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PARTICIPATORY FOREST MANAGEMENT: A DISCUSSION ON ITS APPLICABILITY IN NIGERIA

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ABSTRACT
This paper discusses the concept of Participatory Forest Management and how it can be useful in the sustainable management of the Nigerian forests. It explored various useful literature materials, pointing out the applicability of the concept in the Nigerian situation. It also drew examples from some countries where the concept have been used. The application of this concept in Nigeria, where there is conflict over natural resource exploitation, could lead to the achievement of communal peace and sustainable forest resources management.

Key words: participatory; forest management; community forest; conservation

The problem:

For many years, developing countries have been faced with the challenge of sustainably managing their forest resources (Coulibaly-Lingani et al, 2014). Adopted strategies in the past have excluded local communities simply because the needs of the local people have been viewed as opposed to biodiversity conservation objectives (Adams & Hulme, 2001; Vodouhe et al, 2010). The top-down approach has not been effective in curbing deforestation and loss of biodiversity (Guthiga, 2008; Ameha *et al,* 2014b). The failure of the top-down forest management approaches according to Rikiatu et al (2016) makes forestry officials to see communities as destroyers while communities regard the forestry officials as enemies whose orders must be flouted so as to meet their (communities) own needs.

The concept of Participatory Forest Management:

Since the 1980s, there has been increasing effort at incorporating the needs of the local people into forest conservation planning (Ribot, 2001; Hutton & Leader-Williams, 2003) especially as the top-down approach has failed to produce results. This approach which is referred to as community based natural resources management (CBNRM) of which Participatory Forest Management (PFM) is part of, permits forest communities, especially hosts to designated protected areas, to participate in its management and this approach also links the conservation objectives to the needs of the locals (Adams & Hulme, 2001; Hutton & Leader-Williams, 2003). CBNRM (PFM) is seen as strategy promoting forest resources governance (Matta & Alavalapati, 2006).

Participatory Forest Management (PFM) / Community Forest Management (CFM) / Community Based Forest Management (CBFM), according to Agrawal *et al* (2008) "refers broadly to forest use and governance arrangements under which the rights, responsibilities, and authority for forest management rests, at least in part, with local communities". This concept proposes that sustainable forest management will be achieved when "local communities manage local forests and get access to direct benefits from participating in forest management" (Agrawal and Ostrom, 2001; Ostrom, 1990). Public participation is an effective tool in overcoming conflicts among diverse needs represented by varying stakeholders in forest resource use; Yamaki (2016) defines public participation in forest management as "the involvement of non-state actors such as people and organized groups in a process where they can exchange information and express opinions about the policy-making process". PFM encourages and promotes community and other

stakeholders' participation in the management of forest resources. Local collective action is a cardinal principle of PFM; the local dwellers play very active roles (managerial) while the external stakeholders' role is rather supportive than managerial (Ostrum, 1990; Arnold, 1991). Research has found that stakeholder participation has made forest management to be more effective than alternative management regimes (Klooster and Masera, 2000; Gautam et al., 2002; Benneker and McCall, 2009; Blomley et al., 2008; Takahashi and Todo, 2012; Thoms, 2008; Crook and Manor, 1994; Ribot, 2003).

PFM has been practiced with the objectives of enhancing forest resources conservation, poverty reduction and achievement of rural community development (Agrawal and Gibson, 1999; Agrawal et al., 2008; Andersson et al., 2004; Ribot et al., 2006; Somanathan et al., 2009). According to Campbell (2009), PFM was introduced in the late 1970s as a result of the degradation and deforestations in government owned forests. Government forest protection policies have failed in achieving its objectives of improving wellbeing of community people (Kumar, 2002; Lund & Treue, 2008; Persha *et al,* 2011).

Factors which affects success of PFM:
Sensitivity to local needs such as the people's traditions and socio-economic realities affects the ultimate outcome of PFM strategies (Rikiatu et al, 2016).

Successes in PFM have been achieved where attention have been paid to employment and increased participation (Blomley *et al,* 2008; Conroy, 2001; Matiku *et al,* 2012; Treue *et al,* 2014). Participative forest management improves the quality of decision-making because it facilitates exchange of information and ideas amongst the participating stakeholder groups and promotes social learning and mutual problem analysis and solutions. Public participation is thus considered a decision making tool that has the ability to reduce conflicts among stakeholders and achievement of more sustainable decisions (Aasetre, 2006; Kangas et al, 2010; Maier et al., 2014; Reed et al., 2009). The normative goal of participation is said to promote democracy and social learning because it improves the chances of all categories of stakeholders to get involved (Armitage et al., 2009; Reed et al., 2009); it enhances trust and encourages public support for decisions (policies). Participation has the possibility of "transforming relationships, creating new relationships, changing adversarial relationships and enabling participants to identify new ways of working together" (Stringer et al., 2006); it also leads to collaboration (Davies and White, 2012).

Some case studies:
Participatory forest management has been applied in China (Liu and Innes, 2015) where it is now a dynamic and evolving process aimed towards a sustainable forest management; it has also been supported by fiscal policy. PFM is yielding results in Tanzania and the funding from the REDD+ programme in that country is being used to expand it (Newton *et al,* 2015). Some other countries where PFM is being used include Ghana (Rikiatu et al, 2016), Kenya (Matiku et al, 2013; Musyoki et al, 2016), Republic of Benin (Kisito et al, 2017), Mozambique (Irmeli, 2006), Ethiopia (Solomon et al, 2016; Ameha et al, 2016; Alemayehu et al, 2015), Malawi (Senganimalunje *et al,* 2015) and Laos (Irmeli & Jens, 2009).

In Ethiopia, Ameha *et al* (2016) found that participatory forest management was more successful in making forest management sustainable than the government's approach to management; collaboration reduced conflicts over forest resource use and supported local livelihoods. In Central Ethiopia, the provision of alternative livelihood activities reduced illegal forest resources exploitation and it was concluded that participatory forest management approaches yielded better results in bringing about change in a society where there are conflicts as a result of natural resource use and that conflicts were resolved by sharing benefits and responsibilities (Bekele & Ango, 2015). Similar positive results were reported also in Malawi (Senganimalunje *et al,* 2015).

African countries are beginning to embrace the concept of participation, allowing all stakeholders, especially the communities to participate in forest resource management. In Kenya, the Kenyan Forest Act of 2005 (Musyoki *et al*, 2016), allows community forest associations to participate in the management of forests in order to improve forest cover and rural livelihoods. In Ghana, a government policy (formulated in 1994, called "the forest and wildlife policy") provides the basis for community participation in forest management (Rikiatu *et al*, 2016) and as a result of this, policy makers and coastal management practitioners in Ghana embraced the concept of participatory management of coastal resources (Aheto *et al*, 2016), resulting in local people participating in the conservation of the mangrove forests.

Limitations:
It is worth noting that true stakeholder involvement can still be limited. For instance, community participation in the management of forest reserves in the Northern Region of Ghana was found to be passive despite the government policy; community participation was said to be 'tokenistic' in that their involvement was merely limited to "boundary cleaning and provision of labour to the plantations"; there existed no formal collaboration between the communities and the forest services division (Rikiatu *et al*, 2016). This shows that weak implementation and bureaucracy is often a hindrance to the good intentions of good policies. In China, Liu and Innes (2015) identified the challenges of participatory forest resources management to include institutional barriers, little research, poor practices, and failure to replicate lessons learned from successful cases.

There is a low level of community participation in biodiversity management in Nigeria where rural dwellers are usually not formally educated and often oppose conservation initiatives, especially when the idea is government driven. In a study carried out in a donor initiated forest biodiversity conservation project in a National Park in Cross Rivers State Nigeria, it was concluded that the people were not properly involved in the project and were not benefiting from the project (Eneji *et al*, 2009). Stakeholder participation requires the involvement of the end users themselves, playing key roles in the forest management process (Aheto *et al*, 2016; Rikiatu *et al*, 2016). The aim of stakeholder participation is to develop cooperation and improve the outcome and sustainability of forest management (Balest *et al*, 2016). Sudrajat *et al* (2012), Grimble and Wellard (1997), Grimble and Quan (1993), Grimble *et al* (1994), Jasper and Abere (2010), and LENF (1998) have all argued that decision-making concerning people and the environment is more effective when relevant stakeholders participate.

Stakeholder analysis is necessary in the quest to build cooperation amongst stakeholders because for instance, the objectives of government wanting to manage the forest might be different from that of the communities as well as from that of other stakeholders, but the ultimate aim of sustainably managing the forest should be common to all. This should be the beginning of negotiations and forming cooperation amongst the stakeholders (Newton *et al,* 2015). It should be noted that designing a program that will adequately satisfy the objective of various stakeholder groups could be challenging also (Angelsen, 2009).

Conditions which promotes PFM:
There are conditions that improve the acceptance of participatory forest management by the forest dwellers. In their study, Aheto *et al* (2016) found that livelihoods and economic benefits were the primary motivators for stakeholder participation in mangrove restoration and management in Ghana. This was similar to the conclusion of Musyoki *et al* (2016) when they evaluated the factors, which influence the participation of the Community Forest Associations in forest management in Kenya and found that access to the benefits derived from the forest was the main driver. In Nigeria, Amoru (2000) argued that policy and development has tended to ignore the needs of those stakeholders who depend on forests for their livelihoods and as a result, the outcomes have been ineffective and unsustainable. Creation of incentives to reduce

deforestation could include initiatives that generate socio-economic benefits for the forest-product dependent rural dwellers (Newton *et al,* 2015). The success of PFM depends much on the capacity of communities to create strong institutions as well as their extent of rights of access and control over forest products **(**Charnley and Poe, 2007). Poor institutional set up and conflicting economic interests of vital stakeholders are hindrances to a successful PFM (Irmeli & Jens, 2009). Building of local capacities to be able to assert their rights and demand commitment from the national government is key to a successful PFM (Irmeli, 2006; Irmeli & Jens, 2009). Successful participatory forest management also requires an analysis of stakeholders' perceptions and preferences (Paletto *et al*, 2016). Furthermore, community structures will need to be built, especially in the areas of coordination and monitoring (Newton *et al,* 2015). Participation, accountability and responsiveness are other key institutional conditions recommended by Khartun *et al* (2015) for the success of any PFM program.

Community forest management efforts are effective in managing the forest resources; a way forward is to build on the experiences of the existing community forest management methods. In the works of Newton *et al* (2015) in Nepal and Tanzania, it was recommended that the design and implementation of the REDD+ should build on the experiences of community forest management. The strength of the community forest management initiatives include the existing environmental, social, human and institutional capitals which has been built considering the years of existence of such initiatives.

When PFM is to be introduced into a new environment, there is the risk that the introduction of a foreign element into the already existing community forest management system could disrupt the already established ecological and institutional equilibrium in the area in which they have been developed over the years; the changes could either be positive or negative (Benneker and McCall, 2009; Putz and Redford, 2009). Blaikie (2006) also cautioned that PFM often fails to achieve the theoretically predicted outcomes. Bearing these risks in mind, it will be suggested that implementation should be done first as a pilot, which can then be replicated when all necessary lessons may have been learnt. Despite the risks of the unknown, there are lessons that other initiatives can learn or adopt from the community initiatives seeing that these systems have been developed over the years and have recorded great successes in preserving the forest resources (Arnold, 2001).

Again because PFM places restrictions on how forest resources are utilized or extracted as a result of new rules and regulations (Larson and Pulhin, 2012), it sometimes lead to a reduction in forest based income for some households (Schreckenberg and Luttrell, 2009). To mitigate this negative effect, other alternative income generating activities and enterprises can be introduced (Gobeze et al., 2009). Khartun *et al* (2015) listed some other challenges facing the implementation of PFM to include conflicts arising from governance restructuring, elite capture and illegitimate benefit sharing, participation (i.e. ensuring full participation of all relevant stakeholders) and cultural norms. Thin & van Gardingen (2004) and Blomley & Ramadhani (2006) suggest that PFM initiatives need to be mainstreamed into local institution so that it becomes more effective.

Applicability to Nigeria;
conclusion:

The basis for the introduction of PFM in Ethiopia (Ameha *et al,* 2014b; Kubsa et al, 2003; Temesgen et al, 2007) are also true for Nigeria i.e. (i) centralized management of forests have been unsuccessful (ii) the active participation of the communities, who hold major stake in the forest, is an effective strategy to achieve sustainable forest management, and (iii) the forest is a natural capital asset that is capable of taking the communities out of poverty.

Decentralizing forest management will achieve result in Nigeria. Decentralization is when a central government formally cedes some of its powers to lower level institutions in a political or

administrative hierarchy (Ribot, 2004). This can happen in one of two ways: (i) "deconcentration", whereby the central government gives some of its powers to lower level institutions within an administrative hierarchy, (ii) "devolution", where powers are ceded by the central government to a democratic local government (Agrawal and Ribot, 1999; Crook and Manor, 1998). This will work since Nigeria operates a three-tier government i.e. the federal, state and local governments. PFM will promote good governance as well as sustainable forest management and livelihoods (Senganimalunje et al, 2016; Warner, 2000; Menzies, 2002).

It should be borne in mind that PFM initiatives sometimes struggle to continue after the withdrawal of external funders but this can be resolved if the government intervenes with funds (Irmeli, 2006). To make the PFM initiatives sustainable, attention should be paid to building partnerships from the bottom up and instilling ownership in the local people; emphasis should be placed on how to ensure a successful takeover of the facilitation role by local governments or institutions after the withdrawal of any external funder involved. The role of forestry extension staff in building the capacities of the local people cannot and should not be ignored, especially when the management of critical forest resources is involved (Irmeli, 2006).

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