

Forest resources and rural livelihoods: Evidence from Chobe enclave, Botswana

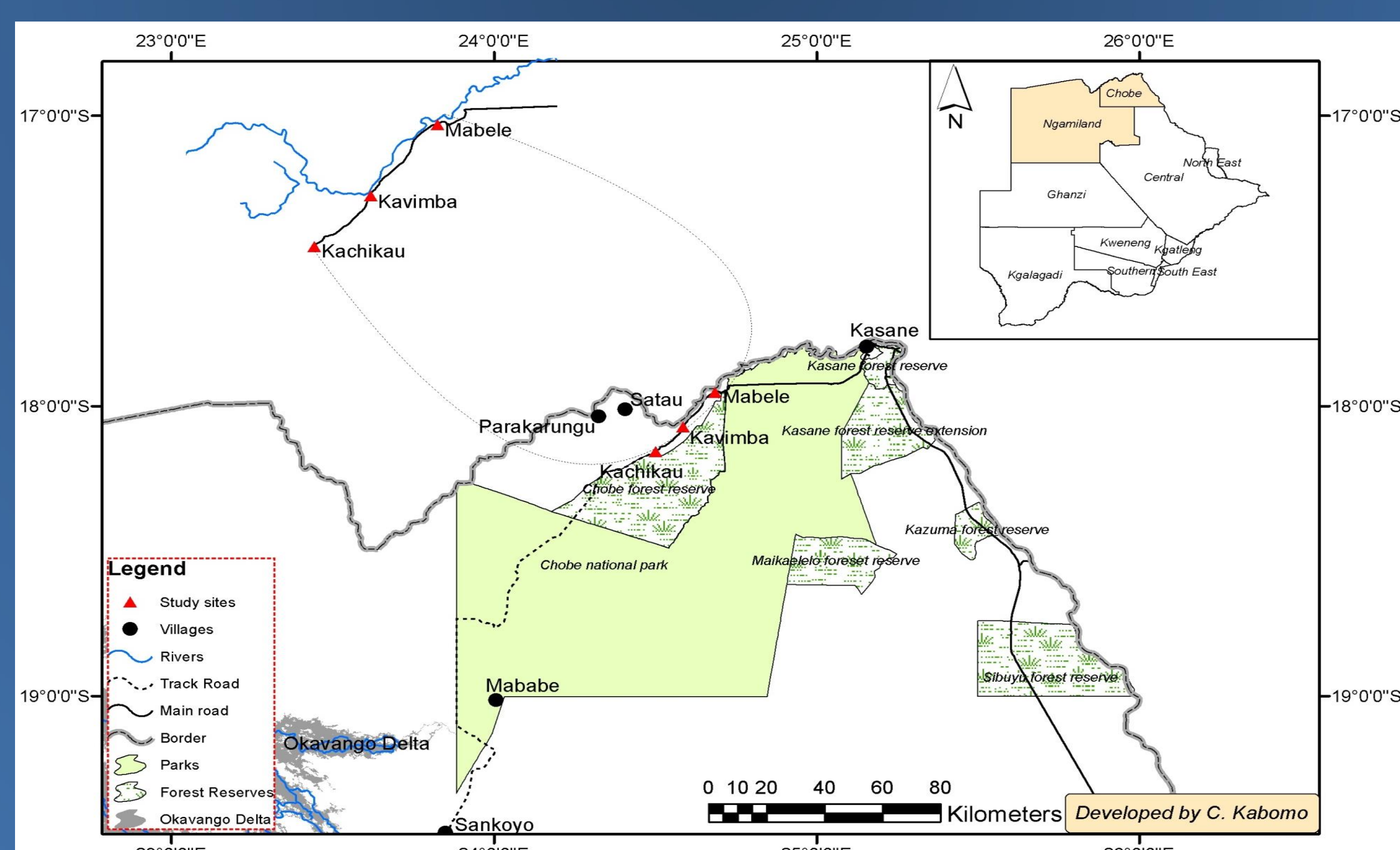
ⁱGarekae, H., ⁱThakadu, O.T. and ⁱⁱLepetu, J.
ⁱUniversity of Botswana, Okavango Research Institute
ⁱⁱBotswana University of Agriculture and Natural Resources

Introduction

For centuries, many people globally have their livelihoods dependent on environmental resources, forests included (Mamo et al., 2007). Forests have been considered a vital resource for human well-being more especially for adjacent communities living around forested areas (Córdova et al., 2013). They provide a vast array of ecosystem goods and services to human wellbeing's and the natural environment (Howe et al., 2014). However, in Botswana, little is yet known about the intricate relations of forests and people, more especially on the level of reliance on forest resources and their value in rural livelihoods. The latter may downplay the potential role of forests on both local and national economies. Hence, this study was purposed to assess the extent of households reliance on non-timber forest products and their contribution towards livelihoods of Chobe enclave communities.

Materials and Methods

This study was conducted in Chobe enclave, northern Botswana. The enclave comprises of five villages spanning along the Chobe River basin. Chobe Forest Reserve (CFR) borders with Chobe National Park which is rich in flora & fauna (apprx. 100000 elephants). The forest reserve provides various resources for domestic use, household energy needs, building materials and agricultural inputs. Three villages: Mabele, Kavimba and Kachikau were purposively selected to form part of the study area (Figure 1). A survey instrument was administered to 183 households, randomly sampled across three communities adjacent to CFR. Descriptive statistics were used for analysing quantitative data while qualitative data from open-ended questions was analysed thematically.



Results and Discussions

The study findings demonstrated that Chobe enclave locals were dependent on CFR for their various livelihood needs. The mean level of respondents ratings on forest resource reliance was 4.24 (SD=.95), indicating that households were highly reliant on forest resources. Similarly, the annual direct use value of forest products per year per household was USD347.25 (SD=284), ranging from USD28.75 to USD1 677.24. Forest resources were mainly collected for subsistence use, on regularly or occasional basis. Among the products collected, firewood (85.8%) was the most collected while fodder (2.7%) was the least (Figure 2).

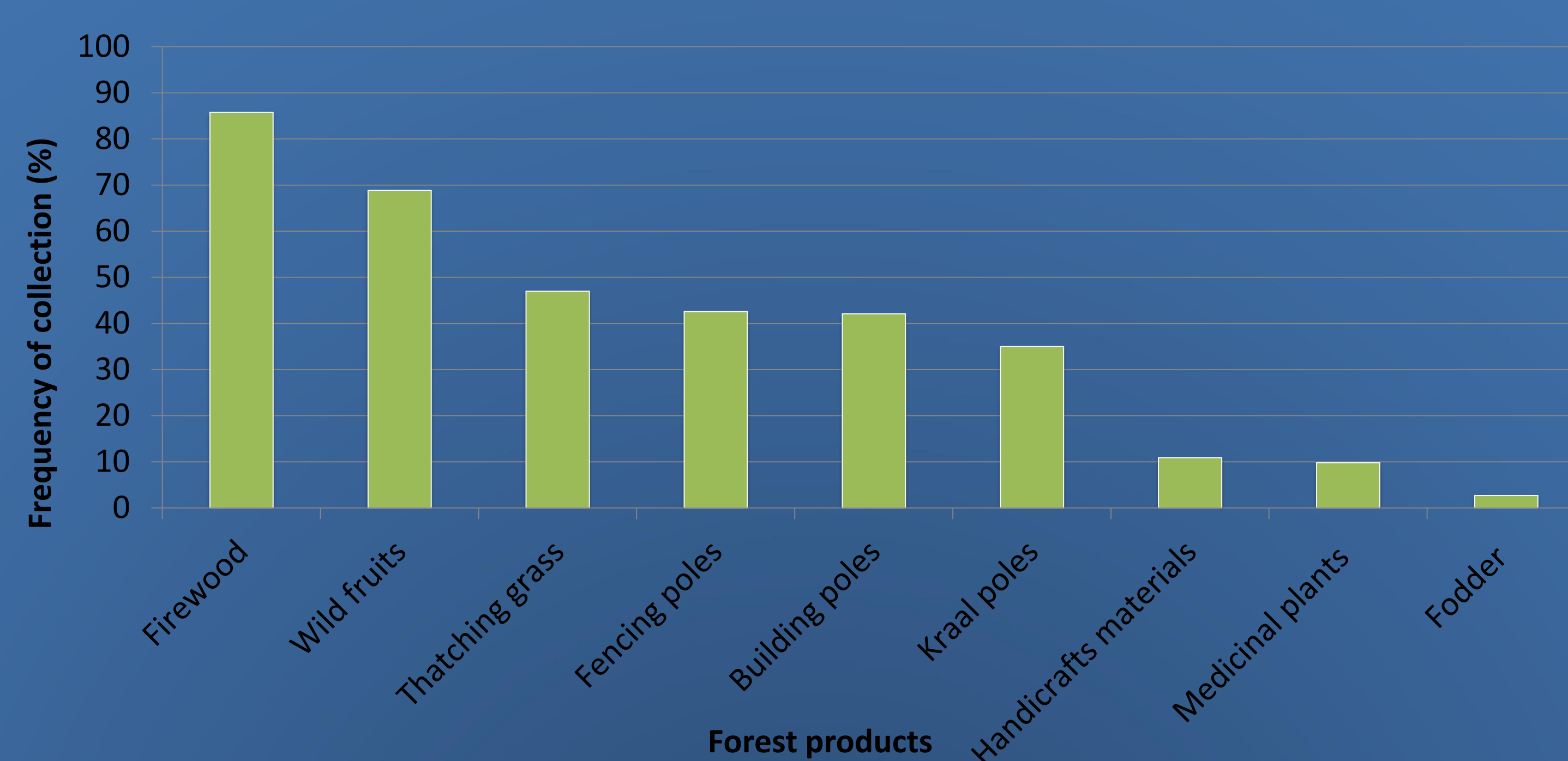


Figure 2: Non-timber forest products collected

CONCLUSION

Since households were highly reliant on forest resources for their sustenance, conservation programmes and strategies should take into account the functional role of non-timber forest products on the livelihoods of forest adjacent communities. Conservation programs which tend to jeopardise the inextricable links between the local people and their environment may culminate into a series of 'people-park' conflicts (Masozera & Alavalapati, 2004). That being the case, protection and improvement of local livelihoods and ecological conditions is a cornerstone for sustainable conservation programmes (Ghimire & Pimbert, 1997). Therefore, integrative policy approaches which facilitate both equitable resource use and conservation of forests are necessary.

Acknowledgements

This study was funded by SASSCAL, Task 311 hosted at Botswana University of Agriculture and Natural Resources.

References

- Mamo, G., Sjaastad, E., & Vedeld, P. (2007). Economic dependence on forest resources: A case from Dendi District, Ethiopia. *Forest Policy and Economics*, 9, 916–927.
- Córdova, J. P. P., Wunder, S., Smith-Hall, C., & Börner, J. (2013). Rural income and forest reliance in highland Guatemala. *Environmental Management*, 51, 1034–1043.
- Howe, C., Suich, H., Vira, B., & Mace, G. M. (2014). Creating win-wins from trade-offs? Ecosystem services for human well-being: A meta-analysis of ecosystem service trade-offs and synergies in the real world. *Global Environmental Change*, 28, 263–275.
- Ghimire, K., & Pimbert, M. P. (1997). Social change and conservation: An overview of issues and concepts. In K. B. Ghimire & M. P. Pimbert (Eds.), *Social change and conservation: Environmental politics and impacts of national parks and protected area* (pp. 1–45).
- Masozera, M. K., & Alavalapati, J. R. R. (2004). Forest dependency and its implications for Protected Areas Management: A case study from the Nyungwe Forest Reserve, Rwanda. *Scandinavian Journal of Forest Research*, 19(004), 85–92.