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Determinants of Exploitation of *Lophira lanceolata* Tiegh. Ex Keay (Ochnaceae) in the Northern Savannas of Sierra Leone

Introduction and problem statement

Lophira lanceolata is a valuable Multipurpose tree and widely distributed in the woody savannas of tropical Africa (Sinan et al.2020). However, it was classified as vulnerable by IUCN in 2014. There is a growing demand for *Lophira* charcoal in Sierra Leone and this has led to uncontrolled exploitation with no sustainable conservation initiatives.

No work has been done on the determinants of exploitation.



Objectives

1. To investigate locals' perceptions of the exploitation of *L. lanceolata* by businesses
2. To determine the abundance and area extent of *Lophira lanceolata* across the study region
3. To examine the political and socio-economic actors of determinants.

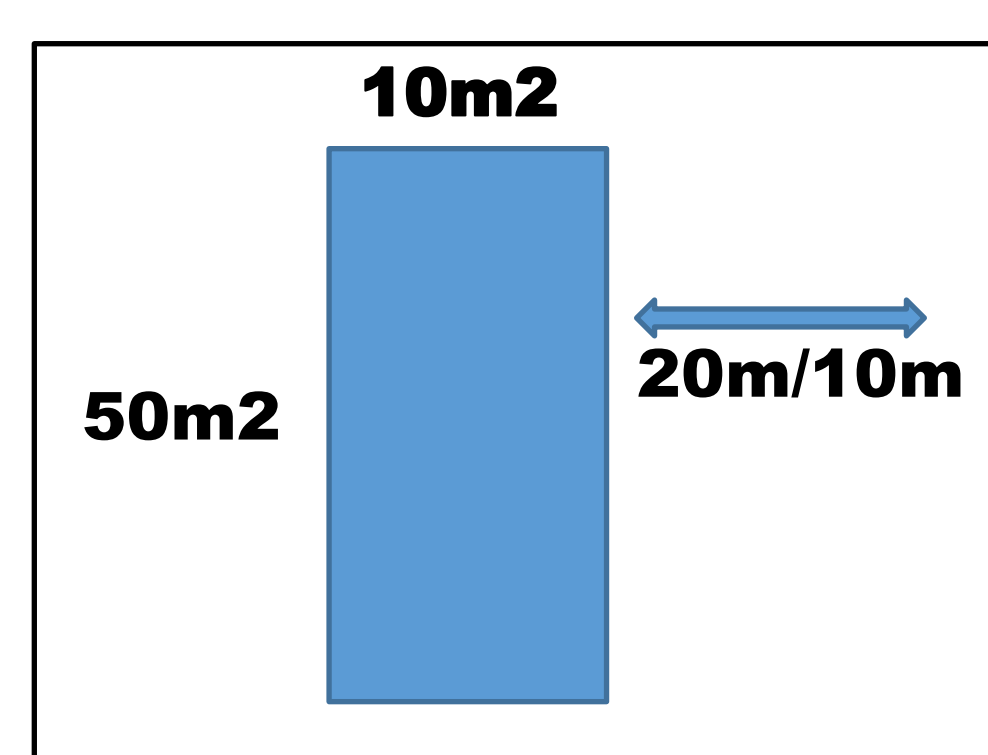
Methods and data analysis

The research was conducted in two study site, Mabambu and Barry Village, in an Exploratory Design.

- **Household survey (N=22)** on socio-demographics and perceptions
- **Key informants interview (N=8):** with representatives of the Ministry of Forestry, village heads, charcoal producers and a farmer
- **Field Plots Survey:** biophysical factors

Data analysis consisted of:

- descriptive statistical analysis
- content analysis.



Results

Obj 1: Perception of exploitation of *L. lanceolata*

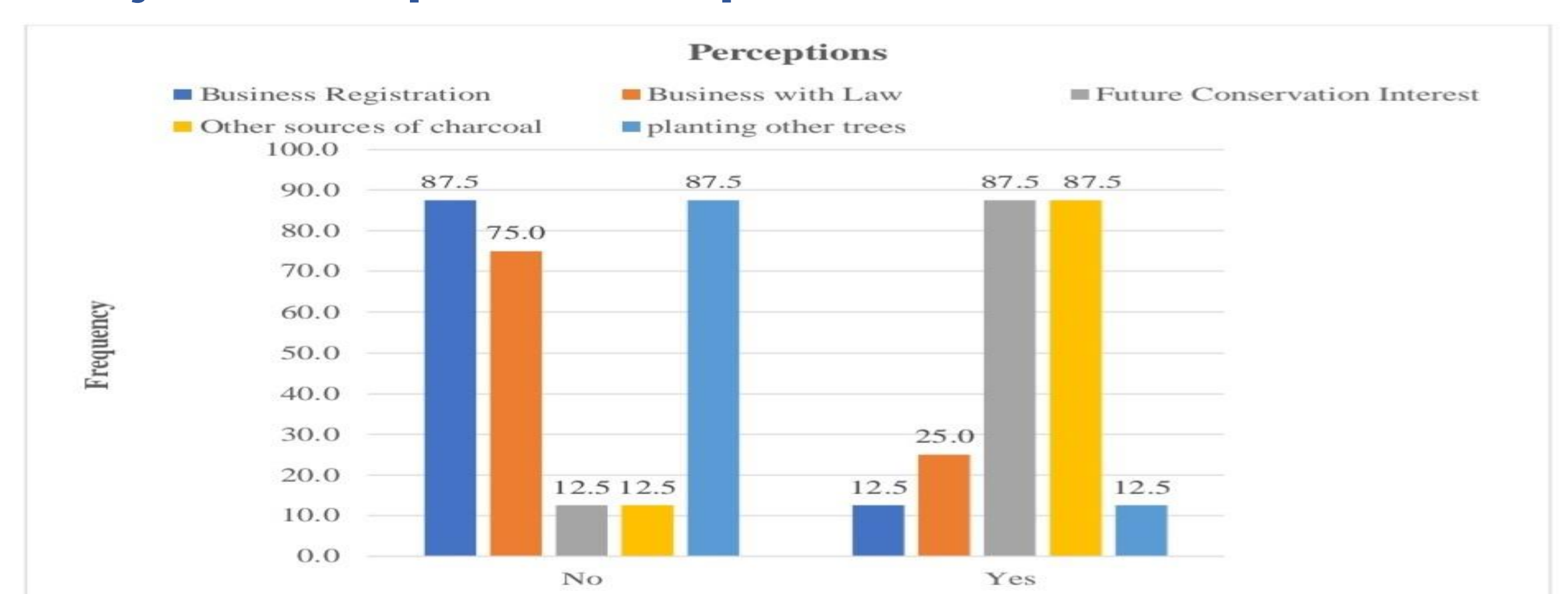


Figure 5: Different perception on *Lophira lanceolata*

Obj 2: Abundance and area extent of *Lophira lanceolata*:

Mabambu village site

4,390 individuals
only 189 (4.3%) measured at DBH(8-21 cm)

Barry village site

1,095 individuals
443 (40.5 %) measured at DBH(8-43.8cm)

Table 4: The basal area(m²/ha) of trees at the Mabambu and Barry village study sites

Site	Sum of basal area	area/m ² /ha
Barry Village	484111.4892	968.2
Mabambu village	10199.71462	20.4
Grand Total	494311.2038	989.6

Obj 3: Determining factors of exploitation

- **Socio economic factors:** charcoal production, wood, mining, bush burning, etc.
- **Political factors :** less interest and concern for *Lophira lanceolata* with few laws and weak enforcement of laws
- **Ecophysical factors:** rocks and moulds

Conclusion and recommendations

The value of *Lophira* is well known and it is perceived as a valuable asset, but none of the study sites are above threshold of sustainable management. Poverty and lack of management are the root determinants.

This study recommends:

- The establishment of permanent plots with effective community participation
- Additional research using GIS
- Use of study results by policymakers and organisations such as: FAO, AFAS, CBD, NPA, MIRO and IPBES.

Partner institutions:

