Highway 304
Wildlife Corridor Project

Project: Highway No.304 Kabinburi – Pakthongchai, (Wildlife Corridor)

Project: Highway No.304 Kabinburi – Wangnamkhiao Section 3

Bureau of Bridge Construction,
Department of Highways,
Ministry of Transport

Ref: Dr. Win Trivitayanurak, DOH
Project location

Dong Phayayen-Khao Yai Forest Complex

UNESCO World Heritage Site
Project location

Widening +
Wildlife corridor
km 42 – km 57

Thaplan National Park

Widening +
Wildlife corridor
km 26 – km 29

Khao Yai National Park

Amphoe Na Di

Tambon Bu Phram

Tambon Thung Pho
Pressure for development

To Nakhon Sawan

To South

Laem Chabang

To Buriram

To Khon Kaen

4-lane Highway

2-lane Highway

Industrial Estate (IEAT)

Industrial Zone (BOI)

Bottleneck!
Pressure for development: **Safety issue**
Pressure for bridging the national parks

Upon inscription of **Dong Phayayen-Khao Yai Forest Complex** as a World Heritage Site
(29th session of World Heritage Commission, Durban, 2005)

_Requests the State Party of Thailand to carry out a study for the establishment of **ecologically effective wildlife corridors** to functionally link the western and eastern sectors of the complex, …_
Ecosystem study
Ecosystem study
Ecosystem study
Habitat Suitability

Factors:
• Elevation
• Slope
• Streams
• Salt lick
• Roads
• Village

Consider for:
• Guar
• Sambar
• Southern Red Muntjac
• Elephant
• Bear
• Dear
Wildlife observation
(km 42 – km 57)
Highlights of wildlife corridor project on Highway 304

- Wildlife corridor construction
- Reforestation
- Habitat enhancement
- Wildlife crossing monitoring
- Road impact mitigation
Wildlife corridor for km.26-29
Wildlife corridor and road widening for km.42-57
Wildlife corridor design at km.42+600 – km.42+950

Note: observed animals from the study that are expected to use the wildlife corridor are wild boar, muntjac, Asian black bear, Indo-Chinese water dragon, frog, and puddle frog.
Wildlife corridor design at km.42+600 – km.42+950
Amphibian tunnel
Small mammal underpass
Fencing

- Fence along at-grade portion of the road
- Fence extending from both ends of road (wildlife corridor portion) along the edge of the forest area
Reforestation

Enhance forest ecology and supplement animal food source

- 250 rai along a creek
- 100 rai in degraded forest area

Note: 1 rai = 1,600 sq.m.
Habitat enhancement

- Create salt licks
- Build check dams
- Growing animal food source plants under/over crossing structure
Wildlife crossing monitoring

- CCTV and camera trap
- Sand trap
- Park ranger unit
- Wildfire lookout tower
Road impact mitigation

- Prevent poaching during construction
- Apply technique to reduce noise from blasting

- Noise barriers
- Lighting design
Lighting design on elevated road

Specifically-designed luminaire lessens light pollution to surrounding forest
Project status

- Both EIAs were approved by National Environment Board (NEB) in July 2014

- Construction budgets were approved for fiscal year 2015

- Discussion of EMP with Dept. of National Parks and Wildlife Conservation. and Royal Forest Dept. initiated – establishment of Joint Steering Committee and Working Group is underway

- Construction contracts are progressed
Construction Site’s Location

Highway No.304
Kabinburi – Wangnamkhiao
Section 3, Part 1
km.41+900 - km.50+700
(km.207+760 - km.216+560)

3.450 km.

Highway No.304
Kabinburi – Pakthongchai
(Wildlife Corridor)
km.26+000 - km.29+450
(km.191+860 - km.195+310)

8.800 km.

Highway No.304
Kabinburi – Wangnamkhiao
Section 3, Part 2
km.50+700 - km.57+409
(km.216+560 - km.223+269)

6.709 km.
## Overall Project Description

<table>
<thead>
<tr>
<th>Project</th>
<th>Highway No.304 Kabinburi – Pakthongchaisai, (Wildlife Corridor)</th>
<th>Highway No.304 Kabinburi – Wangnamkhiaosai Section 3</th>
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<tbody>
<tr>
<td>Project</td>
<td>Highway No.304 Kabinburi – Pakthongchaisai, (Wildlife Corridor)</td>
<td>Highway No.304 Kabinburi – Wangnamkhiaosai Section 3</td>
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<td>End of Contract</td>
<td>30 Jun 2018</td>
<td>24 May 2018 May 2018</td>
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<td>Project Duration (Days)</td>
<td>1,080</td>
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<td>Contractor</td>
<td>Italian-Thai Development Corporation Limited</td>
<td>Italian-Thai Development Corporation Limited Tanasinpattana (1999) Co., Ltd.</td>
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Scope of Works

Construction of 4-Lanes Highways
Scope of Works

Construction of:-
- U-Girder Bridge
- Tunnel (Open-Cut)
Scope of Works

U-Girder Bridge of 2 x 2-Lanes Highway

Cross Section
Scope of Works

Tunnel (Open-Cut) of 2 x 2-Lanes Highway
Site’s Progress
Site’s Progress
## PROGRESS
### As of July 2016

<table>
<thead>
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<tbody>
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<td>Part 1</td>
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<td>% Plan</td>
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<td>% Progress</td>
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<td>Ahead (+) / Delay (-)</td>
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<td>% Overall</td>
<td>% Plan 28.761                                   % Progress 10.358 %</td>
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<td>Delay (-): -18.403 %</td>
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Contact Us
site(bridge.doh.go.th/304)
Obstacle during Construction

1. Reserved Tree - Relocation
Obstacle during Construction

2. Tree Removal
3. Existing Infrastructure
Thank You!