Monitoring the Critically Endangered Bird Species (White-shouldered Ibis) in Western Siem Pang Important Bird and Biodiversity Area (IBA)

Transboundary Biodiversity Landscapes (TBLs) Knowledge Meeting
6-7 May 2014

Bou Vorsak
BirdLife International
Cambodia Programme
BirdLife global programme

9 Programmes:

- Important Bird and Biodiversity Area
- Forest of Hope
- Migratory bird and Flyway
- Invasive species
- Marine
- Climate change
- Capacity building
- Local empowerment
- Prevent Extinction

Assessment, Prioritization and Monitoring are key tools for planning and implementation of many of our programme
BirdLife global programme

- BirdLife and Partners have developed tools for biodiversity assessment and monitoring:
  
  - IBA monitoring guideline,
  
  - Integrate Biodiversity Assessment tool (IBAT)
  
  - Toolkit for ecosystem service site based-assessment (TESSA)
Important Bird and Biodiversity Areas (IBA) Monitoring

What are IBAs?

- Globally standardized criteria with quantitative thresholds based on populations of:
  - Globally threatened species
  - Restricted-range species
  - Biome-restricted species
  - Congregatory species
- Identified for birds, but documented to be important for other taxa
- Over 12,000 terrestrial and marine sites identified
- All are actual or potential management units, i.e. candidates for protected areas

Why monitor IBAs?

- Detect and respond to threats in good time
- Assess effectiveness of conservation efforts
- Provide information on national biodiversity trends
- Strengthen international advocacy and fundraising
To meet this challenge, BirdLife developed IBA monitoring guidelines

http://www.birdlife.org/datazone/info/ibamonitoring
TESSA guides non-specialists through a selection of accessible, low-cost methods, to identify the ecosystem services that are important at a site, and evaluate the benefits that people get now, compared with those expected under alternative land-uses.
More detail about TESSA:

- Visit: [http://www.birdlife.org/datazone/info/estoolkit](http://www.birdlife.org/datazone/info/estoolkit)

- **TESSA contacts:** Kelvin Peh ([kelvin.peh@gmail.com](mailto:kelvin.peh@gmail.com)) or Jenny Birch ([jenny.birch@birdlife.org](mailto:jenny.birch@birdlife.org))

- By the end of 2014, TESSA will be developed into a more user-friendly format for better accessibility both online and in the field.
Integrate Biodiversity Assessment Tool (IBAT)

- Facilitate access to a range of global and national data layers, such as protected area boundaries, biological information about habitat and species diversity indices, and key areas for biodiversity, which can be useful for research and conservation planning purposes.

- Developed by: BirdLife, CI, IUCN, UNEP-WCMC
Integrate Biodiversity Assessment Tool (IBAT)

- The core datasets integrated via IBAT including: World Data Based of Protected Areas, Key Biodiversity Area, Alliance for Zero Extinction, IUCN Red list of Threaten Species, Endemic bird area, Biodiversity Hotspot ...

- It is useful for develop national biodiversity strategy and action plan

- Visit: [https://www.ibat-alliance.org/ibat-conservation.org](https://www.ibat-alliance.org/ibat-conservation.org)

- Contact: Martin Sneary (martin.sneary@iucn.org) or ibat@birdlife.org
Western Siem Pang Geography and Biodiversity

One of five BirdLife Forest of Hope Sites in Asia

32 globally threatened bird and mammal species (5 Critically Endangered species)
Monitoring target species: 5 Critically Endangered birds species
White-shouldered Ibis

- Critically Endangered
- Previously widespread in South-East Asia
- Decline in 20th century
- Breeds December-May, dry season
- Now 1114-1249 birds remain globally (97% of the global population are in Cambodia)
Threats to White-shouldered Ibis

- Habitat loss (illegal logging, economic land concession, land encroachment..)
- Hunting and persecution
- Nest robbery
- Poisoning
- Disturbance at feeding and nesting sites
- Natural disasters (i.e. predator, wind ...)

[Image of a tractor and a tree with a bird in the branches]
Monitoring purpose

• Understanding of the foraging habitat use of White-shouldered Ibis, and identify sites that are key to this species in Western Siem Pang IBA

• Improving nest success

• Ensuring availability water and food

• Ensuring safe roosting
Monitoring Indicator

State Indicator
.
- Population size of White-shouldered Ibis and its abundance
- Quality and functioning of habitat (foraging, roosting, and nesting)
- Interact between local communities and Ibis ecology (grazing, fishing)
Monitoring Indicator

Pressure Indicator:
. Level of disturbance in key habitats
. Level of illegal activities (hunting, poisoning, logging, land encroachment)
. Level of pressure on site from economic land concession
. Level of pressure on Ibis foraging habitat from decreasing number of livestock

Response Indicator:
. Legal status of site
. Maintaining the number of livestock
. Conservation action to protect nests and restore foraging habitat
Monitoring Method

- Monitor population size (exploration and simultaneous census)
- Monitor the breeding success (nest exploration and nest protection scheme)
- Key foraging site monitoring
- Monitor illegal activities/threats
- Local communities were trained and involved in most monitoring activities
Result

Confirm population size of White-shouldered Ibis at Western Siem Pang (41% of global population and 47% of national population)
Result

White-shouldered Ibis nest success rate

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Nest</th>
<th>Nest Success</th>
<th>% Nest Success</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-2009</td>
<td>11 8</td>
<td>15</td>
<td>0</td>
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<tr>
<td>2009-2010</td>
<td>73 20</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>2010-2011</td>
<td>90 18</td>
<td>22</td>
<td>20</td>
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<tr>
<td>2011-2012</td>
<td>63 19</td>
<td>14</td>
<td>20</td>
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<tr>
<td>2012-2013</td>
<td>64 16</td>
<td>16</td>
<td>26</td>
</tr>
<tr>
<td>2013-2014</td>
<td>81 24</td>
<td>24</td>
<td>29</td>
</tr>
<tr>
<td>2014-2015</td>
<td>83 20</td>
<td>20</td>
<td>24</td>
</tr>
</tbody>
</table>

Average Percentage = 76

Number of nest

Year
Result

- Traditional livelihoods on the threshold of change
- Access to markets and technology
- Population growth
Result

Almost 50% of Western Siem Pang recently designate as protected forest
Key Challenges and Lessons learned

Challenges:
- Limited capacity and Quality of data
- Facilitation local communities in doing monitoring
- Maintain value of livelihood practices
- Threats from development projects (industrial agriculture and infrastructure)
- Illegal logging (huge increase in last one or two years)
- Nest guardian is not worthwhile in Siem Pang

Lessons learned:
- This single species monitoring model can be applied for other bird species that require big landscapes such as Vultures, Sarus Crane
- Involvement of local communities in monitoring is really important and cost effectiveness
  Good coordination, training and motivation is essential
Thank you

Partners:

Funded by: