

Thesis Title	Conservation and Sustainable Use of Ethnomedicinal Plants by Mien People in Nan Province	
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ABSTRACT

This study consisted of three objectives, firstly, to conserve medicinal plants which have high potential value for primary health care of the Mien in Sancharurn village for sustainable use in their community. Secondly, to survey and record medicinal plants used by the Mien in Sancharurn Village to collect herbarium specimens and produced book for the young Mien and as a reference in the community. Lastly, to determine the chemical compounds and biological activities of the medicinal plants most frequently used in traditional medicine of the Mien in Sancharurn village in order to validate the usefulness of the Mien's medicinal plants.

More than 168 species of medicinal plants were surveyed. These plants belonged to 78 families and 164 genera. Interview data indicated that women are the majority users whereas the most common usage categories were for birth related

conditions (44 species, 26.2%). It was followed by infections/infestations (27 species, 16.1%), and pain (24 species, 14.3%).

Phenolics, flavonoids, and triperpenes were found by phytochemical screening of ten extracts of medicinal plants. All extracts were tested for DPPH, FRAP, and total phenolic content. It was found that *Phlogacanthus curviflorus* (Wall.) Nees var. *curviflorus* (hung teaw yam) has the highest amount of antioxidant in DPPH scavenging activity ($EC_{50} = 0.219$ mcg), its FRAP value, expressed as $FeSO_4$ equivalents, is 949.143 ± 0.074 mg/g extract and its total phenolic content, expressed as gallic acid equivalents, equals $17,368.421 \pm 0.009$ mg/g extract. The results of the antimicrobial by disk diffusion method found that *Schefflera* sp. aff. *S. bengalensis* Gamb. and *Plumbago indica* L. have antimicrobial activity against *Staphylococcus aureus* with MIC of 0.726 and 0.782 mg/ml, respectively. The tests showed that ten combined plants which were selected from the Mien's postpartum herbal bath have beneficial to postpartum women's health.

The scientific data both from laboratory results and in literature reviewed has been provided to the entire community. Meetings for brainstorming were then held with community. The meetings discussed ways to conserve medicinal plants habitat, an encouragement of knowledge transmission among herbalist's families and the entire village. Plant conservation by establishment of home and community gardens was also developed for sustainable use.