Forest Cultural Ecosystem Services in Zambia’s Forest Ecosystems.

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Introduction

• Globally, forest ecosystems are a source of important ecosystem services

• These services are important for human well-being and are central to people’s livelihood.

• Forest ecosystem services contribute to food and nutritional security in many rural areas in Least Developed Countries.
Use of Zambia forest ecosystems
Research focus

• Cultural ecosystem services remain the least studies ecosystem services in Forest ecosystems

• To understand the types of Forest Cultural Ecosystem Services (FCES)

• To examine the FCES provision in different rural settings

• To examine the perceived changes in the capacity in providing FCES
Research focus

• Cultural services are non-material benefits obtained from the ecosystem (MA 2003).

• They emerge from individual or collective perceptions about the ecosystem in question, and are therefore dependent on cultural contexts (Maass et al. 2005).
Significance of the study

• Demand for ES is increasing against the backdrop of declining ecosystems.

• Global policy interest in forest ecosystem services has increased due to their role in providing ES important for human wellbeing, and mitigating climate change.

• Miombo woodlands are the most extensive forest formation (270 million ha) in Africa and are rich in plant diversity.

• Home to over 100 million people
Miombo woodlands
Research design and Methods

• Study area
• Data collection Methods
  – Household questionnaires
  – In-depth interviews
  – Focus group meetings
Results

• Types of FCES

<table>
<thead>
<tr>
<th>Type of cultural ecosystem service</th>
<th>Percentage of respondents</th>
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<tbody>
<tr>
<td>Spiritual</td>
<td>70%</td>
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<tr>
<td>Recreation</td>
<td>50%</td>
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<tr>
<td>Aesthetic</td>
<td>45%</td>
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<tr>
<td>Educational</td>
<td>40%</td>
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<tr>
<td>Religious</td>
<td>35%</td>
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</tbody>
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Results

- **Spiritual benefits** - 73.3%
  
  – Respondents believe that graveyards have spirits of the dead that help protect the land

- **Traditional ceremonies** – performed in forests and use diverse plant species
• Traditional Educational benefits – 46.7%
  – initiation ceremonies for girls that have reached maturity. E.g *D. Condylocarpan* tree shade is the preferred tree species for the ceremony because it symbolizes that a woman should be fruitful as the tree bear fruits.
  – Tree is protected from being cut and in most case these areas are surrounded by a lot of trees that provide shades and privacy to the girls
Results cont....

- Aesthetic 53.3%
- Recreation – 46%
- Religious benefits- place of prayer
Changes in provisioning of FCES

• 73.3% revealed reduction in provisioning of cultural services over the last two decade.

• Affected services - recreation, aesthetic, educational and religious benefits

• There is however no reduction in provisioning of spiritual benefits as trees are retained around graves for fear of provoking the spirits
Changes in capacity to provide FCES

- Cultural differences - 60%
- Christianity - 25%
- Decision making stricture and enforcement - 15%
Threats to forests
Pressures on Forest ecosystems

- 48% of respondents reported food shortages every year (November-April).

- The main coping strategies are charcoal production (45.3%), casual labour (35%) and remittances (9.4%).

- “When you run out of food in the household, the axe hits the tree” Male respondent, Mwekera study site.
Discussion

• High consumption of FPES for food, medicine, construction material.

• “Zambia woodlands are a pharmacy, a supermarket, a building supply store, a grazing resource, cultural heritage site and spiritual temple”

• Pressure on forests are reducing the provisioning of FCES

• Ethnic diversity and erosion of social norms
Discussion

• The appreciation of cultural services by many indigenous people is profound (Butler and Oluoch-Kosura 2006).

• Spiritual bonds with sacred landscapes (Butler and Oluoch-Kosura 2006)

• Ritual practices

• Indigenous knowledge

• All the main uses boarder on Cultural identity
Conclusions

• Zambia’s forest ecosystems provide important FCES

• FCES are dependant on tribe and people’s relationship with the forests

• Current deforestation and forest degradation pose a danger to cultural erosion among indigenous people especially near urban areas.

• Need to incorporate cultural uses of forests in policy and practice to guide integrated landscape management
• Questions and Comments

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