Explore the world of beekeeping <Part 7>

Conclusion

In this series, we have introduced various beekeeping methods, from traditional beekeeping in Ethiopia, Mozambique and Iran to modern beekeeping in Marumori, Miyagi Prefecture. Traditional beekeeping methods have been devised using available materials in the area to create beehives and utilize unused resources such as natural trees and mangrove nectar. It can be a cash income even for local farmers and women who do not own land without competing with agricultural activities that require large farmland. It was also found that it contributes to agricultural production by providing pollinator insects. At the same time, it can be a small business involving selling or renting bee colonies for pollination.

On the other hand, beekeeping that utilizes unused resources does not mean that honey can be produced indefinitely. It depends on the number of bee colonies as well as availability of nectar throughout the season. As introduced in the case of Marumori, it is necessary to recognize plants providing nector and to give sugar water in case honey sources are lacking. As an activity similar to hunter-gatherering, most traditional beekeeping activities have harmonized with nature by utilizing local resources and traditional knowledge. However, in recent years, bee-keeping tends to be a kind of commercial activity which does not recquire traditional methods and knowledge. Then, the burden on local resources also increases. As with cultivated agriculture, what used to be just a process of sowing seeds and waiting for fruit has changed. In pursuit of productivity, not only materials such as fertilizers and pesticides but also skills and knowledge about farming management are necessary. Without an opportunity for farmers to learn from each other about new technology as in the case of Mozambique, it would be difficult for ordinary farmers to learn and shift from traditional to modern methods.

In addition to those socio-economic changes, beekeeping is as sensitive to external factors as any part of an ecological system. During this series, one of our readers provided information about the large-scale disappearance of bees in what is called “colony collapse disorder” in the United States in 2006. Even though the cause has not yet been identified, multiple factors could be involved. Some reports point out influence of pesticides in the incident. During the activities in Ethiopia, the disappeance of bee colonies from modern hives frequently occurred. It is presumed that spraying of pesticides by neighboring farmers was a key factor. In addition, it is also said that climate change such as global warming affects bee-keeping activities by changing flowering periods of plants and suitable habitat for honey bees.

While beekeeping is an effective income activity for small farmers and women, what points should be kept in mind in order to promote it under the various changes and influences currently at work? The following three points can be stressed as key aspects throughout this series.

(1) Appropriate techniques: Consider beekeeping methods that suit the amount of local resources and the knowledge and skills of farmers, irrespective of whether best practice is ‘traditional’ or ‘modern’.

(2) Local efforts: Support individual beekeeping activities as a local industry by promoting opportunities for farmers to learn from each other.

(3) Balance with the natural environment: While utilizing finite but unused resources, recognize that this is of benefit to creatures (honeybees) that are sensitive to surrounding human activities and changes in the environment.

In order to put these points into practice for sustainable beekeeping, it will be necessary to carry out step-by-step activities through trial and error as a long-term effort. For improving skills and spreading knowledge to local communitie, this would be difficult to achieve in short-time trainings and experiments. Under these circumstances, the activities in Marumori cooperating with Zambia have great potential for promoting beekeeping, and we would like to appreciate such efforts.

A demonstration combining traditional, transitional and modern beehives in Ethiopia