Projects and programs to reduce emissions from deforestation and degradation (REDD) provide a unique opportunity for Uganda to sustainably conserve forest biodiversity and generate real benefits for the country and its population. Successful implementation of REDD requires clear identification and nurturing of viable projects, as well as appropriate policy, legal, and institutional frameworks.

In 2009, with support from the Global Environment Facility of the United Nations Development Programme and the Mitsubishi Corporation, the Katoomba Group and the Katoomba Incubator led the REDD Opportunities Scoping Exercise (ROSE) in Uganda in order to:

1. Identify a portfolio of promising REDD projects that can assist communities to access PES markets/funds;
2. Provide input into government REDD readiness and priority-setting processes; and
3. Generate recommendations in terms of the legal, policy, and institutional actions or reforms necessary to stimulate forest carbon finance in Uganda.

The ROSE process consists of stakeholder and expert consultation, as well as targeted research into the national legal and institutional frameworks for REDD and forest conservation. At the national level, the ROSE assessment provides a rapid qualitative analysis of key emissions abatement opportunities across different forest contexts. At the sub-national level, the exercise provides a framework for a programmatic approach to REDD that is responsive to strategic and market requirements.

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In 2009, participants in the Uganda ROSE process identified a set of characteristics that are closely related to the potential for environmentally and socially beneficial REDD activities in a specific location (Table 1).

Table 1. Participant-Identified Criteria for Assessing the Viability of REDD Projects in Uganda

<table>
<thead>
<tr>
<th>Magnitude of potential environmental benefits</th>
<th>Size of forest blocks and aggregation potential of smaller forest blocks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ecosystem’s potential carbon storage and emission levels or biomass stocking levels</td>
</tr>
<tr>
<td></td>
<td>Deforestation threat level (reflects potential for forest conservation to generate carbon benefits beyond “business-as-usual”)</td>
</tr>
<tr>
<td></td>
<td>Potential for “bundling” carbon activities with activities to protect or restore other ecosystem services</td>
</tr>
<tr>
<td>Legal and institutional factors</td>
<td>Clarity of land tenure</td>
</tr>
<tr>
<td></td>
<td>Clarity of tree tenure (and of associated carbon rights)</td>
</tr>
<tr>
<td></td>
<td>Local institutional or governance capacity</td>
</tr>
<tr>
<td></td>
<td>Likely level of government interest and engagement</td>
</tr>
<tr>
<td>Risks</td>
<td>Opportunity costs associated with alternative (to REDD) land- and forest-use</td>
</tr>
<tr>
<td></td>
<td>Risk of carbon emissions and deforestation “leakage” outside project boundaries</td>
</tr>
<tr>
<td>Local impacts</td>
<td>Poverty status in the area</td>
</tr>
<tr>
<td></td>
<td>Community access to project benefits (potential for poverty reduction)</td>
</tr>
<tr>
<td>Technical aspects</td>
<td>Applicability of existing carbon project methodologies</td>
</tr>
<tr>
<td></td>
<td>Contribution to Uganda’s carbon emission reductions profile</td>
</tr>
<tr>
<td></td>
<td>Potential for scaling up REDD activities to other similar areas</td>
</tr>
</tbody>
</table>

Participants also identified eleven potential REDD project types in Uganda, categorized by ecosystem and tenure arrangement (Table 2).

Table 2. Forest Types in Uganda (Potential REDD Sites), Categorized by Ecosystem Type and Tenure

<table>
<thead>
<tr>
<th>TENURE</th>
<th>ECOSYSTEM TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High-Stocked Tropical High Forest</td>
</tr>
<tr>
<td>Central Forest Reserve under National Forest Auth.</td>
<td>x</td>
</tr>
<tr>
<td>Central Forest Reserve under Uganda Wildlife Auth.</td>
<td>x</td>
</tr>
<tr>
<td>Privately Owned Forest</td>
<td>x</td>
</tr>
<tr>
<td>Community Forest under Communal Ownership</td>
<td>x</td>
</tr>
</tbody>
</table>

Each project type (Table 2) was scored 1-3 for each characteristic (Table 1), where 1 is least conducive to REDD. Scores were used to inform and incite discussion and prioritization of potential REDD sites, rather than to rank forest types by mathematical calculation. Following the scoring process the relative importance of the identified criteria in determining REDD potential in practice was discussed.
RESULTS – REDD OPPORTUNITIES

Overall, the ROSE process found the highest potential for REDD in:

1. Low-stocked tropical high forest under Collaborative Forest Management (CFM) with the National Forest Authority (NFA);
2. Low-stocked tropical high forest under private ownership;
3. Low-stocked tropical high forest under Collaborative Resource Management (CRM) with the Uganda Wildlife Authority (UWA); and
4. Woodlands under various management regimes.

Tropical high forests, with their high biomass density, were determined to have higher potential for REDD than woodland forest types. Project types under government management were assessed to be more feasible for REDD than private and customary forests because of well-established institutional frameworks, strong government interests, and clear land and tree tenure. CFM and CRM, each a type of participatory forest management, provide mechanisms for community participation in government forest management.

While the process also identified REDD opportunities in private and communal forests – where communities may have more secure land and tree tenure – implementation in these areas was considered problematic due to still emerging institutional structures and poor forest management practices. Low-stocked tropical high forests under customary tenure were considered less feasible because they exist in small patches mainly on kingdom- and clan-controlled lands with unclear tenure and a low possibility for replication.

Although well-stocked tropical high forests have high biomass and high emission potential, these areas tend to be isolated and do not face significant deforestation or degradation pressures. Thus, these areas are generally not well suited to projects that aim to reduce deforestation and forest degradation. Furthermore, with few or no people living nearby, projects in well-stocked tropical high forest provide little potential for community benefits. As a result, well-stocked tropical high forest was omitted from the scoping analysis.

Low-Stocked Tropical High Forest under Collaborative Forest Management with NFA

**Drivers of Deforestation:** Illegal timber harvesting

**Potential REDD Sites:** South Busoga, Sango Ba, Mabira Central Forest Reserves (CFRs) in the lakeshore region, Budongo and Kasyoha-Kitomi CFRs in the Albertine Rift

Low-stocked tropical high forest under CFM had the highest potential for REDD project development because of a high emission reduction potential per hectare and well-established institutional systems for involving communities in direct forest management and sharing benefits. Management may technically be via NFA or UWA, but in practice, CFM has occurred almost exclusively in NFA-managed forests.
Low-Stocked Tropical High Forest under Private Ownership

**Drivers of Deforestation:** Agricultural land pressures from surrounding communities

**Potential REDD Sites:** Private forests in northern, central, and western regions

Opportunities for REDD projects were also found to exist on low-stocked tropical high forests on private land which have particularly high potential for additional emission reductions. These forests account for a large proportion of the total forest estate and are highly threatened. While forest areas tend to be small and scattered, aggregation may be possible through the Forest Sector Support Department under its Farm Income Enhancement and Forest Conservation Program. However, land and tree tenure issues are common and range from a lack of formal title registration to overlapping ownership claims. Furthermore, most of these forests have no institutional mechanism for sharing benefits with the wider community.

Low-Stocked Tropical High Forest under Community Resource Management with UWA

**Drivers of Deforestation:** Illegal timber harvesting, agricultural expansion, overgrazing (in Wildlife Conservation Areas)

**Potential REDD Sites:** Pakanyi sub county near Murchison Falls National Park in Masindi District, CRM sites around Mt. Elgon, Semliki, and Queen Elizabeth National Parks

This site category came third in terms of potential for REDD, but had greater potential for projects that focus not only on reduced deforestation and forest degradation, but also on practices that enhance forest carbon stocks (for example, as REDD+). CRM arrangements have well-established community involvement and revenue-sharing mechanisms (via sharing of gate-collection fees). However, the focus of protective management is on wildlife as opposed to trees, and concerns have been raised about revenue sharing and actual community engagement. Where overgrazing drives deforestation, opportunity costs tend to be high and traditional enforcement approaches may be more effective.

Woodlands under Various Management Regimes

**Drivers of Deforestation:** Charcoal production, overgrazing (both lower in UWA-managed areas)

**Potential REDD Sites:**
1) Less-pressured sites under NFA or private management in Kibale, Hoima, and Kyenjojo Districts and in the north, northwest, and east

These site categories were found to be less attractive prospects for REDD projects, mainly because of lower carbon-stocking potential and high opportunity costs. Woodlands under NFA or private management are under particularly high deforestation pressures, while areas under UWA management tend to be less threatened, but could still be eligible for REDD.
CONCLUSIONS AND RECOMMENDATIONS

In general, the size of Uganda’s permanent forest estate, current levels of deforestation and forest degradation, as well as the institutionalization of participatory forest management provide opportunities for REDD, with some types of sites having more potential than others. Because opportunity costs can be a major barrier, in many places, REDD activities may only make sense as an incremental incentive in forests where high-value economic activities such as tourism and timber business exist or can be developed. By contrast, where conservation activities already have high value, additionality problems may arise.

Existing legal and institutional frameworks have neither strongly negative nor positive implications for REDD, but can be considered to lay the foundation for an effective REDD readiness process. Yet, critical gaps remain, particularly in terms of uncertain land and tree tenure, lack of clear laws for PES and REDD, and inconsistent and inequitable benefit sharing under participatory forest management models like CFM and CRM. Four key recommendations emerged from the REDD Opportunities Scoping Exercise process:

Recommendation #1
Clarity is needed over land and tree tenure, particularly in areas owned by cultural or traditional institutions, absentee landlords, and by NFA and UWA as joint management reserves. The National Land Policy should be finalized to give way for a thorough review of the 2001 Land Act.

Recommendation #2
The existing policy and legal framework must be revised to explicitly address payments for ecosystem services, REDD governance, and ownership, while providing mechanisms for transparent and equitable benefit sharing. Uganda’s draft REDD Readiness Preparation Proposal begins this important process.

Recommendation #3
Clarity is needed on benefit sharing under participatory forest management models like CFM and CRM. Currently, benefit sharing under these models is governed by an agreement or memorandum of understanding that has been negotiated with the relevant authority (NFA or UWA). Disparity in negotiating power between the relevant government authority and the affected community means that community stakeholders often do not get a fair share of benefits. A mechanism is needed that defines the limits of permissible benefit sharing under these management models and provides for transparent, equitable, and efficient negotiation.

Recommendation #4
Capacity-building is needed for potential REDD participants, supporting organizations, and policymakers, particularly around monitoring, evaluation, governance, and accountability. Public funding and policies should be leveraged to build technical capacity in these and other key areas to ensure efficiency and long-term sustainability of REDD in Uganda.

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