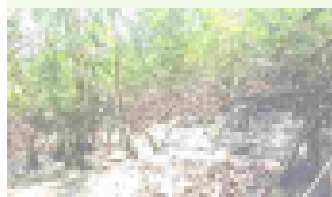


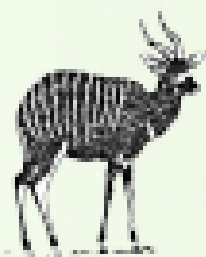
Cameroon Mangrove & Wetlands Conservation Network



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To Educate and Inform Cameroonians on Mangroves and Wetlands



CWCS



National Committee
of the Netherlands



Our Partners

Cameroon Mangrove & Wetlands Conservation Network (CMN) - network of over 40 active grassroots national NGOs, CBOs and experts involved in sustainable mangrove, coastal area and wetlands management issues in Cameroon within a wider regional network-African Mangrove Network (AMN) based in Dakar Senegal. CMN secretariat is hosted by Cameroon Wildlife Conservation Society (CWCS) at Mouanko (National Coordination) and Cameroon Ecology (CAMECO) (Secretary General). Matanda is the coastal parlance for mangroves. Matanda News is a six monthly newsletter of CMN activities and partners.

Editorial



Nearly a decade activities on mangroves metamorphoses CMN into Cameroon Mangrove & Wetlands Conservation Network at October 10-11 Akonolinga Conference

Cameroon civil society, conservation experts, private sector operators, relevant government technical services of environment, nature protection and forestry and other well wishers during the historic formative workshop on the 25 January, 2005 at Edea decided to form an umbrella organization called Cameroon Mangrove Network (CMN). This was to enable them channel efforts, energies and resources towards sustainable management of mangroves and coastal wetlands in Cameroon in order to stop further destruction and degradation to mangroves and coastal wetlands in the country to protect livelihoods of over 30% of country population living within the coastal areas.

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Matanda News.

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Mangrove Action Project (MAP)

CMN has since then been actively involved in joint efforts working with local communities and other stakeholders to protect mangrove and coastal wetlands. Having also made a round tour of all Cameroon mangrove blocks to collectively appreciate on-the-ground problems through its executive committee meetings and conferences from Edea (2005), Douala (2006), Kribi (2006), Tiko (2006), Ekondo Titi (2007), Mouanko (2007), Campo (2008) to Buea (2009) and a historic coastal forum and pan African symposium on mangrove and climate change in 2010 in Buea and Douala respectively then Mangrove and REDD symposium in October 2012 in Douala. Our activities on mangrove resources assessments and monitoring, mangrove replanting, efficient fuel wood energy use technologies through the establishment of efficient cook and fish smoking stoves, the development of local platforms for policy influence and scientific research are quite significant achievements.



It was then clear from the meeting at Akonolinga of 10 -11 October 2013 that the network needed to spread its tentacles to embrace wetlands management challenges in the country that will take on board all wetlands types including marine & coastal, inland and artificial. The 4th Round Table was organized in collaboration with the Ministry of Forestry and Wildlife (Department of Wildlife and Protected Areas under the auspices of Wetlands International Africa Programme under the theme "Water birds as indicators of wetlands: International Methods of counting & monitoring with national action plan". The event was blessed by visits to the Upper Nyong flood plain covering over 500 000 ha being the second largest inland wetlands after Lake Chad and technical presentations on the theme by key national experts. Participants agreed that though the network changes its name to Cameroon Mangrove and Wetlands Conservation Network, the acronym CMN be still maintained.

The most challenging task ahead is to start an ever forward march towards the production of a national policy for wetlands in Cameroon which should embrace all types of wetlands facing serious threats from loss and degradation from unsustainable use and ignorance of their values and vital ecosystem services. CMN cannot pretend to do all these alone but needs the support of every one having a stake in mangroves and wetlands.

Dr Gordon Ajonina

Challenges and perspectives of Reduced Impact Logging techniques in mangrove ecosystems: Case study research on Cameroon mangrove estuary

For some time now Conventional Logging (CL) practices have been going on in forest harvesting for centuries and have been proven very much destructive to forests in general and the environment. The use of Reduced Impact Logging (RIL) a modern technique introduced a couple of decades ago is considered a possible solution to this problem of unsustainable wood harvesting. RIL is an intensively planned and controlled implementation of timber harvesting operations conducted by trained workers to minimize the environmental impact on forest stands, communities and soils. RIL is viewed as part of a holistic approach to forestry. According to Pulkki 2004, a good step towards Sustainable Forest Management (SFM) is that environmental and residual stand impacts are much reduced using RIL and eventually presents a good option in areas where full SFM certification is not yet possible.

RIL is not a new concept as it has been practiced now for decades mostly in most parts of the tropical forest. It is an application of Best Management Practices (BMP), well-developed in temperate forests, to (selection) cutting in tropical forests. RIL has been applied to many tropical

forests in the world and has provided very marvelous and tremendous results and proven to be very successful in terms of sustainable management and it is being encouraged to be equally



Mangrove complex root architecture and structure coupled with their peculiar hydrological and edaphic nature are real challenges to the application of RIL in these systems.

applied to areas where it has not yet been introduced. It is considered as a better option for SFM as compared to the regular CL technique traditionally practiced by logging contractors. These practices have been found to be more destructive to the environment, the residual trees and the ecosystems in general.

The unfortunate thing is that despite the continuous over-exploitation, degradation and rapid disappearance of our rare and very fragile mangrove ecosystems, RIL has in no aspect been applied in them. According to Professor Reino Pulkki, from Lakehead University Thunderbay Antario, Canada, a prominent advocate of RIL has declared that within their current data base for almost

380 articles published up to present about RIL and its applications; none has ever been done on the mangrove ecosystem. This is not good enough for this fragile but important ecosystem. Yet

mangrove holds brighter prospects for application of RIL especially in its enormous capacity of fighting climate change through global mechanisms such as REDD and CDM as it is known to store up to 80% of its carbon in the below ground components which sharply contrasts the upland forests which store less than 5% carbon in the soil. This means that when mangroves soils are disturbed they release very great quantities of carbon dioxide into the atmosphere than upland forest soils thus enhancing their additionality criterion for any of such carbon project development within the mangrove ecosystem.

It is on this back drop that Professor Reino, Dr. Ajonina, Prof Tchamba and

Mr Bambot of Lakehead University Thunderbay Antario, Canada; University of Dschang and CWCS respectively are carrying out a joint research initiative on RIL within the mangrove ecosystems with special reference to the mangroves of the Cameroon Estuary.

The inception part of the research took place in June 2013 with the selection and training of some 10 mangrove logging contractors on RIL techniques at CWCS premises in Mouanko prior to the preliminary survey for selection of suitable pilot sites for RIL implementation. The RIL research work was designed to draw heavily and to be integrated into the 15 – 0.1ha mangrove permanent sample plots (PSP) network established by CWCS since 2002 regularly re-measured once every two years to gauge mangrove biomass and ecosystem regeneration dynamics. The October phase of the work will essentially focus on monitoring mangrove restoration within the PSP network after separate application of RIL and CL practices in five sites.

By Bambot Moïse(1), Martin Tchamba(1) & Gordon Ajonina(2)
(1)Department of Forestry, University of Dschang
(2)CWCS

INTERNATIONAL WORKSHOP ON Central African Mangroves and REDD+ held on the 5-6 December 2013 in Douala

MINEPDED committed to improve environmental information management for MEA implementation in Cameroon

The United Nations the coastal area of occupation and Environment Programme Cameroon, the Ministries deforestation of mangroves (UNEP) in collaboration of Forestry, MINEPDED, will likely jeopardize the with the Cameroon MINDAF and the private sustainability of this Mangrove & Wetlands sector. Mangroves are ecosystem. Areas Conservation Network unique ecosystems that decimated in Cameroon (RCM) under the auspices provide many economic are estimated at nearly of the Cameroon Wildlife benefits and other 3,000 ha per year, while Conservation Society ecosystem services to the there is no specific (CWCS) and the University people. They are spawning legislation for the of Douala organized in grounds for fish resources, protection of this fragile Douala from 5 to 6 protection against coastal and sensitive habitat and December 2013, an erosion, storms ... With ecosystem. international workshop on their canopy and root



Family photograph of workshop participants

To allow the mangrove to continue to produce its vital ecosystem services (climate regulation, supply wood and non-wood forest products, support ecological processes and socio-cultural), the Institute of Fisheries Science, University of

Mangroves and Reduction system, mangroves Douala Yabassi and RCM of Emissions due to contribute to sequester through this workshop Deforestation and huge amounts of carbon presented research results Degradation (REDD+) in from industrial activities in the sub-region to Central Africa. and deforestation thus sensitize the authorities and ameliorating the impact of and international

This workshop brought climate change. institutions to develop together thirty participants The natural regeneration strategies and mechanisms from countries with capacity through cuttings of for the protection and mangroves of Central the main species of enhancement of these Africa (Cameroon, Gabon, mangrove (Rhizophora), ecosystems within the Democratic Republic of which represents 90% REDD + mechanisms. Congo, Congo) and along the coast of Central elsewhere Kenya, USA, Africa, is impossible, Italy, England, various except by propagules international organizations (reproduction) which is (FAO, UNDP, UNEP) and possible only with trees NGOs (WWF, IUCN, GIZ), aged at least ten years. municipal councils within Therefore, continuous

The Global Environment Facility (GEF) has approved a Project Preparatory Grant (PPG) for Cameroon in order to produce a project document for the concept note entitled "Developing a core capacity for MEA implementation in Cameroon" under the guidance of the United Nations Environment Program (UNEP), the approved concept note was developed by the Ministry of Environment, Nature Protection and Sustainable Development (MINEPDED) working in close collaboration with its national partners like CWCS, CAMECO and OPED one of the cofinancers of the project and also key implementation partners in the GEF-FAO Cameroon Mangrove Project.

The project aims to address the core capacity gaps in order to assist Cameroon to implement its environmental commitments as a follow-up to the National Capacity Self Assessment (NCSA) undertaken from July 2004 to September 2007. This process will contribute to strengthening institutional capacity by addressing institutional gaps at various levels which have impeded Multilateral Environmental Agreements (MEA) implementation and by helping to improve stakeholder capacities to strengthen national financing mechanisms

By Dr Ajonina Gordon
National Coordinator, CWCS
National Coordinator, CMN

and mobilize sustainable funding for MEA implementation.

The project is designed to enhance synergies to meet commitments under the international Convention. Therefore it seeks to enhance policy coordination and cooperation, to harmonize policy interventions from different ministries and highlighting benefits for sustainability goals, to strengthen coordination and cooperation among focal points, national committees, non-governmental stakeholders, and to ensure that proposed amendments to legislative, regulatory and policy frameworks yield multiple benefits for MEA implementation. By investing in Cameroon's information and knowledge management infrastructure, and by strengthening the institutional framework and its capacity to interpret data and to integrate environmental information in project development and policy processes, the project will contribute to a solid foundation for environmental management in Cameroon, that is, the capacity to diagnose environmental issues and to develop preventive or mitigative measures accordingly. These will be achieved through the following three components: Tools for improved environmental information management; Institutional arrangements and coordination for MEA implementation; Build capacity of actors to strengthen sustainable financing mechanisms and mobilize sustainable resources for MEA implementation.

The purpose of the inception workshop held in Yaoundé (Hotel Azur) from the 23-24 October 2013 was to create a common, understanding and support of the project, its vision, goals, objectives and implementation plans. Over 50 participants drawn from government, universities, Research institutes, International organizations, NGOs, and private sector took part.

By Dr Ajonina Gordon

Cameroon Ecology Trains Referees

From December 12 to 13, 2013, ecosystems, through two modules. occurred a training workshop for local During the various presentations, stakeholders on participatory participants learned to identify sources, management of conflicts within the actors, methods of arbitration and the premises of Cameroon Ecology at different types of conflicts in the context of conservation and management of mangrove ecosystems. It was learned

The meeting, which lasted two days, that in such a situation of dispute was led by Patrice Ngokoy, Iris Bayang concerning the preservation of and Cécile Ndjebet of Cameroon ecosystems, there is a share of direct Ecology. Under the project " participants, who compete in an sustainable community based immediate way. On the other hand, management and conservation of there are indirect actors, who financially mangrove ecosystems in Cameroon " or ideologically support the protagonists. The organization Cameroon Ecology Apart moderators CameEco, Mr. Shey, organized a platform for exchange on a researcher gave a presentation on his participatory management in conflict. A experience in the mangroves and how workshop is required to CamEco cope conflicts can accelerate their with the rapid degradation of degradation. After this exchange, the ecosystems, including the mangroves. It overall objective of the workshop was " was about to gather the people, to bring together within a structure (municipalities, governments, private platform) of all actors within mangrove companies, civil society and research of Wouri estuary and awareness on institutions / universities to talk about sustainable management of mangrove actions in the mangroves. These resources of their respective areas different actors involved in work that "according to Camer Eco's moderators. allowed them to learn about the current It was also who validate a final charter



Mangrove stand

of the said mangrove platform of the Wouri estuary. Finally, it should raise participants awareness on the importance of mangroves, and give them the tools for conflict resolution in the mangroves. In the status of mangroves in the Wouri end, players such as fishermen have estuary, through the presentation of a resolved to educate their community draft of the platform of the estuary. The about the sustainable use of natural platform has been enriched by the resources in the mangroves. proposals from the stakeholders.

This workshop was also an opportunity for them to learn a little more about conflict management in mangrove

By Rowina Nguimbis

SHRIMP AQUACULTURE DEVELOPMENT AND IMPROVEMENT OF ENTREPRENEURSHIP IN AND AROUND THE MANGROVE ECOSYSTEM IN KRIBI AREA

In 2004, the NGO OPED with month/household or 360 kg shimp farming micro- a mission to create greater /year/recipient, valued at enterprises.

awareness of environmental 900,000 FCFA/year/recipient, issues and encourage the which provides a revenue emergence of approaches to increase of about 60% and the development centered on man, sustainable management of freshwater biodiversity and mangroves.



Family photograph of participants at the workshop

Communities living in and around the mangroves areas of Kribi represent nearly 40% of the population. Very attached to fisheries resources as a basis for their was deployed in the villages of food and their culture, they are Kribi, especially riparian fighting daily for the income-mangroves areas to mobilize generating activities for and people, students, local alternatives to the traditional use authorities, the private sector of fish already reduced by and the general public on the overexploitation, and now adoption of aquaculture limited by the installation of technology based on major projects in the Kribi area. freshwater shrimps in order to reduce the capture of female This daily struggle has a shrimps that always move negative impact on marine, towards the mangroves to lay coastal and freshwater their eggs. biodiversity. To limit the damage,



Training session

Balance sheet

Information and The results obtained at the end awareness of stakeholders on of this initiative is satisfactory the importance of mangrove with the capacity of 160 women ecosystems, development and and the rest to support the dissemination of a practical construction of 15 Chinese guide for use by farmers on bamboo cages and 35 techniques for shrimp corrugated iron sheets and aquaculture, Organization of structuring of 5 groups into environmental education CIGs. The performance of this sessions focused on coastal initiative indicates that women ecosystems, freshwater and have more than 100 kg per marine water, and training month on average over the 30 people on aquaculture garbages made in cages with techniques of freshwater and an average of 30kg/ support on the establishment of

Impact

With a focus on building awareness and capacity, the contribution of OPED helped to promote sustainable practices in fisheries and biodiversity of mangrove ecosystems.

Sustainability

OPED became the pioneer in the field of aquaculture of freshwater prawns and is



Participants in action

continuing this initiative in the CBSP program - sustainable community management and conservation of mangrove ecosystems in Cameroon funded by the GEF and the GDP MINEP.

By: Elie Nguekam Wambe
Biologist / Environnementalist
Head of OPED center, Kribi

CARBON STOCKS IN SLASH AND BURN AGRICULTURE SYSTEMS IN COASTAL FORESTS

Carbon sequestration is the means by which the food needs of the population are met. In order to assess the level of carbon sequestered in slash-and-burn farms, a study was conducted in the future Douala -Edea National Park



Space cleared by fire for farming

located in the coastal forest area of Mouanko. The method consisted of characterizing and classifying the different farms into different levels of forest degradation, the classification criteria being the density of trees present and the dominant crops.

Standard forest inventory and mensuration techniques were used for all trees of diameter ≥ 10 cm.

A total of 75 farms were inventoried, divided into annual crop systems (dominated by cassavas and egusi), biannual crops (dominated by cocoyams and yams) and perennial crops (dominated by plantains). These systems represent respectively, the most undisturbed, moderately disturbed and undisturbed forest levels.

The amount of carbon

sequestered in the different components of annual, biannual and perennial crops systems as compared to adjacent undisturbed forests were



Data collection

respectively 61.56 ± 7.39 tC / ha (x%), 77.29 ± 19.71 tC / ha (y%) and 84.75 ± 9.94 tC / ha (z %). The results show as well that this is the tree density in systems that best justifies the distribution of carbon stocks.

Therefore, although the slash and burn agriculture contributes to the supply of food needs of the population, it is responsible for the loss of a large amount of carbon in the study area.

By Dmapo W. Jasmine
Programme Assistant
CWCS

INTERVIEW

"The ISH should help to strengthen our food self-sufficiency"

Interview with Pr TOMEDI EYANGO Minette, Director of the Fisheries Sciences Institute, University of Douala



Professor (Mrs) Tomédi Eyango Minette, Director of the Fisheries Sciences Institute of the University of Douala at Yabassi. This institution opened its doors in 2010.

Matanda News: How could you describe your school?

Pr Tomedi: The Institute of Fisheries and Aquatic Sciences (ISH) is one of the eleven institutions of the University of Douala. It is a center of excellence for training, research and development support to sub-regional (CEMAC) vocation in the field of fisheries and aquatic sciences. Academic training at ISH is multidisciplinary in character organized based on the pedagogical principle of credits. This method is intended to make the heterogeneous systems more readable and harmonize grades and courses in the international context. Engineering degrees, Masters and Doctoral / PhD are awarded in the course of the training. ISH should help strengthen our food self-sufficiency. So far, we have currently around 500 national and international students.

Matanda News: What should we understand by "Fisheries Sciences"?

Pr Tomedi: By fisheries sciences, one must understand the equivalent of agronomy in the aquatic environment. ISH train many high-level executives in the sector.

Matanda News: What are the objectives of this school?

Pr Tomedi: We train executives in the fisheries and aquaculture sector in the context of responsible fishing, sustainable aquaculture and integrated coastal zone management. Products

from ISH through an effort of proper training will accompany development of national maritime activity in its fishery and environmental components. We fill a major gap in Cameroon on training fish farmers, Fisheries and oceanographers, technologists, quality controller of fishery resources and marine managers to overcome the acute deficit of national professionals in these critical areas. This institution Develop the fisheries administration and the merchant navy is also one of those goals. Providing necessary human skills for sustainable management of fishery resources and aquatic ecosystems and the coastal areas, including inherent bilateral and multilateral agreements.

Matanda News: What are the fields found here?

Pr Tomedi: ISH has three statutory tasks: education, research and development support. Pedagogy based training is done within five departments: Fisheries Management, Aquaculture, aquatic Ecosystem Management, Oceanography and Limnology, and Processing & Quality Control of Fishery Products. If a person wants to be a student in this school, what condition should he fulfill? Admission to the ISH is only through a competitive examination. Baccalaureates of series C and D or their equivalents for Francophones and for Anglophones -AL in Biology and Chemistry and Physics or Mathematics. GCE -AL in Biology and Chemistry provided that these subjects have been obtained during the same session and the GCE Ordinary Level has the subjects Physics or Mathematics. Any other equivalent diploma by the Ministry of Higher Education is also accepted. Admitted students must pay their tuition fee, which amounts to 50.000Fcfa.

Matanda News: What are the qualifications obtained at the end of the training?

Pr Tomedi: Institute of Fisheries and Aquatic Sciences awards the following qualifications depending on the cycle and the selected option: bachelor cycle, which lasts 03 years to become a Fisheries Works Engineer (Professional bachelor); Master program that lasts 02 years, at the end of which the student becomes a Fisheries Engineer (Professional Master II), or you can specialize in research (MSc in Fisheries Sciences). The Summit is the doctoral cycle, which is obtained in a further three years.

Matanda News: Opportunities offered by the school you lead?

Pr Tomedi: The first job is teaching or research. The Fisheries Works Engineer can work in some departments as MINEPIA, MINADER, MINEPDED, in other international organizations like FAO, WFP, UNDP, WHO, ADB, WB, etc. They may also be involved in the commission of the Congo and Lake Chad Basin, in distribution companies of fishery products, laboratories of Control of Water Quality and Fisheries Products, in the merchant navy. Self-employment is an alternative for those who can have the spirit of initiative.

Matanda News: What are your relations with the Cameroon Mangrove & Wetlands Ecosystems Conservation Network?

Pr Tomedi: Since the signing of the agreement between the University of Douala through the Institute of Fisheries and Aquatic Sciences, the Cameroon Mangrove & Wetlands Ecosystems Conservation Network (CMN) on World Environment Day June 5, 2012, ISH students within the context of professional practice, participated in trade fairs exhibition with CMN, followed by out planting of nearly 7,000 mangrove seedlings to reforest 6 hectares of deforested mangrove land in "Bois de Singes" at New Priso, Douala; unveiled a commemorative board. From the 5 to 6 December 2013, we co-organized an international workshop with the United Nations Environment Program.

In the next few years, we want to create an observatory on mangroves. The University of Douala and CMN has shown that with the number of students and the ability to replicate in a few sessions of professional practice and with the help of the international community, it is possible to reforest 48,000 hectares of mangrove all along the Cameroon coast. These efforts would be in vain, unfortunately, if the competent authorities do not cooperate to reduce population pressure in search of habitat and secure the areas reforested. / .

By Rowina Nguimbis

THE ROLE AND IMPORTANCE OF MANGROVES IN AFRICA

Mangrove ecosystems are commonly found in the intertidal and inter tropical coastal areas. They are characterized by on the high seas) pneumatophores (roots that adapt to higher watersalinity levels than other plant species) degrades and pollutes the mangroves, allowing them to survive in very hostile conditions. These highly endangered West Africa for salt production in mangroves ecosystemsnowadays, have very important which are not favourable conditions for the roles which are necessary to point out. growth of mangrove trees.

In terms of economic importance, **CONCLUSION**

mangroves provide a range of products for AfricanMangrovescover over 3.2 million consumption which sustains the livelihoods hectares (with about 200,000 ha in of local communities (honey, bush meat, fish Cameroon) , which represents products, non-timber forest product) but also approximately 19% of the global size , are improves the living standards and the actually in distress and require emergency national economy throughc tourism, and actions as at the local, national and the sales of firewood, building poles, international levels by mobilizing all charcoal wood and fishery products. stakeholders including political and technical

authorities, development partners , the civil society and local communities. Indeed even though much has already been done in this context by these stakeholders, much more needs to be done in order to reverse the rate of degradation and disappearance currently observed at about 1% per year.

At the ecological level, mangroves have undeniable intangible roles through the improvement of the microclimate, availability of habitats for certain animal species and the provision of foodstuff. Thus this ecosystem attracts many species including water birds andmarine turtles.

Within the ecological importance ,it would be necessary to also mention the roles of Mangroves in;

- The coastal protection as shield against certain natural forces such as the waves, strong winds,typhoons and Tsunamis,
- Carbon sequestration (greenhouse effect) , thus producing a large plant biomass of about 110 kg / ha /per day of carbon such as observed in Malaysia.
- Pollution control and water purification,
- The resilience or capacity of mangroves to oppose climate change;
- Facilitating transportation by water through creeks and other waterways.



Watsop Kuete Eustache
Journalist in Environnement and Health

Concerning its socio-cultural importance, the presence of mangroves facilitates the development of traditional lifestyles of individuals (traditionalmedicine, beliefs, and rituals).

THREATS TO MANGROVES:

Despite the primary importance of mangroves, several threats of very large spans weigh on theseecosystems. These includes:

- Industrialization and urbanization (such as the Youpwe construction of ports in Douala)
- The creation of sand quarries ,
- The development of aquaculture and shrimp farms especially in Asia and increasingly in Africa,
- The extensive use of mangroves asfirewood for smoking fish and for heating by the local villages and cities and as construction poles ,

ANNOUCEMENTS

1. The 12th Executive Committee Meeting of RCM will be held in March 2014 the venue to be announced
- 2 Cameroon Wildlife Conservation Society (CWCS) and Watershed Task Group (WTG) will organize in collaboration with partners and volunteers a water bird count of Cameroon coast in January 2014 to update the count in January 2007

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