Elephants, roads, and the ways forward

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Not all the elephants are inside the reserves!
Famous wandering elephants
Habitat optimization and transformation
Developing ecological corridors
Adding passing corridors
linear transport infrastructure
Figure 2: Schematic of ecological impacts from linear transport infrastructure.

MELISSA BUTYNISKI/ CENTER FOR LARGE LANDSCAPE CONSERVATION
Case study
Sixiao Expressway

- Completed in 2006
- Totaling 97.75 km
- Enclosed four-lane highway
- 18 km through Menyang Nature Reserve
- 30 Asian elephant original and/or historical movement corridors
Mitigation Measures

- 25 crossing structures: 23 bridges and two tunnels.
- Metal fencing: 1.9 meters of height
- Warning signs are placed on both sides of the expressway
Elephants preferred crossings that are aligned with original and/or historical movement corridors.

Usage of historical movement corridors
- 9 abandoned
- 1 new

Utilization of artificial wildlife crossings:

- 32% (eight crossings) in 2006
- 40% (ten crossings) in 2008
- 72% (18 crossings) in 2019

Elephant crossed roads at 5 locations

Elephants may be adapting to the expressway over time...
April 2018 – Oct 2019

- Track survey
- Village survey
- 22 Camera traps set at 4 crossing structures
Where and when the elephants are most active?
High seasons...

Traffic Flow

- 车流量（辆）
Thank you...