

Improvement of *Apis cerana* Beekeeping Using the ICIMOD Bee Project as an Example

K.K. Shrestha*, A.N. Shukla*, S.R. Joshi**, H. Pechhacker** and E. Hüttinger**

* ICIMOD, Kathmandu, Nepal

**Institut fuer Bienenkunde, Lunz am See, Austria

The native Asian hive bee, *Apis cerana*, is resistant to *Varroa* and *Tropilaelaps* mites and other predators. This means that *A. cerana* honey can be an unpolluted health food. This bee is well adapted to its flora and climate and, along with other Asian bee species, is a good pollinator of native Asian flora. It is also a 'low-cost' bee as it requires no medication or sugar feeding and uses traditional hives. However, it has the disadvantages of a lower productivity than *A.*

mellifera, and heavy colony losses from Thai Sac Brood Virus Disease and a high swarming/absconding tendency.

Improvements in *A. cerana* beekeeping have to focus on three important steps.

Improvement of Technical Equipment

A moveable-frame hive in a self-made system with local materials is essential. The ICIMOD



Fig. 1 and 2. The improvement of *Apis cerana* beekeeping

Beekeeping Project uses a straw hive with moveable frames in a completely self-made form. This is the most important step.

Improvement of the Bee

Effective queen-rearing and selection need modern equipment and colony management. Figures 1-2 show that *A. cerana* 1998 is still at the same economic stage as *A. mellifera* 1900. World-wide *A. mellifera* has a much higher productivity than *A. cerana* because of higher

technical standards used in *mellifera* beekeeping and an effective response to selection over the last 50-100 years.

Training for Beekeepers

Training and accompanying scientific work are necessary in all project areas. A booklet, video films and slide shows have been made as training resources by the project. Other activities include practical things such as pollen traps, candle making, wax melting, etc.