



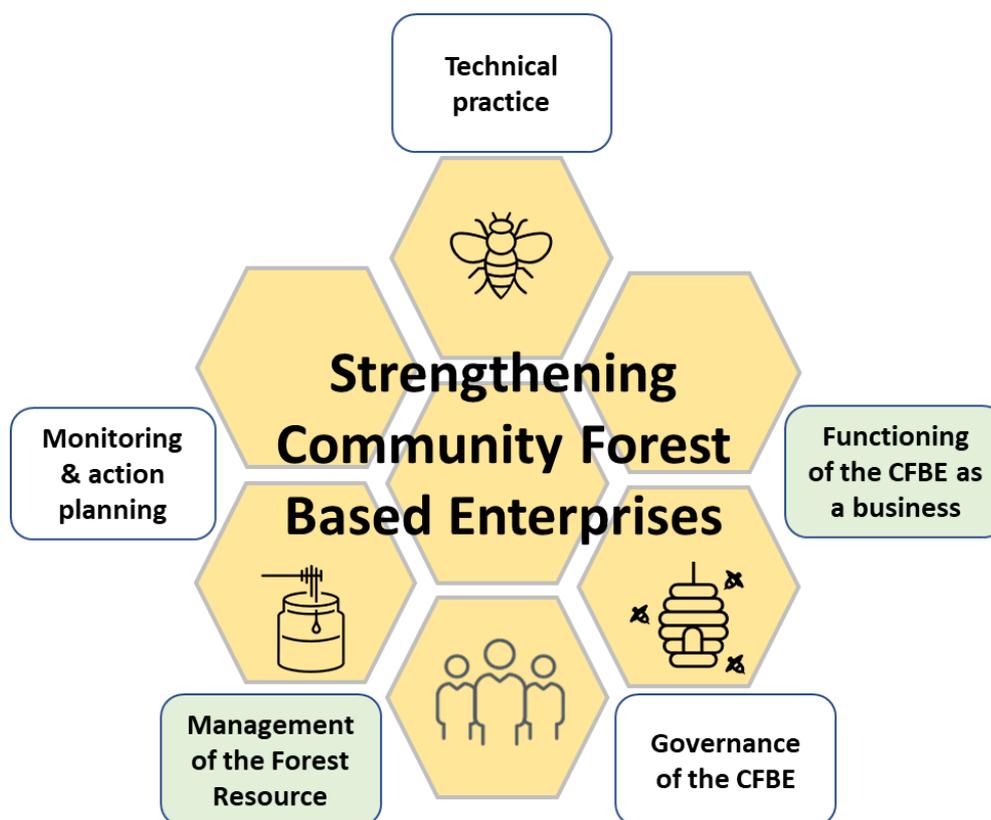
Ministry of Green Economy and Environment

Zambia Integrated Forest Landscape Project

Improving lives through sustainable management of natural resources

STRENGTHENING COMMUNITY FOREST BASED ENTERPRISES

A MONITORING AND BEST PRACTICE GUIDE



GLOBAL ENVIRONMENT FACILITY
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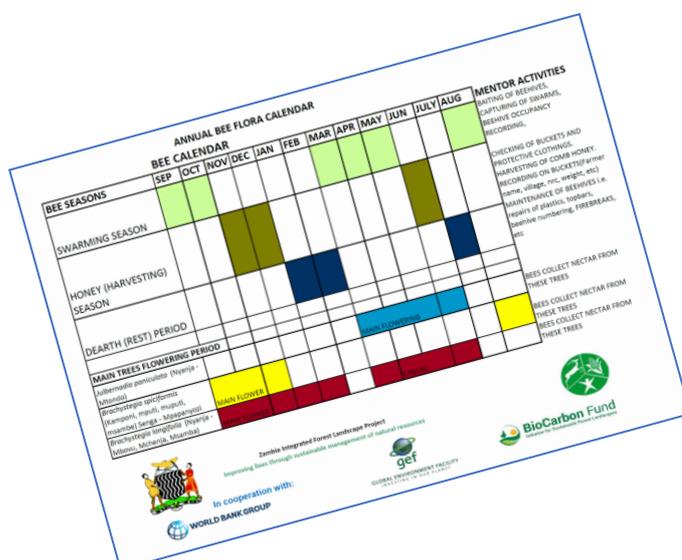
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Acknowledgements

This document presents guidance material developed by Community Markets for Conservation (COMACO) under the Technical Service Provider (TSP) contract with the Zambia Integrated Forest Landscape Project (ZIFLP). Its primary objective is to advocate for the sustainable management of community forests and protected forest areas, involving community forest management groups (CFMGs) and traditional leaders.

The completion of this write-up was made possible through the collaborative efforts and technical contributions of various individuals. Special recognition is extended to COMACO's TSP core team led by Mr. Martin Kambing'a, the GIS/Carbon Specialist at COMACO Eastern region. The team played a pivotal role in collecting field data, conducting analysis, and contributing to the design and composition of this manual. Their dedication was instrumental in the successful execution of the TSP contract with ZIFLP.

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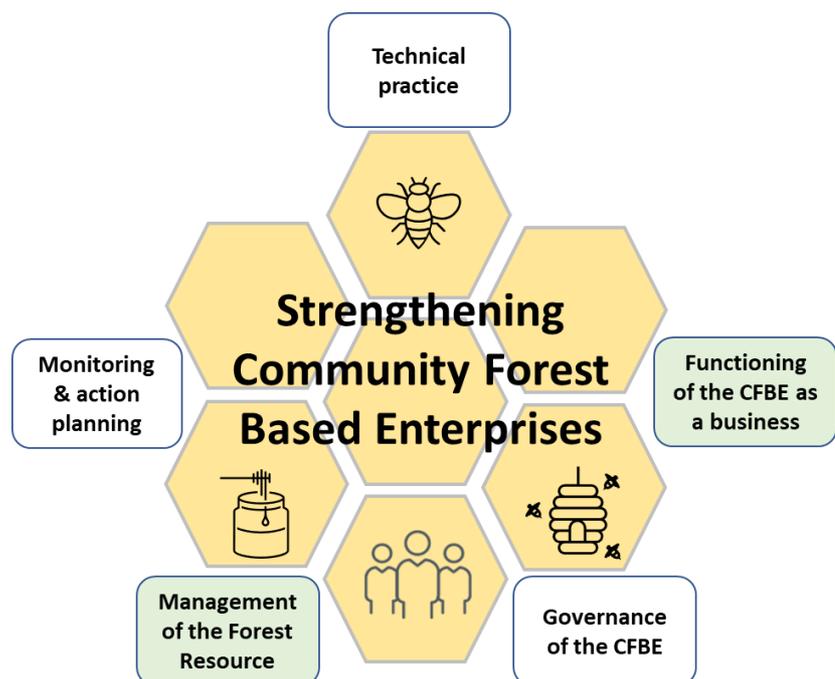


Executive Summary

This guide supports the process of community forestry in Zambia through strengthening community enterprises that promote sustainable forest management whilst improving the livelihoods of rural communities. The Zambia Integrated Forest Landscape Project (ZIFLP) is a Government initiative which aims to provide support to rural communities in the Eastern Province to allow them better manage the resources of their landscapes so as to reduce deforestation and unsustainable agricultural expansion; enhance benefits they receive from forestry, agriculture, and wildlife; and reduce their vulnerability to climate change.

Through ZIFLP, Community Markets for Conservation (COMACO) has been providing technical support to communities in Eastern Province on developing non timber forest product value chains and assisting communities to access enterprise investments support under ZIFLP. The main purpose of this guide is to enhance the performance and growth of existing Community Forest Based Enterprises (CFBEs) through highlighting best practices in beekeeping for honey production as a business so they can maximize on production and their income generation potential. Although the technical elements are focused on beekeeping, this guide is helpful to forest extension practitioners in monitoring of CFBEs by providing a framework for strengthening technical and business skills whilst mentoring the community groups to strengthen enterprises across different value chains. The guide focuses on the following core aspects of viable and profitable CFBEs covering: (1) Technical practice; (2) Functioning of the CFBE as a business; (3) Governance of the CFBE; (4) Management of the forest resource, as well as (5) Monitoring and action planning.

A key questions checklist was developed and tested through monitoring and support mentoring visits conducted by COMACO during 2022 and 2023 to selected CFMGs across the Eastern Province.



ZIFLP - Strengthening CFBEs: Rapid Assessment Key Questions



Technical practice	Quality & placement of beehives	<input type="checkbox"/> Are beehives made according to required standards? <input type="checkbox"/> Are beehives painted or non-painted for organic honey production? <input type="checkbox"/> Are beehives placed correctly (max 7 hives/ha) in the forest? <input type="checkbox"/> Is there enough water and forage for bees? <input type="checkbox"/> Are hives hanged at a correct height (approx. 2.5m)? <input type="checkbox"/> Are hives protected from ants, mice and other predators? <input type="checkbox"/> Are all beehives baited correctly, colonized, monitored and recorded?
	Harvesting, processing & marketing	<input type="checkbox"/> Is there a beekeeping calendar and is it adhered to? <input type="checkbox"/> How often is harvesting taking place? <input type="checkbox"/> Who does the harvesting? <input type="checkbox"/> Is there sufficient harvesting equipment, maintained in good order? <input type="checkbox"/> Are correct harvesting techniques being followed to protect the colony? <input type="checkbox"/> Is the processing and storage of comb and liquid honey to required standard? <input type="checkbox"/> How is honey & other products presented for sale?
Functioning of CFBE as a business	Business planning	<input type="checkbox"/> Is there an existing business plan (BP)? <input type="checkbox"/> Were all members involved in formulating the BP? <input type="checkbox"/> Do all members understand the BPs? <input type="checkbox"/> Is the BP being followed? Check the plan and comment on its relevance
	Production & sales	<input type="checkbox"/> Is there sufficient production and sales to sustain the CFBE? <input type="checkbox"/> Have sales taken place and what was the Marketing process?
	Business viability	<input type="checkbox"/> Is there reinvestment of revenue in the running of the enterprise and replacement of equipment? <input type="checkbox"/> Have recurring and fixed costs been identified and covered? <input type="checkbox"/> Have maintenance and replacement costs been identified and covered? <input type="checkbox"/> Has an income and expenditure report been prepared from the cashbook?
Governance of the CFBE	Ownership	<input type="checkbox"/> Is the CFBE and the CFMG the same or a sub group of the CFMG? <input type="checkbox"/> Does the group have the mandate to manage, are they recognized by others? <input type="checkbox"/> How many members are in the group by gender? <input type="checkbox"/> How often do the group members meet and how are they involved in activities/ decisions? Are meetings minutes available?
	Accountability & benefit sharing	<input type="checkbox"/> Are there accountability mechanisms - constitution; elections; reporting; consultation? When was the last? When is the next AGM? <input type="checkbox"/> Is revenue recorded & reported? How is it used? <input type="checkbox"/> Is there a bank account and who manages it? <input type="checkbox"/> Is there a benefit sharing mechanism (BSM)? <input type="checkbox"/> Is surplus revenue shared and to whom? <input type="checkbox"/> Are there any conflicts? <input type="checkbox"/> Is there a Grievance Redress Mechanism and is it being followed?
Management of the Forest Resource	Protection & control	<input type="checkbox"/> What is the condition of the forest to support the enterprise? <input type="checkbox"/> Is access to resource base (beekeeping sites) controlled? <input type="checkbox"/> Is monitoring taking place and how often? <input type="checkbox"/> Are there customary resource use rules? <input type="checkbox"/> Are there any specific rules relating to beekeeping? <input type="checkbox"/> What are the sanction mechanisms and how are these rules enforced?
Monitoring & action planning	Use of management tools	<input type="checkbox"/> Is there a periodic work/activity plans with targets? <input type="checkbox"/> Is there monitoring of CFBE activities and assessment of general performance? <input type="checkbox"/> How is it done and who is involved in monitoring?
	Assessing change & performance	<input type="checkbox"/> Has this influenced their planning of activities? <input type="checkbox"/> Can the FBEs/communities explain any changes to themselves and their forest since the enterprise started? <input type="checkbox"/> Are there any special difficulties in running the business? If yes, how are these difficulties addressed? <input type="checkbox"/> What special successes have CFBEs achieved in running their business? <input type="checkbox"/> Can their learning & success stories be documented and used for publicity? <input type="checkbox"/> Develop an action plan based on the results of the rapid assessment.

Document findings, develop action plan with CFBE to strengthen their business and improve their livelihoods

1. Introduction

COMACO was selected as a Technical service Provider (TSP) by the Zambia Integrated Forest Landscape Project (ZIFLP) to assist community forest management groups (CMFGs) in the Eastern Province to identify appropriate forest value chains which had the potential to generate income. Selected groups applied and received grant support under ZIFLP to conduct beekeeping in their community forest management (CFM) areas. The support from COMACO focused on building the capacity of the Sub-groups and the district multi-sectoral teams (DMTs) to attain the following underlying objectives:

- Provide clear guidance for business plans for specific forest-based value chains (e.g., honey, mushroom, wild fruit, forest-based tourism, etc.) that will lead to sub-grant proposals for community level implementation;
- Undertake training with interested members of the Community Forest Management Group level in specific skills to produce non-timber forest products, and where appropriate for meeting necessary market food safety standards, provide pre-processing skills for value-addition of forest products;
- Develop and improve resource management regulations enforced by the CFMGs for the protection and regulated harvesting of selected resources designated for these specific value chains.

Through this approach, it is expected that the communities will be able to implement their own Forest Management Business Plans through support from DMTs for each Community Forest Area (CFA) identified. Over 14 grant aided sub-groups were trained in beekeeping and honey production processes including development of business plans, governance instruments, and grant application. Most of these communities received funding for their project activities and implementation is on-going. Therefore, this guide is based on learning from the monitoring meetings that were conducted with all CFBEs and their respective DMTs, including consultations with traditional leadership.

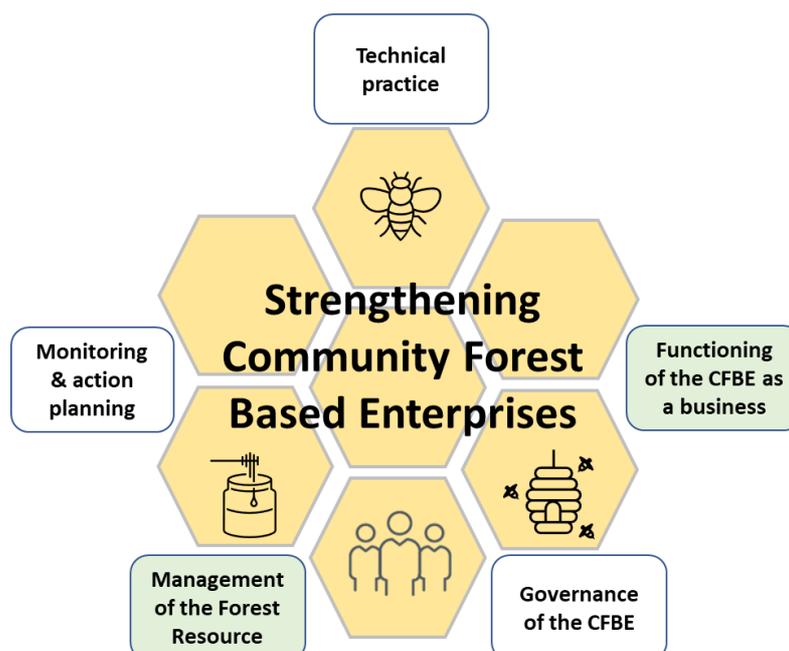
2. Review of ZIFLP CFBEs

This section presents the learning from field monitoring of a series of CFBEs during 2022 and 2023 which focused on the following key areas: (1) Technical practice; (2) Functioning of CFBE as a business, (3) governance of the CFBE (4) Management of the forest resource including (5) Monitoring and action planning. Furthermore, challenges that are preventing CFBEs from achieving their full potential as a viable business were identified. These challenges were analysed, and a series of recommendations are provided with the aim of promoting best practice for maximizing on production and eventual growth and profitability of the CBFs.

Within the framework of the technical support service, COMACO conducted a performance assessment of CFBEs in order to:

- Establish the challenges CFBEs have been facing in production, processing and marketing in their respective value chains, beekeeping and honey production processing, being the main activity.
- Identify the lessons learnt and best practices in developing their enterprise.
- Develop a simple easy to follow monitoring guide for district extension staff of the DMTs in order to continue mentoring the CFBEs.

In order to complete this task, field visits and review meetings with CFBEs and DMTs were held in Chadiza, Mambwe, Vubwi, Petauke, and Kasenengwa. All CFBEs and DMTs were given chance to share their views and experiences. The traditional leadership, that is, headmen, indunas, and chiefs were also consulted. This simple guide is organized in sections, each addressing particular common issues related either to challenges, lessons learnt and best practices of project implementation, including the monitoring and mentoring of CFBEs. The sections are as follows: Technical (assessment of Beekeeping) practice; functioning of the CFBEs; governance of CFBEs and Management of the Forest Resource. Thereafter, the last section covers a checklist for the guide to be used when carrying out monitoring and mentoring of CFBEs. The key questions checklist is arranged in a logical order that should ideally be followed in order to identify solutions that lead to improved performance and profitability.



3. Technical Practice: Assessment of Beekeeping Practice

Technical practice

This sub-section covers an assessment of technical practices in line with the trainings conducted and information and other guidance provided. The main value chain developed by communities was forest honey and the assessment was in relation to training conducted and beekeeping manuals which were distributed in local language to all CFBEs. Two subject areas of quality and placement of hives, as well as the practice of harvesting, processing and marketing of honey should be considered. In order to thoroughly review these two aspects, a series of questions should be posed or assessed by the monitor:

Quality & placement of beehives

- Are beehives made according to required standards?
- Are beehives painted or non-painted for organic honey production?
- Are beehives placed correctly (max 7 hives/ha) in the forest?
- Is there enough water and forage for bees?
- Are hives hanged at a correct height (approx. 2.5m)?
- Are hives protected from ants, mice and other predators?
- Are all beehives baited correctly, colonized, monitored and recorded?

Harvesting, processing & marketing

- Is there a beekeeping calendar and is it adhered to?
- How often is harvesting taking place?
- Who does the harvesting?
- Is there sufficient harvesting equipment, maintained in good order?
- Are correct harvesting techniques being followed to protect the colony?
- Is the processing and storage of comb and liquid honey done to required standards?
- How is honey & other products presented for sale?

Based on the investigations the following issues and points are highlighted:

- **Quality beehives:** based on site visits, beehives for most of the CFBEs were of poor quality in comparison to acceptable standards originally advised. For example some beehives had very large top bars which can affect productivity negatively. Other beehives had very large holes as entrance for Bees. This could easily allow predators like snakes to easily attack the bees. Bees usually fill up the gaps/spaces in the beehives but it has the effect of reducing production time for Bees and comb production which eventually negatively affect profit maximization.
- ✓ **Best practice:** Quality hives should be purchased, and checked before delivery to the sub-groups to ensure they are of the required standards. To ensure beehives are of required

Bee keeping
User Manual

manufacturing standards. Refer to the beekeeping manuals (page 4) earlier distributed to all CFBEs.

- **Painted beehives:** Most of the CFBEs procured painted beehives. While a common practice in the past, this is discouraged because most of the oil-based paints release toxic chemical substances which affects the quality of honey produced and to some extent the paint negatively affect occupation rate for the beehives. Further, honey harvested from painted beehives cannot penetrate certain organic markets which has potential to reduce product sales and therefore impact on profit maximization.
 - ✓ **Best practice:** where possible, procure non-painted beehives. This helps in producing good quality organic honey that is able to penetrate any type of market. Further, it can also help to improve rate of occupation of beehives.
- **Placement of beehives:** Some CFBEs had their beehives placed very close to each other such that many would occupy a small area. This is not a good practice because it may put high pressure or competition for resources in a particular forest area in terms of water, and forage. Naturally, bees do not often choose to build a colony next to another existing colony, so this even makes the occupation rate to be low for hives that are placed too close in proximity.
 - ✓ **Best practice:** Hang at least 7 beehives per hectare or leave a radius of 20 meters in between beehives. This reduces competition for water, forage and any other materials Bees need for honey production.
- **Beehive hanging height:** Some sub-groups hanged beehives at heights very close to the ground with risks of fires, theft and predation. If bees are constantly disturbed by fire occurrences or any other attacks, they end up deserting or absconding. This has a negative impact on honey production and profit maximization.
 - ✓ **Best practice:** Hang beehives at least 2.5m from the ground on a very strong branch of any big tree. If there are no big trees, improvisation can be carried out where a strong stand is erected to hold the beehives. That way bees are protected from fires, theft and predation.
- **Timing for beehives placement:** Some of the CFBEs did not hang the hives at the right time as guided by the beekeeping calendar partially due to delays in procurement of beehives and associated equipment, in other sites the delay was not known. This has a negative effect on beehive occupation rates.

- ✓ **Best practice:** always stick to the beekeeping calendar when it comes to hanging of beehives.
 - ✓ **Best practice:** If in case the beehives and associated equipment is procured at a time when the calendar does not allow hanging, it is important to wait until the opportune time for hanging according to the beekeeping calendar.
- **Regular beehive monitoring:** For most of the sub-groups, monitoring of beehives to check on occupation, and general well-being of the bees was rarely conducted while for some groups monitoring was never even conducted. This resulted in groups not having information on the status of the hanged beehives, making it difficult to measure progress.
 - ✓ **Best practice:** conduct regular field visits to monitor occupation, condition of beehives, rebaiting of unoccupied beehives and general well-being of Bees.
 - **Beehive occupation:** The rate of occupation for beehives was very low (approx. less than 20 percent) in relation to the number of hives that were placed. This has a negative effect on production and profit maximization.
 - ✓ **Best practice:** conduct follow up field visits regularly and check on beehive occupation to inform planning. This will be instrumental in strategizing on how to increase occupation and later on boost production and profits.
 - **Adequate beekeeping equipment (tool kit):** Some of the CFBEs did not have all the equipment required for beekeeping mainly due to delays in procurement or lack of funds. In some CFBEs that had procured all the equipment, the quality was not always satisfactory. This has a negative effect on beekeeping operations and later on production and profit maximization.
 - ✓ **Best practice:** ensure that all beekeeping equipment of required standards are procured in good time before the start of beekeeping operations. It is advised that specification be sought from the beekeeping manuals and the Forestry Department in advance of procurement.
 - **Storage facilities:** Some CFBEs had not completed construction of storage facilities due to either delays in procurement then construction or lack of funds. This made it very difficult for sub-groups to store beehives and equipment. As a result for instance beehives were stored in open spaces which exposed them to risks of vandalism, theft and termite attack. One group did not conduct harvesting simply because they did not have adequate storage facilities.

- ✓ **Best practice:** Storage facilities should be constructed and made available right before procurement of beehives, materials, and any equipment required for the beekeeping process.
 - ✓ **Best practice:** when storing beehives, do not keep them in direct contact with the ground (floor) but pile them on a stand to avoid termite attack.
- **Honey processing and packaging:** Although all CFBEs had not started harvesting honey for processing, most of the them didn't have in place the infrastructure and equipment ready for processing and packaging honey products to the required market standards.
 - ✓ **Best practice:** CFBEs should ensure that infrastructure and processing equipment is procured and installed if at all their plan is to process comb honey.
 - ✓ **Best practice:** Processing comb honey gives more value for honey. Every target have standards required for processing honey. Therefore, CFBEs should explore and process their honey based on specific market standards for easy penetration and consequent sales.
 - **Honey Harvesting**

Harvesting honey is a fairly flexible task. As long as you keep the basic needs of your bees in mind, it's hard to go wrong when picking a time and date to harvest! During field visits, it was observed that some sub-groups were harvesting comb honey at a time not very conducive for the activity.

 - ✓ **Best practice:** Harvest in the middle of the day, between 9 a.m. and 3 p.m. This will make your job easier because many of your bees will be out collecting nectar. Harvesting on a warm day can be good because it is easy to avoid complications that arise when the honey is cold, hard, and difficult to extract. However, for most African bees, this is the time Bees are most active and very vicious, so it can be a great risk to the beekeeper.
 - ✓ **Best practice:** For most African bees, honey harvesting can best be performed late in the afternoon or delayed until night or very early morning when bees are inactive and less aggressive.
 - ✓ **Best practice:** The beekeeper carry with them a complete harvesting kit (smoker, brushes, and protective clothing – veils, gum boots etc.).

In addition to the beekeeping user manual, a number of community members in each CFBE were trained as beekeeping mentors. A Beekeeping Mentor and Hive Management

Manual was developed to support the training of mentors and should be referred to whenever you are checking for beekeeping technical practices.

BEEKEEPING MENTOR AND HIVE MANAGEMENT MANUAL

ZIFLP approach is to promote sustainable honey production through the use of modern beehives and support the following objectives:

- Preserve bee populations by using sustainable management practices that prevent deforestation,
- Help small-scale farmers living around the forests earn income from the sale of high quality honey.
- Increase the supply of honey to access better-paying premium export markets in collaboration with the private sector.

The operations are designed to support the conservation of the forests and will be organized around the various roles of beekeeping mentors in the community based led groups (cooperatives) who will maintain a standard of apiary management and quality of honey collected for purchase by the private sector.

1. WHO IS A MENTOR?

The MENTOR is an individual who resides in the area and has a proven interest and knowledge in beekeeping. The mentor is selected by the Community led groups after being trained, examined, and proven capable. He will manage his/her area according to the following responsibilities:

1.1.1. Role of the mentors

- Assemble the beehives and assist farmers in suspending them in forest reserve
- Collect data and compile data in occupation of beehives, damages of hives and harvesting results
- Organize the distribution of buckets and harvesting inputs
- Organize the harvesting in teams and supervise the harvesting of honey
- Guarantee that the honey arrives at a bulking centre for storage
- Supervise harvesting teams and guarantee quality of honey
- Comply with organic standards; make sure all buckets have *names of farmers, weight and origin indicated*.
- Arrange meetings with hive owners for honey purchasing and organize other meetings if necessary

4. Functioning of the CFBE as a business

Functioning of CFBE as a business

This section covers issues arising from various business functions that should be carried out by CFBEs for smooth and successful operation of their enterprise. Three subject areas of business planning; production and sales; as well as business viability should be assessed.

Business planning

- Is there an existing business plan (BP)?
- Were all members involved in formulating the BP?
- Do all members understand the BPs?
- Is the BP being followed? Check the plan and comment on its relevance

Production & sales

- Is there sufficient production and sales to sustain the CFBE?
- Have sales taken place and what was the Marketing process?

Business viability

- Is there reinvestment of revenue in the running of the enterprise and replacement of equipment?
- Have recurring and fixed costs been identified and covered?
- Have maintenance and replacement costs been identified and covered?
- Has an income and expenditure report been prepared from the cashbook?

- **Business planning:** For some CFBEs, there was observed deviation from the business plan (despite guidance from the TSP). At the outset of establishing CFBEs, most sub-groups were supported in developing a business plan, covering procurement of beehives and equipment, production planning, costs of production and management; projected future sales; reinvestment and replacement of equipment. This document is a planning tool that should be revisited and revised as needed. It also provides the guidance on recurring fixed costs that should be considered before revenue sharing or any other dividends are issued.

- ✓ **Best practice:** The business plan should always be used as a management tool and referred to frequently to alert the management team to future needs, costs and liabilities. This includes recurring costs of mentors, forest guards, beehive repairs as well as replacement.

- **Following the Bee keeping calendar:** Some of the sub-groups had hanged hives at wrong periods of the season without taking into consideration the bee

ZIFLP NON Forest Products Enterprise						
Malambalala						
Total farmers in area						
Total number of farmers = 70						
1. Productivity						
Period (12 months)	Occupation Rate	Harvesting Potential	Selling price			
			Commercial/Industrial			
Year 1	50%	12kg/hive	K15.00			
Year 2	70%	15kg/hive	K15.50			
Year 3	80%	18kg/hive	K20.00			
2. Personnel						
Item	Number	Monthly allowance	Annual allowance	Total annual cost	Apportioned annual cost per farmer	
Forest guards	5	K 500.00	K 6,000.00	K 30,000.00	K 428.57	
3. Equipment						
Item	Qty	Estimated Cost (Ksh)	Total cost			
Beehives	100	450	K 45,000.00			
4. Logistics and training						
Bee hive logistics						
Item	Qty	Unit	Unit cost	Total Cost	# hives per load	Cost per hive
Fuel (delivery truck)	40	litre	K 13.50	K 540.00		
Excursion (driver)	2	Days	K 550.00	K 1,100.00		
Accommodation (driver)	1	Night	K 350.00	K 350.00		
Fooding and offloading	1	400 truck's load	K 70.00	K 70.00		
			K 1,340.00		100	K 13.40
Training of mentors						
Item	Qty	Unit	Unit cost	Total Cost	Total # of hives	Cost per hive
Mentors	1	Members	K 60.00	K 60.00	100	K 0.60
Total logistics & training cost per hive K 13.60						
5. Repairs and maintenance						
Bee hive maintenance by mentor						
Item	Qty	Unit	Unit cost per month	Total yearly cost	Total # of hives	Cost per hive
Labour	1	Members	K 200.00	K 2,400.00	100	K 24.00
Maintenance (e.g. nails)	1	Members	K 50.00	K 600.00	100	K 6.00

keeping calendar. The calendar is an important planning instrument used to guide what and when to procure, hang and bait beehives. It further guides on other important forest and beekeeping operations that are a requirement for a successful beekeeping and honey production process.

- ✓ **Best practice:** CFBEs to always consult the beekeeping calendar when planning beekeeping operations.

ANNUAL BEE FLORA CALENDAR
BEE CALENDAR

BEE SEASONS	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JULY	AUG	MENTOR ACTIVITIES
SWARMING SEASON													BAITING OF BEEHIVES, CAPTURING OF SWARMS, BEEHIVE OCCUPANCY RECORDING,
HONEY (HARVESTING) SEASON													CHECKING OF BUCKETS AND PROTECTIVE CLOTHINGS. HARVESTING OF COMB HONEY. RECORDING ON BUCKETS(Farmer name, village, nrc, weight, etc)
DEARTH (REST) PERIOD													MAINTENANCE OF BEEHIVES i.e. repairs of plastics, topbars, beehive numbering, FIREBREAKS, etc
MAIN TREES FLOWERING PERIOD													
<i>Julbernardia paniculata</i> (Nyanja - Mtondo)													BEEES COLLECT NECTAR FROM THESE TREES
<i>Brachystegia spiciformis</i> (Kampani, mputi, muputi, msambe) Senga - Mpapanyozi													BEEES COLLECT NECTAR FROM THESE TREES
<i>Brachystegia iong'ofolia</i> (Nyanja - Mbovu, Mchenja, Msamba)													BEEES COLLECT NECTAR FROM THESE TREES



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In cooperation with:



- **Beehive monitoring:** Most of the CFBEs were not carrying out frequent beehive monitoring. This resulted in them not having updated information on the status of Beehives in terms of occupation rate, honey production by Bees, and general condition of the beehives. This has a negative effect on planning and harvesting and therefore sales which will provide revenue to the enterprise and sharing to beneficiaries.

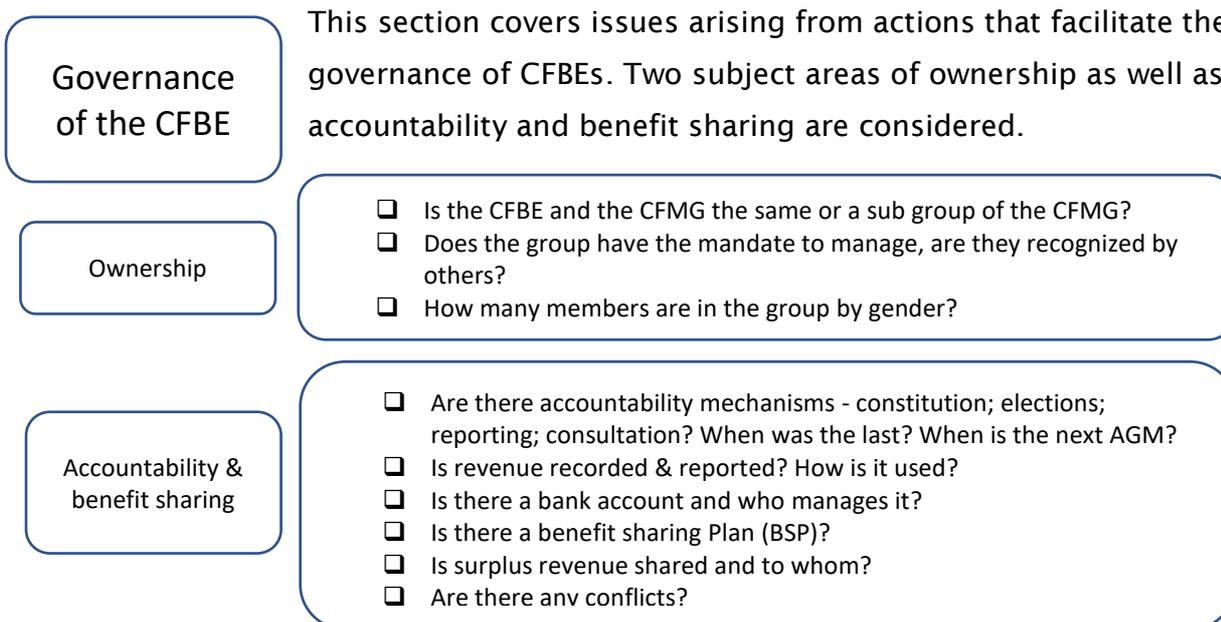
- ✓ **Best practice:** Draw out a monitoring plan, at least once every month to ensure regular field visits to monitor rates of occupation, carry out rebaiting of unoccupied beehives, repair damaged beehives, and inspect the healthy condition of Bees. Always make sure that all monitoring visits to beekeeping sites are well documented.

- **Production and sales**

At time of monitoring few groups were at the point of harvest and therefore ready for marketing. Aspects of assessing business viability was therefore difficult and would need to be reviewed in future monitoring.

- ✓ **Best practice:** Regular monitoring of hives allows production forecasting and therefore, advance contact with potential buyers in advance of harvesting to minimize harvested honey and other products sitting in storage with no market.
 - ✓ **Best practice:** ensure to always conduct monitoring visits because they are important at time of harvest and post-harvest after sales to mentor on reinvestment and costs allocations in line with the business plan.
- **Transportation problems:** Some CFBEs faced challenges in transporting beehives to the forest area because transport costs were not part of the funded activities. This did not work to the advantage of project implementation because most sub-groups could not manage to cover transport costs for beehives despite offering to do it as part of their commitment towards project implementation. Most business plans included for the costs of transportation, but this did not translate through to the grant applications.
 - ✓ **Best practice:** Business plans are important planning and management tools and should be referred to particularly in the early stages of an enterprise. Quotations for materials and equipment including hives should include delivery to the community where possible.

5. Governance of CFBEs



- **Ownership of CFBEs activities:** Generally, It was observed that community members and leadership structures weren't very much involved in the processes and activities of the CFBEs. CFBEs activities require the involvement of all members of the enterprise group and awareness by the whole community, particularly if the enterprise and the CFMG are one and the same. The role of traditional leadership in regard to governance of the CFBEs should be assessed because the CF area is a communal resource entrusted to the CFMG. Much is emphasized for project activities to be consultative and inclusive at community level. However, this was not the case with some of the sub-groups. This resulted in lower levels of ownership for project activities in some of the districts as observed during field visits. Some CFBEs exhibited little or no community approved mandate to manage the resource base due to less interaction between community members and the CFBEs executive. The frequency of sensitization by the CFBEs to all community members and the traditional leadership with respect to beekeeping and honey production have been inadequate among most of the CFBEs. This has contributed to lower levels of community ownership of the project supported activities.

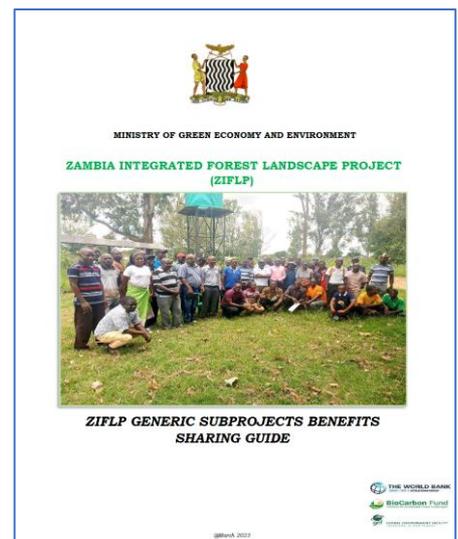
- ✓ **Best practice:** Regular (quarterly) sensitization of community members on the project activities including their roles and responsibilities to ensure success for CFBEs. Monthly CFBE meetings of the management team.
- ✓ **Best practice:** there is need for community based participatory approaches to issues like formulation of constitution, or any guiding rules, including planning and implementation of project activities.

- ✓ **Best practice:** Discussion of benefits, benefit sharing and revenue sharing including asking the questions on who has access to resources and benefits, revenue management and distribution.
- ✓ **Best practice:** Extension staff should refer to the Community Forest Management Practice Note: Benefit Sharing in Community Forestry and the benefit sharing guide for sub grant beneficiaries under ZIFLP. The Practice Note discusses the institutional arrangements between the CFMG as an enterprise versus the CFMG as regulator with the CFBEs operating like a cooperative

- **Benefit Sharing Plans (BSP)**

Clear and transparent sharing of benefits is fundamental to community forestry. Generally, it was observed that BSPs for most groups were not fully operational as sales were still to be realized. However, most did not cover aspects of how local communities would benefit indirectly from the enterprise. If not handled well, this has potential to cause confusion and it can erode away the sense of ownership.

- ✓ **Best practice:** There is need to revisit and revise the BSPs for all CFBEs to include all aspects of how both direct and indirect benefits are generated and could be shared within the local communities. Refer to the Community Forestry Practice Note on Benefit Sharing of the ZIFLP Generic Sub Project Benefit Sharing Guide on the same. This covered later in Section 9. Notes on Benefit Sharing Plans



- **Conflict management:** Some of the CFBEs lacked established and community agreed upon procedures that should guide on how conflicts are supposed to be handled in the community with respect to the resource base and CFBEs and grievances should be reported.
 - ✓ **Best practice:** Promote awareness of mechanisms for dealing with conflicts and other grievances. This should include engagement of the traditional leadership and other stakeholders. ZIFLP has a Feedback Grievance Redress Mechanism (FGRM) and district staff have been trained and sensitized communities on the ZIFLP FGRM policy and strategy. This is an important element of monitoring to check for conflicts and grievances and ensure these are resolved to avoid conflicts leading to environmental degradation.

6. Management of the Forest Resource

Management of the Forest Resource

This section covers issues arising from actions that relate to the management of the forest area that provides the production environment for their business. The subject of protection and control of access is considered.

Protection & control

- What is the condition of the forest to support the enterprise?
- Is access to resource base (beekeeping sites) controlled?
- Is monitoring taking place and how often?
- Are there customary resource use rules?
- Are there any specific rules relating to beekeeping?
- What are the sanction mechanisms and how are these rules enforced?

- **Forest protection:** While all CFMGs have a 5 year management plan which includes local resource use rules, it would appear that most of the CFBEs are not using these documents for guidance on how to manage the resource base. Resource base in this sense means, forest area which provides the bee fodder required for honey production and therefore a successful enterprise. Further, there was little to show for on community enforcement of rules or evidence of forest monitoring in various CFM areas.
 - ✓ **Best practice:** There is need for the CFMG to revisit the planning tools and the forest management plan and local resource use rules. The rules were developed through participatory processes and therefore should address concerns raised during the management planning process. Further awareness may be required to reinforce the intention behind the rules with the wider community.
 - ✓ **Best practice:** The extension staff should ensure the CFMG annual work plan is up to date with clear plans for forest protection, fire management, and beehive security.
 - ✓ **Best practice:** The CFBEs should engage the traditional leadership (chiefs, Indunas, and headmen) in the enforcement of community rules and regulations. These should also be disseminated to all community members for compliance. Furthermore, apart from a business plan,

7. Monitoring and Mentoring CFBEs

Monitoring & action planning

This section covers issues arising from actions that relate to internal monitoring and action planning by CFBEs to improve the operations and therefore achieve success in their business. Two subject areas of use of management tools as well as assessing change and performance are considered.

Use of management tools

- Is there a periodic work/activity plans with targets?
- Is there monitoring of CFBE activities and assessment of general performance?
- How is it done and who is involved in monitoring?

Assessing change & performance

- Has this influenced their planning of activities?
- Can the FBEs/communities explain any changes to themselves and their forest since the enterprise started?
- Are there any special difficulties in running the business? If yes, how are these difficulties addressed?
- What special successes have CFBEs achieved in running their business?
- Can their learning & success stories be documented and used for publicity?
- Develop an action plan based on the results of the rapid assessment.

Monitoring is a critical element of mentoring in order to strengthen and ensure the viability and therefore sustainability of the CFBE. Processes of self-reflection and learning by the CFBEs is critical to their success as an enterprise and support to be facilitated by the extension team.

- **Periodic monitoring of plans:** Many CFBEs lacked a set process of monitoring their plans required for checking and managing progress being made in regard to beekeeping and honey production processes. This also included general management of the CFAs within which beehives are invested.
 - ✓ **Best practice:** monitoring of plans is a function of business operation, it is therefore important for the extension team to prompt and support the CFBEs in these aspects, particularly in the early years of operation. If these are not available then they should be developed and implemented by all CFBEs to enable collection of data on beehive occupation rates, production, damaged beehives, bees' health, beehives requiring baiting and replacement, encroachment levels, and settlement etc. This information is important for planning and measuring progress.
 - ✓ **Best practice:** Develop an action plan with clear timings, roles and responsibilities. This improves operations and is useful for subsequent monitoring visits in order to discuss progress and achievements.

8. Monitoring Process for CFBEs

This section highlights a stepwise checklist that can be used for planning, preparing for and conducting a programme of monitoring and mentoring of the CFBEs with respect to beekeeping and honey production processes.

Step 1: Preparations - forming a monitoring team for CFBEs

- A forester or a beekeeping specialist who knows the area well and is known and respected by the community.
- District staff conversant with the establishment of CFBEs, including basic financial management and procurement practices. Further, this team is also responsible for subsequent mentoring and on-going training to CFBEs.
- Documentation: the beekeeping business plan; the sub grant procedures, application and budget; retirement and progress reports; the CFM agreement and

Technical practice

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Management of the Forest Resource

Monitoring & action planning

management plan; including copies of monitoring reports.

- Preliminary field visits by the team – to provide advance notice of the monitoring visit and procedure, particularly requesting that documents and reports are available for inspection.

Step 2: The Monitoring visit

The monitoring process.

- The field visit – a suggested agenda is provided.
- Conducting discussions with the target groups.
- Inspecting records for monitoring.
- Inspecting the beehives and the resource base.
- Inspecting storage and processing facilities and equipment.

Malambalala
Projected profit & loss statement

	Year 1	Year 2
Income statement assumptions		
Sales		
Total number of bee hives	5	6
Expected yield per hive (Kg)	12	15
Bee occupation rate	50%	70%
Number of KGs produced and sold per farmer	30	63
Selling price	K 15.00	K 15.50
Total number of farmers	1	1
Personnel		
Mentors allowances	K -	K -
Forest guards	5	5
Forest guard allowances	K -	K -
Other expense		
CFMG for sustainability & admin costs @ 50% of revenue	K 225.00	K 488.25
	K -	K -

Description	Year 1	Year 2
Sales revenue	K 450.00	K 976.50
Less Overheads		
CFMG for sustainability & admin costs @ 50% of revenue	K (225.00)	K (488.25)
Grant income to support depreciation (years 1, 2, 3)	K 237.80	K 285.36
Depreciation	K (237.80)	K (285.36)
Total Overheads	K (225.00)	K (488.25)
Net Profit	K 225.00	K 488.25
Net profit margin	50%	50%

Cost per farmer analysis		
Cost allocated per farmer	K 225.00	K 488.25
Output (KG)	30	63
Cost per farmer per Kg of output	K 7.50	K 7.75
Average cost per farmer per Kg of output	K 11.79	

- Reviewing documentation and record keeping – procurement, production, sales, cashbook and benefit sharing.
- Reviewing constitution, meeting records.

Step 3: Documenting findings, develop action plans with CFBEs

- Developing an action plan with clear timings, roles and responsibilities.
- Agreeing next steps and date for next monitoring visit.
- Conducting an exit meeting with traditional leaders.

9. Notes on Benefit Sharing Plans

There is no one size fits all. Benefit sharing is unique to each site and community situation. The key is to explore all the issues and facilitate a process that allows the community groups, the community institutions through the CFBEs/CFMG executive committee, which respects the rights of holders and traditional custodians of the natural resources being brought under local control and sustainable management. In community forestry, the core aspect is achieving the balance of communal control, use and management of a designated forest and incentivize individual and household effort in forest protection.

The benefit sharing arrangements for revenue generated from the sale or trade in forest projects can either incentivize good practice or promote conflict. Many community based enterprises fail as the net revenue generated is insufficient when shared across a large community of households. Therefore, the motivation and incentive to invest effort and attract a return on investment as a group or household versus communal benefit as a member of a wider community of households, needs to be considered and raised as a topic of discussion. One should not exclude the other as an enterprise group utilizing communal resources should still make a contribution to their protection and management and pay for the exclusivity of use to the Community/CFMG.

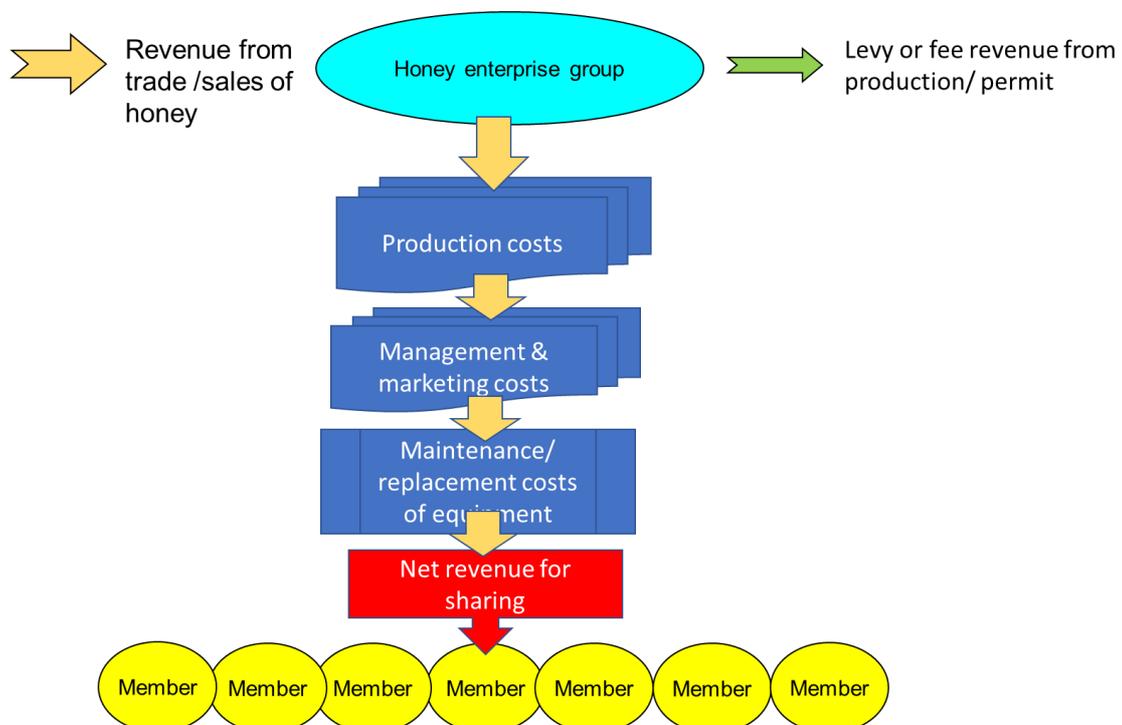
It is therefore recommended that sharing revenue to beneficiary groups is considered after the costs of managing the forest resources are allowed for to ensure the integrity and future sustained flow of benefits. CFBEs will need to allow for fixed and recurring costs that are incurred irrespective of revenues received and may include rent, salaries, fees, bank charges, audit costs etc. as appropriate.

Secondly, costs to protect and manage the forest area as part of the CFMG obligations under the CFM Agreement, should be calculated and allowed for. These can be drawn from the annual workplan.

The CFBE need to allow for the costs to repair and replace equipment, maintain infrastructure such as buildings and boreholes and importantly beehives. Further in terms of enterprise activities there will be variable costs such as purchase of bottles and buckets, packaging and labels etc. Once these are calculated or estimated, the net revenue should be known. This is then the recommended value upon which to allocate a benefit share to the rightsholder beneficiaries.

Further, benefit sharing mechanisms should exhaustively explore ways in which local communities can benefit from indirect benefits of forest projects managed by CFBEs. For instance, benefits such as employment, award of contracts for supplying of products and services to the projects. This is important because if not given attention, it has the ability to bring confusion and erode community ownership and responsibility for the beekeeping business and later on CFM project.

Timing of sharing or distribution. The net revenue sharing approach is as it means, sharing after costs are deducted. This emphasizes the need for transparency and accountability in the management and accounting for revenue by the CFMG executive. This will require mentoring and monitoring by the Forestry Officials in line with the CFM Agreement.



10. The Beekeeper Pledge Form

The beekeeper pledge form sets out the relationship, roles and responsibilities of members of the CFBE, as an individual beneficiary and group contribution to the success through maximizing production of quality honey. This should be understood and revisited frequently (annually) between the CFBE and its direct beneficiaries.

LWANDAZI

Community Forest Management Group

Lwandazi Ward, Chief Kawaza Katete

Beekeeping Pledge form for Bee Farmers Between Lwandazi (Hereinafter referred to as "CFMG")

First Name: _____ Last Name _____ NRC _____ Gender ___ Age ___
Village _____ Phone# _____ GPS Coordinates _____

(Hereinafter referred to as "Beneficiary")

The following Contract defines the establishment of a bee keeping operation in Community Forest areas.

Purpose of the Contract

The contract shall regulate the partnership, commitments, and duties of the two parties. Each party will make the following contributions to the project.

Contribution by with support from Zambia Integrated Landscape Project:

- CFMG will allocate (hybrid) top bar hives to the Beneficiary ready for suspension. The hives will be delivered at a central point to the Community Forest Area (CFA).
- CFMG will work with the beneficiary in suspending the hives
- CFMG will allocate buckets before each harvest to a central point. CFMG will harvest the hives through its mentors.
- CFMG will source the market and negotiate premium market prices. If processing the CFMG will process the honey and share the profit as agreed in the benefit sharing plan.

Contribution by the Beneficiary

- The Beneficiary will pick the hives from the central point and transport them to the Community forest Area (CFA).
- The Beneficiary will suspend the hives with the assistance from CFMG mentor
- The Beneficiary will protect the hives from theft, fire and damages. Any such instances must be reported.
- The Beneficiary will guarantee hives are suspended in pristine woodland. No pesticide, fertilizer or any chemicals shall be used in the woodland or on agricultural land at least 3km away from the bee hives.
- The Beneficiary will pick empty buckets from a central point before each harvest according to his number.
- The Beneficiary will assist CFMG mentors in harvesting his hives. In case of being absent, the beneficiary agrees that CFMG may harvest in his absence with a witness.
- The Beneficiary will transport the harvested honey to the central collection point in the scheme.
- The Beneficiary guarantees that the honey remains pure and natural while in his care. All buckets with honey must indicate the **name, weight, ID-number and hive number of the beneficiary**.
- The Beneficiary will abstain from any form of illegal tree cutting or making of charcoal and will protect the forest from fires where the hives are located.

Mutual Understanding

- ❖ The Beneficiary will receive hives free of charge from CFMG to benefit according to the agreed share from the sale of honey produced but hives will be jointly owned by CFMG and the Beneficiary.
- ❖ The Beneficiary is obliged to sell all bee products to CFMG.
- ❖ Despite the joint ownership of the hives, CFMG reserves the right to withdraw the hives in full or part from the Beneficiary in case of non-compliance with rules and regulations by the Beneficiary.
- ❖ Transfer of possession or ownership of the hives may only take place with the written consent of CFMG.

The contract comprises: Number of Hives _____ Hive Numbers _____
Mentor/Agent Name _____ NRC _____ Gender _____
Contact _____ Village _____ Date _____
For CFMG _____ for the Beneficiary _____



Zambia Integrated Forest Landscape Project
Improving lives through sustainable management of natural resources

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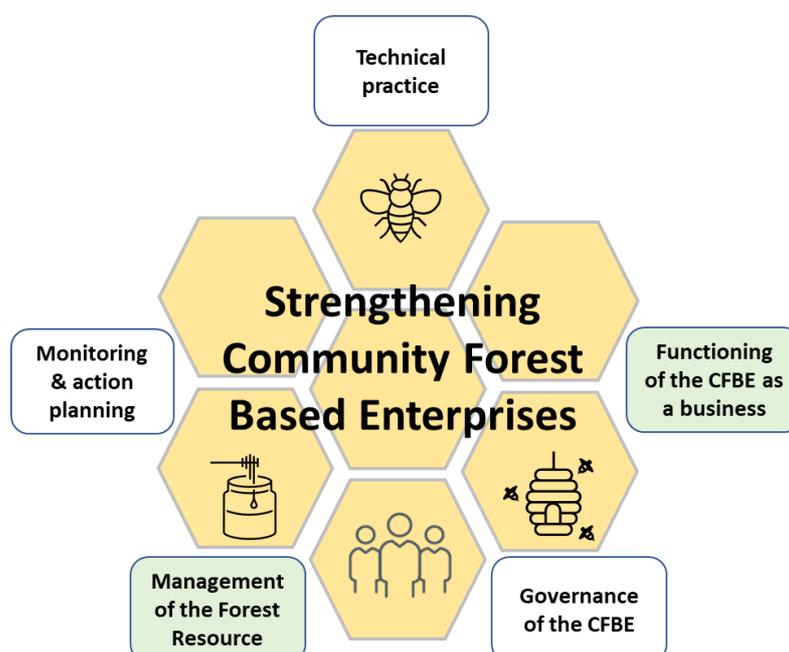


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11. The “Must Haves” for CFBEs

From the evaluation of CFBEs, a number of valuable lessons were learnt in regard to “must haves” for viable CFBEs. These valuable lessons are now incorporated into the following statements. A successful CFBE needs:

1. The will, commitment and enthusiasm from every member of the CFMG and wider community. This can be achieved through following participatory processes and ensuring a robust and inclusive benefit sharing mechanism with short, medium and long term direct and indirect incentives and benefits;
2. It is well supported by the traditional leadership structures;
3. Keeping promises and commitments made at the initial stage of the project;
4. A carefully identified market. This includes where the product would be sold, to whom and considering future trends;
5. The involvement of the community and community entrepreneurs and their full understanding of the importance of planning and management;
6. Monitoring by the CFBEs and district staff (e.g. DMTs). This includes a monitoring plan with milestones that the CFBEs would work to achieve;
7. A realistic and well thought out business plan as well as knowledge of what is involved in running a successful beekeeping business;
8. Startup capital/Working capital and a well-developed “business culture”;
9. A suitability analysis of community areas for beekeeping and associated businesses. This will guide planning and management of the interventions.



ZIFLP - Strengthening CFBEs: Rapid Assessment Key Questions



Technical practice	Quality & placement of beehives	<ul style="list-style-type: none"> <input type="checkbox"/> Are beehives made according to required standards? <input type="checkbox"/> Are beehives painted or non-painted for organic honey production? <input type="checkbox"/> Are beehives placed correctly (max 7 hives/ha) in the forest? <input type="checkbox"/> Is there enough water and forage for bees? <input type="checkbox"/> Are hives hanged at a correct height (approx. 2.5m)? <input type="checkbox"/> Are hives protected from ants, mice and other predators? <input type="checkbox"/> Are all beehives baited correctly, colonized, monitored and recorded?
	Harvesting, processing & marketing	<ul style="list-style-type: none"> <input type="checkbox"/> Is there a beekeeping calendar and is it adhered to? <input type="checkbox"/> How often is harvesting taking place? <input type="checkbox"/> Who does the harvesting? <input type="checkbox"/> Is there sufficient harvesting equipment, maintained in good order? <input type="checkbox"/> Are correct harvesting techniques being followed to protect the colony? <input type="checkbox"/> Is the processing and storage of comb and liquid honey to required standard? <input type="checkbox"/> How is honey & other products presented for sale?
Functioning of CFBE as a business	Business planning	<ul style="list-style-type: none"> <input type="checkbox"/> Is there an existing business plan (BP)? <input type="checkbox"/> Were all members involved in formulating the BP? <input type="checkbox"/> Do all members understand the BPs? <input type="checkbox"/> Is the BP being followed? Check the plan and comment on its relevance
	Production & sales	<ul style="list-style-type: none"> <input type="checkbox"/> Is there sufficient production and sales to sustain the CFBE? <input type="checkbox"/> Have sales taken place and what was the Marketing process?
	Business viability	<ul style="list-style-type: none"> <input type="checkbox"/> Is there reinvestment of revenue in the running of the enterprise and replacement of equipment? <input type="checkbox"/> Have recurring and fixed costs been identified and covered? <input type="checkbox"/> Have maintenance and replacement costs been identified and covered? <input type="checkbox"/> Has an income and expenditure report been prepared from the cashbook?
Governance of the CFBE	Ownership	<ul style="list-style-type: none"> <input type="checkbox"/> Is the CFBE and the CFMG the same or a sub group of the CFMG? <input type="checkbox"/> Does the group have the mandate to manage, are they recognized by others? <input type="checkbox"/> How many members are in the group by gender? <input type="checkbox"/> How often do the group members meet and how are they involved in activities/ decisions? Are meetings minutes available?
	Accountability & benefit sharing	<ul style="list-style-type: none"> <input type="checkbox"/> Are there accountability mechanisms - constitution; elections; reporting; consultation? When was the last? When is the next AGM? <input type="checkbox"/> Is revenue recorded & reported? How is it used? <input type="checkbox"/> Is there a bank account and who manages it? <input type="checkbox"/> Is there a benefit sharing mechanism (BSM)? <input type="checkbox"/> Is surplus revenue shared and to whom? <input type="checkbox"/> Are there any conflicts? <input type="checkbox"/> Is there a Grievance Redress Mechanism and is it being followed?
Management of the Forest Resource	Protection & control	<ul style="list-style-type: none"> <input type="checkbox"/> What is the condition of the forest to support the enterprise? <input type="checkbox"/> Is access to resource base (beekeeping sites) controlled? <input type="checkbox"/> Is monitoring taking place and how often? <input type="checkbox"/> Are there customary resource use rules? <input type="checkbox"/> Are there any specific rules relating to beekeeping? <input type="checkbox"/> What are the sanction mechanisms and how are these rules enforced?
Monitoring & action planning	Use of management tools	<ul style="list-style-type: none"> <input type="checkbox"/> Is there a periodic work/activity plans with targets? <input type="checkbox"/> Is there monitoring of CFBE activities and assessment of general performance? <input type="checkbox"/> How is it done and who is involved in monitoring?
	Assessing change & performance	<ul style="list-style-type: none"> <input type="checkbox"/> Has this influenced their planning of activities? <input type="checkbox"/> Can the FBES/communities explain any changes to themselves and their forest since the enterprise started? <input type="checkbox"/> Are there any special difficulties in running the business? If yes, how are these difficulties addressed? <input type="checkbox"/> What special successes have CFBEs achieved in running their business? <input type="checkbox"/> Can their learning & success stories be documented and used for publicity? <input type="checkbox"/> Develop an action plan based on the results of the rapid assessment.

Document findings, develop action plan with CFBE to strengthen their business and improve their livelihoods



Zambia Integrated Forest Landscape Project

Improving lives through Sustainable Management of Natural Resources

The Zambia Integrated Forest Landscape Project is a Government initiative which provides support to rural communities in the Eastern Province to allow them to better manage the resources of their landscapes so as to reduce deforestation and unsustainable agricultural expansion; enhance benefits they receive from forestry, agriculture, and wildlife; and reduce their vulnerability to climate change.

Simultaneously the project is creating the enabling environment for emission reduction purchases to be done through the subsequent phase - the Zambia Eastern Province Jurisdictional Sustainable Landscape Programme (EP-JSLP).

The ZIFL- Project is a product of cooperation between the Government of Zambia, the World Bank & partners.

For further information, please contact:

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