Asian Elephant Survey and Protection Planning for Sino-Laos Joint Protection Area

The Core Environment Program (CEP) supports the Greater Mekong Subregion (GMS) in delivering environmentally friendly economic growth. Anchored on the ADB-supported GMS Economic Cooperation Program, CEP promotes regional cooperation to improve development planning, safeguards, biodiversity conservation, and resilience to climate change—all of which are underpinned by building capacity. CEP is overseen by the environment ministries of the six GMS countries and implemented by the ADB-administered Environment Operations Center. Cofinancing is provided by ADB, the Global Environment Facility, the Government of Sweden, and the Nordic Development Fund. The Yunnan Environmental Protection Department (YEPD) is the focal agency for CEP implementation in Yunnan Province.
# Research Background

Within the Xishuangbanna National Nature Reserve, the Shangyong and Mengla sub-reserves share a 108 km border with Lao PDR. The subtropical forest in this area is home to over 2,100 animal species including iconic protected species such as the Asian elephant, the Indochinese tiger, Gaur, the Northern White-Cheeked Gibbon, and Red Slender Loris.

To protect the rich wildlife and other biodiversity, the Xishuangbanna National Nature Reserve has been cooperating with neighboring Lao PDR Provincial environmental authorities since 2009 to establish a 200,000-hectare “Sino-Laos United Cross-Border Protection Zone” and have since explored biodiversity protection strategies along border areas.

In 2014, the GMS CEP began supporting transboundary biodiversity conservation cooperation in the area with a survey on the status of Asian elephants and plans for the protection of this key species. Previous surveys had already identified elephant habitat and migration areas in Xishuangbanna so this survey focused mainly on gaining information about elephant populations, habitat and movements on the Lao PDR side of the border.

# Survey Area Scope

The survey covered the entire Sino-Laos United Cross-Border Protection Zone, 220km from the south to the north, and with 200,000 ha of border areas between Xishuangbanna and three Lao PDR provinces: Luang Namtha, Phong Saly and Oudomxay.
3 Research Findings

Estimation of Asian elephant population and distribution

The field survey revealed that there are six separate populations of Asian active in the area with overall numbers of 39-49 members. Luang Namtha province in Lao PDR has two active populations, with a total of 13-15 Asian elephants; Oudomxay province in Lao PDR has one active population of about 5-7 Asian elephants; Phong Saly province in Lao PDR has three active populations with a total 21-27 elephants. Elephant activity was found in 170,000 ha including places where farmland and residential areas overlap with forests. This has resulted in reported instances of human and elephant conflict. Some of the elephant habitat is extremely remote and are not easily accessible for Lao PDR and Chinese patrollers and environmental officials. The mix of remoteness and human-elephant overlap areas present considerable challenges for conservation efforts.
**Proposed Asian Elephant Protection Plan**

The research team proposed a conservation plan for joint protection of the Asian elephant in the cross-border protection zone. Key to this would be dividing the activity areas of Asian elephants into three protection zones just according to provincial jurisdiction, namely:

**Protected Zone A:** "Sino-Laos (Shangyong-Luang Namtha) united cross-border protected zone for Asian elephant" (area: 53,917 ha, 13-15 elephants);

**Protected Zone B:** "Sino-Laos (Mohan-Namor) united cross-border protected zone for Asian elephant" (area: 93,188 ha, 5-7 elephants);

**Protected Zone C:** "Sino-Laos (Mengla-Phongsaly) united cross-border protected zone for Asian elephant" (area: 22,072 ha, 21-27 elephants).

If the three planned protected zones are realized, an analysis should be conducted to identify suitable habitat areas and migration areas that connect the zones. This would lay a foundation for planning and establishing migration corridors between the zones.

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**Focus Activities for Cross-border Cooperation**

- Joint protection action on the key animal species with predominant-species of Asian elephant.
- Strengthen Sino-Lao capacity building for Asian Elephant conversation and management.
- Conduct further research and monitoring of Asian elephant in the Sino-Lao joint protection areas.
- Public awareness campaigns on Asian elephant conservation.
- Analysis of human-elephant conflict situations and develop conflict mitigation plans.

**National Initiatives**

- Establish "Public Liability Insurance for Wild Asian Elephants" in Sino-Lao cross-border areas.
- Establish and improving joint protection cooperation mechanism in long term.