

3.2.2 Processing of participatory action research for conservation of medicinal plants use knowledge, and also medicinal plant diversity

The objectives of participatory action research in community were to inform villagers about the research results of medicinal plants knowledge, medicinal plants habitat's status in Sancharurn Village and also the potential value of medicinal plant used by them. Brain storming were then held to find channels for the conservation of medicinal plant use knowledge, medicinal plants diversity for sustainable use of medicinal plants in their community.

The process started from the meeting between researchers, Village leaders, herbalists and villagers were held. Results from survey phase were provided and discussed. These results showed that there was an erosion of medicinal plants knowledge in young villagers. It was determined from an average number of medicinal plants species that known by villagers were only 6.3 ± 5.8 species while medicinal plant diversity also was low (species diversity index = 2.3), lower than the other area in northern Thailand [133-136]. Thus, it needs the community consensus for co-management to conserve medicinal plants for sustainable use of people in community.

The issues that were discussed in the same time were a world situation that of the population health in an industrial country in terms of diseases that comes along with stress and, which may not be cured by modern medicine. This impact forces many people to seek out complementary and alternative medicine. Moreover, the current use of medicinal plants in a traditional way is

also becoming revitalized over the world. The other issues were then provided to the Mien in Sancharurn village and the local officers, such as almost of the successful drug recovery is dependent on these traditional knowledges, whenever the local knowledge is lost, it will cause big impacts to both local and global human well being, the successful of drug recovery also will be decreasing. The use of medicinal plants for their primary health care that can promote their self-dependency, is not only good for user health, but it also inherits a good tradition to younger generations. Furthermore, knowledge of the conservation of medicinal plants can be a positive impact to medicinal plants and plants habitats, because whenever medicinal plants are important for villagers livelihood, the forest that is home to plants and medicinal plants will be protected automatically.

From above providing processing found that the leaders understand more about objectives of this project and are willing to be a one part of tripartite, (tripartite of this project compose of community, researcher and local officers), to protect their local knowledge and also forests near their community for sustainable use of medicinal plants for themselves.

Threat analysis of medicinal plant use knowledge in Sancharurn Village was then the first issue of the discussion in brain storming process. From this process it can be analyzed to five categories as follows:

- 1. Lack of evidence sources**, since the Mien migrated to Thailand and settled down in Nan Province, there have not had any books or texts of medicinal

plants used by the Mien. So, the young Mien are unable to access to this knowledge by themselves.

2. Lack of good transfer system only oral tradition is not enough for knowledge transferring to young generation in whole village, this category need systematic transferring to transfer this local wisdom from elderly people and herbalists to young generations (this can be managed by knowledge management such as transferring of tacit knowledge to explicit knowledge using Community of Practice (Cop.), training, coaching, and mentoring).

3. Lack of user confidence, good attitude most recipes are not attractive to use by the current user (this category can be performed by using the integration of scientific knowledge into the local knowledge to outstandingly verify).

4. Modernization and modern medicine, since modern medicine can be accessed easily, people including the Mien people prefer to use (to increase a value of herbal medicine, herbal recipes should be determined on their quality, efficiency and effectiveness of them).

The brain storming result can then be concluded as researcher's propose as following "Problem Tree":

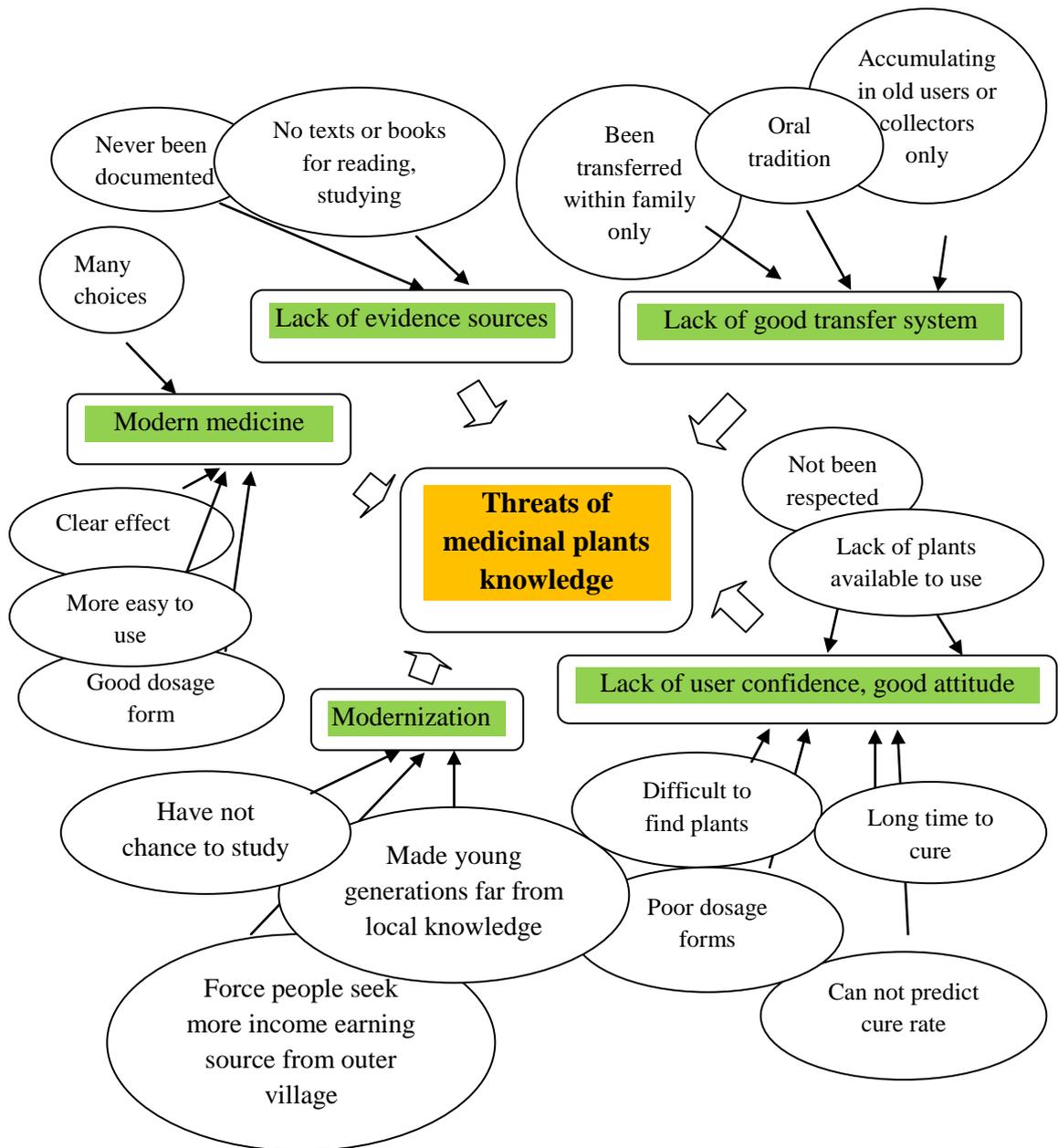


Figure 19 “Problem Tree” of threats of medicinal plants knowledge in Sancharum Village

Threats of medicinal plant diversity including plants that are used in postpartum women were subsequent discussed. Threats of medicinal plant diversity may come from both internal and external sources. The internal source can be analyzed as follows: medicinal plants themselves, they lack of trade value, their effectiveness did

not clear then they are not attractive to use, they also never been managed and then have been neglected by Villagers. External threats were analyzed as the expansion of land use to cultivate coffee and orchards made more of deforestation. The deforestation can direct impact to medicinal plants especially wild plants. The expanding of outer herbal products, which are more easy to use (ready to use), made Villagers take more interest than their plants. To strengthen this issue, herbal products from the Mien community should be promoted for their sustainable use. An above analysis can then be concluded as researcher's perspective as following "Problem Tree":

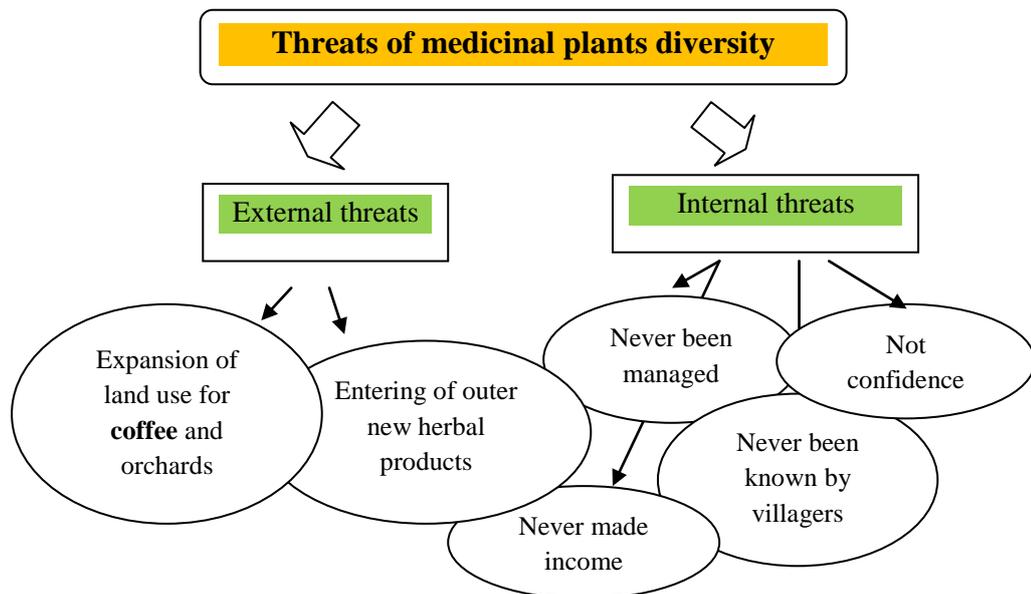


Figure 20 "Problem Tree" of threats of medicinal plants diversity in Sancharum Village

From threat analysis, it can be analyzed the strength-opportunity and also weakness-threat of the medicinal plant use in Sancharurn Village using SWOT analysis by researcher's analysis as following Table 14:

Table 14 SWOT analysis of the medicinal plant use in Sancharurn Village

STRENGTH	WEAKNESS
<ol style="list-style-type: none"> 1. There are herbalists who know specific knowledge and having experiences in preparing medicine from medicinal plants, and also prepare for actual use 2. There are medicinal plants available for use in forest near community, unless it is threaten by many factors 3. There are medicinal plants collectors (old Mien women) who held general knowledge of medicinal plants and can be the medicinal plant's collectors for actual use 	<ol style="list-style-type: none"> 1. Lack of inner motive of community for development 2. People are not confidence in development of medicinal plant market 3. Lack of driving force and investment 4. Education level of people are low, difficult to manage medicinal plant system by themselves

Table 14 SWOT analysis of the medicinal plant use in Sancharurn Village
(continued)

<p>STRENGTH (continued)</p> <p>4. There are some recipes which are respected and traditionally used in actual use such as postpartum tonic and bath</p> <p>5. There are villagers who interest to try out new herbal products</p>	<p>WEAKNESS (continued)</p> <p>5. Herbalists, who holding the knowledge of using medicinal plants, are not willing to share knowledge</p> <p>6. Some villagers are not confidence about benefit earning from medicinal plants cultivation</p> <p>7. Sancharurn Village locates in mountainous area then it lack of area for local demonstration</p>
<p>OPPORTUNITY</p> <p>1. It has a new policy of health ministry that expand the number of medicinal plants use in hospital, this regulation cover every level of hospital in Thailand</p> <p>2. There is a new trends of using herbal medicines, natural products, health supplements, cosmetic in the Mien society</p>	<p>THREAT</p> <p>1. There has been a wide expanding of agricultural area into the forest area</p> <p>2. Villagers prefer to use modern medicine and herbal products that are ready to use from outside village</p>

Table 14 SWOT analysis of the medicinal plant use in Sancharurn Village (continued)

<p>OPPORTUNITY (continued)</p> <p>3. The increasing of fund which provide from Thai government for collaboration between scientists and community</p>	
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From STRENGTH and OPPORTUNITY of SWOT analysis table, it can be concluded that unless there are many weakness and threats in Sancharurn Village but, however, there are many strengths and opportunities for development of good practice of medicinal plant system in Sancharurn Village and there also have forests both community and natural forests and also home garden that can play the role of medicinal plants sources for research and development.

In situ Conservation processing was then decided to focus on plants used in the postpartum health care recipes. The plants in these recipes must be the first priority to propagate and cultivate at least the twenty most commonly used species of medicinal plants in their home gardens, plantations near the community and also in community gardens.