

## Chapter 6

### Conclusion

The study of rice diversity and farmers management in Samneua, Houaphanh of the Lao PDR where rice farming based on traditional method was to understand how the current situation of rice varieties can be maintained by farmers and investigated diversity between and within most common varieties in this area. Improved varieties have not been adopted, while most of farmers depend on their own seed lot as well as cultural method of seed selection. Several of rice varieties were maintained which are still highly diverse both between and within varieties. According to farmers, some varieties have a good performance in infertile soil such as *Kaopu* (KP) variety found in Ban Kan and *Kainoyhai* (KNH) variety was well performance in higher elevation with cool climate of Lak Sipsong. The Yield of *Kainoyleuang* (KNL) variety in BanKan was still higher than yield average from national and provincial yields.

This study would be useful for future research on genetic diversity within popular variety as well as another ones. Based on farmers reporting during my survey, variety of KNH is suitable in high elevation and colder climate like Ban Lak Sipsong and KP in Ban Kan is wide adaptability in soil fertility. They could be used to test on scientific method for searching a new gene resistance to unfavorable climate particular in cool condition and effectiveness of nutrient uptake of KP variety. In recently, reducing of upland rice cultivated area under shifting cultivation has been a one of the Lao government policies. This might be direct and indirect affect on upland rice and upland crop diversity. Even though, most of rice native varieties of Laos have been preserved in cool storage both in Laos and International Rice Research Institute but that is one of alternatives to conserve rice varieties before it disappears. To Encourage farmers to keep diverse rice in their natural condition as *in-situ* conservation is one methods of using in many projects work on genetic resources at present day. This method could help farmers and researchers in cooperate in term of varieties improvement as known participatory breeding method to setting up ceiling for diversity level.