



Improving Livelihoods through Beekeeping –

Knowledge partnerships and value chains for bee products and services in the Himalayas

INFORMATION SHEET #4/09

The majority of the people living in the mountains of the Hindu Kush-Himalayan region are poor; between 17 and 36% live in absolute poverty according to the World Bank. The poorest of the poor are in most cases landless or marginal farmers. Their livelihoods depend to a large extent on their access to, and the state of, local natural resources, and the weather, which influences production. If they are in a position to produce goods for sale, their livelihoods become more dependent on the conditions shaping their access to the market. Climate change in the Hindu Kush-Himalayan region is now challenging the productive potential of both agriculture and biodiversity, while people are becoming increasingly dependent on the income from sales of goods for their livelihoods.

Beekeeping offers a particularly useful possibility for poor and landless farmers to gain income as it requires minimal start up investment, can be carried out in a small space close to the house, and generally yields profits within the first year of operation. Bees provide honey, wax, propolis, royal jelly, beeswax, and bee venom for both home use and sale. In addition to the direct income from bee products, beekeeping generates off-farm employment opportunities in many fields including hive carpentry, honey trading, renting and hiring of bee colonies for pollination, and bee-based micro-enterprises. Beekeeping also supports agricultural production, forestry, and maintenance of biodiversity and natural resources through pollination services. But there are many factors that need to be addressed so that farmers and others can make the most of the potential of beekeeping to provide income for families and communities and to contribute to rural development in general.

Improving Livelihoods through Beekeeping

Many factors need to be addressed so that the poor farmers can benefit fully from beekeeping. The most important of these are exploring market opportunities by using a value chain approach; facilitating an enabling environment for trade in terms of national and other policies; improving the knowledge of development workers in topics related to the potentials of beekeeping including promoting awareness of the role of bees as pollinators in agricultural productivity and biodiversity.

Pro poor value chains for bee products and services from the mountains

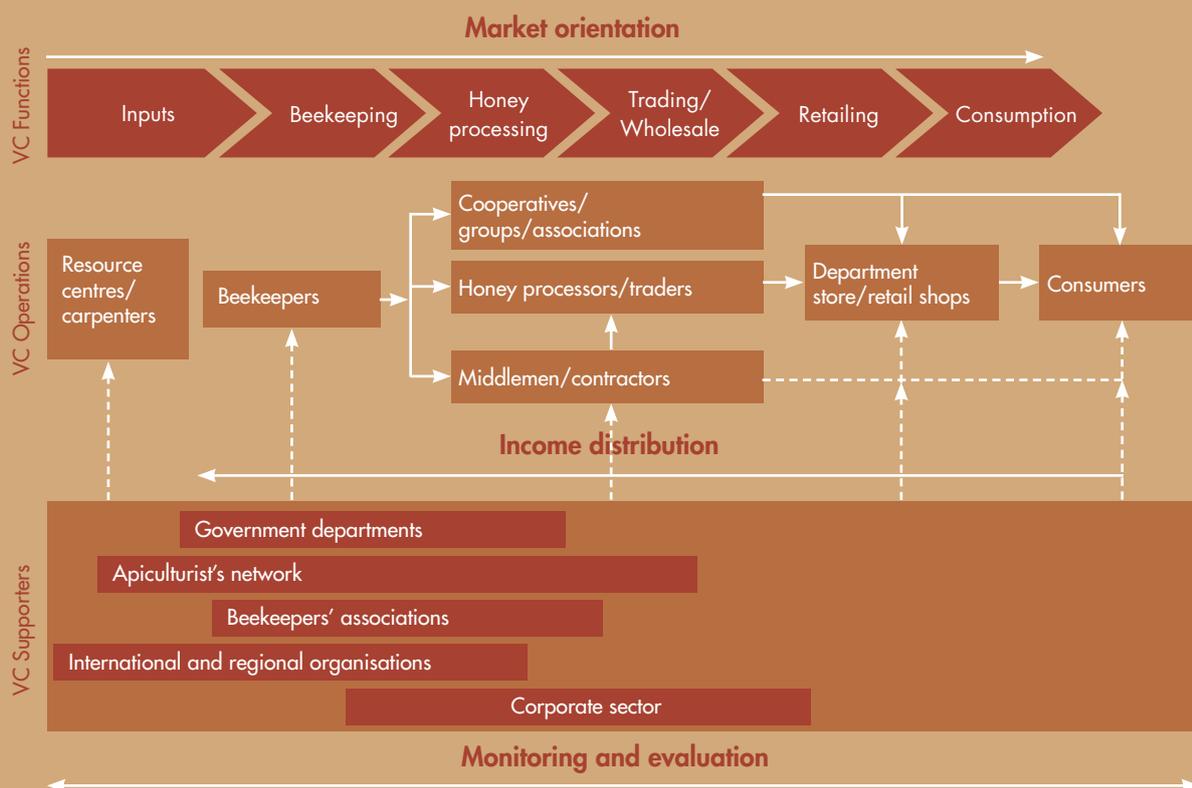
As a result of globalisation in the honey and bee product sector, it is difficult for farmers to access the best markets and sell their produce at a reasonable price. One way of addressing this is to use a value chain approach to analyse the market pathway and maximise benefits. This approach addresses the success factors that determine whether a product meets market requirements with regard to quality, price, dependability, volume, design, and speed of delivery, and thus improves competitiveness. A pro poor value chain for honey will help poor honey producers to improve their incomes from bee products



by bringing quality into their production and enhancing marketing prospects for their products.

The concept of a value chain approach is fairly new in the region and there are only a few organisations engaged in scaling up beekeeping using a value chain. In the past, most honey and bee-related development projects focused more on the promotion of beekeeping and the production of honey, rather than on the delivery of a product in a competitive market. At present most smallholder production and collection of honey in the Himalayan region remains outside the quality chain and beyond specific value addition activities, thus fetching a very low price.

Value chain map for honey



The pollination benefits of honeybees are enormous; they include agricultural production, food quality, and biodiversity. In the USA alone, the annual value of honeybee pollination to agriculture is around US\$ 15 billion (www.ars.usda.gov). The global value of pollination is estimated to be around US \$120 billion for pollination ecosystem services to US\$200 billion for the role of pollination in global agriculture.



A value chain is the sequence of productive processes from the provision of inputs for a particular product to production, transformation, marketing and distribution, and consumption. It systematically takes all steps of a production process into account, analyses the links and information flows within the chain and reveals the strengths and weaknesses in the process.

An enabling policy environment

Most countries in the HKH region do not have national monitoring plans for honey, a beekeeping census for traceability, national honey sample policies, good manufacturing practice (GMP) guidelines, or acceptable honey trade policies. This is hindering export of honey to international markets. Further, many developed countries do not allow import of honey from countries like Nepal, Pakistan, Bhutan, and Afghanistan which is leading to quality problems and distorted pricing mechanisms.

Informing the next generation of experts

Although many agricultural universities and training centres, vocational training institutes, and NGOs provide training in beekeeping, the content and delivery of the curricula vary and topics like the use of value chains, or gender and equity are rarely included in the courses. There is a need to develop standard regional academic curricula in agriculture for universities in the region, and to develop consistency in the curricula of vocational training institutes and NGOs.

Pollination and ecosystem services

There are good indications that there has been a marked decline in the diversity and abundance of pollinators as a result of indiscriminate pesticide use, land use change, and other factors, and that this is having an adverse impact on natural pollination, agricultural productivity, and maintenance of biodiversity. ICIMOD has made a focused effort in recent years to raise awareness of this issue and to promote honeybees as an input in agricultural production technologies. However, there is still a need to gather and disseminate information on the value of pollinators and pollination to agriculture and biodiversity to convince those at policy and planning level.

Networking

One of the most effective ways for farmers and entrepreneurs to gain a better understanding of the overall market situation and of improved techniques for production and marketing, as well as to influence national and local policies, is to work together in associations and to develop networks for knowledge exchange. The capacity of national and regional networks and pollinator initiatives still needs to be strengthened.

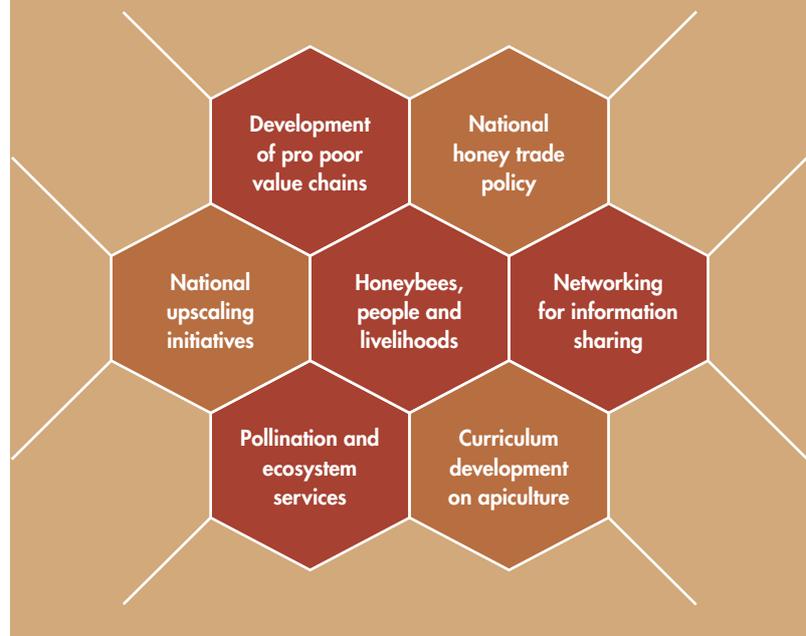


The ICIMOD programme

ICIMOD has been promoting beekeeping, raising awareness of the importance of honeybees as pollinators, and drawing attention to the important role of the region's indigenous bees for many years. The extensive network of partners that has been developed represents a valuable pool for promoting beekeeping and its products as a contribution to enhancing the resilience of mountain people to manage the impacts of global climate and socioeconomic change and also exploit the emerging opportunities.

Supported by the Austrian Development Agency, ICIMOD developed a new programme in 2008 to address the issues discussed above and develop ways to improve the livelihoods of poor beekeepers in the mountains. The main focus is on the following:

- Identifying appropriate interventions in the existing value chains of bee products, initiating community-led transformation in production systems at the grassroots level, and improving the marketing potential for smallholder beekeepers
- Improving the skills and knowledge of partners and stakeholders, and strengthening the technical capacity of partner organisations and key individuals in pro poor value chains for honey and other bee products through experience sharing and exchange visits
- Supporting the Himalayan countries in developing national monitoring plans, traceability parameters, national honey sampling policies, GMP guidelines, and honey trade policies to address the issues of quality and honey trade, by increasing understanding and supporting regional exchange
- Developing and strengthening partnerships with technical institutions and universities for curricular reform; and helping develop curricula on sustainable apiculture for a diverse range of stakeholders



- Identifying modalities of collaboration with global and regional initiatives and networks on pollination and pollinators; strengthening the capacity of ongoing international and national pollinator projects and initiatives; and disseminating knowledge and information on the value of pollinators to agriculture and ecosystems
- Scaling up of country initiatives, for example in Northern Afghanistan and the Chittagong Hill Tracts of Bangladesh
- Special support to value chain related networks of bee products in Nepal
- International cooperation with science focused beekeeping institutions

Authors

Farooq Ahmad, Uma Partap

Strategic Partner: Austrian Development Agency

Implementing Partners

Afghanistan – Agha Khan Foundation; Ministry of Agriculture

Bhutan – Renewable Natural Resources Research Centre

Bangladesh – Bangladesh Institute of Apiculture

China – Eastern Bee Research Institute

India – Dr YS Parmar University of Horticulture and Forestry; Central Himalayan Environment Association; Society for Technology Development

Myanmar – Ministry of Livestock and Fisheries

Nepal – Department of Agriculture; Apiculturists' Network; Alital multipurpose Cooperative Ltd; Federation of Nepal Beekeepers

Pakistan – Honeybee Research Institute; NWFP Agriculture University; Agha Khan Rural Support Programme

For further information contact

Farooq Ahmad: fahmad@icimod.org

Uma Partap: upartap@icimod.org

This programme was made possible through special support from



Photos: Gilles Ratia, Surendra R. Joshi, Farooq Ahmad

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International Centre for Integrated Mountain Development

GPO Box 3226, Kathmandu, Khumaltar, Lalitpur, Nepal

Tel +977-1-5003222 **email** info@icimod.org **www** www.icimod.org