



Cultural Heritage

This guideline expands on what is expected by the criteria statements in the Hydropower Sustainability Tools (HST) for the Cultural Heritage topic, relating to assessment, management, conformance/compliance, stakeholder engagement, stakeholder support and outcomes. The good practice criteria are expressed for different life cycle stages.

In the Hydropower Sustainability Assessment Protocol (HSAP), this topic is addressed in P-17 for the preparation stage, I-13 for the implementation stage and O-13 for the operation stage. In the Hydropower Sustainability ESG Gap Analysis Tool (HESG), this topic is addressed in Section 8.

This guideline addresses cultural heritage, with specific reference to physical cultural resources at risk of damage or loss by the hydropower project and associated infrastructure (e.g. new roads, transmission lines), or associated with the hydropower facility. The intent for a hydropower development 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.

Cultural heritage refers to the legacy of physical artefacts and intangible attributes of a group or society that are inherited from past generations, maintained in the present and bestowed for the benefit of future generations. It can be understood as the objects, places and practices that define who we are. Cultural heritage are the values we want to retain, share and pass on to future generations.

Cultural heritage does not refer exclusively to the monumental remains of a culture and includes intangible, ethnographic and social heritage. It is an evolving concept, reflecting living cultures as well as those of the past. This guideline focusses on **physical cultural resources**, which are movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. Physical cultural resources may be located in urban or rural settings and may be above or below ground, or under water. Their cultural interest may be at the local, provincial or national level, or within the international community.

Intangible cultural resources are oral traditions, performing arts, social practices, rituals, festive events, knowledge and practices concerning

nature and the universe, and the knowledge and skills to produce traditional crafts. Intangible cultural resources should also be thoroughly addressed in any project Environmental and Social Impact Assessment (ESIA) and may well be a source of social impact risks as noted in the guidelines for Project Affected Communities and Livelihoods, and for Indigenous Peoples. It is also not always possible to separate the physical and the non-physical; for example, traditions may be in place in relation to spirits associated with sacred sites. Local groups may accept disturbance to or loss of physical cultural items of heritage importance (e.g. a sacred rock or a burial ground) as long as appropriate blessings and ceremonies have been observed.

Assessment

Assessment criterion - Preparation Stage: A cultural heritage assessment has been undertaken with no significant gaps; the assessment includes identification and recording of physical cultural resources, evaluation of the relative levels of importance, and identification of any risks arising from the project.

A cultural heritage assessment should be included in the ESIA to meet international good practice, regardless of whether or not it is mandated by the government regulatory requirements. The assessment should consider protected and non-protected, tangible and intangible, religious and non-religious, and archaeological and paleontological aspects of cultural heritage. All available sources of secondary data should be identified and included, including previous studies, the national cultural heritage database, locally held information, and from all relevant institutions.

The assessment should identify and record physical cultural resources within the areas that will be both directly and indirectly affected by the proposed hydropower project. Identification should take place through physical surveys accompanied by more qualitative approaches to establish the relative levels of importance or significance of each identified resource. For example, a piece of pottery found in the future construction area may be one of hundreds that are regularly found in the region versus a significant find that explains a critical gap in the history of the region. Collection and collation of oral history evidence from those in the cultural groups who are best able to provide it

may need to be undertaken if appropriate to a type of heritage or anticipated impact. For example, if a site of cultural heritage importance is going to be permanently lost through inundation under the reservoir, then full documentation of the artefacts and stories/memories relating to it may be an important pre-inundation management commitment.

For each of the cultural heritage resources recorded, the assessment should document the condition of the resource to establish baseline data against which any later concerns about disturbance can be checked. For example, the structural integrity of existing monuments and other built heritage structures should be described, and any existing structural weaknesses and cracks should be well-documented. Later concerns that damage is being caused by blasting, vibration, heavy traffic or vandalism associated with project construction can then be evaluated with respect to the documented pre-project condition.

All potential cultural heritage risks arising from the hydropower project should be fully evaluated. Cultural heritage risks at the construction stage may arise due to direct and indirect damage to, loss of, or loss of access to physical cultural resources. Mechanisms of impact may include through excavation, soil compaction, blasting, vibrations, pollution, vandalism, theft, desecration, and groundwater and river flow changes. Loss of access to important sites might arise due to changes to access routes (e.g. new canals or linear infrastructure with barrier fencing, major roads). The influx of workers and camp followers into communities can also cause harm or disturbance to aspects of heritage. Construction activities may be of concern to cultural heritage stakeholders not only due to the resultant physical damage, but potentially also due to disturbance of spirits associated with special sites. Cultural heritage risks at the operation stage may include: inundation of cultural heritage sites with the newly formed reservoir or impoundment; downstream damage, for example through riverbank erosion, which may take some time to become evident; and ongoing loss of cultural traditions due to changes arising from the project. Ideally, cultural heritage opportunities will be identified and could include: the identification and documentation of cultural resources in the region; sponsoring of cultural heritage research, education, rehabilitation, and display; and promotion of tourism focussed on cultural heritage.

Assessment techniques will vary between jurisdictions and for different types of cultural heritage. The assessment should be conducted using appropriate expertise as well as local community knowledge, and any conflicts between the two need to be resolved in an open and transparent manner. Suitable areas of expertise might come from a diversity of areas of study and experience, such as cultural heritage, heritage conservation, history, social development, social anthropology and archaeology. Local expertise and a track record of relevant experience will enable familiarity with the types of heritage found in the region, what to look for, and how to identify it. Expertise used for on-site information gathering should be acceptable to the cultural groups or stakeholders who value the heritage resources in question.

In some cases cultural heritage information may be considered confidential due to cultural beliefs or practices. For example, a cultural group may not want to reveal the exact location of a cultural site but may indicate a broader area for protection. In some jurisdictions it is considered acceptable for the location of these sites not to be revealed publicly or to the developer. Other groups may consider it inappropriate to divulge the exact nature of cultural heritage values to be assessed. Independent advice from accredited experts, approved by local groups, should be sought in these cases, and respect for local customs should be demonstrated.

Assessment

Assessment criterion - Implementation Stage: Cultural heritage issues, with respect to physical cultural resources, that are relevant to project implementation and operation have been identified through an assessment process utilising appropriate expertise; and monitoring is being undertaken during the project implementation stage appropriate to the identified issues.

Assessment criterion - Operation Stage: Ongoing or emerging cultural heritage issues with respect to physical cultural resources have been identified, and if management measures are required then monitoring is being undertaken to assess if management measures are effective.

Cultural heritage issues may be ongoing issues that arose during project development and have not been resolved, for example: inundation of important sites or artefacts under the new reservoir; damage or destruction to important sites or artefacts due to construction activities; loss of access to important sites due to changes to access routes (e.g. new canals or linear infrastructure with barrier fencing, major roads); and disturbance of spirits associated with special sites. Alternatively, they may be emerging issues such as erosion of riverbanks exposing new artefacts or developments in policies, legislation or standards changing expectations on how cultural heritage issues will be addressed.

Monitoring is important to ensure that cultural heritage management measures are effective and that emergent issues and risks are identified in a timely manner. Cultural heritage monitoring should be embedded within management plans for construction and operation, with clear monitoring objectives linked to identified cultural heritage risks. Monitoring should be in accordance with a logical design for the locations, timing, and methodologies linked to risks and objectives. Locations and techniques used for baseline information in the ESIA should be continued as far as practical.

For older hydropower facilities, there may be little new disturbance happening in relation to the facility that could raise new cultural heritage issues. However, periodic refurbishment and upgrade activities, wildfire or storm disturbances to areas around the facility, or discoveries could arise that require attention by the hydropower owner/operator. Identification of any new issues arising could take place through, for example: regular operations and maintenance inspections by the operator; maintenance of good relationships with cultural heritage stakeholders through hydropower representatives on a relevant committee; monitoring developments in government cultural heritage policy and legislation; and/or support measures provided by the hydropower facility to cultural heritage interests of the surrounding communities through a Corporate Social Responsibility (CSR) programme.

Management

Management criterion - Preparation Stage: Plans and processes to address physical cultural resources have been developed for project implementation and operation with no significant gaps; plans include arrangements for chance finds, and ensure that cultural heritage expertise will be on site and regularly liaised with by the project management team during construction.

Management criterion - Implementation Stage: Processes are in place to ensure management of identified cultural heritage issues, and to meet commitments, relevant to the project implementation stage; plans are in place for the operation stage for ongoing cultural heritage issues management.

Management criterion - Operation Stage: Measures are in place to manage identified cultural heritage issues.

Plans in relation to cultural heritage should be included as a section of the ESMP. These should contain the following, outlined separately for construction and operation:

- all sources and types of potential cultural heritage impact are outlined;
- mitigation measures for cultural heritage impacts are listed and the objectives are clearly explained;
- the actions, timeline, budget, and responsible parties for implementation of cultural heritage mitigation measures are clearly stated;
- a **chance find** procedure is included for cases in which cultural heritage resources are identified during excavation or later activities. This procedure should involve access to appropriate expertise to establish the value of the finds; relocation of project components to avoid impacting on the finds, if feasible; and documentation and/or relocation of the finds if justified;
- a programme is defined for surveillance, monitoring and auditing, including timeline, budget, and responsible parties;
- ideally, adaptive management measures for cultural heritage impacts are also considered. These would identify what issues might be identified through the monitoring and surveillance and what the response would be (including responsible parties and contingency budget set aside); and
- audit, review and evaluation provisions.

Measures to address cultural heritage risks and impacts could include some of the following:

- Measures to mitigate risks of destruction of physical cultural heritage sites by locating project infrastructure directly over those sites: cultural heritage sites should be thoroughly identified in the ESIA; alternative locations for project infrastructure should be identified and evaluated so that interference with cultural heritage sites is avoided as far as feasible; if impact cannot be avoided, resources should be documented and/or relocated in accordance with guidelines from national heritage experts prior to damaging activities commencing; a chance finds procedure should be included in the ESMP and in the contracts; processes in place to ensure continuing awareness.
- Measures to mitigate damage to physical cultural heritage sites through indirect impacts (e.g. blasting, traffic vibrations, vandalism and theft, groundwater and downstream flow changes): cultural heritage sites and potential indirect impacts from project construction and operations should be thoroughly identified in the ESIA; baseline information on the structural integrity of these sites should be well-documented; potentially damaging project activities should be located at appropriate distances from heritage sites in accordance with established standards (e.g. minimum distances for quarry locations, heavy vehicle traffic, blasting); potentially damaging activities should be implemented according to approved schedules and norms, such as timing restrictions on heavy vehicle movement or blasting; restrictions such as ramping rules could be imposed on power station releases to limit erosion due to hydropeaking if there are heritage sites on riverbanks; sites should be protected against vandalism and theft where necessary; culturally significant resources should be documented and/or relocated where necessary.
- Measures to mitigate risks of reduced experience value of physical cultural heritage sites through indirect impacts: project activities should be located at appropriate distances from heritage sites and restricted in accordance with standards (e.g. limits on air, noise, vibration, waste, and wastewater emissions); access to sites should be maintained or feasible alternative access created; landscaping should be undertaken to reduce visual impacts; project buildings should be designed to maintain visual cohesion with traditional building styles; culturally significant resources should be documented and/or relocated where necessary.

Stakeholder Engagement

Stakeholder Engagement criterion - Preparation Stage: The assessment and planning for cultural heritage issues has involved appropriately timed, and often two-way, engagement with directly affected stakeholders; ongoing processes are in place for stakeholders to raise issues and get feedback.

Good practice requires that a process of stakeholder engagement has been followed in the assessment and planning for cultural heritage issues in relation to the hydropower project. Directly affected stakeholders for cultural heritage would be those who recognise and have responsibilities for the values of the heritage recorded for the hydropower project affected area. These 'cultural heritage stakeholders' should be clearly identified in any project stakeholder mapping. They might be stakeholders only for this issue or stakeholders in relation to many issues relating to the project. Cultural heritage stakeholders might include project affected communities as a whole, or a subset of these (e.g. living in a particular area, and/or indigenous peoples or an ethnic minority group). They should include the relevant government department such as a heritage agency and could include historians, researchers, local interest groups, educational institutions, and/or curators for museums or collections.

Appropriate timing, culturally appropriate, and two-way processes are important components of good practice. 'Appropriately timed' means that engagement should take place early enough so that the project can respond to issues raised, cultural heritage stakeholders have inputs before the project takes decisions, and engagement takes place at times suitable for these stakeholders to participate. Cultural heritage stakeholders should be supportive of the timing of engagement activities. 'Culturally appropriate' means that methods of engagement respect the cultures of the cultural heritage stakeholders and allow adequate provisions to fit with the discussion and decision-making processes typical for them. Stakeholder engagement processes that are culturally sensitive consider, for example, meeting styles, venues, facilitators, language, information provision, the community's decision-making processes, time allocation, recording, and follow-up. Engagement processes for cultural heritage stakeholders should

consider gender and the inclusion of vulnerable social groups. 'Two-way' means that cultural heritage stakeholders can give their views on the plans that will affect them rather than just being given information without any opportunity to respond. Examples of two-way processes include focus groups, interviews, community meetings, and public hearings.

The timing of engagement must allow for adequate data collection, analysis and reporting. Cultural heritage stakeholders should be asked to provide information on areas of concern, and these should influence the research design. These same stakeholders should also be asked to provide feedback on the significance of finds and of potential impacts, and this should inform any avoidance, minimisation, mitigation and compensation plans. Local communities may express values for heritage aspects in contrast to the advice of external experts and any conflicts in views need to be managed with respect and sensitivity. Cultural heritage stakeholder engagement needs to be undertaken before management decisions have been made and evidence should demonstrably show that these stakeholder views have been sought and taken into consideration to inform cultural heritage management plans.

Stakeholder Support

Stakeholder Support criterion – Preparation and Implementation Stages: There is general support or no major ongoing opposition amongst directly affected stakeholder groups for the cultural heritage assessment, planning or implementation measures.

Plans for mitigation of cultural heritage issues arising from the hydropower development should be generally supported by cultural heritage stakeholders. Cultural heritage stakeholder support may be expressed through community members or their representatives, and may be evident through means such as surveys, signatures on plans, records of meetings, verbal advice, public hearing records, public statements, government licence, and court decisions. No major ongoing opposition or temporary opposition that was resolved would satisfy this criterion.

Conformance/Compliance

Conformance/Compliance criterion - Implementation and Operation Stages: Processes and objectives in place to manage cultural heritage issues have been and are on track to be met with no significant non-compliances or non-conformances, and cultural heritage related commitments have been or are on track to be met.

Assessment processes and management measures relating to cultural heritage should be compliant with relevant government requirements. These may be expressed in licence or permit conditions or captured in legislation. Implemented measures should be consistent with what is in the plans to demonstrate conformance with the plans. Cultural heritage commitments with respect to measures to be taken by the hydropower developer or owner/operator may be expressed in policies of the developer or owner/operator, or in company statements made publicly or within management plans. Evidence of adherence to commitments could be provided through, for example, internal monitoring and reports, government inspections, or independent review. Variations to commitments should be well-justified and approved by relevant authorities, with appropriate stakeholder liaison.

The significance of not meeting a commitment is based on the magnitude and consequence of that omission and will be context-specific. For example, a failure to demonstrate delivery of a major cultural heritage mitigation measure expressed in the project approval, such as relocation and restoration of an important site, is a significant non-compliance, whereas a slight delay in delivery of a monitoring report could be a non-significant non-conformance.

Outcomes

Outcomes criterion - Preparation Stage: Plans avoid, minimise, mitigate, and compensate negative impacts on cultural heritage arising from project activities with no significant gaps.

Outcomes criterion - Implementation Stage: Negative cultural heritage impacts arising from project implementation are avoided, minimised, mitigated and compensated with no significant gaps.

Outcomes criterion - Operation Stage: Negative cultural heritage impacts arising from activities

of the operating hydropower facility are avoided, minimised, mitigated and compensated with no significant gaps.

To show that plans avoid, minimise, mitigate and compensate negative cultural heritage impacts from project activities, mitigation measures in the plans should be able to be directly linked to the inventory of physical cultural resources identified for the project, and the assessment of potential impacts and risks. The assessment and planning should be informed by appropriate expertise, views of directly affected stakeholders, and local knowledge. The assignment of responsibilities and resource allocation for implementation, monitoring and evaluation should be appropriate to the planned actions.

Compensation should be identified as an area of focus for management action after avoidance, minimisation and mitigation measures have all been identified and committed to where possible. For cultural heritage, an example of where compensation might be required could be for the loss of artefacts which are unable to be moved and would eventually be inundated under the reservoir. Compensation might be in the form of contributions to the broader cultural heritage protection and conservation measures in the region or country, for example through financial contributions to museums, establishment of a museum, creation of heritage trust funds, and/or support for research and expertise to be brought in.

An evidence-based approach should demonstrate that negative cultural heritage impacts arising from project implementation and operation activities are avoided, minimised, mitigated and compensated with no significant gaps. The developer, owner and operator should demonstrate that responsibilities and budgets have been allocated to implement cultural heritage plans and commitments. Monitoring reports and data in the implementation and operation stages should clearly track performance against commitments and objectives and capture cultural heritage impacts. It should be possible to provide examples to show how identified risks from the assessment were avoided or minimised. It should also be possible to table evidence to show that mitigation plans have been implemented and are being monitored. Implementation of measures for cultural heritage, such as excavation, signage, protection, relocation, should be evident, and monitoring should show how they are achieving their stated objectives.