Kingdom of Cambodia
Nation Religion King

National Authority for Preah Vihear

Natural Resource Management within the Cultural World Heritage Site of Preah Vihear

04/09/2017, Beijing

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Environment Forest and Water Department
Outline

I. Introduction
II. Management
III. Forest Cover
IV. Risk to the site
V. Forest restoration and forest succession
VI. Conclusion
VII. Challenges
Introduction

- Location: On Dangrek range, Cambodian-Thai border, Preah Vihear province,
- Altitude: 625 m. a.s.l.
- Built: 9th – 12nd Centauries by successive Khmer kings.
- The temple composed of five Gupuras, connected by causeway in distance of 800 long. Each Guputa facing to north along the slop.
- 2006: NAPV found by Royal Decree
- 2008: Inscription of Preah Vihear temple on the world heritage list under criterion (I).
Introduction

Gupura 5

Gupura 4

Gupura 3

Gupura 2&1

International Cooperation

Restored by India

International assistance

- UNESCO International
- ICC-PV: more than 10 countries
- JASA - Jasa

Restored by China
Introduction

Sacred Site of the Preah Vihear temple
Management

- Total size of the site: 48,018 ha
- Management zones: 4 zones (core zone, zone 2, zone 3A, zone 3B, zone 4).
- Department: 7 departments
Management

- Settlement within the heritage site before 2011
- Relocation of settlement from zone 2 to zone 3B
Management

Settlement within the heritage site at present: 7 villages

- Zone 3B: 1 village
- Zone 4: 6 villages
Forest cover

<table>
<thead>
<tr>
<th>Vegetation types</th>
<th>Area (Ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semi-evergreen forest</td>
<td>12,548</td>
</tr>
<tr>
<td>Mixed deciduous forest</td>
<td>11,755</td>
</tr>
<tr>
<td>Deciduous dipterocarp forest</td>
<td>12,417</td>
</tr>
<tr>
<td>Degraded forest and other features</td>
<td>11,298</td>
</tr>
</tbody>
</table>

Map of forest cover of the world cultural heritage site of Preah Vihear Temple
Semi-evergreen forest

Mixed deciduous forest

Deciduous dipterocarp forest
A mixture of degraded forest and other features

Degraded forest as a result of forest conversion in the past

Ancient Baray at Svay Chrum (reservoir)

Outcrop on hill top
Risk to the site

Annual human-induced forest fire across the site occurring from Jan to April.
Risk to the site

Landslide and avalanche
Risk to the site

Flash flood
Flood in 2017
Risk to the site

Illegal logging and land encroachment on the boundary of zone 2
Forest restoration and forest succession

Enrichment planting

Establishment of firebreak and silviculture

Assisted natural regeneration
Slow forest succession at a degraded site located at northern side of the western Baray (ancient reservoir) as a result of annual forest fire.
Degraded deciduous forest with absence of annual forest fire for 2 years with fairly close canopy – indicating fast succession.
Conclusion

- Most of degraded sites can be reforested naturally, but dense grasses/weeds and annual forest fire causes adverse impact on forest succession.
- With satellite image and aerial photos-based monitoring of the site, all types of risks can be identified promptly, and so help in site management.

Constraint

- Lack of data and expertise staff to handle GIS tasks.
- Hard to request or hire an outsource expert to undertake this task effectively.
Thanks for your attention