-ministry committees, technical advisory teams, planning teams at community level).
5. Explain whether the project provide, when appropriate and consistent with national policy, for measures that strengthen women's rights and access to land and resources?			
6. Is there a risk that the project benefits women and men in unequal terms that cannot be justified as affirmative action? <sup>5</sup>	No		
7. Is there a risk that the project might negatively affect vulnerable groups <sup>6</sup> in terms of material or non-material livelihood conditions or contribute to their discrimination or marginalisation (only issues not captured in any of the sections above)?	No	The project shall take into account the traditional uses and practices of vulnerable people so as to determine objective flows that enable to respect them.	The determination of the objective flow (activity 2.2) might involve decisions about restriction of water uses; it is recognized as the project's intention that any restrictions should first concern large-scale users, it cannot be fully excluded that also households might be affected, including by temporary restrictions on water use. Hence there is a probability albeit low of livelihood risks, in particular on vulnerable groups.  Activity 2.4 includes strengthening capacities on environmental law enforcement with focus on mining pollution. The concrete activities are not fully decided yet, but may include support to the formalization of the informal mining sector and their sensitization / training on adequate practices. There is a low probability of livelihood risks induced by increased enforcement activities.
8. Is there a risk that the project would stir or exacerbate conflicts among communities, groups or individuals (e.g. by increasing resource competition when promoting economic opportunities or when strengthen rights of selected groups)? Also consider dynamics of recent or	Yes	The respect of environmental flows may induce restrictive flow management in some reaches. These restrictions generally affect the large-scale users to the benefit of informal users.	

<sup>5</sup> Affirmative action is a measure designed to overcome prevailing inequalities by favouring members of a disadvantaged group who suffer from discrimination. However, if not designed appropriately these measures could aggravate the situation of a previously advantaged groups leading to conflicts and social unrest.

<sup>6</sup> Depending on the context vulnerable groups could be landless, elderly, disabled or displaced people, children, ethnic minorities, people living in poverty, marginalised or discriminated individuals or groups.

expected migration and issues / needs of displaced people.			
9. Is the project likely to induce immigration or significant increases in population density which might trigger environmental or social problems (with special consideration to women)?	No		
10. Is there a risk that the project affects community health and safety (incl. risks of spreading diseases, human-wildlife conflicts)?	No		
11. Is there a risk that changes in water resource management or enhanced water infrastructure may attract disease vectors and other environmental health issues (e.g. through poor water quality) and as such lead to an outbreak of water-related disease?	No		
12. Might the project be directly or indirectly involved in forced labour and/or child labour?	No		
13. Is there a risk that the project negatively affects the livelihoods of local communities in indirect ways or through cumulative (due to interaction with other projects or activities, current or planned) or transboundary impacts?	No		
13. Is there a risk that the project negatively affects the operation of dams or other built water infrastructure (reservoirs, irrigation systems, canals), e.g., by changing flows into those structures, and as such impairing local communities' livelihood or income?	No	The project may modify dam operation rules to respect objective flows / e-flows.	It is assumed that these changes are not causing any health or safety risks for communities but this should be checked when changes are proposed.
14. Are there any statutory requirements for social impact assessments in the host country (including provisions for disclosure and consultation) the project needs to adhere to?	No		
15. Is there a risk that the project might conflict with existing legal social frameworks including traditional frameworks and norms?	No		

## C2: Other environmental impacts

	Project proponent		IUCN ESMS Reviewer
	<i>Yes, no, n/a, TBD</i>	<i>Answer question, provide further detail where relevant</i>	<i>Comments, additional considerations</i>
1. Will the project lead to increased waste production, in particular hazardous waste?	No		
2. Is the project likely to cause pollution or degradation of soil, soil erosion or siltation?	No		
3. Might the project cause pollution to air or create other nuisances such as dust, traffic, noise or odour?	No		
4. Will the project lead to significant increases of greenhouse gas emissions or to the reduction of carbon pools (e.g. through changes in vegetation cover and loss of below and above ground carbon stocks).	No		

5. Is there a risk that the project triggers consequential development activities which could lead to adverse environmental impacts, cumulative impacts due to interaction with other projects (current or planned) or to transboundary impacts (consider only issues not captured under the Biodiversity Standard)?	No		
6. Are there any statutory requirements for environmental impact assessments in the host country (including provisions for disclosure and consultation) the project needs to adhere to?	No		
7. Is there a risk that the project might conflict with existing environmental regulations?	No		

### Conclusion of ESMS Reviewer on other Social or Environmental Impacts

<b>Have negative environmental or social impacts been identified? If possible indicate probability (unlikely, likely, almost certain) and impact (minor, moderate, major) of risks.</b>	No	Environmental impacts of project activities are expected to be highly positive. A few social risk issues have been identified above - livelihood risks from potential restriction to water use and from environmental enforcement as well as the potential to disadvantage women or other groups when developing flood risk management plans. These risks, however, are rather hypothetical at this stage as the concrete activities, sites and e-flow changes are not known yet. This will need to be addressed in an ESMF.
<b>Are assessments required to better understand the impacts and identify mitigation measures? What specific topics are to be assessed?</b>		Risks from water restrictions, in particular on women and on vulnerable groups, need to be assessed prior to the final determination of the objective flows and the development of national and transboundary regulatory framework for e-flows implementation - to be included in the ESMF.
<b>Have measures for avoiding impacts already been considered? Are they sufficient?</b>		to be addressed in an ESMF

### D. Climate change risks (Risks caused by a failure to adequately take the effects of climate change on people and ecosystem into consideration)

	Project proponent		IUCN ESMS Reviewer
	<i>Yes, no, n/a, TBD</i>	<i>Answer question, provide further detail where relevant</i>	<i>Comments, additional considerations</i>
1. Have the historical, current, and future trends in climate variability and change including climate sensitivity <sup>7</sup> been analysed in the project area?	Yes	Available information has been analysed.	
2. Is the project area prone to specific climate hazards (e.g., floods, droughts, wildfires, landslides, cyclones, storm surges, etc.)?	Yes	Component 1's objective is precisely to contribute to floods and droughts mitigation.	
3. Are changes in biophysical conditions in the project area triggered by climate change expected to impact people's livelihoods? Are some groups more susceptible than others (e.g., women or vulnerable groups)?	TBD	Component 1 and Component 2 include field investigations and data production to precisely have a better insight of the possible impacts of climate variability on biophysical conditions and socio-economic activities.	

<sup>7</sup> Sensitivity is the degree to which a system can be affected, negatively or positively, by climate-related stimuli. IPCC, 2001

4. Is there a risk that climate variability and changes might affect the effectiveness of project activities or the sustainability of intended changes?	Yes	Climate variability shall be taken into account in the definition of objective flows/e-flows (component 2) and in the flood risk management plan (component 1)	
5. Could project activities potentially increase the vulnerability of local communities to current or future climate variability and changes?	No		
6. Could project activities potentially increase the vulnerability of the local ecosystem to current or future climate variability and changes?	No		
7. Explain whether the project seek opportunities to enhance the adaptive capacity of communities and ecosystem to climate change?			

### Conclusion of ESMS Reviewer on the Climate Change Risks

<b><i>Have negative impacts been identified? If possible indicate probability (unlikely, likely, almost certain) and impact (minor, moderate, major) of risks.</i></b>	No	The project is designed to mitigate risks from climate change. Monitoring stations in the basins will provide real-time data which will strengthen weather/flow prediction models. Definition of e-flows and the TDA/SAPs are assumed to take climate variability through improved data and weather prediction models into account.
<b><i>Are assessments required to better understand the impacts and identify mitigation measures? What specific topics are to be assessed</i></b>	n/a	
<b><i>Have measures for avoiding impacts already been considered? Are they sufficient?</i></b>	n/a	