Restoration Cases
Flagship Collection

Case #2: Restoring native forest with Ban Mae Sa Mai Village, Chiang Mai, Thailand

Six and a half years after planting framework tree species, a forest is restored in Doi Suthep-Pui National Park, Thailand. Photo credit: FORRU-CMU

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In brief

Overview

In 1997, Chiang-Mai University's Forest Restoration Research Unit (FORRU-CMU) joined forces with Hmong villagers to reforest degraded areas in Doi Suthep-Pui National Park. Experimental forest restoration plots were established annually over 16 years using the framework species method. FORRU-CMU funded the construction of a community tree nursery in the village and trained villagers in basic tree propagation methods and nursery management. Scientists guided the experimental design of the restoration plots, while villagers collected seeds and planted trees in exchange for support of various community development projects and were paid individually for nursery work, maintenance, monitoring of plantings, and fire protection. In total, 33 ha of forest were restored within the experimental planting sites. This project evolved over 16 years through a successful collaboration between university scientists, Hmong villagers, and the National Park Authority. Within 8.5 years, herbaceous weeds were eliminated, humus had accumulated, and a multi-level canopy had developed. Diverse native trees and birds rapidly recolonized planted sites. The project validated the framework species method, led to recovery of forest biodiversity and ecosystem services, and contributed to the social and economic wellbeing of local villagers. The restoration project helped to reduce internal social conflicts over natural resource shortages and improved the community's public image and relationships with outside organizations.

Exemplary practices

Villagers were engaged in every stage of the restoration process from seed collection and growing indigenous trees in the community tree nursery to planting and monitoring trees in the plots. Close proximity of the nursery to the planting sites reduced costs and seedling mortality. Through establishing the experimental restoration plots, high-performing framework tree species were successfully identified, along with evaluation of silvicultural treatments that maximized survival and growth rates. Experiences and protocols developed from FORRU-CMU's extensive research program support applications of the framework species method to other forest ecosystems and socioeconomic circumstances. Hmong villagers received direct monetary payments for work in the nursery and for plot maintenance. They also benefited through access to non-timber forest products gathered from the forest for daily use.

Key lessons learned

- ◊ *Make restoration pay by developing social, economic, and political systems that provide benefits to those who restore and protect the forest.*
- ◊ *Elevate restoration to the level of a livelihood.*
- ◊ *The sustainability of restoration can never be guaranteed.*
- ◊ *Use restoration projects as an opportunity to conduct experiments.*
- ◊ *Communities and villages are composed of diverse members with different perspectives and needs.*