BIODIVERSITY FORUM 2016: HUMAN-WILDLIFE CONFLICT MITIGATION AND ACTION IN AGRICULTURAL SECTOR

HUMAN-WILDLIFE CONFLICT IN PENINSULAR MALAYSIA – CURRENT STATUS AND OVERVIEW

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AWANA RESORT GENTING HIGHLANDS, PAHANG

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PRESENTATION OUTLINE

- INTRODUCTION
- MAIN FACTORS CONTRIBUTE TO HWC
- STATUS OF WILDLIFE DISTURBANCE COMPLAINTS
- TYPES & CONSEQUENCES OF HWC
- CONFLICT MANAGEMENT
- LONGTERM STRATEGIES
- RECOMMENDATIONS
- CONCLUSION
INTRODUCTION

• What is HWC?

  ▪ Refers to the interaction between *wild animals and people* and the resultant negative impact on people or their resources, or wild animals or their habitat.

  ▪ the needs and behavior of wildlife impact negatively on the goals of humans or when the goals of humans negatively impact the needs of wildlife

* Refers to wildlife species listed under Act 716
What species involved?

- Long-tailed Macaque (*Macaca fascicularis*)
- Pig-tailed Macaque (*Macaca nemestrina*)
- Elephant (*Elephas maximus*)
- Tiger (*Panthera tigris*)
- Common-palm civet (*Paradoxurus hermaphroditus*)
- Malayan Sun Bear (*Helarctos malayanus*)
- Wild boar (*Sus scrofa*)
- Malay Civet (*Viverra tangalunga*)
- Black panther (*Panthera pardus*)
• What species involved?

- Reticulated Python \((Python\ reticulatus)\)
- Common Black Cobra \((Naja\ naja)\)
- Banded Krait \((Bungaris\ candidus)\)
- King Cobra \((Ophiophagus\ hannah)\)
- Marble Pit Viper \((Calloselasma\ rhodostoma)\)
- Copperhead Rat Snake \((Coelognathus\ radiates)\)
- Saltwater Crocodile \((Crocodylus\ porosus)\)
MAIN FACTORS CONTRIBUTE TO HWC

Habitat loss

Degraded & fragmented habitat

Garbage system

Poaching

Wildlife feeding
**STATUS OF WILDLIFE DISTURBANCE COMPLAINTS**

- Long-tailed Macaque: 66%
- Elephant: 9%
- Wild boar: 7%
- Common Palm Civet: 6%
- Pig-tailed Macaque: 3%
- Banded Leaf Monkey: 1%
- Cobra: 1%
- Dusky Leaf Monkey: 0.1%
- Python: 1%
- Tiger: 1%
- Other species: 5%

Total = 86,040 complaints

**No. of HWC complaints (2006 – 2015)**
HUMAN-LONG-TAILED MACAQUE CONFLICT (HMC) HOTSPOT

- Pulau Pinang (Seberang Prai Selatan, Timur Laut & Barat Daya)
- Perak (Kerian, Kinta, Hilir Perak, Batang Padang & Larut Matang)
- Selangor (Petaling, Klang, Gombak, Kuala Langat & Kuala Selangor)
- WP Kuala Lumpur (Segambut, Lembah Pantai, Bandar Tun Razak)
- N. Sembilan (Port Dickson, Seremban, Tampin & Kuala Pilah)
- Melaka (Melaka Tengah)
- Johor (Muar, Batu Pahat, Pontian & Johor Bahru)
- Kedah (Baling, Langkawi, Kuala Muda & Kubang Pasu)

- Johor (Mersing, Kota Tinggi, Kluang & Segamat) – 31%
- Pahang (Rompin, Jerantut, Lipis & Bentong) – 23%
- Kelantan (Jeli, Gua Musang & Kuala Krai) – 15%
- Terengganu (Hulu Terengganu, Kemaman, Setiu & Dungun) – 14%
- Perak (Hulu Perak & Kuala Kangsar) -13%
- Kedah (Padang Terap, Baling & Sik) – 4%
- N. Sembilan (Jelebu) – 0.1%

HEC HOTSPOT AREA (2006 – 2015)

- 7 states
TYPES & CONSEQUENCES OF HWC
Crop damage
Crop damage
Estimated of losses due to HEC (2007-2015)

TOTAL = RM 27,995,969
Wildlife attacks

Killer monkey

Monyet 'baham' betis

Boy dies in wild elephant attack

Kelantan schoolgirl, 7, dies of snake bite

Pencari madu lebah cedera dicakar beruang

setempat
## Wildlife attacks

Record on wildlife attacks in Peninsular Malaysia (2004 – 2015)

<table>
<thead>
<tr>
<th>GROUP OF SPECIES</th>
<th>STATUS OF VICTIMS</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>INJURY</td>
<td>FATALITY</td>
</tr>
<tr>
<td>Snakes</td>
<td>493</td>
<td>12</td>
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<tr>
<td>Wild boar</td>
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</tr>
<tr>
<td>Primates</td>
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</tr>
<tr>
<td>Elephant</td>
<td>20</td>
<td>9</td>
</tr>
<tr>
<td>Bees/hornets</td>
<td>15</td>
<td>14</td>
</tr>
<tr>
<td>Tiger</td>
<td>7</td>
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</tr>
<tr>
<td>Sun Bear</td>
<td>7</td>
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<tr>
<td>Leopard</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td>Gaur</td>
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</tr>
<tr>
<td>Crocodile</td>
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<tr>
<td>Monitor Lizard</td>
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<tr>
<td>Leopard Cat</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>733</strong></td>
<td><strong>48</strong></td>
</tr>
<tr>
<td><strong>%</strong></td>
<td><strong>93.85</strong></td>
<td><strong>6.15</strong></td>
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</table>
Wildlife attacks

- 1947-1948: 5 people killed
- 1950-1951: 12 people killed
- 1949-1951: 22 tigers killed due to human-tiger conflict in Terengganu alone
- 1979-2013: 16 people killed & 19 injured
- 1997-2016: 26 conflict tigers captured and translocate to Malacca Zoo/NWRC
Establishment of National Wildlife Rescue Centre (NWRC)

- Main functions: 3R (Rescue, Rehabilitation & Release) of conflict and confiscated tigers
- Other functions: Research, Treatment and Wildlife Husbandry
- 22 tigers with annual operating cost ~ MYR 1.2 million

Human-Tiger Conflict
WILDLIFE ATTACK AID FUND

- Initiated in 2005
- Managed by Dept. of Social Welfare.
- Management Committee: Chaired by Sec. Gen. Ministry of Women, Family and Community Development
- DWNP as a member.
Livestock depredation

Kg. Jambu Bongkok, Marang, Terengganu

Kg. Mungkai Seberang, Kuala Pilah, N. Sembilan

Deer Farm, Kg. Sumpitan, Lenggong, Perak

Sheep Farm, FELDA Titi, N. Sembilan

Kg. Bayai Baru, Bt. Kikir, N. Sembilan
# Livestock depredation

## Losses due to livestock depredation (2007-2015)

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Terengganu</td>
<td>60,380</td>
<td>7,410</td>
<td>32,340</td>
<td>36,380</td>
<td>57,600</td>
<td>27,220</td>
<td>19,500</td>
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<td>284,240</td>
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<td>N. Sembilan</td>
<td>-</td>
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<td>-</td>
<td>4,500</td>
<td>5,200</td>
<td>2,350</td>
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<td>57,090</td>
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<td>6,650</td>
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<td>12,200</td>
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<td>7,285</td>
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<td>1,200</td>
<td>5,666</td>
<td>5,500</td>
<td>58,524</td>
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<td>Johor</td>
<td>5,050</td>
<td>9,192</td>
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<td>6,805</td>
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<td>-</td>
<td>3,150</td>
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<td>45,339</td>
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<tr>
<td>Perak</td>
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<td>-</td>
<td>1,510</td>
<td>9,000</td>
<td>150</td>
<td>13,420</td>
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<td>28,580</td>
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<td>1,900</td>
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<td>1,100</td>
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<td>28,490</td>
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<td>Kedah</td>
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<td>8,800</td>
<td>650</td>
<td>400</td>
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<td>1,110</td>
<td>710</td>
<td>10</td>
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<td>19,380</td>
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<td>-</td>
<td>3,000</td>
<td>2,000</td>
<td>5,000</td>
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<tr>
<td>Selangor</td>
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<td>-</td>
<td>1,550</td>
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<td>75</td>
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<td>135</td>
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<td>Perlis</td>
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<td>-</td>
<td>-</td>
<td>200</td>
<td>-</td>
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<td>TOTAL LOSS (RM)</td>
<td>89,380</td>
<td>37,142</td>
<td>70,702</td>
<td>63,154</td>
<td>76,825</td>
<td>54,080</td>
<td>29,630</td>
<td>76,526</td>
<td>52,795</td>
<td>550,233</td>
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Create fears / negative perception
<table>
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<th>Date</th>
<th>Location</th>
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<tr>
<td>28 Jan. 2015</td>
<td>Bdr. Penawar- Tg. Balau road, Kota Tinggi, Johor</td>
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<tr>
<td>30 April 2013</td>
<td>KM 46, Aring – K. Berang road</td>
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<tr>
<td>26 Feb. 2016</td>
<td>Chegar Perah, Lipis, Pahang</td>
</tr>
<tr>
<td>25 Mac 2015</td>
<td>FELDA Sg. Tengi, Selangor</td>
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<tr>
<td>6 Feb. 2016</td>
<td>LPT2, Kemaman, Terengganu</td>
</tr>
<tr>
<td>25 April 2016</td>
<td>Sg. Deka road, Hulu Terengganu</td>
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<td>9 Jul. 2007</td>
<td>Jelawang – Meranto road, G. Musang, Kelantan</td>
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<tr>
<td>30 May 2011</td>
<td>Aring – K. Berang road</td>
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<td>8 April 2016</td>
<td>KLIA Road</td>
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### Wildlife road-kills record (2011-2015)

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<thead>
<tr>
<th>STATE</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>TOTAL</th>
<th>%</th>
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<td>Perak</td>
<td>100</td>
<td>58</td>
<td>60</td>
<td>83</td>
<td>91</td>
<td>392</td>
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<td>Johor</td>
<td>16</td>
<td>78</td>
<td>99</td>
<td>113</td>
<td>90</td>
<td>396</td>
<td>22.20</td>
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<tr>
<td>Kedah</td>
<td>-</td>
<td>-</td>
<td>126</td>
<td>192</td>
<td>98</td>
<td>416</td>
<td>23.32</td>
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<td>Kelantan</td>
<td>27</td>
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<td>1</td>
<td>6</td>
<td>6</td>
<td>48</td>
<td>2.69</td>
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<td>43</td>
<td>35</td>
<td>26</td>
<td>64</td>
<td>169</td>
<td>9.47</td>
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<td>15</td>
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<td>11</td>
<td>2</td>
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<td>2.80</td>
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<td>9</td>
<td>0</td>
<td>100</td>
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<td>9</td>
<td>24</td>
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<td>3.53</td>
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<td>W.Persekutuan</td>
<td>-</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>0.06</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>173</td>
<td>266</td>
<td>390</td>
<td>502</td>
<td>453</td>
<td>1,784</td>
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</tbody>
</table>
**Wildlife-related crashes**

**Peniaga maut 4WD terbabas**

Segamat: Seorang abai peniaga maut selepas kenderaan yang dipimpin roda 4WD yang dipindahnaman melangsungkan babi hutan yang melarikan jalan itu sehingga berada kemungkinan dan sistem kanal mahu dipulihkan.

Law Lian Lay

Ketua Pejabat Pertama Selangor

Selangor: Suami maut selepas kenderaan yang dipimpin roda 4WD yang dipindahnaman melangsungkan babi hutan yang melarikan jalan itu sehingga berada kemungkinan dan sistem kanal mahu dipulihkan.

Mensyarah, Menteri Kejiranan dan Kerja Rakyat Encik Dato' Mohd. Shafie Apdal, menagih kepada peniaga maut yang melanggar ketentuan pengawalan kehutanan dan sistem kanal mahu dipulihkan.

Dalam mengisytiharkan keadaan tersebut, Encik B. G. Phoo, Ketua Pusat Pejabat Pertama Selangor, menyeru peniaga maut untuk mematuhi ketentuan pengawalan kehutanan dan sistem kanal mahu dipulihkan.

Peniaga maut, yang diwakili oleh peniaga maut yang melanggar ketentuan pengawalan kehutanan dan sistem kanal mahu dipulihkan, menyeru peniaga maut untuk mematuhi ketentuan pengawalan kehutanan dan sistem kanal mahu dipulihkan.

Suami maut motosikal dirempuh baby hutan

Kenderaan dinaih lima berada tercuma

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Wildlife displacement

Mahkamah gempak diceroboh babi sesat


Saksi, Ahmad Harun, 32, berkata beliau pada malam yang seramangka hutan berwarna hitam dalam hutan itu kemudian mengetahui.

Pelajari MMU gempak cerita perputusan pecah dirempuh haiwan liar

Babi hutan ceroboh universiti

LKIM gesa pur tanah disiasat

Boar-ed through school gate

Animal dies after getting head stuck between the bars

A WILD boar died after its head got stuck between the bars of a school gate in Kuantan, KFM reported.

The animal, which is believed to have strayed away from the bushes near the school, was discovered by a guard at 6.30am, who was shocked at its presence.

"I thought it was a goat which belonged to one of the villagers," said the guard who only wanted to be known as Fikri.

He informed the teachers at the school who subsequently contacted the Civil Defence Department (JAM) Pahang branch.

"When my men arrived at around 6.40am, the boar had died and was covered with blood as it struggled to get free," said JAM head Zulfiqar Yussif.

Horizon Metro reported that a 51-year-old Kuantan man who served as security guard to the school.

In vain: Civil defence personnel trying to free the wild boar.

Crocs attract big crowds

PEKAN: Large crocodiles are turning up here to watch crocodile hunting on the shore of Kampung Permasang Arung lake in Kluang, Pahang. It by Lily Tamam.

The reptiles with his handphone when he went to the lake with two friends on Monday.

"I was lucky about an hour before the crocodiles were now making the..."
Prior to 1974, elephants were legally killed to overcome HEC

1964 – 1974: 120 elephants @ 12 elephants killed/year.

1974 elephant killing banned & Elephant Management Unit (EMU) established.

1st capture at FELDA Jengka 7 (11th May 1974)

Since 1974: > 800 conflict elephants captured

Relocated to TNNP and surrounding forests (P. Besar & Sg. Ketiar Elephant Sanctuary), RBSP & ERNP.
Elephant translocation is not a suitable option in areas adjacent to large elephant habitat.

Electric fences have been used in the country since the 1940s, built by private landowner or land development scheme.

Drive-shooting is common practice.

2008 – 2015: GoM allocate RM13.6 mill for 20 electric fence projects with total length of 282 KM for villages adjacent to main elephant habitat.

Projects location: Perak, Kelantan, Pahang, Terengganu & Johor.
Large-scale plantations; encourage to install their own electric fencing and/or construct trenches along the perimeter of their plantations.

Other methods; cannon carbides, patrolling, physical barrier, fire crackers, flash lights, and burning tires or logs at the main access used by elephants to encroach into plantation areas.

Observation tower (Sime Darby Mentakab)
Eliminate / cull

Joint Operation with local community

Collaboration with RELA

Collaboration with licensed hunter

Culling practice for over surplus population

Catch and eliminate for over populated group

Hunt for dangerous individual
Trapping

- Macaque trap
- Wild boar trap
- Single trap
- Crocodile trap
- Surface trap for Tapir
- Bear trap
- Civet trap
- Tiger trap
Trapping

- Long-tailed Macaque in transfer cage
- Tapir in pitfall trap
- Health inspection
- Wild boar trapped
- Tiger tranquilized
- Self-made Monitor lizard trap
- Long-tailed Macaque in transfer cage
Catching

Snake hook

Snare pole

Snake tong

Net scope

By hand
Campaign & awareness
Monkey proof-bin
Manual and action plan for HWC
LONG-TERM STRATEGIES

Species Management Plans
LONG-TERM STRATEGIES

Habitat Protection and Corridor Connectivity

- 37 location identified in CFS Master Plan for Ecological Linkages
- 2014: 3 viaducts constructed at PL1. Connected Sungai Yu FR and Pahang NP. Cost = MYR 82.3 million.
LONG-TERM STRATEGIES

- **Safe wildlife crossing (SWC) initiative**
  - 236 wildlife crossing signages erected at 133 hotspots
  - 37 *transverse bar* & 24 unit *solar amber light* at 4 hotspots in Johor
  - Propose additional of 426 signages at 213 new hotspots and install *transverse bar* & *solar amber light* at 14 locations

*Amber light*  
*Transverse bar*  
*Signage*

e.g.: Billboard for wildlife crossing – near Corbett Tiger Reserve, India
RECOMMENDATIONS

1. Establish Wildlife Conservation Unit
2. Develop & execute Wildlife Conflict Mitigation Plan
3. Create buffer zone for wildlife
4. Awareness program among workers
5. Preventing encroachment outside plantation area
6. Zero hunting in plantation area
7. Establish Wildlife Conservation Fund

Creating of wildlife buffer zone at Ulu Temiang FR, Kuala Krai, Kelantan
CONCLUSION

• HWC
  – continuously occurs
  – public concern and shared responsibility

• Overcome HWC
  – progression in approach used is needed
  – support from all related stakeholders is vital
Thank you