
Nature & Faune

Enhancing natural resources management for food security in Africa

Volume 30, Issue 2

Sustainable management of forests and wildlife in Africa: Enhancing value, benefits and services

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ISSN 2026-5611

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MESSAGE TO READERS

Bukar Tijani¹

This second edition of the 30th volume of Nature & Faune journal focusses on Sustainable management of forests and wildlife in Africa: Enhancing value, benefits and services. The choice of theme reflects some key recommendations of the 20th session of the African Forestry and Wildlife Commission (AFWC) held in Nairobi, Kenya, on 01-05 February 2016 (<http://www.fao.org/forestry/afwc/31908/en/>). In this edition, articles cover a broad spectrum of events, programmes, and research that have deepened meaningful discourse on Africa's renewable natural resources and expanded the impact and reach of forestry and wildlife around the continent. Whether it is for commercial scale or local/community level management of forests (natural or planted) and wildlife areas, the articles pay attention to plant as well as wild animal products/resources.

This edition contains 23 succinct articles addressing issues, challenges and opportunities in Africa's diverse ecological zones including, for example, the activities and preliminary results of the Great Green Wall of the Sahara and the Sahel Initiative and those in the rich tropical rainforests and swamps. Each article communicates in its own way and with differing emphasis the many facets of management of forests and wildlife in Africa, and how they can enhance the value, benefits and services they provide. And do not miss the lesson in communication, learned from Central Africa on brand identification of projects and programmes shared by the "Bushmeat Project".

We are delighted to present Somalia as the Country Focus selection this time. It is refreshing to note that in spite of its political and social challenges, Somalia still has preserved quite a number of biodiversity hotspots. Read this article and be inspired by the resilience of Somali biodiversity and its custodian communities!

The spirit of this edition is encapsulated in the editorial, which allows a sneak peek at the realities of going beyond sustainable forest management in Africa towards integrating sustainable tree cover into family farming.



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Gender discrimination in customary land tenure systems and its influence on food security and poverty alleviation: Lessons from Cameroon

Nvenakeng Suzanne Awung¹

Summary

Cameroon legal framework gives equal land-rights and access to natural resources to both men and women, but the customary tenure system inhibits women from inheriting or owning land. This paper examines how gender and women's marital status affect land acquisition rights and also examines the role of women in food production. Results show that most land is owned by men, while women are the main food producers. Land ownership amongst women correlates with their marital status, with divorcees owning more land; followed by widows, married women and singles. Size of landholding also directly correlates with annual income, with men owning most of the land and consequently making more money than women. Local customary belief has influenced the perception of community land ownership rights resulting into gender inequality; which deprives women of their basic rights to own land despite the fact that they are the main cultivators/producers of food. Educating traditional leaders on women's rights especially land-rights will enable them integrate gender equity solutions in community, and raising community awareness on legal provision through community workshop on rights will empower women to own land and could help unlock their potential to reduce hunger and improve livelihoods.

Introduction

Rugadya (2004) argues that equitable gender allocation of productive resources increase food production by 10-20%. Adequate food production, economic access to available food and nutritional security are essential elements for food security. Though both the UN Charter as well as the Cameroon 1974 Land Tenure Ordinance no. 74-1 (Government of Cameroon, 1974) guarantee the rights to use, own, and dispose of land by all, this is not a practical reality in Cameroon. Most men own land while women worked on it for food provision. The cultural deprivation of women's land rights and usufructs rights makes customary tenure system insecure for women and render them unwilling to invest resource for maximum output. Women constitute 90% of the total workforce in food production providing 80% of food production and 60% of cash production in Sub-Sahara Africa; and even when men and women work in separate farms, women farms are mostly used for food crop cultivation (FAO, 1995). Women play a major role in food provision, children's education and health care of their household; though mostly under-represented in formal sectors. According to Palmer (2009), ownership of land is more than a source for food production, but a mix of socio-economic and political struggle with men subordinating women to inherit and own land. Women are even considered as men's properties and allocation of farmland to women is sometimes considered a privilege, not a right. Most often this is considered acceptable across the society and even law-enforcement. Land ownership therefore shape how the house is run and

participation at public sphere. Men often act as the head of family, owning most of the family land, controlling the household finance and often the public speaker of the family unit. In Sub-Sahara Africa, poverty affects rural women more due to their roles in reproduction, production, and socio-economic marginalization. Women constitute 50.6% of the Cameroonian population (Mbarga, 2010) and this gender discriminatory land rights is an economic injustice that does not help to alleviate poverty. In Cameroon, the statutory law gives both men and women equal rights to own land, but traditional beliefs have denied women the rights to own land, rather, it subject them to be main labourers on the family land which is mostly own by men. According to Rugadya (2004), the lack of land ownership also deprived them the rights to access or control the money made from selling agricultural products. Land ownership by women will improve their bargaining power and food security within the socio-economic arena (Palmer (2009), therefore a call to enforce statutory laws that outlaw gender bias has prompt social adjustment.

This paper seeks to identify the role of women in the food production chain in Cameroon, examines why it is important for women to own land even when they have access to their family land, shows that secure tenure influences income and proposes feasible strategies to correct this gender discrimination in the allocation of secure land-rights.

Methodology

Households formed the basic unit for the questionnaire survey. Cluster stratified random sampling was used to collect data within the 41 park villages which are divided into four geographical clusters around Mt. Cameroon National Park (MCNP). Three park villages were randomly chosen within each cluster making a total of 12 villages. Then 264 households were randomly selected for questionnaire administration making sure that at least 15% of the households, 30% of each gender and 10% from each age group in each village served as respondents. Data were imported into SPSS for analysis. Consultations and interview were carried out with proponents working within MCNP projects.

Result

Mann-Whitney U test shows that the size of land holding is significantly related to gender ($p < .001$, $U = 5880$, $z = 3.5$) with men owning the most land than women (1a). Annual income also significantly relates to landholding (χ^2 (16) = 83.635, $p < .001$) (1b). The results show that men earn the most land and make more money from it.

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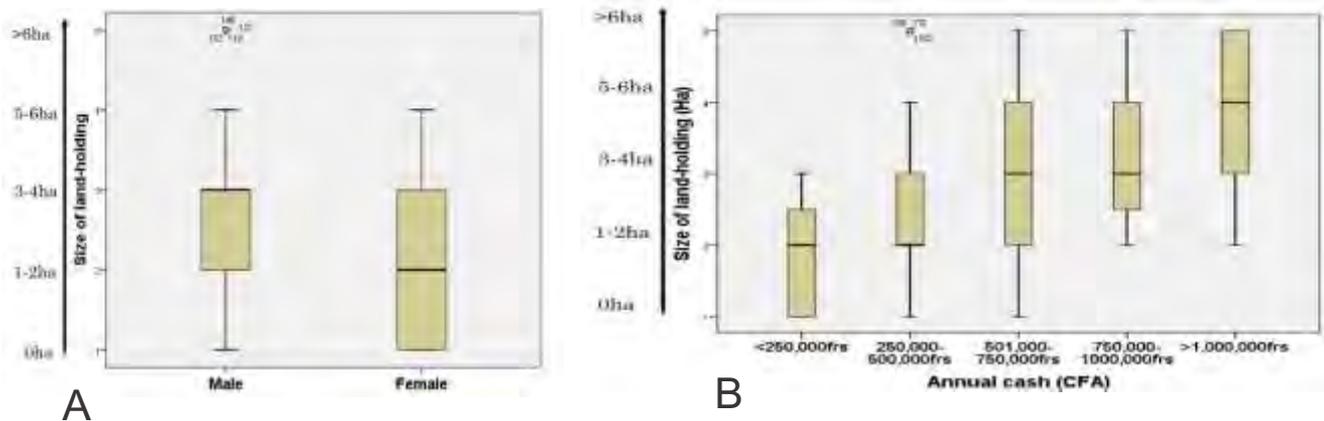


Fig. 1: Showing how the size of landholding relates to gender (a) and income (b)

An independent-Samples Kruskal-Wallis Test shows a significant difference between the size of landholding and women marital status at $H(3) = 17.334, p = .001$, with divorcees owning the most land followed by widows, married women and single women. There was no significant difference in landholding and marital status for men.

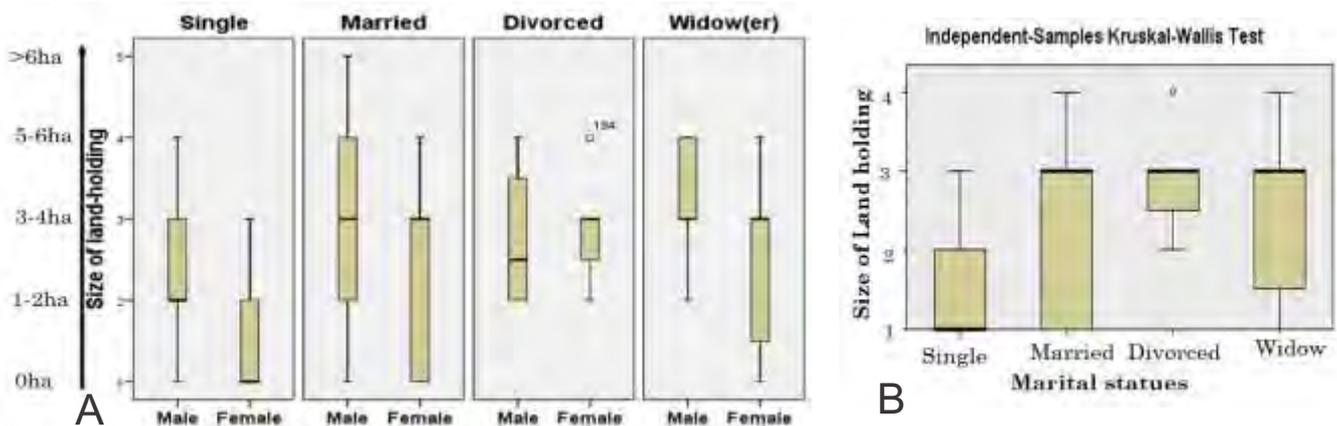


Fig. 2: Showing how size of landholding relates to marital statuses (a) especially women (b)

All respondents cultivate food crops and 81% derive their livelihoods from family farming - producing food crops, cash crops and harvesting Non-Timber Forest Products (NTFP). Further analysis shows that women are more involved in food production of all types and that men predominate in the cash crops of rubber and sugar cane cultivation.

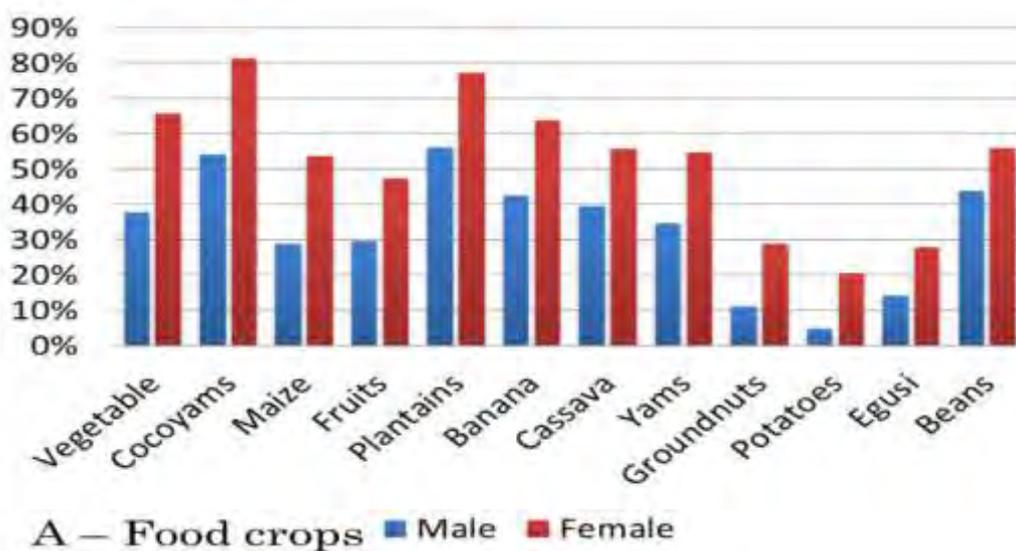


Fig. 3: Percentages of gender involvement in cultivation of food crops (a), cash crops (b) and NTFP (c)

Discussion and conclusion

Land remains a valuable source of economic development, food security, income generation and improve livelihood in rural communities. Women are the backbone of food production in rural households, though their land ownership rights are being denied. Allendorf (2007) found out that, female land-owners often have a say in household decisions (empowerment) and their children are less likely to be underweight (food security) than females without land ownership rights. Therefore, female land ownership is a feasible path to enhance food security, poverty alleviation and empowerment. It also enhance the female voice during discussion, consultation and decision-making processes on resources and income generated from farming as well as other community issues. Though women are the main food producers, they are mostly food insecure mainly due to low-income earning in male headed household and not just inadequate food production (Gladwin et al., 2001) and income directly relates to landholding. Therefore, a holistic approach to institutionalized women's land rights in customary reforms is recommended to improve their income, alleviate poverty, enhance food security, family livelihoods and well-being.

Both policy and technology intervention are needed to ensure food security and economic transformation. Women should be educated on their rights to own land to enable them advocate for the implementation of the law. The government need to set the pace for local authorities to follow by building women's capacity to become equal stakeholders in land tenure reforms, educate and raise awareness within communities and most especially traditional councils on equality in land ownership rights as specify by law. The government should invest in education, capacity building, awareness raising, credits provision, equipment and seeds distribution to female farmers to ensure increased yield, alter cultural perception to land entitlement, ensure equitable tenure security and gendered valuations of work and worth. Income generation, poverty alleviation, food security, improved livelihood and well-being of a woman and her children depend on her direct access to land and productive resources, not just access through her husband or male family head. Depriving women the right to own land is attributed to customary practices that override the legal

provision of the 1974 Land Tenure Ordinance no. 74-1. It renders women economically and socially vulnerable and undermines their ability to address food, health and educational needs of their children. Therefore, any effort to improve food security and poverty alleviation should address the importance of women's land rights. Further research should focus on effective approaches in advocating for greater gender equality in land ownership. Gender tenure security is not only for ethics and equity, but also geared towards meeting up with the Sustainable Development Goals.

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Perspectives on tenure rights in local community engagement in REDD+ forest conservation projects on Mount Cameroon

Nvenakeng Suzanne Awung,¹ Rob Marchant,² and Ernest L. Molua³

Summary

The success of Reduced Emission from Deforestation and land Degradation, forest conservation, sustainable forest management and enhancement of carbon stocks (REDD+), depends on effective participation of local communities because ultimately they are the ones to implement REDD+ on the ground and are the potential beneficiaries of such policy. However, few studies have examined community involvement in the design, implementation and monitoring of REDD+ projects. This field note presents a summary of community's engagement in the Mount Cameroon National Park (MCNP) conservation project at an early stage to provide information that guide management strategies in ensuring effectiveness, efficiency and equitable REDD+ programmes and prevent early failure of the initiative as REDD+ projects get implemented. This report argues that insecure tenure, ineffective communication between park managers and communities, inadequate benefit-sharing mechanism, and top-down management strategies have impeded community's engagement in the REDD+ projects within all clusters. The present level of local engagement in the MCNP conservation project, nonetheless, makes the attainment of these goals difficult. REDD+ should be based on effective participatory bottom-up approaches that empower and allow more decision-making powers to communities to achieve effectiveness and potential co-benefit expectations of REDD+.

1. Introduction

Cameroon is rich ecologically and culturally, with high flora and fauna biodiversity. Most of Cameroon's biodiversity is located in forested areas renowned for high number of endemic plant and animal species. Its significant forest cover makes Cameroon a high potential target country for implementing the REDD+ concept. The Mount Cameroon National Park (MCNP) was established in December 2009, around Mt. Cameroon (an active Haiwan type volcano covering 58,178 ha situated just 2 km from the Atlantic Ocean at its southernmost boundary) to support conservation of biodiversity, reduce deforestation and land degradation, and improve livelihoods of forest dwellers. Three protected areas close to the park are the Mokoko Forest Reserve, the Meme River Forest Reserve and the Forest Management Unit. To the South and South Eastern of the MCNP are four community forests: Woteva (1,865 ha), Etinde (4,976 ha), Bakingili (905 ha) and Bomboko (6000ha). The Western slope of the mountain is the only area in both Central Africa and West Africa with unbroken vegetation gradient from low-land evergreen rainforest at sea level through montane forest to the montane grassland and alpine grassland near its summit, thereby, making it the most biodiverse area. The zone contains more than 2,300 species of plants (800 genera, 210 families) of which more than 49 are strictly endemic and 50 are near endemic species (Cable and Cheek, 1998; Cheek et al., 1996) which may be due to

the fact that the mountain is part of an important Pleistocene refugia (Beentje et al., 1994). Mt. Cameroon is host to more than 85 species of mammals, 363 species of birds (including eight threatened species and two strictly endemic species, e.g. *Francolinus camerunensis* and *Speirops melanocephalus*), 130 species of butterfly (including three endemic species), 76 species of dragon flies and one third of the reptilian fauna (86 species) in Cameroon (Beentje et al., 1994). Assessments qualify Mount Cameroon National Park as a hot spot for REDD+ activities (Sunderlin et al., 2008). Moreover carbon sequestration is possible through re-growth and forest conservation on 4300 ha of forest area (EcoSecurities, 2002).

There are about 350,000 people living around MCNP. However, due to hunting and deforestation, the population of chimpanzees, drills and elephants have been fast decreasing. The most important source of livelihood is food-crop farming, with agriculture employing about 95% of the population while some carry out timber exploitation, hunting, animal-husbandry and trading; illegal timber and firewood exploitation are rampant in the reserve. The FAO notes that the annual average deforestation rate in Cameroon for the 1980–1995 period was 0.6% or a loss of close to 2 million ha, and almost 0.9% for the 1990–2000 period and reached 1% between 2000 and 2005 (FAO 2006). Today, it is estimated that between 1990 and 2010, Cameroon lost 4,400,000 ha (18.1%) of forest cover at an average rate of 220,000 ha (0.90%) annually. These figures suggest that Cameroon has the second highest deforestation rate of Congo Basin countries, after the Democratic Republic of Congo. Cameroon is well placed to better exploit the Reduced Emission from Deforestation and land Degradation (REDD+) mechanism of the United Nation's Framework Convention on Climate Change, aimed at financially supporting developing countries to reduce greenhouse gas emission by taking action to mitigate climate change. REDD+ in its mandate is expected to support forest stewardship activities of local communities providing benefits like strengthening of community resource rights, empowering local institutions and improving income through benefit-sharing. However, there is concern that this might restrict customary rights (land and resource), increase centralisation of forest management, restrict local participation, lack free, prior and informed consent and inequitable benefit-sharing. Effective capacity building of local communities, knowledge and skills to engage in sustainable forestry and Payment for Ecosystem Services are crucial for REDD+ to succeed.

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2. Materials and Methods

The 41 park villages in the MCNP were divided into four geographical clusters based on natural boundaries, culture and livelihood differences; through cluster multi-stage random sampling four park villages were identified for study. About 240 households were then surveyed, with respondents interviewed and focus group discussions held with key informants. In addition, consultation was undertaken on key governmental and non-governmental organisations to better understand successful strategies and principles for effectiveness, efficiency and equity in REDD+ programmes.

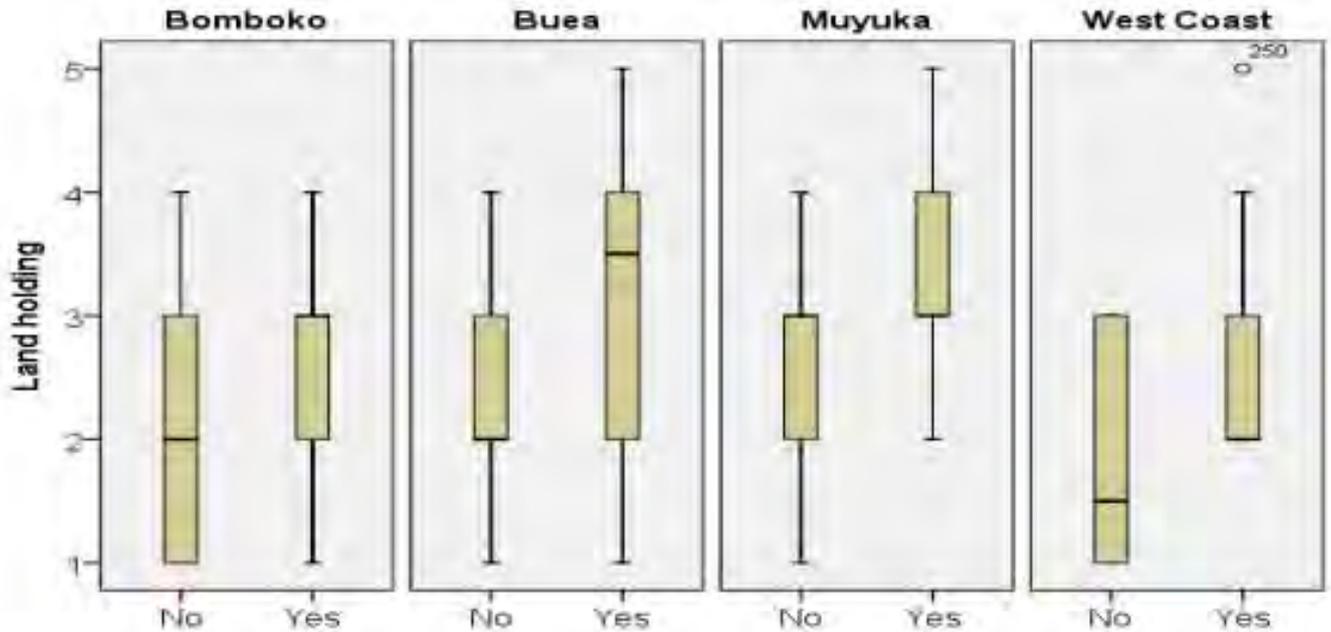
3. Findings and Discussion

The MCNP management involves peripheral villages which are divided into four geographical clusters (Buea, Muyuka, Mbonge/Bomboko and Idenau/West-Coast) based on natural boundaries, culture and livelihood differences to facilitate collaborative management activities. The MCNP co-management approach is managed by the German Technical Cooperation, the State and the park villages and requires full engagement of all stakeholders. Negotiation and signing of the Conservation Development Agreement is carried out by relevant stakeholders on park and three village delegates and signed by a conservator and village chiefs who are seldom educated enough to make sound decision. This agreement defines roles and responsibility and states incentives for collaboration. Only 1.5% of respondents in MCNP communities know the existence of REDD+ as a strategy, though most respondents are aware of the need to reduce the impacts of climate change, stem deforestation, promote tree planting, conservation of forest and biodiversity. REDD+ promoters also promise employment and finance of local projects through a participatory-based approach. According to Evely et al. (2011), high level of participation in conservation projects increases sustainability and adaptability because they build capacity of participants to learn and better manage projects and also stakeholders' participation in developing policy. Implementing them encourages both ownership and responsibility of environmental problems. Communities need to fully participate in REDD+ project implementation to reduce the risk of government and

conservation NGO grabbing land and carrying out forest protection approach that marginalise forest dwellers.

Since 2009 members of park villages are deprived from extending farmlands into the park. Tenure rights are insecure at the MCNP REDD+ project site. Members of local communities are restricted to access land, water, food, and firewood for daily livelihood because most of them do not hold legal title to the forestland they occupy, use and derive their basic needs. Tenure is very important to forest dwellers because it is local communities that are going to practically implement REDD+ and the methods of implementation will either benefit or impact them greatly. A Kruskal-wallis test shows a significant difference between landholding in different clusters. Similarly, the t-test in figure 1 shows a significant difference in landholding between non-participants and participants in MCNP activities' groups. Result reveals a significant correlation between participation and number of landholding. A linear regression analysis model (i.e. $P = 0.981 + 0.325L$) to investigate how size of landholdings (L) influences participation (P) shows a direct correlation between landholding and participation in all clusters and also within each cluster. The absence of recognition of traditional rights to own land and restricted access to forest resources have resulted to land scarcity, conflict and decline in production of forest products and these may hinder the effectiveness of MCNP-project. Similarly, the uncertainty in land tenure system poses a problem in determining carbon ownership. Cameroon is yet to define property rights to carbon. Lack of carbon rights makes forest dwellers to question the efficiency of REDD+ in improving livelihood through forest conservation. Insecure tenure has resulted to land claims and contestation within MCNP. Some members of the community who depend heavily on the forest relocate to cities for alternatives. Securing tenure and enhancing local engagement is critical for increasing local communities' resilience or adaptive capacity to climate change. Government's ownership and control over forest have led to tenure insecurity which is significantly influencing participation in MCNP-activities. PES cannot be achieved without effectiveness and equity in customary resource rights because good governance and land tenure rights are key to ensure benefits from natural resources, so tenure needs to be the starting point to REDD+.

Figure 1: Kruskal-Wallis plot showing variance in landholding within different clusters



The communities on the MCNP affected by REDD+ projects rely essentially on farming, agro-forestry and harvesting of NTFPs to feed their households and generate income for themselves. Figure 2 shows that the major Non Timber Forest Products harvested mostly from the permanent or managed forest include indigenous commodities such as njansanga, bush pepper, bush mango, eru, cashew and kola-nuts. Results further reveal that communities experience a decrease in 'most important products' (e.g. firewood, timber, food and medicine) due to government restriction on reserve. The production of food-crop is declining within MCNP-clusters since 2009. As noted in Figure 3, the three main actions needed to increase the benefits from food-crops include increase cultivation of products, better access to credit/capital and equipment technology to increase yield and better access to market and reduced price risk in MCNP-clusters as well as in each cluster. In the MCNP incentives are offered to communities, with some community members recruited for boundary demarcation, while others work as security guards trapping down defaulters and reporting illegal forest activities. Community head reports any unlawful entrance or activity in the forest, creating hatred and conflict amongst them. But then, the most disadvantaged members of the community are excluded because they neither get hired nor participate in community projects.

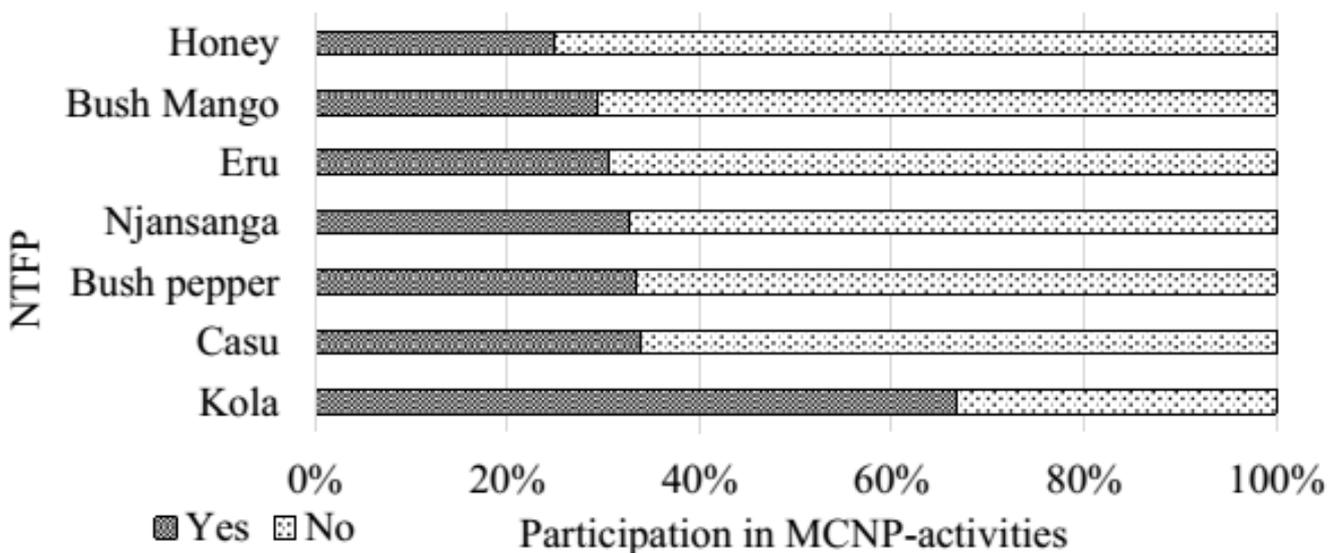


Figure 2: Main NTFPs harvested within MCNP and how these relate to participation in MCNP-activities

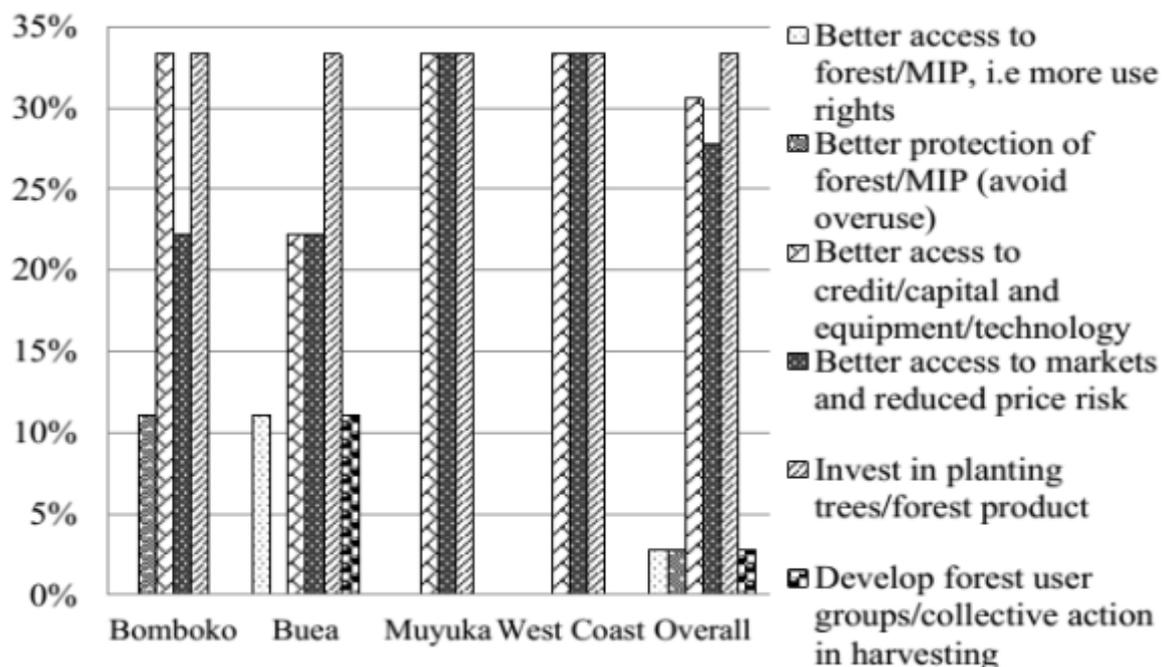


Figure 3: Reported reasons and ways to increase benefits from food within MCNP-clusters.

In addition, poor livelihood, unemployment, bad roads and absence of markets for forest products are the major problems faced by local communities not being targeted by REDD+. It is unlikely if REDD+ will really benefit local communities with associated restrictions, without solving these major issues faced by local communities. Interviewees talked mostly about forest, farm and crops from where three themes were deduced: Cameroon forestry law, community forest activities and farms food-crops. Typical comments provided by different levels of stakeholders include: "The forest is our only source of survival, but now that we have been restricted from using the forest, the people restricting us have to provide us with other means of living or give us jobs." The social and livelihood expectations of REDD+ may be threatened if land tenure reforms which are pre-condition of carbon payment and community engagement are not fulfilled during planning and implementation of REDD+. REDD+ could play a potential role in tenure reforms which need to be consistent with customary systems where local communities' rights and access to use natural resources are respected. In summary, excluding indigenous people from accessing forest resources (food, fruits, medicines, fibres, fishing and hunting) for basic need is an infringement on their livelihood, survival, and above all, their customs and traditions with limited land rights. REDD+ must not result in a situation where local communities and forest are subjected to a form of expropriation. In consequence of decline in forest products due to restriction on reserve, developmental projects and provision of improved agricultural techniques to farmers to meet up with livelihood challenges should be a priority. Local communities are key to forest management and improving tenure security is crucial for carbon sequestration potential of forest. Therefore, community forest management might be a feasible option in enhancing sustainable livelihood and communities' development while safeguarding their rights and values.

4. Conclusions and recommendations

This field research notes inadequate engagement of local communities in MCNP. As the adverse effects of climate change become more evident, the REDD+ implementation challenges such as tenure insecurity, inadequate forest governance, inequitable benefits-sharing, livelihood challenges, ineffective communication and inadequate co-management approach should be addressed to get all stakeholders on-board and uncover social safeguards in conservation and development programmes. Given its top-down implementation REDD+ projects increase marginalisation and poverty among local communities. There is need to empower local communities to better engage in decision-making about issues that concern them, claim ownership of their land through community forestry and participate as major stakeholders in all activities in their environment. REDD+, if carried out effectively, could contribute to poverty alleviation while addressing mitigation and adaptation of climate change, hence, in line with the Sustainable Development Goals. REDD+ donors and managers should support local community quests for secure tenure and national level REDD+ programmes should be linked to adaptation and community development objectives as agreed at COP-18. Cameroon should be capable to keep drivers of deforestation under control and embed customary laws into forest laws in such a way that national REDD+ strategies will fall under a broad national development strategies without marginalising forest dwellers.

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Communal area landscape