

# **CYCLONE IDAI REPORT**

**MALAWI ASSESSMENT** 



## 1. PURPOSE OF THE REPORT

This report was compiled for purposes of providing information on the effect of Cyclone Idai on Beekeeping Initiatives in Malawi after the Apimondia Regional Commission for Africa President formally communicated with Apimondia on the natural disaster that occurred in the African Region in accordance with the Regional Commission Mandate / responsibilities – "Analyzing the needs of the local beekeeping communities and coordinating the relief actions in case of natural or human disasters".

This report is intended to be circulated to:

- Apimondia
- Solidaridad
- Malawi Government

#### 2. INTRODUCTION

Apimondia, the International Federation of Beekeepers' Associations, is the world organisation representing the interests of apiculture. It facilitates links between beekeepers, scientists and all those involved in beekeeping and represents apiculture at international level to many bodies, for example General Agreement on Trade and Tariff (GATT), the Food and Agriculture Organisation of the UN (FAO), consumer and agricultural interests.

Apimondia stems from the Standing Committee of the International Apicultural Congresses created in 1893 holding the first congress in 1897 in Belgium. Apimondia in its current status as a federation was founded in the Netherlands in 1949.

Apimondia consists of the General Assembly, represented by its members (currently more than 110 beekeepers' associations and apicultural institutions from more than 80 countries), the Management Board, seven Scientific Commissions (Apitherapy, Beekeeping Economy, Beekeeping for Rural Development, Beekeeping Technology and Quality, Pollination and Bee Flora, Bee Health and Bee Biology) and five Regional Commissions (Africa, Americas, Asia, Europe and Oceania).

Apimondia General Secretariat in Rome, Italy, provides a focal point for locating information on bees and beekeeping and co-ordinates the organisation of Apimondia international congresses and symposia.

The activities of Apimondia are coordinated at regional level (Continent) by the Regional Commissions. One of the major activities of the Regional Commission is analyzing the needs of local beekeeping communities and coordinating the relief actions in case of natural disasters in their respective Regions. In the case of the African Region, Cyclone Idai is one such case where the Regional Commission President, Mr. David Mukomana, formally raised the need for relief for communities in Mozambique, Malawi and Zimbabwe as part of these communities affected are engaged in beekeeping activities as their sources of livelihoods. Apimondia gave the greenlight for the assessment to be done and a report provided that will detail the nature of intervention required with the hope of engaging partners to assist in the rebuilding of the beekeeping initiatives in the affected areas.

### 3. ASSESSMENT VISIT

Based on the Regional Commission Mandate, a formal communication on behalf of Apimondia was sent to the Malawian Government addressed to the Permanent Secretary – Ministry of Agriculture and Livestock Production by the Regional Commission President expressing solidarity with the people of Malawi in relation to the disaster visited on many communities especially in the Southern Region as well as the intention to visit these affected areas to carry out an assessment of the effect of the cyclone on beekeeping initiatives with the intention of raising assistance.

The Regional Commission managed to get support from Solidaridad in order for the assessment visit to be undertaken in Malawi. The following visits were undertaken in the Southern, Northern and Central Regions of Malawi:

Date	Area	Purpose
27 July 2019	Lilongwe – Malawi Bee Products Association	To meet the Chairperson of Malawi Bee Products Association and agree on the assessment.
		The Regional Commission President had a meeting with MBPA Chairperson where he was briefed on the arrangements made by the Association, the meetings scheduled with Government departments as well as the contact people to meet in the respective Regions.
29 July 2019	Department of Livestock Production - Lilongwe	To discuss the assessment in the cyclone-hit areas of Malawi; and  To facilitate / coordinate the community visits
		and get officials to visit the communities with.  The team met the Acting Director Livestock Division, Mr. Manjawila and Dr. Banda in the Ministry of Agriculture and Livestock Production and Solidaridad representative in Lilongwe to advise of the visit and seek guidance on how the areas to be assessed can be reached. The President provided an overview of Apimondia, the role of the Regional Commission and the purpose of the visit.
		Mr. Manjawila provided the background of the response provided by the government of Malawi through the Livestock Department including the basic survey on the impact of the cyclone on Agriculture activities. He welcomed the efforts by the Regional Commission and Apimondia and expressed that such intervention is most

appreciated as it shows that the beekeeping organisation has a heart for the people of Malawi. He went on to express that there is need to extent the assessment beyond the damage in terms of hives to cover the downstream effects of siltation caused by deforestation of upstream forests by communities desperate to earn a living from charcoal trade.

Mr. Manjawila also expressed the full commitment of the Government of Malawi to beekeeping that has seen Beekeeping being included in the Malawi Agriculture Production Estimates (APES) and the cyclone had created a setback to the potential estimates in honey production as many farmers lost their hives and colonies as well as bee forage.

He advised that the team should go to the Shire Valley Agriculture Development Division (SVADD) Regional headquarters and meet the Programs Manager who will guide the team to the communities that were affected by the cyclone.

He further requested that the team also extents the assessment of beekeeping activities in Northern and Central Regions in order to provide insight and possible interventions that will be required despite not having been adversely affected by the cyclone to the magnitude of the Southern Region.

30 July 2019	Development Division – Chikwawa District (Southern Region)	To meet the Programs Manager at the SVADD offices and discuss about the visit;	
		To seek guidance on which areas to visit and do the assessment; and	
		To seek their involvement / participation in the physical assessment of the affected areas	
		The team had a meeting with the Program Manager, Mr. Mangadzuwa and Dr Basikolo who provided the overview of the preliminary work they had done in the Shire Valley as well as the background to beekeeping in the region. He mentioned the significant wild honey hunting in the Game Reserves and Protected Areas. Mr. Mangadzuwa led the team to visit two villages affected in the lower Shire Basin.	
01 August 2019	Nkhata Bay – Northern Region	To meet the beekeeping community in the area and discuss their initiatives; and To assess their potential as well as understanding their challenges.	
02 August	Kasungu – Central Region	To meet the beekeeping community in the area and discuss their initiatives; and To assess their potential as well as understanding their challenges.	

# 4. Areas Visited

The four areas visited in the three Regions indeed confirmed that there are beekeeping activities happening given the level of awareness and the apiaries visited. The beekeepers are

using traditional hives especially in the Southern Region as well as the Kenya Top Bar and Langstroth hives in the Northern Region. The two processing centres in Northern and Central Regions also confirms the level of beekeeping in the areas as well as their desire to upscale honey production to commercial levels.

The detailed information obtained during the respective visits are captured in the table below:

Area	Information gathered	Issues
Southern Region	In the Southern Region part of the Shire Valley Agriculture Development Division (SVADD), there are a number of clubs / groups that are registered with the Agriculture Development Division. The following are the clubs and one association:  i. Chikwawa District.  The Chikwawa District has 6 Extension Planning Areas (EPA), each with at least one active club. The total number of active clubs in the district are 49 with a total number of 2, 0055 members, 506 being women and 1, 549 men.  ii. Nsanje District.  The Nsanje District is also divided into 5 Extension Planning Areas with 34 active clubs. The total number of members is 1, 131 comprising 218 women and 913 men.	Members of the Malawi a Moto and the Programs Manager raised a number of issues affecting the Southern Region Beekeepers and especially exacerbated by the cyclone.  The following are the main issues the association members raised:  • The members are not able to replace the hives swept away and those destroyed by the cyclone.  • The type of hives they use are not helping in terms of increased productivity as they are using the bark and log hives.  • There are too many honey hunters and their harvesting method destroys the trees as

iii. Malawi a Moto BeekeepersAssociation

Malawi a moto is an association with 72 members comprising of 17 women and 55 men. This association was formed in 2000 with one of the main objectives being to promote environmental conservation through apiculture.

It was noted that there were a significant number of people living along the three main forest reserves of Lengwe National Park, Majete and Mwavi Game Reserves who are practicing wild hunting providing another informal group of potential beekeepers that can contribute good quantities of honey if properly organized.

The total honey production is summarized as follows:

- Chikwawa Beekeeping Clubs –
   13.5 tons
- Nsanje Beekeeping Clubs 9 tons
- Malawi a Moto Association 7 tons

The number of hives spread between the three groups are as follows:

- Chikwawa 2, 700
- Nsanje 1, 080

- they cut down the trees with bee nests and they burn the bees thereby reducing the colonies.
- The members raised the issue of lack of access to nurseries for them to plant both fruit trees and other bee-friendly trees to supplement bee forage hence their resorting to mounting hives along the river banks.
- The Chikwawa
   communities also raised
   the issue of a processing
   Centre so they are able
   to sell their honey which
   will be processed and
   packaged in the district,
   thus creating jobs and
   value addition to their
   honey.
- Many of the Chikwawa beekeepers have not received training in beekeeping, record keeping and general apiary management and this has adversely affected their beekeeping activities.

Malawi a Moto - 500

The number of hives affected (washed away and damaged beyond repair) by the cyclone for those communities with records collected are as follows:

- Chikwawa 1, 967
- Nsanje 540
- Malawi a Moto 300

 Lack of consistent market for honey was also raised so is the issue of price.

#### Northern Region

In the Northern Region, the team managed to meet formally constituted and well organized Association in Nkhata Bay called Lweya Association with a total membership of 320 people, 90 women and 230 men.

The average number of hives per beekeeper is 12 as they have 4, 000 hives in total.

This association celebrates the remarkable achievement they have made through beekeeping, to positively influence communities to stop cutting down trees for charcoal as well as planting fruit trees that provides nutrition and income over and above forage for the bees. This association has seen many forests being preserved and increased number of apiaries being set up.

The following issues were raised by the Northern Region:

- The first and critical issue raised is the effect climate change on beekeeping activities in Northern Region and Malawi in general.
- The other issue raised was the challenge of blue gum disease that is adversely affecting bee colonies.
- Lack of information was a major issue raised and seriously affecting beekeeping. This lack of information covers a wide spectrum, from modern beekeeping

The Chairman of the Association indicated that there are more than 5 associations in other districts within the Northern Region of Malawi whose figures and membership they were not aware.

The Association is an affiliate of Malawi Bee Products Association.

The previous honey harvest recorded was 7.8 tons. The amount is much higher as some members sold their honey without having the figures included in the statistics.

The Association Chairman indicated that their members were not directly affected by the cyclone except the high winds that destroyed forage and increased dearth period that was extended compared to previous seasons.

The Association has a state-of-the-art processing centre built with the help of development partners such as IFAD and Rural Livelihoods and Economic Empowerment Program (RLEEP).

The processing centre is not equipped with the honey processing machines.

- techniques, equipment and markets.
- equipment is a challenge affecting the beekeepers as their honey is being aggregated at very low prices although they have the processing centre. Some are processing honey at home using traditional methods that are often not hygienic.
- The group also raised the issue of protective equipment and other accessories necessary in the general beekeeping activities.
- Some of the group
  members in Northern
  Region need training so
  as to upscale
  beekeeping to
  commercial levels given
  the opportunities with
  pollination services in the
  Macadamia plantations.
- Again, the issue of market is a problem that requires urgent intervention.

#### Central Region

The team ended the visits with
Kasungu in Central Region where the
Katope Beekeeping Co-operative was
visited in the Kasungu Wildlife
Conservation for Community
Development Association.

The co-operative started in 2008 after a lady saw a TV program Hidden Worthy that inspired her and initiated the co-operative.

The Katope was assisted with about 17 hives which grew with the numbers so was membership. The clubs increased to 13 which joined to form the Association with 330 members.

As the interest in beekeeping grew along the Kasungu National Park, a Catholic organisation was approached to assist with construction of a processing centre where the communities could value add a number of local produce including honey. A processing centre was then constructed with the assistance of the Japanese Embassy. The centre was completed recently.

The co-op harvested 6 tons in their last season with other members not declaring their harvests after selling directly to honey traders.

The Central Region had issues to share with the Regional Commission that include:

- The hives currently used are mostly traditional ones whose output is low. Cost of hives available is high making them unaffordable for many community members.
- Lack of information has been raised as another major challenge as the members are not affiliated to the national association thus missing on major updates or information that may help them develop their beekeeping initiatives.
- The co-op members

   raised the issue of
   security for the
   processing centre as
   well as the need for
   clean running water so
   as to support proper
   honey processing
   activities.
- Bee forage was also raised. There is

pressure in providing
supplementary bee
forage through tree
planting but the co-op is
faced with the problem
of seedlings.
Just as in the other
regions, lack of reliable
market for honey is
creating challenges for
beekeepers.

# 5. Cyclone effect in Summary

The damage caused by the cyclone were mainly in the Southern Region of Malawi especially along the Shire Lower Basin. The damage was in two parts.

Based on the interviews done with the members of Malawi a Moto Association, many of their members had their hives swept away as they had moved their hives to the river banks due to access to water and forage. This exposed their hives to the high water levels in all the rivers and streams that burst their banks and flooded significant portions of the lower basin.

There was also a significant number of hives affected by the strong winds that damaged some hives and are no longer usable. Majority hives inspected in the Chikwawa area are traditional hives whose closures were blown away by the strong winds leaving the bees exposed. Some of the hives with combs build along the log / bark hives were badly affected and the bees were forced to abscond. Due to lack of proper training, the log and bark hives that had the closures damaged or blown away had not been replaced and combs could be seen exposed.

The Northern Region of Malawi was not adversely affected by the cyclone though the high winds affected bee forage as well as increased dearth period compared to other seasons. The interviews provided so much insight into the beekeeping activities in the Northern Region and the issues they have.

The visit in Central Malawi - Kasungu also confirmed that the region was not adversely affected by the Cyclone although they have a number of challenges that are similar to the other two regions other than the cyclone-induced problems.

# 6. Beekeeping potential

Beekeeping sector in Malawi provides a massive opportunity for the communities to earn a living from their natural forests and plantations spread throughout the country. Malawi has a number of National Parks, Conservancy and Protected areas that can be utilized for commercial beekeeping in order for communities around these areas to benefit. Malawi is also another country whose natural forests are seriously under threat from massive deforestation for charcoal and firewood. Yet these forests can be used for beekeeping to provide these communities with alternative source of livelihoods.

So huge is the potential that the government of Malawi has moved the beekeeping production from Wildlife to Livestock Division within Ministry of Agriculture. The restructuring also includes creation of offices that will specifically deal with beekeeping issues so as to offer technical support to the sector and help feed into the Agriculture Production Estimates.

The potential in all the Northern and Central Regions is also massive given the infrastructure already in place. Both regions have state-of-the-art processing centres build with the help of development partners providing perfect sites for honey aggregation, processing and packaging for the domestic and potential export market.

The extent of macadamia and coffee plantations in the Northern Region also provides a massive potential for beekeeping with the objective of offering pollination services, a potential money-making activity for beekeepers globally.

### 7. Recommendations

The visit in Southern Region and especially at the Malawi a Moto Association apiary site provided proof that given enough resources, the rural communities fully appreciate the value in their resources and can exploit them in a sustainable manner. The damage by the cyclone in the area calls for urgent intervention to put these affected communities back to their normal lives.

The visit by the Regional Commission brought hope to the communities that had for a long time felt left out and forgotten and provided them with the opportunity to register their commitment to promoting beekeeping to conserve the environment having realized the effects of charcoal trade is doing in Malawi. Thus, there is need to mobilize resources to help the communities to develop beekeeping into a sector that will not only be their source of livelihood and help protect the natural forests and combat climate change.

Thus, the following recommendations are put forward for consideration:

Recommendation	Description	Action
Provision of Hives	The beekeepers affected do not have the capacity to replace the hives destroyed by cyclone. They desperately need urgent assistance for them to rebuild their livelihoods.  Equally, those families whose livelihoods and homes were destroyed and see beekeeping as the alternative source of livelihoods need to be supported with hives.  • The number of hives need to be	Sourcing of funds for procurement of hives / timber for the production of hives.
	increased	

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	The type of hives need to be modern technology that provide them with increased output compared to the traditional hives predominantly used.		
Training	A number of beekeepers require training. The majority of the hives in Southern Region in the apiaries visited are traditional hives.  Many of the hives whose lids were blown away or partially damaged left combs exposed and due to lack of training, they did not intervene in order to avoid bees absconding.  The training required should cover the following aspects:  Hive production Beekeeping Recordkeeping Basic business Management	Provision of Training	
Education / Awareness programs	There are many Malawians born in beekeeping families but do not realize the potential in beekeeping as a source of livelihoods to levels of wealth creation.  Awareness campaigns and information sharing is very critical to make communities take advantage of the resources around them to earn a living. Charcoal trading need to be curbed but only when communities are educated on	Workshops / Seminars  Exchange visits with other beekeepers in the country or outside Malawi to learn from their experiences	

	the effects of cutting down trees and	
	alternative ways of earning a living other	
	than from charcoal trade.	
Women Empowerment	Women participation in beekeeping is	Education /
	significantly low. Some of the reasons	Awareness and
	provided were to do with lack of interest	training of women
	due to the phobia of bee sting as well as	
	the traditional beekeeping practice where	
	hives are still being hung high in trees	
	making it virtually impossible for many	
	women to participate or take over the	
	trade when the husbands passes on.	
Provision of Equipment	Beekeepers lack proper protective clothing	Provision of bee suits
	for them to effective and safely work with	and smokers
	bees. Smokers are also required so the	
	beekeepers do not use the traditional way	
	of honey harvesting that often kills the	
	bees and contaminate honey.	
Processing Centre and	A processing centre is needed in	Processing Centre
equipment	Chikwawa District given the level of	with honey processing
	beekeeping by beekeepers and honey	equipment
	hunters from the nearby game parks.	
	Northern and Central Regions have very	
	good modern processing centres but	
	without proper honey processing	
	equipment. The Lweya Processing Centre	
	does not have any equipment whilst the	
	Katope Co-operative were supplied with a	
	radial extractor yet the community only	
	use traditional and top bar hives.	

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Seedlings for bee- friendly and fruit trees	The understanding of the need to supplement bee forage with tree planting was noted in all the 3 regions.  Provision of seedlings to help the communities increase bee forage and also reforest the areas affected by charcoal traders is necessary.	Support to establish community tree nurseries.
Market Linkages	Beekeepers require a constant market for their honey. Better prices are also ideal so as to motivate beekeepers to engage in commercial beekeeping.	Establishment of markets for the honey
Apimondia Symposium / Seminar	Malawi is one of the poorest countries in Africa with so much abundant resources at its disposal. More than 70% of the population live in the rural areas where natural forests are situated.  Hosting a symposium in Malawi will provide many Malawian communities as well as other Southern African countries an opportunity to access much needed information on beekeeping as a tool to develop their rural communities, curb deforestation and promote environmental conservation  Having an international event on beekeeping will also provide political leadership with the requisite understanding that rural communities can be developed through beekeeping only if	Apimondia Symposium / Seminar especially on Beekeeping for Rural Development

there is enough level of support both	
budgetary and regulatory framework	

# 8. Pictures in Perspective

The extent of the damage done by the cyclone as well as beekeeping activities have been captures via pictures included below:



Picture above: Bark hive with the lid blown away by strong winds exposing the colony





Pictures above: Combs from one of the hives destroyed and broken Log hive in Chikwawa – Lower Shire Valley Basin



Picture above: Bike hives in a canoe that was used to help marooned villagers in Lower Shire.



Picture above: Given the support, Southern Region communities can make the best out of the circumstances. The above picture is a maize crop planted with the moisture from the cyclone that had cleared their earlier crops. The Lower Shire will have food and they can do the same with honey, if provided with some assistance....





Picture above: Kenya Top Bar Hives at an apiary in Northern Region



Picture above: Lweya Beekeepers Association Members after the meeting in front of the Honey Processing Centre



Picture above: Some of the Katope Co-operative members after the meeting in front of the Honey Processing Centre recently completed with assistance of the Catholic Organisation and Japanese Embassy.



Picture above: Manual Radial Extractor at the Katope Co-op Processing Centre

9. Special Thanks

The Regional Commission President would like to offer special thanks and appreciation to

Solidaridad for facilitating the visit to Malawi's Southern, Northern and Central Regions through

the provision of transport, accommodation and per diem. Without this support, the assessment

will have not happened given the distance between the communities that were covered.

Special thanks also go to the Malawi Bee Products Association Chairperson, Mrs. Lestina

Nhlema, for the coordination with the Malawi Authorities and various groups visited.

The role of the government is also appreciated for providing access and guidance on the right

offices and officials to lead the team to the affected areas, particularly Department of Livestock

Production.

This relationship will go a long way in providing hope to the affected beekeeping communities

as well as offering a window of opportunity to bring real hope to many Malawian communities

through beekeeping.

10. Report Compiled by:

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