

REVIEWER'S REPORT

Manuscript No.: IJAR-56151

Title: D'termination du potentiel en ligneux fourragers dans les zones d'approvisionnement du district de Bamako : cas du terroir de BAALA dans la commune rurale de Sanankoroba, cercle de Kati au Mali

Recommendation:

Accept as it is

Accept after minor revision

Accept after major revision

Do not accept (*Reasons below*)

Rating	Excel.	Good	Fair	Poor
Originality		✓		
Techn. Quality		✓		
Clarity			✓	
Significance			✓	

Reviewer Name: ANAPANA GOPAL

Reviewer's Comment for Publication.

General Comments

This manuscript examines the potential of woody fodder species in the supply zones of the Bamako district, focusing on the village territory of Baala in the rural commune of Sanankoroba (Mali). The study combines phytoecological inventory methods (transects and plots) with ethnobotanical surveys (focus groups), which is appropriate for assessing both ecological potential and socio-economic importance.

The topic is highly relevant for Sahelian and Sudanian ecosystems, where woody fodder species play a crucial role in pastoral systems, especially during the dry season. The manuscript provides useful floristic data and highlights conservation concerns regarding threatened species.

However, although the study is valuable, the manuscript requires moderate revision due to issues related to methodological clarity, data consistency, language quality, statistical depth, and structural refinement.

Content and Originality

Strengths

- The study addresses an important issue: woody fodder availability in peri-urban supply systems of Bamako.
- Integration of ecological inventory with local perception (ethnobotanical focus groups) strengthens the interdisciplinary approach.
- Identification of threatened species such as *Pterocarpus erinaceus*, *Khaya senegalensis*, and *Azelia africana* is particularly relevant for conservation policy.
- The dataset (62 species, 48 genera, 23 families) contributes to regional floristic knowledge.

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Limitations

- Similar studies have been conducted in Mali, Senegal, Burkina Faso, Togo, and Chad. The manuscript does not clearly articulate what is novel beyond the specific location.
- The concept of “potential” is not quantitatively defined (e.g., density, biomass, regeneration rate, sustainable yield).
- Conservation implications are mentioned but not developed into practical management recommendations.

Recommendation: Clarify the added scientific value of this study compared to previous works and better define what is meant by “potential.”

Technical Quality

Strengths

- The transect method with standardized plots (1000 m²) is appropriate.
- Contribution specific (CSE) and frequency calculations are correctly defined.
- Appetibility index (1–5 scale) is referenced.
- Use of Excel and XLSTAT is indicated.

Minor Concerns

1. Inconsistency in Number of Families

- Abstract: 23 families
- Results section: 21 families
- This inconsistency must be corrected.

2. Statistical Analysis

- Only descriptive statistics are presented.
- No diversity indices (Shannon, Simpson, Pielou) were calculated.
- No structural parameters (density per hectare, basal area, regeneration rates).
- No statistical comparison between transects.

3. Definition of “Potential”

- The study mainly presents floristic composition and perception.
- Quantitative biomass estimation or fodder productivity is absent.
- Therefore, “potential” is not fully measured in ecological terms.

4. Species Not Recorded but Discussed

- Several species (e.g., *Pterocarpus santalinoides*, *Adansonia digitata*, *Isobertinia doka*) were not recorded in transects but are included in perception tables.
- This discrepancy needs clearer explanation.

5. Graph Quality

- Some figures appear basic and lack proper formatting.
- Axes labeling and figure captions require improvement.

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Language and Presentation

The manuscript is generally understandable but contains numerous:

- Typographical errors
- Inconsistent spacing
- Accent errors (e.g., "ou" instead of "ou")
- Repetition of words
- Grammatical issues
- Inconsistent formatting of scientific names (italics missing)

Examples:

- "Cettedifférence"
- "enfin que"
- "Khayasenegalensis"
- Missing spaces between words
- Inconsistent percentage formatting

Scientific names should be italicized throughout the manuscript.

Professional language editing (French) is strongly recommended.

Structure and Organization

Strengths

- Logical structure: Introduction, Methods, Results, Discussion, Conclusion.
- Tables summarizing species uses are informative.
- Discussion compares findings with regional studies.

Weaknesses

- Results section is descriptive and lacks analytical depth.
- Discussion largely repeats results rather than critically analyzing ecological implications.
- The conclusion summarizes findings but does not propose concrete management strategies.
- Some sections are lengthy and could be streamlined.

Suggestion: Strengthen analytical interpretation and reduce redundancy between Results and Discussion.

References and Citations

Strengths

- Good regional coverage (Mali, Senegal, Burkina Faso, Togo, Chad).
- Inclusion of ethnobotanical and pastoral literature.
- Appropriate citation of classical works (e.g., Le Houérou, 1980).

Weaknesses

- Formatting inconsistencies in references.
- Some references incomplete.
- Several theses and grey literature sources dominate.
- Limited high-impact international journal articles.
- Inconsistent punctuation and spacing.

References should be standardized according to journal guidelines (APA, Vancouver, Harvard, etc.).

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Overall Recommendation

The manuscript addresses an important ecological and socio-economic issue in Mali and provides valuable field data. However, to reach publishable scientific quality, the following are necessary:

- Correct inconsistencies (families, species records)
- Improve statistical depth
- Clarify ecological definition of "potential"
- Strengthen analytical discussion
- Revise language and formatting
- Improve figures and tables

Final Decision:

Minor to moderate Revision Required

The study has scientific merit and practical relevance, but substantial revision is necessary before it can be accepted for publication.