

## CHAPTER 7

### CONCLUSION

The farming systems in the peri-urban area as exemplified by the study in Ban Ping Noi are characterized by labour intensive, and external input dependent production systems with high value output. It provides a special niche, which requires an integration of social, economic, ecological, and environmental aspects to develop toward a healthy system. The farming systems offer food, employment, and livelihood security for both rural and urban communities to thrive on. If the systems could be managed in harmony with environment and at the same time able to fulfill the people needs for food and employment, peri-urban farming systems would also be supportive for beautification of urban landscape.

The land use systems are dynamic, constantly responding to socio-economic changes imposed upon the farming communities. Ban Ping Noi, for instance, has gone through several phases of land use changes, partly from within household influence, and partly from external driving forces, such as urbanization, and government land use policy. The significant policy incentive is perhaps the Agricultural Diversification Program, which provides traditional rice farmers opportunity to change into a more stable land use system. The option seems to be dominated by horticultural-based farming systems, either fruit crops, vegetables, or ornamental plants in various combination.

Recent demand of consumers for safe food products and health concerns has offered new opportunity for peri-urban farming communities to reconsider the sustainable farming practices with little dependence on agrochemicals. In Thailand, two governmental ministries, Public Health and Agriculture and Agricultural Cooperatives have come up with policy guidelines and implementation plans to

promote health food- healthy life for all. Pesticide-free vegetables and organic agriculture in the peri-urban areas have received higher priorities.

The conventional vegetable production, which is mono-cropping, and agrochemical-based, always provide attractive economic benefits to both farmers and consumers. Mono-cropping, few frequent harvest, large lump sum of cash return to farmers, cheaper food for the urban population, seem to offer an win-win solution. The farming operation could be fastened by farm mechanization, resulting in year-round production.

To change from agrochemical based into pesticide-free production system would require change in paradigm and understanding of agroecological principles and practices. Farmer typology study in Ban Ping Noi has shown farmers with varying production objectives, strategies and alternatives. But the one with truly believe in the principles of co-existence has eventually made a complete conversion to pesticide-free vegetable production, after going through interactive learning and doing to develop skill and knowledge for vegetable production that is locally relevant.

The collective learning as facilitated by farmer field school approach has shown to be an effective approach of participatory learning, where knowledge enabling occurs through doing and sharing. The approach empowers farmers with analytical skills so that decision for action is being made on site. Farmers with few marketing experience are able to seek and carry out various outlets for distributing their pesticide-free vegetable products. Opportunities to interact with consumers allow farmers to modify their production plans and planting design. However, it is observed that a few farmers, after the first cycle of production, have withdrawn from the practices. The study does not look into the efficiency of the FFS approach. The weekly meeting seems to offer inflexibility, but the process itself is flexible and content is determined mainly by farmers. It is observed that farmers show varying degree of participation, some are more active than the others. However, at the end of the process, individuals have improved their participation by contributing their information and knowledge for the group.

The main reasons for certain farmers to dis-adopt the system are attributed to poor crop establishment and growth of newly introduced species, limited marketing outlets, small quantity of demand per day. The production process requires more labour than the conventional production system, but with better planning and planting design of diverse vegetable species, two family labours could manage production of 2 rai vegetables continuously.

The conditions conducive to the conversion to pesticide-free vegetable production systems seem to follow previous studies by others, both from within and outside the community. Farmer visioning, planning, seeking and negotiating partnership with external agents (research and development, marketing, etc), action and reflection through appropriate facilitating process. The enabling environment for learning, doing and sharing is important for cultivating collective action and rural empowerment. External agencies are necessary to participate in providing various forms of services, in such study, marketing arrangement would be utmost importance to provide farmer confidence and trust.