遗产影响评估方法介绍
——首届"遗产影响评估"国际培训课程综述

Introduction to the HIA Framework
— Overview of the 1st session of International Training Course on Heritage Impact Assessments

文 /Gamini WIJESURIYA[1] 李泓 [2]　　Written by Gamini WIJESURIYA[1] and LI Hong[2]

前言

本报告简要描述了 2012 年 10 月 15 日至 24 日期间在中国丽江举办的"遗产影响评估"国际培训班的课程概况。该培训由亚太地区世界遗产培训与研究中心（WHITRAP）和国际文物保护与修复研究中心（ICCROM）共同举办。来自 9 个国家共 14 位学员参加了本次培训。近几年，对此类培训的需求日益凸显。如，联合国教科文组织（UNESCO）世界遗产委员会在报告中指出，近期，各类大规模的开发活动正对世界遗产地造成日益巨大的威胁（见图 1 主要问题类别）。这些活动包括：基础设施建设、新建筑物、城市更新、土地用途的变更等，有些活动并未经周全的考虑甚至是不恰当的。世界遗产委员会还注意到过度和不当的旅游开发也会带来威胁。上述众多活动已对完整性和原真性在内的世界遗产地的突出普遍价值（OUV）造成了潜在的负面影响。为充分评估这些潜在影响，世界遗产委员会已向相关缔约国提议，开展针对遗产影响的评估（以下简称"HIA"）。此次培训特别针对世界遗产委员会提出的要求，向遗产专业人士传授遗产影响评估方面的专业知识和方法。

本报告主要阐述了遗产影响评估的基本组成

Foreword

This report provides a brief overview of the training workshop on Heritage Impact Assessments, which was organized by WHITRAP 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.

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. [3]

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 par-
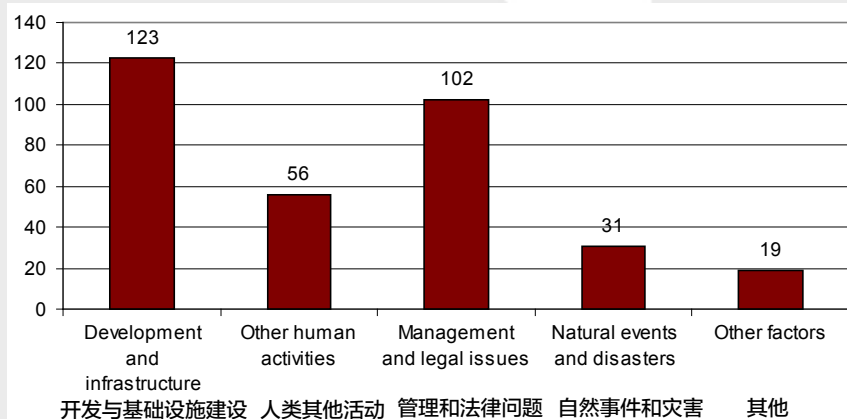

图 1. 主要问题类别（依据 2008 年提交的 158 份保护现状报告统计）
Figure 1. Main Categories of Issues (total number of SOCs examined 158 in 2008)

[1] Gamini WIJESURIYA，国际文物保护与修复研究中心项目主管。
[2] 李泓，联合国教科文组织亚太地区世界遗产培训与研究中心（上海）项目专员。
[1] Gamini WIJESURIYA, Project Manager, ICCROM.
[2] LI Hong, Programme Specialist, WHITRAP Shanghai.

[3] 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.

部分，总结了培训期间所探讨的执行方、时间、内容、方法四个方面内容。

执行方和时间

影响评估并非新的工作方法，早在其他领域有所应用（特别是环境部门），现被逐渐引入到遗产领域。司法部门或其代表，在是否实施发展计划进行决策之前，利用该方法对遗产影响作出评估，从而判断提交审议的相关活动是否隐含潜在风险，是否会对遗产地的文化价值造成不可逆转的损害。[3]

内容

影响评估可大体上分为三类：战略环境评估（SEA）、环境影响评估（EIA）及其调整后适用于文化领域的遗产影响评估（HIA），后者也是本次培训的重点内容。

战略环境评估（SEA）是一系列确保针对提案计划和项目对环境所产生的重要影响作出识别、评估和监督的过程，它以公众参与为依托并为决策提供依据。SEA 为尚未开展的评估设立了框架基础，其中包括一些要求实施环境影响评估（EIA）的开发项目。[4]

环境影响评估（EIA）指在决策制定和实施之前，（为项目的实施）对开发项目提案可造成的生物、社会和其他相关影响进行识别、预测、评估和减轻的过程。[5]

（文化）遗产影响评估（HIA）是针对现行或提议的发展政策或行动对遗产价值（包括世界遗产的突出普遍价值）、文化生活、制度和社区资源所产生的潜在影响进行识别、预测、评估和交流的过程，并将结果和结论融入规划和决策过程，从而减轻不良影响，促成积极成果。[6]

方法

HIA 不仅包括对拟进行的开发活动在价值、文化生活、制度和社区资源方面可能产生积极或消极影响的因素进行的识别，还包括 HIA 通过以后，减缓措施的后续实施、监测和评估。

图 4[7] 对 HIA 过程进行了总结，概括为 8 个步骤：1. 有关部门对项目进行甄别，确认是否需要评估；2. 圈定 HIA 的任务范围，通常由相关部门制定；3. 有关部门参考适宜的建议草案及合理的价格，向认证机构提出委托；4. 受委托的机构对遗产地的影响进行评估，并提出具体的减缓措
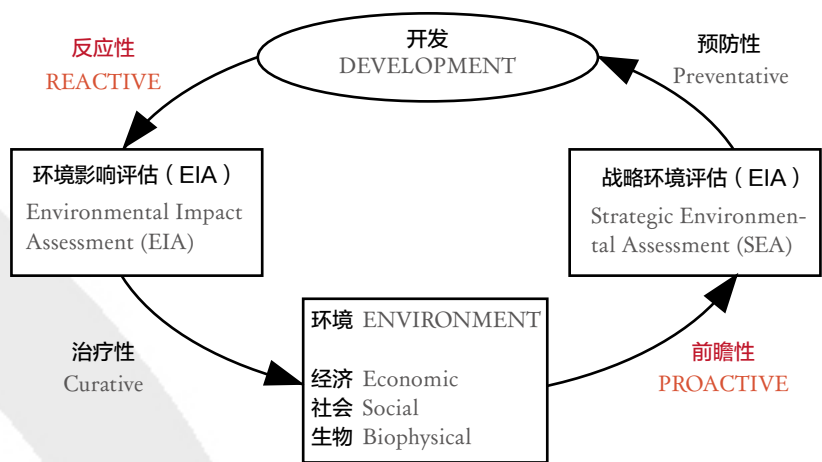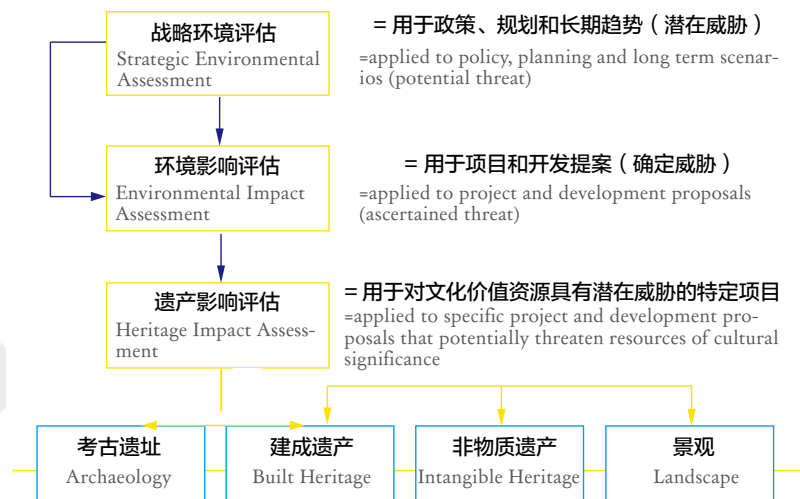

图 2. SEA 和 EIA 的关系
Figure 2. SEA and EIA

图 3. SEA、EIA 和 HIA 的关系
Figure 2. SEA, EIA and HIA

ticipation, taken into account by decision-makers, and monitored. SEA sets the framework for future assessment of development projects some of which require EIA. [4]

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)]. [5]

(Cultural) HIA 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. [6]

How

The HIA should not only include 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

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[3] Ana Pereira Roders and Ron van Oers,"遗产影响评估指导：在世界遗产地管理实践中的经验"，文化遗产管理期刊。

[4] 引自英国环境署。

[5] 引自国际影响评估协会（IAIA）。

[6] 引自国际影响评估协会（IAIA）。

[7] 引自 Ayesha Pamela ROGER 以 "HIA 方法" 为题的讲座 PPT。

[4] *Quoted from The Environment Agency UK.*

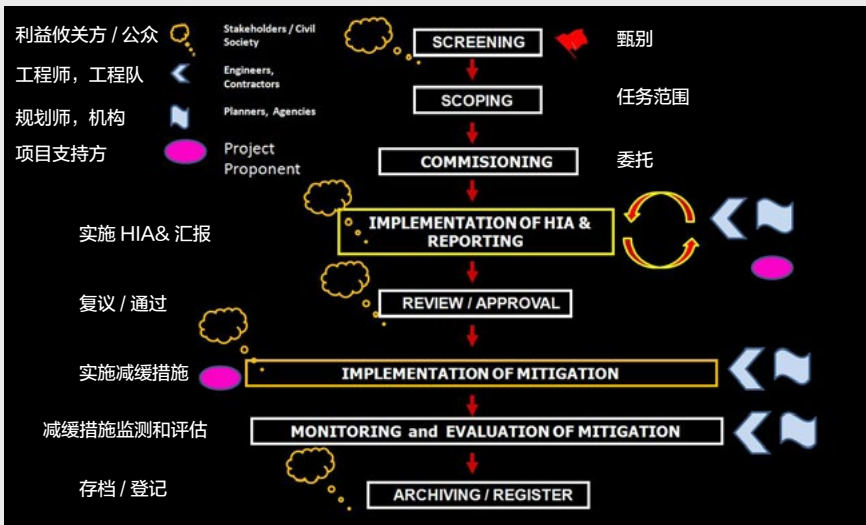[5] *Quoted from International Association of Impact Assessment (IAIA).*

图 4. HIA 过程
Figure 4. the HIA process

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On-site Assessment

施和方案；5. 将方案返还至相关机构处，并由其对 HIA 进行审议和通过；6. 逐步实施项目，同时由受委托的机构对减缓措施的实施进行监督；7. 第三方介入对减缓措施进行监测和评估；8. HIA 过程入档并向公众开放。

如图 4 所示，HIA 并非一个自上而下的线性过程，而是包含了反馈和不同步骤间反复的过程。

1. 甄别

甄别过程包括对所有项目提案的审查，从而识别哪些项目可能对文化资源造成影响的潜在威胁，并由此引入遗产影响评估。通常由相关职能部门实施正式的甄别行动，如环保部门、遗产部门、

communities, but also the follow-up of the implementation, monitoring and evaluation of mitigation after the 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 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[7]

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;
• 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

[6] Quoted from International Association of Impact Assessment (IAIA).
[7] Quoted from Ayesha Pamela ROGERS's presentation on HIA Approaches.

基金会或世界遗产委员会等。除上述正式甄别以为，公众亦可以非正式的形式提出甄别的要求。甄别过程需要具备判断某些提案是否需要进行 HIA 的专业知识和技能。因此，如果有关部门无力进行甄别，可以承包给其他咨询机构实施。

2. 任务范围
任务范围的目的是确定研究的基本属性和范围（即：任务大纲）
· 包括研究领域的界定，确认项目和评估研究的临时空间界限；
· 为文本研究、实地研究及所有其他的数据搜集设定要求；
· 影响评估小组的人员和专业编制；
· 了解资金要求。

在该步骤过程中，确定任务范围正式行动的实施方与甄别过程的实施方相同，目前暂无公众社会介入和参与的机制。也有些国家由专家组或 HIA 小组制定任务大纲，如南非、毛里求斯、马来西亚等。

3. 委托
委托是指遗产部门对任务大纲进行阐释后招标和 HIA 专业团队投标的过程。

（专业团队接受任务后，需要在文本研究和实地考察的基础上搜集信息，从而对地上和地下的所有情况具备透彻的了解。在任务范围过程中确定的现有影响及搜集的信息也应受到重视和应用。）

4. 评估
评估又细分为三个步骤：价值评估、影响识别和影响评估。三大步骤的详细情况如下：

4.1 价值评估
遗产管理的目的是保护物质和非物质遗产资源的价值和重要性。因此，在这一过程中必须确定两个方面：具有重要意义的价值和体现该等价值的属性。

4.2 影响识别（确认潜在影响的来源和类别）
专业团队必须完全了解项目实施牵涉到的所有细节，包括项目类型、工程流程和技术，以及影响的范围。保证该过程的方法是制作一份精确的图表，并把每项工程和所产生的风险拆分到每一步的行动阶段，将之与影响范围内的各种遗产资源相对应，如：

计划作业	施工期间影响的潜在来源	由此产生的潜在影响	建成运营后影响的来源	由此产生的潜在影响
例：大坝建设	开凿岩石进行挖掘	– 撞击破坏 – 震动灾害	重力坝的持续运作	– 震动灾害 – 流量控制
...				

表 1. 影响的潜在来源（适用于物质和非物质遗产）

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 Impacts (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[8] or undetermined[9] significance, there are two approaches to assess the impacts. For the first mentioned approach, the severity of impact against determined values is ranked[10]; 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

8 引自英国环境署。
9 引自国际影响评估协会（IAIA）。
10 遗产资源价值评估的指导案例可查询 ICOMOS《世界文化遗产的遗产影响评估导则》附件 3A。
8 Works best for fully documented World Heritage/ Heritage with well-established Statements of Values/ OUV and a developed management context.
9 Works for heritage resources which are "potential" or only partly documented, without Statements of Significance or any management framework.
10 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.

4.3 影响评估

根据确定 [8] 或待定 [9] 的遗产价值，分别采取不同的方法进行评估：针对第一种类型是依据确定的价值对影响的严重性进行排序 [10]；就第二种类型是将特定属性和影响进行清晰地并列阐释（见表 3、4、5）。

变化 / 影响的范围和严重性				
遗产资源的价值	中	轻	中 / 大	大 / 较大	非常大
......				

表 3：评估遗产资源的价值

影响描述	影响的处理方法	影响评估	影响级别
例：将陶瓦换成金属瓦楞屋顶	保护	房顶的瓦片是建筑原真性的重要发面，移除瓦片是对建筑特征的不尊重；移除瓦片会造成……	不可接受
......			

表 4：对标准的综合质量造成影响的评估

特殊利益因素	影响评估	影响级别
活态遗产的质量	把遗产建筑改造为金丝燕养殖场所会导致城市传统肌理的断裂；活跃的街坊社区会因为物业空置而被分割	不可接受
......		

表 5：对特殊利益因素造成影响的评估

在本阶段的汇报中需对潜在的影响作全面的总结。

5. 减缓措施

如果确认影响是不可接受的，则无论在何种范围或阶段，都应提出减缓措施，而且需考虑到及时和长远保护两方面。因此，可能出现由于资源的文化价值太（高）重要，继而没有哪种减缓措施可以起到足够的作用。在这种情况下，就应该提出放弃并终止该项目。

在环境影响评估中因为其某些标准的严格性和显著性，可以直接终止项目的进行。例如，如果某一区域发现了珍惜动物（已经注册）的栖息地，则不能对该区域进行开发。相对于环境影响评估，遗产影响评估暂时尚未具有如此强大约束力的体系。但是，仍可提出一些可能的减缓措施（见表 6）。例如，可以重新安排项目的区位或对局部进行重新规划，从而规避消极影响；对脆弱的历史建筑进行临时加固；通过多方合作对受影响的文化资源进行保护性再利用；或者如果文化资源的物理性损害是在可接受的级别内，则可入档和记录的方式进行保存等等。

发展提案	对考古遗址的影响	对建成遗产的影响	文化景观的影响	所需的总体减缓措施	优先等级 / 时间 / 实施方
例：在区域1建造和运营新的公路	经减缓措施……判断为可接受	经减缓措施……判断为可接受	经减缓措施……判断为可接受	1. 限制……	高优先级 / 由 XX 立即实施
				2. ……的利用	长期优先 / 由 xx 在运营阶段实施限制措施

表 6. 减缓措施

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

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.

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

小组讨论和汇报
Group Work and Presentation

Development pro-posal	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. 监测、评估和存档

提出减缓措施的同时也需由 HIA 实施方制定监测方案，对项目实行相应建议方案的情况进行考察和评估，以实际影响为参照对比预期的影响，为未预料影响的发生制定补救措施。需通过现场监测、检查清单和时间表的形式追踪并记录所有的变更。需利用指示 / 委托 / 陈述指标保证过程合规。由第三方介入的监测和评估过程并非评判 HIA 工作组的合格与否，而是为确保开发工作的顺利进行以及减缓措施的落到实处。

经上述 8 个步骤后，遗产影响评估的最终报告即完成。值得一提的是，优秀的 HIA 需要社区 / 利益相关者的全程参与，且可以在甄别、实施、复审、减缓、存档等阶段提出反馈意见。对于参与评估的各相关方而言，他们更希望有机会在计划阶段发表意见，切实参与现场的每一个步骤，并以切身获得的利益（资金或生活质量的改善等）衡量项目成功与否。

更多参考文件欢迎参阅中心网站 www.whitr-ap.org。

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 call for community/ stakeholders' 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.