Indicators for measuring achievements in beekeeping development

Those of us who work in the field of beekeeping and development are trying to bring about change. Change in community wellbeing, change in the status of our natural resources – or a change in practice or behaviour. As we embark upon our plan to bring about this change we need to set out clear aims and objectives. How do we know we have achieved our objectives? This is where indicators are useful. Indicators help us to measure our progress and achievements.

What is an indicator?
Indicators are ways to measure, a way of saying “how much”, “how many”, “to what extent”, or “what size.”? Measuring is essential to know if we are making progress. Also donors need to know what was achieved with their money.

http://sustainablemeasures.com/Training/Indicators/Indicatr.html

Different levels of achievement
Our project work involves implementing activities. The consequence of these activities will be project results or outputs. For example, beekeeping training is an activity, and a trained beekeeper is an output. Provided we have planned our project well, and based it on good problem analysis, the cumulative achievement of project outputs should bring about a higher level change – sometimes known as project purpose or outcome. Trained beekeepers can earn income for their families, hence we achieve our project outcome. The Figure below shows the relationship between different levels of achievement.

We need to measure our outputs and the overall outcome and we need to set out clear indicators to help us do this. It is also important to measure impact but in this Factsheet we discuss output and outcome indicators.

Output and outcome indicators in beekeeping
Below are some of the indicators applicable in many beekeeping projects. This list does not apply to every beekeeping project, and the list is not exhaustive. A manageable project usually has one Outcome and up to 5 Outputs.

Outcome and output indicators in beekeeping

Outcomes
- Percentage change in household income from beekeeping related activities
- Area of forest planted and managed as bee forage
- Employment in honey or beeswax value chain
- Total volumes of honey and/or beeswax produced or traded
- Proportion of household income from beekeeping
- Value of pollination services from bees
- Proportion of local honey brands versus international honey brands on sale
- Change in rate of soil loss from land under beekeeping use
- Proportion of land area formally established as bee reserve

Outputs
- Number or percentage of farmers who started beekeeping
- Number or percentage of beekeepers who sell honey and beeswax as differentiated products
- Number or percentage of farmers, or school children, aware of the importance and services of bees
- Rate of adoption of beekeeping, or a particular practice
- Number or percentage of farmers having knowledge of a specific beekeeping technology being disseminated by extension system
- Number or percentage of beekeepers in contact with a national beekeepers’ organisation
- Number and/or percentage of beekeepers expressing satisfaction with service delivery by a national beekeepers’ organisation
Outputs (continued)

Number of beekeeping communities involved in sustainable forest management
Volumes of hive products exported
Number of trade bottlenecks removed
Number of apiaries with fire-breaks
Volume and/or proportion of certified hive products on the market
Existence of apiculture policy
Number of students enrolled into apiculture diploma course
Number of issues of Bees for Development journal published
Number of seedlings of bee forage trees raised and planted
Percentage or number of beekeepers using specialist extension services
Percentage of rural beekeepers eligible to obtain a business loan
Percentage of rural beekeepers using financial services
Percentage of beekeepers satisfied with the banking services
Average annual honey and beeswax sold per household
Yield of honey and beeswax per household apiary
The number of honey traders who specialise in table honey
The number and/or percentage of beekeepers selling their products through a co-operative
Number and/or percentage of honey hunters who have changed to become beekeepers
Number and/or percentage of beekeepers expressing satisfaction with their current marketing channel
Tonnage of honey bought by the honey co-operative
Number of people trained and reached adequate level of proficiency in beekeeping
Number of household or group apiaries established
Number of beekeepers trained to become Community Based Beekeeper Mentors
Percentage and/or number of beekeepers who report being assisted by a Community Based Beekeeper Mentor
Number of enterprises making and selling bee suits and smokers
Number of enterprises making and selling value added products using honey and beeswax
Number of new trading links established between beekeepers and buyers

| Number of new collection centres established |
| Volume of honey collected at village collection centres |

This is not a complete list. You may need to develop your own indicators. Remember that indicators are there to help you to measure change. When selecting an indicator you need to ask yourself: “How can I measure this change?”. So, for example, we can easily see that measuring the volume of beeswax traded is possible using quantitative measures. Measuring a change in satisfaction with extension services is going to require a different type of metric.

Targets, and making your indicators specific, by including units and a time-frame

A target tells what you intend to achieve. An indicator tells what you are going to measure. Together targets and indicators need to be as specific as possible and must include units, a time-frame and other metrics. To take an example from the table above, number of apiaries with fire-breaks. This is our indicator – but we need to make it specific and add a target. So, for example: Our target is for 80% of new apiaries established in Itengule to have a well-maintained firebreak of not less than 1 m in width by March 2018.

Whether targets and indicators are combined, or stated separately, is up to you (or your donor). But remember an indicator without a target is only half the story. One of the advantages of stating indicators and targets separately is that it is easier to set out intervening milestones. Below are examples of how to combine or separate indicators and targets.

Making your indicators specific

**Indicators and targets shown separately:**
Indicator: We are going to measure the change in household income from beekeeping.
Milestone: 80 households in Itengule earn US$30 (€25) of additional income by end of Year 1.
Target: 100 households in Itengule will earn US$50 (€42) of additional income by end of Year 3.

**Indicators with target combined:**
Our target is for 100 households in Itengule to earn additional income of US$50 (€42) from beekeeping by March 2018.

Feedback: Please tell us what Indicators you use to measure your achievements in beekeeping projects.
**Contact** info@beesfordevelopment.org

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