

## **40. Adoption and Profitability of Kenyan Top Bar Hive Bee Keeping Technology: A Study in Ambasel Woreda of Ethiopia**

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**Abstract:** The data for this study was taken from Ambasel Woreda of Amhara National Regional State. A simple random sampling was employed to draw a total of 100 respondents for the study. Primary data from the respondents and secondary data from different organizations were collected and used for the study.

Descriptive statistics were used to compare the technologies of beekeeping i.e., the traditional indigenous technology and the improved Kenyan Top Bar Hive technology (KTBH) with respect to the different attributes under considerations. An in-depth assessment in relation to beekeeping characteristics of the groups was made. Logit model was used to identify the factors influencing the adoption of KTBH. For the Logistic regression model 14 variables were included and analyzed. Of these four variables, namely farming experience, perception of timely supply of the technology, visit of apiary and extension contact were found to influence the adoption of KTBH significantly. Profitability analysis was employed to compare per hive net return between traditional hive and KTBH. Benefit-cost ratio was also analyzed to measure the feasibility of a proposed project using each type of hive. Different components of costs, annual yield and income for the two types of hives were considered for the profitability analysis and partial budgeting. Homemade KTBH and institutionally provided KTBH were compared independently against the traditional hive. The result revealed that the yield and per hive net return obtained from the home made KTBH and institutional KTBH is greater than the yield and net return from traditional hive. Beekeeping using KTBH results a higher Benefit Cost Ratio (BCR), Net Present Value (NPV) and Internal Rate of Return (IRR) than the traditional hive. Implications of this study are that targeting experienced farmers, encouraging apiary visit, timely supply of KTBH, improving extension contact, and promotion of KTBH utilization are the utmost priority areas of interventions to promote the adoption of KTBH for higher production and profit.

**Keywords: Adoption; Profitability; Bee Hive Technology; Logit Model**