



**GMS Core Environment Program**  
**Yunnan's Biodiversity Landscape & Livelihood Project**  
**Demonstration Pilot Village in Xishuangbanna**



Yunnan Environmental  
Protection Department  
[www.ynepb.gov.cn](http://www.ynepb.gov.cn)



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GREATER MEKONG  
SUBREGION  
CORE ENVIRONMENT  
PROGRAM

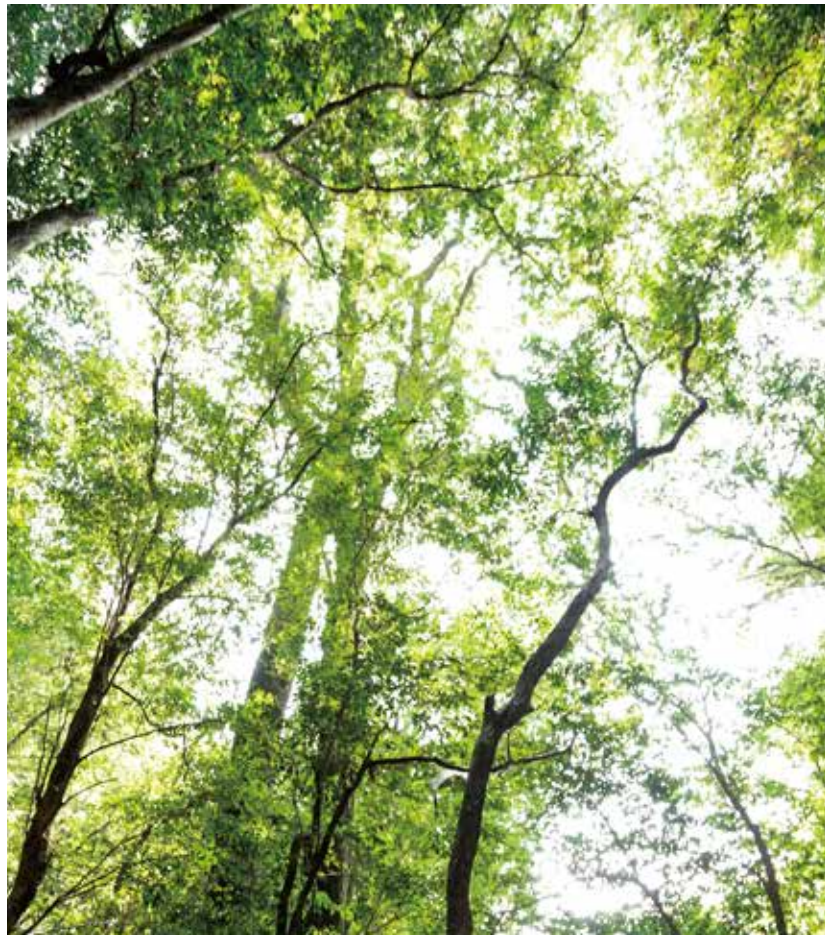
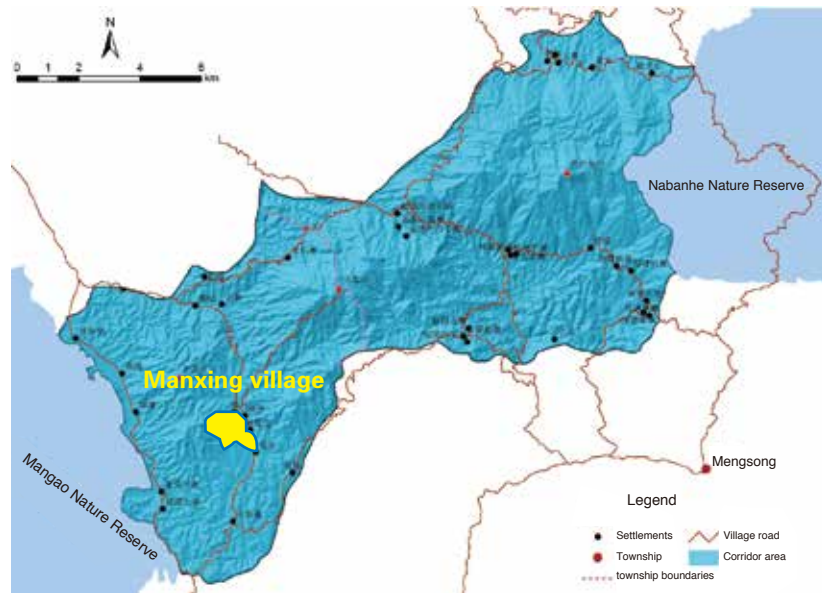
## Project Background

In China, the richest biodiversity is usually found in the more impoverished regions with fragile environments, and where ethnic minority populations reside. Balancing economic development and ecosystem conservation is particularly challenging in this context. Located in the south of Yunnan Province and part of the Mekong Headwaters Landscape, Xishuangbanna prefecture is a one such area, with abundant biodiversity and considerable development challenges.

In 2007, the ADB-supported GMS Core Environment Program and the Yunnan Environmental Protection Department launched the biodiversity conservation corridor pilot in Xishuangbanna. Two corridors were focused on to improve forest connectivity between nature reserves with the aim of ensuring good habitat remained in place for key animals and plant species.

One of these corridors, Nabanhe-Mangao, is home to 40 villages, including Dai, Hani, and Lahu ethnic communities. Agricultural land accounts for around 98% of the corridor area and traditional farming practices dominate. Economic development is low with largely subsistence livelihoods, such as a heavy reliance on fuel wood for cooking.

A key ingredient to the success of the pilot was to ensure that local communities were positive, active actors involved in managing the corridor. To achieve this, corridor activities placed a lot of emphasis on improving local livelihoods in an environmentally sustainable way.



# Project Highlights

## Scientific Pilot Location

Manxing village is in the core area of the Nabanhe-Mangao corridor and was identified as a pilot village. It lies on the migration path of flagship species such as the Gaur.



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## Comprehensive Demonstration

Advanced concepts and approaches were piloted in Manxing-including ecological restoration and village development funds-to demonstrate how ecosystems could be maintained and improved and for more sustainable, higher-income livelihoods.



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## Eco-Planning

Based on comprehensive socioeconomic and ecological surveys, Manxing villagers and experts developed an eco-village plan using participatory methods.



## Self-Replication

Bonglong old village in eastern part of Nabanhe-Mangao corridor was selected as "twins pilot village" to replicated the experience of village development fund supporting alternative livelihood development in Manxing village.





## Ecological Restoration

The natural and human-aided habitat restoration improved corridor ecosystem connectivity and helped sustained the migration paths of flagship species.

- ◆ Land restoration-130,000 pine trees planted in 28 ha and 15,000 thousand fir trees planted in 12 ha.
- ◆ A village nursery established-seedlings for restoration grown included 1.36 million Oil-tea Camellia, 5000 yellow pear trees, 20,000 Chinese pine, and 35,000 Phoebe.
- ◆ Eco-tea-garden reconstruction-mixed planting in 20 ha tea garden for better biodiversity and increased income included 4,500 Hainan pear trees, 460 fruit trees and 3000 chestnut trees.
- ◆ Community forest patrolling - A village patrol team was established to guard 2000 ha state-owned forest around the village.



## Integrated Environmental Improvement

Demonstrated and tested the suitability of environmental friendly technologies and alternative energy measures for rural communities.

- ◆ A solid waste incinerator and 14 waste collection stations established.
- ◆ An artificial wetland built for waste water purification connected to 400 meters of new piping.
- ◆ 20 solar street lamps built and 29 energy-efficient stoves introduced to reduce traditional reliance on firewood.
- ◆ 900m of retaining walls built to prevent landslides and erosion.
- ◆ 2550 trees planted in the village.



## Sustainable Livelihood Development

Increased local capacity and options for more sustainable livelihoods.

- ◆ Trainings organized for farmers on eco-tea-garden management, tea processing, inter-planting and agroforestry, animal husbandry and other topics.
- ◆ Study tours and exchange visits organized for villagers.
- ◆ A Village Development Fund set up to support sustainable livelihood development and accessed by 28 families .



## Cultural Support

Supported local cultural strengthening to increase community self-management capacity

- ◆ Constructed a culture center and basketball court with free access for villagers.
- ◆ Established a women's group and other community-based organizations.
- ◆ Formed a joint defense team for village public security .

Activities  
in  
the pilot  
village





## Project Results

The project successfully developed an environmentally-friendly community economic development model in the corridor pilot village. The integrated conservation and development initiatives helped improve the living conditions of local people. It stimulated a positive transformation of traditional livelihoods and land use models, diversified cash generation sources and helped farmers make more income. It provided the village with better and more sustainable infrastructure. By focusing on the linkages between conservation and economic development, the project was able to positively change local people's behavior and attitudes. The economic benefits were instrumental in farmer attitudes becoming increasingly supportive of the corridor approach. Success with the community development work has laid a good foundation for ongoing corridor management and development initiatives.

The pilot village development direction matches well with the corridor conservation plan. The pilot eco-village demonstrated community-integrated approaches that have contributed to biodiversity conservation in the corridor landscape. Many valuable experiences and lessons on engaging communities in biodiversity conservation corridors initiatives have been gained, and can be used more widely in Yunnan as well as inform other GMS countries.

