HERITAGE IMPACT ASSESSMENTS

Foreword

This report provides a brief overview of the training workshop on Heritage Impact Assessment, which was organized by WHITRAP[1] together with ICCROM in Lijiang, China, from Oct. 15-24, 2012. The training workshop was attended by 14 participants from 9 countries. The justification for such training was apparent in recent years. For instance the UNESCO World Heritage Committee has noted that threats from various types of large-scale development activities to the World Heritage properties (figure 1. Main Categories of Issues) are on the increase in recent years. These activities include infrastructure development, new buildings, urban renewal and changes to the land use some of which are insensitive or inappropriate. The Committee has also examined threats from excessive or inappropriate tourism. Many of these activities have had the potential to impact adversely on the Outstanding Universal Value (OUV) including integrity and authenticity of the properties inscribed on the World Heritage List. In order to evaluate satisfactorily the potential impacts, the World Heritage Committee has suggested the State Parties concerned to conduct Heritage Impact Assessments (hereinafter referred to as "HIA"). The training worksop intended to meet the demand of the Committee in particular and more generally to equip the professionals with knowledge and skills to conduct Heritage Impact assessments.
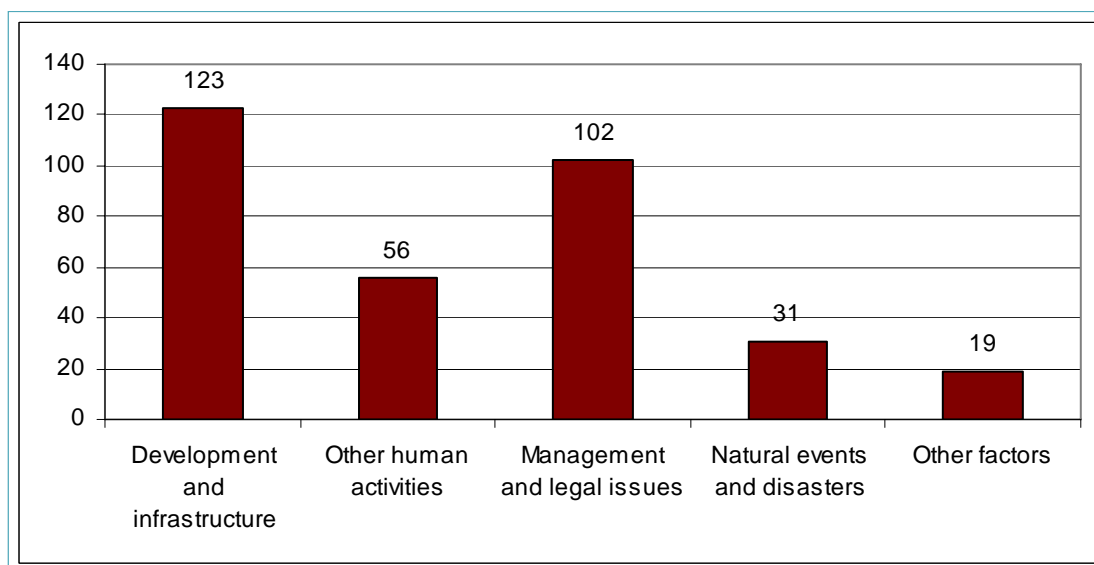

Figure 1.Main Categories of Issues (total number of SOCs examined 158 in 2008)

The report illustrates the fundamental parts of HIA and summarize four aspects "who/ when/ what/ how" discussed during the training workshop.

Who and When

Impact assessment has been a tool used by other sectors in particular the Environment sector and gradually being introduced into the heritage sector. Adapted as Heritage Impact Assessments, it is now expected to be applied by statutory authorities, or by their representatives, before making decisions whether or not to allow development proposals to take place, if such activities submitted for approval imply changes which may risk irreversibly damage to the cultural significance of heritage properties.[2]

What

In general, there are three typical kinds of impact assessments: Strategic Environmental Assessments (SEA), Environmental Impact Assessments (EIA) and the version adapted to culture sector is known as Heritage Impact assessments (HIA) which was the focus of this workshop.

SEA is a process designed to ensure that significant environmental effects arising from proposed plans and programmes are identified, assessed, subjected to public participation, taken into account by decision-makers, and monitored. SEA sets the framework for future assessment of development projects some of which require EIA.[3]

EIA refers to the process of identifying, predicting, evaluating and mitigating the biophysical, social and other relevant effects of development project proposals prior to decisions being taken and commitments made [for the implementation of a project(s)].[4]
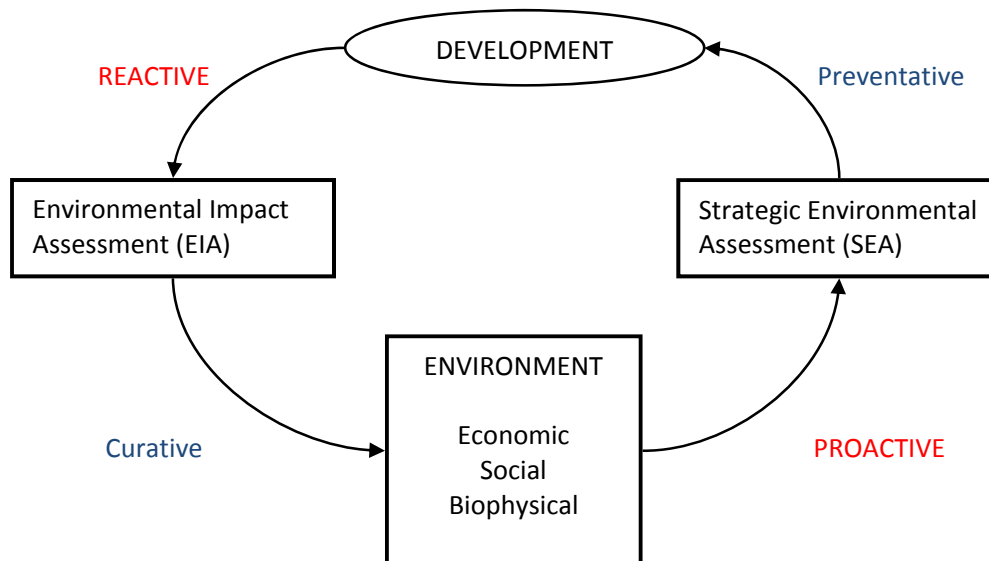

Figure 2. SEA and EIA

---

[2] Ana Pereira Roders and Ron van Oers, "Guidance on heritage impact assessments: Learning from its application on World Heritage site management", *Journal of Cultural Heritage Management and*

[3] Quoted from The Environment Agency UK

[4] Quoted from International Association of Impact Assessment (IAIA)

(Cultural) Heritage Impact Assessment *is a process of identifying, predicting, evaluating and communicating the probable effects of a current or proposed development policy or action on the heritage values (including Outstanding universal value in the case of World Heritage Properties), cultural life, institutions and resources of communities, then integrating the findings and conclusions into the planning and decision making process, with a view to mitigating adverse impacts and enhancing positive outcomes.[5]*
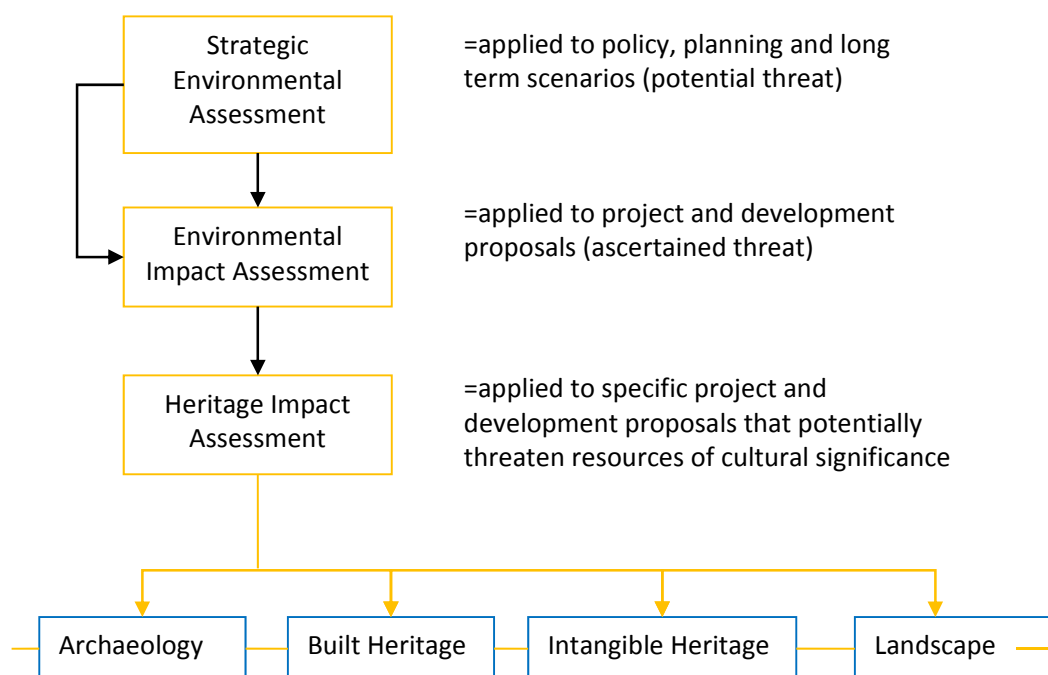
```
┌─────────────────┐
│    Strategic    │     =applied to policy, planning and long
│  Environmental  │     term scenarios (potential threat)
│   Assessment    │
└─────────────────┘
         │
         ▼
┌─────────────────┐
│  Environmental  │     =applied to project and development
│ Impact Assessment│    proposals (ascertained threat)
└─────────────────┘
         │
         ▼
┌─────────────────┐
│  Heritage Impact│     =applied to specific project and
│   Assessment    │     development proposals that potentially
└─────────────────┘     threaten resources of cultural significance

┌────────────┐  ┌──────────────┐  ┌────────────────────┐  ┌───────────┐
│ Archaeology │ │ Built Heritage│ │ Intangible Heritage │ │ Landscape │
└────────────┘  └──────────────┘  └────────────────────┘  └───────────┘
```

Figure 3. the relationship among SEA, EIA and HIA

How

Before HIA process should include not only the identification of factors caused by the proposed development activity which may have positive or negative impact on the values, *cultural life, institutions and resources of communities* it is important to plan for the implementation, monitoring and evaluation of mitigation after HIA has been approved.

The Figure 4 summarizes the HIA process discussed in eight steps: 1. the authority screens the project whether it needs to be assessed; 2. Terms of reference for the HIA should be scoped, it is usually done by the authority; 3. accredited organization is commissioned by the authority after beat others with appropriate draft proposal and reasonable price; 4. The organization assesses the impact on heritage site and puts forward the mitigation plan in detail; 5. The authority comes back again, review and approve the HIA; 6. The project is implemented gradually, in the meantime, the organization has to

---

[5] Quoted from International Association of Impact Assessment (IAIA)

supervise the process while taking the mitigation plan; 7. A third party might get involved to monitor and evaluate the mitigation; 8. The whole HIA is documented and available to the public.

It is however, not a linear top down process but a more iterative one which may find feedbacks and revisiting different steps.

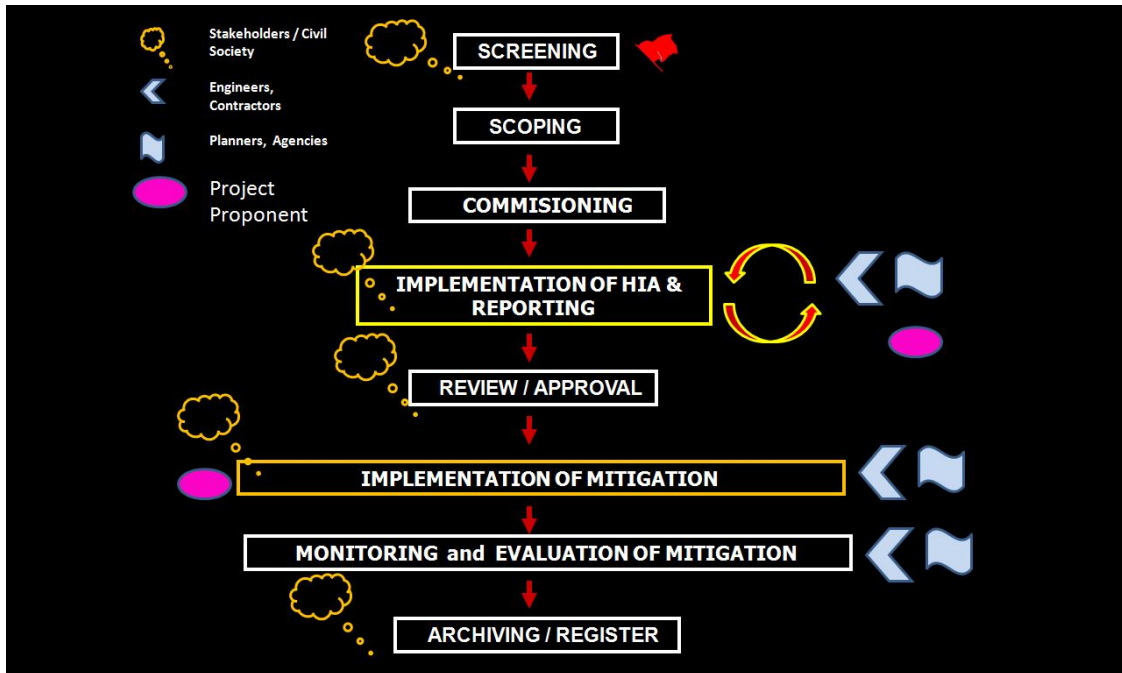Now each step will be illustrated as follows[6]

Figure 4. the HIA process

1. SCREENING

   Screening involves the review of all project proposals to identify those which may have potential impacts on cultural resources and therefore require a heritage impact assessment. This formal action is usually carried out by authorities, such as Environmental Protection Authorities, Heritage Authorities, Funding Agencies, or World Heritage Committee. On the other hand, the informal screening can also be pushed through public demand. This screening step requires professional skills in acknowledgement of the criteria that can decide on which proposals need a HIA. So if the authorities unable to screen, they may contract an outside consultant.

2. SCOPING

   The purpose of scoping is to decide on the nature and scale of the baseline study (i.e. Terms of Reference):

   ● Including definition of the study area, identifying spatial and temporal boundaries of the project and the assessment study;

   ● Setting requirements for the desk based study, field surveys and any additional data collection;

---

[6] Quoted from Ayesha Pamela ROGERS's presentation on Approaches.

- And the staffing and expertise needed for the impact assessment team.
- Understand the financial requirements

In this step, the implementation party of formal scoping is as the same as screening, while the civil society has no mechanism to get involved in. Some countries would develop terms of reference by expert panel or HIA team, for example, South Africa, Mauritius and Malaysia etc.

3. COMMISSIONING

Commissioning is a process that the Heritage Authority clarifies the Term of Reference (TOR) which leads to the expectation and the announcement of the professional team to carry out HIA.

(After a professional team accepts the assignment, they need to collect the information through desk based study and field observations which enable them to fully understand what on and under ground. Equal attention should be drawn to the existing impacts and information input during the scoping process.)

4. ASSESSMENT

The assessment can be summarized into three stages: significance assessment, identification of impacts, and impact assessment. The three stages are elaborated as follows.

4.1   Significance Assessment

Heritage Management aims to safeguard the values and significance of resources, which are embedded in tangible and intangible aspects. Therefore, in this step, two items need to be concluded: **the values** that give significance **and attributes** that embody those values.

4.2   Identification of Sources and Types of Potential Impacts

The professional team needs to fully understand the details of the proposed project, including the project type, the engineering process and techniques, as well as impact range. The way to ensure this process is to generate an accurate picture of RISK and break down the proposed works into detailed actions and to cross-tabulate each with every heritage resource within impact range. Eg:

Planned works	Potential sources of impact during construction	Potential resulting impacts	Sources of impact during operation	Potential resulting impacts
E.g. Dam construction	- Open cast rock excavation	- Destruction Impact damage; - Vibration damage	On-going operation of gravity dam	- Vibration damage - Increased access
…				

Table 1: potential sources of impact (adapted to both tangible and intangible heritage)

4.3   Impact Assessment

According to the determined[7] or undetermined[8] significance, there are two approaches to assess the impacts. For the first mentioned approach, the severity of impact against determined values is ranked[9] ; while on latter, juxtaposes impacts against specific attributes needs presenting clearly (Table 3, 4 & 5).

Scale and Severity of Change/ Impact					
Value of Heritage Asset	Neutral	Slight	Moderate/ large	Large/ very large	Very large
	……				

Table 3: assessing value of heritage assets

Description of impact	Timing of impact	Evaluation of impact	Classification of impact
E.g. replacing terracotta tiles with corrugated metal roof	conservation	The tile roof is an important aspect of the authenticity of the building, the removal of the tiles does not respect the character of the building; the removal of the tile roof creates a situation where……	Unacceptable
……			

Table 4: Evaluation of impacts on overall quality of the criterion

Element of special interest	Evaluation of impact	Classification of impact
Quality of living heritage	The conversion of heritage buildings into swiftlet premises creates gaps in the traditional urban fabric; vibrant neighborhood communities are segmented due to the creation of vacant premises	Unacceptable
……		

Table 5: Evaluation of impacts on elements of special interest

It is necessary to provide a comprehensive summary of potential impacts in this part of the report.

5. MITIGATION

---

[7] Works best for fully documented World Heritage/ Heritage with well-established Statements of Values/ OUV and a developed management context.
[8] Works for heritage resources which are "potential" or only partly documented, without Statements of Significance or any management framework
[9] The example guide for assessing value of heritage assets can be found in *ICOMOS Guidance on Heritage Impact Assessments for Cultural World Heritage Properties*, *Appendix 3A*.

If the unacceptable impacts are identified at whatever scales or stages, mitigation measures should be proposed. Mitigation should be recommended with the immediate and long term safeguarding of the heritage resources in mind. It may be that the cultural value of the resource is so (high) significant, that no mitigation measure will suffice. In such a case, proposals should be made to abandon the project.

The EIA, whose some criteria are strict and obvious, can stop a project without any compromise. For example, if it is a place where a rare animal (registered in the system) habitats, it could not be developed. Compared with EIA, HIA haven't got a system strong enough to fight their case. However, some possible mitigation actions (table 6) still could be recommended. For instance, the location or some parts of the project can be re-designed to avoid the negative impacts; the fragile historic buildings are temporarily reinforced; the affected cultural resource is protected by reutilization in the collaboration with some party; or if the physical loss of cultural heritage is acceptable, preserve it by documentation etc.

Development proposal	Impact on archaeology	Impact on built heritage	Impact on cultural landscape	General mitigation required	Priority/ timing/ implement agent
E.g. Construction and operation of the new road in zone 1	Acceptable impact with mitigation *	Acceptable impact with mitigation *	Acceptable impact with mitigation *	1. Restrictions on ……	High priority/ immediate action by XX
				2. Use of ……	Long term priority/ restrictions to be implemented during operational phase by XX

Table 6: Mitigation actions

6. MONITORING, EVALUATION, AND DOCUMENTATION

A monitoring plan should be developed by those conduct HIA to observe and evaluate the performance of project delivery, comparing project impacts from real impacts and prescribe the additional measures to be taken for accommodating unanticipated impacts when they occur. All changes need to be traced by means of on-site monitoring with distinct check-lists and schedule. Direct/ proxy/ narrative indicators are required to ensure compliance. This process is not to criticize the mitigation team, but to improve the future work.

After these 8 steps, it comes to the final HIA report. It is worth mentioning that a good HIA report call for community/ stakeholder's' involvement from the very beginning, their feedbacks are input at screening, implementation, review, mitigation, documentation steps. For the relevant parties' concern, they want the opportunities to inject ideas at the planning stage, actual involvement in every step of what is done on the site, and measurement of success of a project by how they benefit (financially or in terms of improvement in quality of life).

More information is available at http://www.whitr-ap.org/index.php?classid=1462&id=49&t=show.