

# WORLD BIODIVERSITY DAY 2021

TITLE OF BOOK:

## USING THE BEE FOR BIODIVERSITY CONSERVATION IN CAMEROON

*Sharing Our Experience*



Prepared by CAMGEW

## PROJECT ACKNOWLEDGEMENT

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## ABOUT THE HONEY BEE

A bee is a specie diversity

A bee is a pollinator that is responsible for 80% of food we eat

A bee helps in promoting plant diversity

A bee produces honey that we eat and honey products like bees wax used in cosmetic industry

A bee is a social insect that lives like a family in colonies teaching us solidarity

A bee create jobs and increase income in communities through honey and other products it produces

Bees are used to monitor the state of forest biodiversity, the more the presence of bees or bee colonies in the forest the healthier the forest. The presence of few bees or colonies in the forest, the less healthy the forest.

Bees have been used to tackle bushfire in forest areas, to resolve human-elephant conflicts and to fight poaching of wildlife in in land and in waters as an alternative source of livelihood.

To make sure that the bee is used in conservation to suit local realities CAMGEW promote the use of locally available materials to develop apiculture and make it affordable to communities.





## BEES FOR BUSHFIRE PREVENTION IN KILUM-IJIM FOREST

- Kilum-Ijim forest is in the North West Region of Cameroon and covers 20.000 hectares. It is rich in biodiversity and is known for its non timber forest products like honey and medicinal plants
- Kilum-Ijim forest suffers heavily from bushfire
- About 2000 community members have been trained on honey production and above 1800 beehives donated to trained persons place in the forest to produce honey
- Trained bee farmers have increase their number of beehives in the forest to increase honey production and have also trained other community members
- Bee farmers have become ambassadors of the forest by protecting the forest so that the forest can produce them honey. They sensitise against bushfire and when bushfire occur they rush to the forest to protect their beehives and in so doing they protect the forest
- Bee farmers have been organized to cooperatives/groups to increase solidarity(for learning and bushfire prevention) and permit them increase quantity and quality of honey for the market
- This solidarity has been used to tackle bushfire in the forest when it occurs
- Bee farmers tackle bushfire to protect their beehives and automatically they protect the forest
- This is done because Apiculture = Jobs = Honey = Money = Forest Conservation
- Created Honey shops and Cooperatives helps convert bee farmers honey to money to complete the story.
- The cooperatives locally and honey shops in urban areas that sales honey become opportunity cost to bushfire prevented in the forest that saves biodiversity. Honey cooperatives and honey shop become climate smart shops.



- This helped reduced bushfire from 7 in 2012 to zero in 2018 and 2019
- In 2017, one bushfire occurred that could destroy large forest but more than 70 bee farmers came out to tackle it and less than 5 hectares of the forest was burnt
- Other bushfires that occur have had timely intervention and biodiversity has been saved.



Honey Production Training



Honey Production Training



Donation of Bee Hives



Project Ownership



Children learn how to plant trees as bee forage

## **PARTNERS:**

MIVA Switzerland, French IUCN or PPI-FFEM, Future in Our Hands-UK, Bees for Development – UK, UNDP, UNDP Equator Prize, New England Biolabs Foundation –USA, The Pollination Grant, Critical Endangered Ecosystem Fund –CEPF of Birdlife International, Cameroon Ministry of Forestry and Wildlife, BERUDA, Oku Honey Cooperative Society, SOPISDEW, ANCO, Ministry of Livestock, Fisheries and Animal Husbandry(MINEPIA), Ministry of Women Empowerment and the Family, Various traditional authorities, Councils, Divisional Officers, Village Heads, MINFOF staff, MINEPIA staff, FMIs’ members and Oku Honey Cooperatives around Kilum Forest,

## **BEES FOR HUMAN-ELEPHANT CONFLICT MANAGEMENT IN THE CAMPO-MAN NATIONAL PARK**

- Campo-Man National Park is the South Region of Cameroon and covers 264,064 hectares. The park host giant pangolin, African elephant, lowland gorilla, chimpanzee, buffalo, panther and mandrill which are all animals in IUCN Redlist.
- Human-Elephant conflicts are common in the Campo-Man National Park area. Conflicts with man and its property like crops
- Elephants do not like bees
- CAMGEW in partnership with Agricultural and Bio-conservation Organization for Youth Empowerment and Rural Development (ABOYERD) trained 25 community members on honey production from July 1-3, 2019 to multiply bees in beehives to fight elephants and also produce honey
- Trained community members received bee farming equipment and materials like bee suit, smokers, boots, etc to engage in bee farming
- Trained community members became trainers of trainers and also increased their number of beehives in the area
- CAMGEW did the bee farming training with ABOYERD and ABOYERD team was also trained
- ABOYERD works in the CAMPO-MAN National Park and is now using the knowledge obtained on apiculture to develop technology to manage human-elephant conflict



## Bees for Human-Elephant Conflict Management in the Campo-Man National Park



Bee farming Training and Donations



Bee farming Training and Donations



Practical Training on Beehive Installation



Practical Training on Beehive Installation

### BEES USED TO PROTECT MARINE MAMMALS IN LAKE OSSA

- Lake Ossa is found in Dizangue area of the Litoral Region of Cameroon and covers a surface area of about 4,000 ha
- Lake Ossa is found at the tributaries of River Sanaga and Atlantic Ocean
- Lake Ossa is also a habitat for many wildlife species including manatees, freshwater turtles, crocodiles, monitor lizards, snakes and many aquatic birds species. Many of these animals are listed in IUCN Redlist as Endangered and placed in CLASS A by Cameroon government. The animals are poached by fishermen
- The amount of fish in the Lake is reducing because of over fishing and increase in the number of fishermen
- CAMGEW in partnership with African Marine Mammal Conservation Society (AMMCO) used bee farming as an alternative for fishermen to stop poaching of Lake Ossa mammals.



- Lake Ossa has some surrounding forest that is good for apiculture
- 26 Fishermen were trained to become bee farmers from 8<sup>th</sup> to 11<sup>th</sup> November 2017 in Dizangue. Some of them visited CAMGEW Oku from 27<sup>th</sup> to 30<sup>th</sup> August 2017 to see how apiculture is practice in Kilum-Ijim forest to create community jobs and income while protecting nature.
- Trained fishermen in apiculture became trainers of trainers and also had to increase their number of beehives to increase honey production
- Trained fishermen received bee farming equipment and materials like bee suit, smokers, rainboots, etc to engage in bee farming
- CAMGEW worked with AMMCO that got funding from UNDP GEF Small Grant
- AMMCO team was also trained on apiculture and is now doing follow-up of trained fishermen with technical support from CAMGEW when need arises

### Bees used to protect Marine Mammals in Lake Ossa



Bee farming Training for Fishermen in Dizangue

AMMCO Team & Fishermen learn Beehive Construction

## BEES USED TO PROTECT WILDLIFE IN THE BENOUE NATIONAL PARK

- The Benoue National Park is a national park of Cameroon and a UNESCO designated Biosphere Reserve. The park covers 180,000 hectares and is located in the North Region of Cameroon
- The Benoue National Park host animals like African elephant, spotted hyena, waterbuck, warthog, antelopes (such as the kob, western hartebeest, giant eland), African buffalo, hippopotamus, crocodile, etc. These animals suffers from poaching of animals for money
- Bee farming was presented as an alternative source of income to poaching to Sassa Mbersi - a community at the periphery of the Benoue National Park in the Adamaoua Region.
- 74 Community members were trained on honey production from 19th to 22nd October 2020
- Trained community members on apiculture received apiculture materials like beehives, bee suits, smokers, buckets, etc
- More than 100 beehives colonized in less than 5 months after project start
- Community engagement is high as they train new members and increase more beehives
- Bee farmers will be organized in cooperative to benefit from economies of scale. This will secure and sustain jobs and income from apiculture
- CAMGEW continue with follow-up but the project is owned by CERAF Nord
- CAMGEW worked in partnership with CERAF-Nord (based on the ground) and Noe France with funds from Dissange and Sisley in Sassa Mbersi

## Bees used to protect Wildlife in the Benoue National Park



Honey Production Training



Honey Production Training





Donation of Beehives and Honey Production Materials

## SHARING SUCCESS STORY ON APICULTURE WITH OTHER CIVIL SOCIETY ORGANISATIONS

- CAMGEW shared experience on Conservation and Livelihood Improvement through apiculture in Accra, Ghana with Ghanaian civil society organisations on the 31st May and 1st June 2016. The question we tried answering was "How can we develop Green Value Chains of products link to conservation like honey to help local communities fight poverty, better protect nature and participate in nation building" Bee keeping was identified by both countries as a potential along with other forest products. This workshop was organised By IUCN and Man and Nature – France. CAMGEW was working to build South-South partnership.
- African Marine Mammal Conservation Society (AMMCO) had an exchange visit with CAMGEW on apiculture from 27th to 30th August 2017. They learned-by-doing how to construct local beehives with assistance from a beehive construction technician in Oku. In the learning process, it was discovered that in Dizangue (where AMMCO is based) has similar beehive construction materials to those in Kilum-Ijim forest area. This made it possible to do bee farming in Dizangue just like in Oku. At the end of the beehive construction, AMMCO carried the constructed beehive to Dizangue for demonstration and learning. CAMGEW and AMMCO team also visited the Oku Honey Cooperative Society to learn about honey

processing and marketing. They also learned how the cooperative is managed. CAMGEW was proud AMMCO promised further collaboration and partnership to promote apiculture in the Dizangue area.

- Korup Rainforest Conservation Society (KRCS) of Mundemba in Ndian Division of South West Region had an exchange visit with CAMGEW in Bamenda on April 17th, 2019. 6 members of KRCS learned about bee farming in the Kilum-Ijim forest especially on beehive mounting, apiary management, traceability, honey harvesting, organisation of bee farmers to cooperatives and handling of honey and its products and marketing. KRCS wanted to introduce bee farming as a source of livelihood to communities around the Korup National Park.

## **GIVING OPPORTUNITIES FOR OTHERS TO LEARN APICULTURE AND CONSERVATION FOR A SUSTAINABLE FUTURE**

- The Department of Geography in the University of Dschang- Cameroon invited CAMGEW to participate in the Geography week of the Department in June 2015. The invitation came because CAMGEW had practical knowledge to share with students and the university community on apiculture and conservation in Kilum-Ijim forest. This sharing was done in form of presentations and exhibitions. CAMGEW made presentation in PowerPoint on Kilum-Ijim forest conservation through forest regeneration, apiculture, environmental education and commercialization of bees wax. CAMGEW made exhibition with posters, pictures, Oku White Honey, Bee wax, Honey Juice and other items produced in the CAMGEW-Vocational Training Centre like shoes, sandals, shirts, etc. The University authority was impressed as they saw our presentations and exhibitions complement with geography lessons in the department. We all agreed this will become an annual event. The University and CAMGEW became partners with university graduate and postgraduate students coming for research and internship in CAMGEW. This was the case of Tambang Genesis Ngek- a Masters Research student on Climate Change, Biodiversity and Green Economy who came to CAMGEW and worked on “Evaluation of the Impact of Apiculture on Livelihood Improvement and Forest Conservation in the Kilum-Ijim Forest (This case study was Funded by PPI-IUCN). The students of the Geography Department had a field visit to Kilum-Ijim forest that was coordinated by CAMGEW after CAMGEW team visited Dschang University.
- **Entrepreneurship Training on Honey Value Chain Development for Young People:** CAMGEW organized training on entrepreneurship in honey value chain development for 18 young people and interested persons in Bamenda from 13th to 30th December 2018. The training was done by 5 trainers (from CAMGEW, United Youth Organisation - UYO and Belo Rural Development Association - BERUDA) and involved lessons in class, practical sessions through prospecting, marketing and feedback response from consumers in the field. Coaching was done in the field. CAMGEW organized honey exhibitions for practical learning and exchange. This training was carried out for 9 days within 3 weeks covering 40 hours of theory and practical work. A participatory approach was used with simulative question and answer sessions, presentations, brainstorming, prospecting (field work), creative arts, group work and plenary presentations. Trainers were experienced resource person specialized in areas they tackled



- CAMGEW-Honeyshop also called North West Bee Farmers Messenger (NOWEFAM) is a marketing, learning and demonstration centre on apiculture and conservation. It has bee farming documents, posters, material, equipment and resource persons to enable learning or buying of apiculture products to be effective and efficient. CAMGEW is grateful to Bees for Development – UK for training and learning material support.
- CAMGEW gives opportunity for students and persons on internship, research and volunteering to learn about opportunities created by the bee
- CAMGEW has annual open-door-days or exhibition day where CAMGEW present her apiculture potentials (various honey, honey products, honey/bees wax transformed products, bee farming equipment, materials (bee suits, smokers, beehive) to the public. CAMGEW also does presentation, Demonstration and marketing. In 2018 was 19th – 27th December 2018, in 2019 it was on 27th April 2019, in 2020 it was on 23rd December 2020.
- CAMGEW participate regularly in Regional Agro-Pastoral Shows organized by government in Bamenda and other organized exhibitions locally and nationally
- Use of created website, facebook pages, Whatsapp groups and produced posters, booklets and publications to promote learning

## INCREASING CAMGEW KNOWLEDGE ABOUT BEES

- **CAMGEW took part in 2015 APIMONDIA which was the 44th International Apicultural Congress:** This event brought together apiculture scientist, researchers, practitioners, apiculture technology inventors, investors, civil society organizations, networks, governments and international institutions to talk and exhibit on the past, the present and the future of apiculture in the world. This event took place from 16th to 19th September 2015 in South Korea. This was aimed at protecting bee biodiversity, using bees to fight poverty, hunger, unemployment and diseases. Bees are pollinators for our crops and a rich world wild plant heritage. This congress talked about the health of bees, the types of bees, where they are found, the quantity of bees and the where they are used or can be used. About 8000 guests from Africa, Europe, America, Australia and Asia participated in this Congress. CAMGEW made a presentation there on apiculture and conservation in Kilum-Ijim forest.
- **CAMGEW and National Apiculture Platform:** CAMGEW took part in the Creation of *Cameroon Apiculture Platform for Honey Production, Bee Health and Pollination Services At Bafoussam - Cameroon* from the 26<sup>th</sup> to 27<sup>th</sup> May 2016. It was attended by stakeholders in the honey sector coming from all regions of Cameroon. It was Important to have a national platform to complement work done by the African Platform. This workshop was organised by African Union under the BEE PROJECT in partnership with MINEPIA - Cameroon. CAMGEW had the opportunity to meet like-minded institutions that could become her partners. Possibilities of partnerships were discussed with these institutions and we hope to concretize this soon.

- Guiding Hope - Cameroon trained CAMGEW team and other 15 community members on how to reduce smoke from honey during and after harvesting and also during bees wax during extraction. This training took place between 2 and 3rd of May 2017
- CAMGEW team was trained on organic certification, internal control system, handling, processing, traceability and labelling of organic products like Oku White Honey by International Centre of Insect Physiology and Ecology (icipe)- Kenya from 25<sup>th</sup> to 28<sup>th</sup> of April 2016 in Oku - Cameroon
- CAMGEW promotes Exchange Visit between Honey Cooperatives and the North West Bee House (NowebeeH). CAMGEW assisted the Kilum-Ijim forest honey cooperatives on 26<sup>th</sup> April 2018 in capacity building on leadership and management and supported them with bee farming equipment. CAMGEW also facilitated the exchange visit between these cooperatives and the North West Bee House (NOWEBEEH) in Bamenda run by BERUDA. The exchange visit exercise was facilitated by Mr Ngwainbi Simon Director of BERUDA and Promoter of NOWEBEEH. During the exchange visit the participants were able to know about the NOWEBEEH as an asset for all bee farmers in the North West Region.
- CAMGEW continues learning online, attending conferences, short courses, joining networks, reading about apiculture and conservation to remain the best in Apiculture and Nature Conservation.

## AWARDS

- Recycling Heroes 2020 from Global Recycling Foundation
- Gender Just Climate Solutions Award 2019 COP25 Madrid-SPAIN
- UNDP Equator Prize Award 2019 New York-USA:
- UNIDO Prize Award May 2019 Rome-Italy on Agrofood and Biodiversity in
- Guardian Post National Award 2019 Ebolowa-Cameroon
- National Energy Globe Award for 2018 AND 2019
- Pan African Prize Award for Cameroon 2012 AND 2013 by Teach A Man To Fish - UK
- Cameroon National Award for Kilum-Ijim Forest Conservation, Poverty Alleviation and Development in Oku, 20 MAY 2014.
- World Bank Recognition 2012 for Work done on Kilum-Ijim Forest Governance
- CAMGEW-HONEYSHOP or NOWEFAM Award by FOMBILLION August 2018.
- CAMGEW shortlisted for 2020 Ashden Awards



## AWARDS

2020 MIDORI PRIZE AWARD FOR BIODIVERSITY	CAMGEW-HONEYSHOP or NOWEFAM Award by FOMBILLION August 2018.
Gender Just Climate Solutions Award 2019 Spain COP25	Pan African Prize Award for Cameroon 2012 AND 2013 by Teach A Man To Fish – UK
UNDP EQUATOR PRIZE AWARD 2019 NEW YORK-USA	Cameroon National Award for Kilum-Ijim Forest Conservation, Poverty Alleviation and Development in Oku, 20 MAY 2014.
UNIDO Prize Award May 2019 Rome-Italy on Agrofood and Biodiversity	World Bank Recognition 2012 for Work done on Kilum-Ijim Forest Governance
Guardian Post National Award 2019 Ebolowa-Cameroon	Pan African Prize Award for Cameroon 2012 AND 2013 by Teach A Man To Fish – UK
National Energy Globe Award for 2018 AND 2019	