

Chapter 6

Conclusion

Farmer management of varietal diversity was seen in these areas. They have grown several local rice varieties with maintaining and selecting varieties by themselves, while most of farmers depend on their own seed lot as well as cultural method of seed selection and exchange.

The wide ranged of morphological diversity in local rice varieties in farmers' seed lot and progeny test, especially in color of apiculus, husk, and pericarp. Most of cultivated rice within each local rice variety in this study is visually uniform and they are identifiable. Between villages within province similar local rice varieties pattern were grown within the local communities in this study.

At the DNA level, high level of genetic diversity between and within samples with five variety names was found, together with high level of genetic differentiation among villages within the same name. These indicated that local rice varieties maintain high genetic diversity and local rice shared the same name may not have the same genetic composition. These large pool of genetic diversity appear to be the good sources of genes for plant breeding and adaptation to local conditions.