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RECRUITING AND REGULATING ACCESS TO NON-TIMBER FOREST PRODUCTS (NTFPS) LEADS : TOWARD STRATEGIES FOR BENEFIT SHARING OF TABERNANTHE IBOGA IN THE CONGO BASIN WITH SPECIAL REFERENCE TO CAMEROON

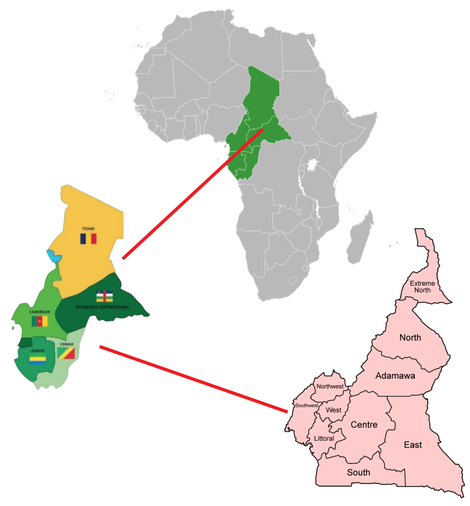
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ABSTRACT

The Congo Basin (including Cameroon) is one of the top eco-regions in the world just after the Amazonian ecosystem. The tropical rainforest and savannas of Cameroon (High biodiversity country) are endowed with abundant high value specie of fruits, medicinal plants and cosmetics. Any rural and urban households of the country heavily depend on, these resources for their fruits, medicine, food and construction needs. Moreover, some of these products particularly, medicinal, aromatic and nutraceutical plants are traded locally, nationally and internationally, significantly contributing to the economy of the country. Ibogaine is used in many countries including South Africa, New Zealand, and Brazil. In Brazil the drug is sold through prescription by medical doctors. The Tabernanthe iboga even though endemic to Cameroon, both Congo's, Angola and Equatorial Guinea and the Central Africa Republic, little or no research has been carried out on their population sizes, chemical content, and pharmacology. Interest in the ibogaine as a treatment for addiction has increased in the USA. At the same time the use of ibogaine for treating opioid dependance has increased in Europe. Collectively ibogaine demonstrates multiple potential pharmacological and psychological properties for treating alcohol use disorders. In Cameroon some species are already governed by the Forestry and the Environment law, in compliance to the Convention on Biological Diversity (CBD) and the NAGOYA Protocol.
We strongly recommend that Tabernanthe iboga should also be a candidate in this forestry and Environment framework. This work is aiming at encouraging biological endowed countries (Cameroon) to achieve economic progress while balancing environmental and social concerns, and build equity in the distribution of benefits derived from commercialization of natural resources. It will equally support law enforcement activities at the target region of Cameroon where the species occurs.

Key words: Cameroon, Tabernanthe iboga, Benefit Sharing, Commercialization,Households, Laws.



I. INTRODUCTION

The Congo Basin (including Cameroon) is one of the top eco-regions in the world just after the Amazonian ecosystem. The tropical rainforest and savannas of Cameroon (high biodiversity country) are endowed with abundant high value species of fruits, medicinal plants and cosmetics (Nkuinkeu, 1998; Tonye et al., 2000). Despite, the importance, the plants are under severe threats due to human activities such as illegal logging, conversion of forest to farm land, bush fire, grazing, fragmentation and degradation. The threatened plant species, even though endemic, little or no research has been carried out on their population sizes, chemical content and pharmacology.
Any rural and urban households of the country heavily depend on these resources for their fruits, medicine, food and construction needs. Moreover, some of these products, particularly medicinal, aromatic and nutraceutical plants are traded locally, nationally and internationally, significantly contributing to the economy of the country.
The exploitation/marketing of Non-Timber Forest Products (NTFPs) in Cameroon is governed by a legal framework. Many companies were authorized to operate in the forestry sector over the years, but nowadays a few companies are actively involved in the medicinal plant business.
The project is working to encourage biological endowed countries (e.g. Cameroon and the Congo basin) to achieve economic progress while balancing environmental and social concerns, and build equity into the distribution of benefits derived from commercialization of natural resources (e.g. Tabernanthe iboga).
Furthermore, the project will improve the livelihood of the local population by developing economic enterprise on NTFP (Tabernanthe iboga). It will equally support law enforcement activities at the target regions of Cameroon where the species (T. iboga) occurs.





II. MAJOR OBJECTIVE.

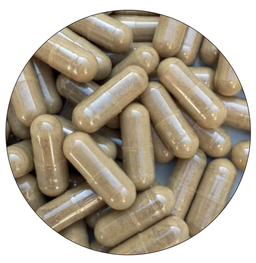
The overall objective of this work is to set out a pragmatic plan for the sustainable exploitation and use of Tabernanthe iboga in compliance with the NAGOYA Protocol and the equitable benefit sharing schemes.

III. METHODOLOGY

- We used several approaches in this study, combining our experience in working review and updated trade date. This enabled us to get a prospective on trade volumes, prices and the gap between research reports and practice.
- We conducted focused group discussions and detailed interviews with many resources' persons.
- Some research reports and books on NTFB management including, regeneration and decortication, production, inventory, trades harvesting, policy and legal framework were consulted.
- Structure questionnaires were further applied to some categories of institutions

involved in NTFP management (NGOs, CIGs), research institution, trade Union, NTFP gardeners, growers, and farmers, traders, exploiters and exporters, state ministries, universities).

- Informal discussions were held in areas where, the people are not welcoming or comfortable with questionnaires.











IV. RESULTS

IV.1. Background and Review of Information
Ethno medicine and drug discovery

- Ibogaine and drug addiction

IV. 2 Pharmacology of ibogaine and ibogaine- related alkaloids

- Historical overview.

IV.3. Management of the resource (iboga plant).
IV.3.1. Conservation status
IV.3.2. Inventory.
IV.3.3. Regulatory framework

- The laws in force.

a. Forestry law:
b. Environment law
The purpose of this law shall be to:

1. Support the valorization of genetic resources and associated traditional knowledge to promote their conservation and sustainable use;
2. Regulate access to genetic resources, their derivatives and/ or associated traditional knowledge;
3. Ensure the involvement of indigenous and local communities in sharing the benefits arising from the use of genetic resources or associated traditional knowledge;
4. Promote and encourage the use of research findings as well as the documentation of genetic resources and associated traditional knowledge;
5. Contribute to improving the living conditions of indigenous and local communities;
6. Improve the contribution of biodiversity to human development and well-being;
7. Discover and make available genetic information. It shouldbe noted that: Reaffirming the sovereign rights of the Republic of Cameroon on its national resources. Considering the national legislation in the areas of Flora and Fauna and its relevant provisions on genetic resources, biotechnology safety, scientific research and phytosanitory protection.
   Acknowledging the rights of use and / or customary law of the indigenous peoples and local communities in relation to the use of biological resources and their associated traditional knowledge, in conformity with the laws and regulations in force.

The following parameters must be taken into account:

- Signature of PRE- PIC (Prior Inform Concern)
- Memorandum of understanding (MoU) signed by the Ministry of the Environment, Protection of Nature and Sustainable Development. (MINEPDED) and the company (user) relating to the utilization of genetic material of the root bark of Tabernanthe iboga following the ABS procedures in Cameroon, and the local Community (Provider)
- signature of the Mutually Agreed Terms (MAT)

IV.3.4. International conservation Policies
In Cameroon, the plant iboga is governed by several laws, most notably the CBD (Convention on Biological Diversity) and the NAGOYA Protocol. The project adheres to the Sustainable Development Goals (SDG) in the following ways:

- SDG 1target 1.4: carry out threat assessment of socio-economically importance of wild plants to guide conservation actions. This will aim and assessing the local uses and extraction of species in order to make informed conservation decisions at local level.
- Goal 15.5: Take urgent and significant action to reduce the degradation of natural habitats, protect and prevent the extinction of the species. Sensitization and capacity building and some of the important components of the project.
- SDG 15.7: Take urgent action to end poaching and trafficking of protected species of Flora and Fauna and address both demand and supply of illegal wildlife products. The project seeks to collaborate with the Cameroon government through the ministry of Forestry and Wildlife (MINFOF) and the Ministry of Environment, Protection of Nature and Sustainable Development (MINEPDED) to support Law enforcement activities at the target sites.
- The project also fits into target 8 of the Global Strategy for Plants Conservation (at least 75% of threatened plant species in ex situ collections, preferably in the country of origin and at least 20% available for recovery and restoration programs

IV.3.5. Harvesting Practices
Under customary law, only native residents are allowed to harvest economically important resources such as Tabernanthe iboga.
The root bark is the most valued and used part of the plant, as it contains the highest concentration of ibogaine. How much ibogaine there is in the root bark depends on many factors: Plant age, soil symbiotic relationship with other trees: or possibly, many other factors.
It is possible to harvest the root bark of the iboga tree without killing it. It is therefore necessary to apply good harvesting practice.

V. EXPORTATION

The exportation of special forest products shall in accordance with condition laid down by decree, be subject to a prior annual authorization issued by forestry service (and Environment service) and to the payment of a graduated surtax determined according to the volume exported.

VI. MARKETING AND TRADE

In Cameroon, a preparation from root bark and other plans is employed in traditional African medicine for the treatment of many diseases including leprosy, mental disorder, asthenia. Much of the trade occurs between the Bwiti members and traditional healers.
Iboga is often sold in the traditional pharmacies and markets of south region (Ambam, Ebolowa, Sangmelima etc.) and Centre Region (Yaoundé, Mbalmayo)
The international export of root bark is very limited. Data on export is scarce or inexistent. However, some exports where signaled: the import countries (users) are: USA, France, Belgium, Italy, Netherland. The quantity exported ranges from 0.5g (for research) to 100kg-500kg yearly for extraction.
Over 80 exporters or suppliers of ibogaine were identified at Mexicao, Costa Rica, Colombia, and South Africa. Their products (ibogaine) were shipped to North America and European purchases.







VII. COLLABORATIVE BUSINESS: PARTNERSHIP

Key beneficiaries of the project shall be the threatened plant species (T.iboga), the local population (farmers, NTFP harvested, hunters), women and youth associations, traditional and municipal authorities, Civil Society Organizations (CSOs) as well as the government of Cameroon.

VIII. THE WORKING TEAM (COMMITTEE) INCLUDE:

- The implementing organization: World Botanical Exchange and Services (WBES). WBES has over 30 years of implementing conservation and development projects in all the eco - regions of Cameroon.

It has a work force of various domains of competence; threatened biodiversity conservation, agro-forestry and agricultural development. WBES has the experience in bridging research institutions worldwide (private and public), phytopharmaceutical firms, local NTFP entrepreneurs, Community Based Organization (CBOs) and administration in view of the sustainable management of bio-resources (including Tabernanthe iboga)

IX. CONCLUSION AND RECOMMENDATIONS

What needs to be done?

- Making benefit-sharing work in practice
- Research agreements
- Access the markets
- Putting the pieces (stakeholders) together
- Conservation through cultivation (transition from wild harvest to tree cultivation)
- International cooperation and cross-border aspects
- The state (Cameroon) shall cooperate with other border states (i.e. Gabon, Congo, Equatorial Guinea etc) as the case may be, with the involvement of the relevant indigenous and local communities, where the same genetic resources (Tabernanthe iboga) are found in the territory of more than one state.
- The state shall cooperate with other states, with the involvement of the indigenous and local communities concerned, where the same traditional knowledge associated with genetic resources is shared by different. Indigenous and local communities in several states.
- Sensitization, botanical inventory, capacity building, support to illegal extraction (exploitation). Illegal activities are highly reduced and Tabernanthe iboga (over exploited) is protected at the eco- regions (project site) where the species occurs.
- Extension mammals, good harvesting practices mammals' extension guides.

Distribution of *Tabernanthe iboga* in the Congo basin.

COUNTRY	PROVINCES	SITES
Cameroon	South	Ambam
	East	Yokadouma; Lomié
	Littoral	Mouanko
	Centre	5 km S Mbalmayo
Equatorial Guinea	Littoral	Etembue, region continentally (Reserva de Ndote: N1° 17' E 9° 25')
	Centre-South	
	Wele Nzas	
	Kie-Ntem	
Gabon	Estuaire	Libreville
	Moyen -Ogoué	Ndjolé
	Haut-Ogoué	Franceville, Moanda
	Woleu-Ntem	
	Ngounié	Mimongo, Mbigou, Etéké, Moula.
	Ogoué-Maritime	Gamba,
	Nyanga	Mayumba
	Ogoué-Ido	Lastoursville,
	Ogoué-Ivindo	Makokou, Mekambo
Central African Republic		Boukoko
Congo		Kouilou, Ngokamina, near Oyabi, 25 km w of Sibiti; Tchisséka, near Brazzaville, near Kinkala.
Democratic Republic of Congo.	Bas-Zaire	Between Malemba and Matambana; Moanda, Nsimundele, Luki, Sandala, Bingila, Matomba, Sanga, Kisantu, Kingana, Kingemba-Kinga, Kimvula.
	Kinshasa	Sabuka, Kimuenza, Kinshasa, Lemba; between Kinshasa and Ndjili. Ndjili, Kinkole, Kimpoko, Menkao, Bombo.
	Bandundu	Kole, Mongadjale, Bokoro, Ipamu, between Dekese and Bumbuli. Popokabaka, Kiyaka, Kidima, Kisangi, Panzi.
	Equateur	Bas-Uele, Bombura, Bobutu, Boketa, Ekuta, Guluma, near Likimi, Dundusana, Upoto, Coquilhatville (Mbandaka), Eala, Mongo, Mondjo, Tolongole, between Mompono and Befori, Wendji, Lake Tumba, Bobanda, between Boteka and Makako, Boteka, Bolengambi, Bolloke, Bokondji, Loka Buma, Mondombe, Monkoto.
	Haut-Zaire	Mobwasa, Yandjali, Yangambi, ksangani, near Osuke.
	Kasai occidental	Badibanga.
	Kasai oriental	Near Booke; Mukumari, Katabo Kombe, Sangaie.
	Kivu	Mutambo.
Angola	Maiombe	Buco Zau.
	Uige	Entre
	Lunda	Near Dundo, Nordeste *(Tabernanthe pubescens)*, Dala.
	Cuanza Sul	Amboin, Gabela.
	Bie-Cuando-Cubando	Between Chitembo and Chigueia, near longa.
	Mulanye	Pungo Andongo *(Tabernanthe pubescens)*

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