South Sudan
Peacebuilding Opportunities Fund

The Impact of Logging Activities on Local Communities

A joint research initiative by the South Sudan Council of Churches and the UK Peacebuilding Opportunities Fund.

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About the South Sudan Council of Churches

South Sudan Council of Churches (SSCC) is an ecumenical body comprised of seven member churches and associate churches in South Sudan with a strong legacy of peace-building, reconciliation and advocacy. The SSCC provides a platform to enhance the spirit of ecumenical cooperation towards collective action for peace.

The SSCC created the Action Plan for Peace (APP) in 2015, a home-grown and Church-led strategy of the South Sudan Council of Churches (SSCC), comprehensively addressing the root causes and long-term effects of conflict through Advocacy, Neutral Forums, Healing and Reconciliation. The APP envisions "a peaceful, prosperous, and reconciled South Sudan built on inclusive citizen engagement at all levels" and it signifies an approach to ending violence in South Sudan by building on the decades of church experience in peace building and reconciliation.

SSCC is committed to adopting recommendations from this research within the Action Plan for Peace.

About the Peacebuilding Opportunities Fund

FCDO's South Sudan Peacebuilding Opportunities Fund (POF) is jointly implemented with CAFOD-Trócaire in Partnership (CTP) and Forcier Consulting. The programme is envisaged to establish a scalable, adaptable, and contextually-driven mechanism to pursue peacebuilding objectives in South Sudan.

The approach to peacebuilding is designed around three funding windows which prioritise investment in organisations and civic approaches four sub-national locations (Bor, Bentiu, Rumbek, Torit), targeting youth who are particularly vulnerable to mobilisation by armed militias, and in supporting opportunities at the national level.

The POF seeks to deliver outcomes which ensure that targeted communities are more harmonious and resilient to conflict, and that political, socio-economic, and cultural institutions key for handling conflict and establishing the conditions for sustained peace are strengthened and more inclusive. As such the desired impact will see stronger national capacity to manage conflicts without violence, and a reduction in violence in targeted areas.

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Acronyms

CTP	CAFOD-Trócaire in Partnership
FAO	United Nations Food and Agriculture Organization
FCDO	UK Foreign, Commonwealth and Development Office
ICC	Inter-Church Committee
IDPs	Internally displaced persons
POF	Peacebuilding Opportunities Fund
REDD+	Reducing Emissions from Deforestation and Forest Degradation
SSCC	South Sudan Council of Churches
SSPDF	South Sudan Peoples' Defence Forces
SPLA/M IO	Sudan Peoples' Liberation Army/Movement in Opposition
UAE	United Arab Emirates
UNFCCC	United Nations Framework Convention on Climate Change
UNCBD	UN Convention on Biodiversity
UNCCD	UN Convention to Combat Desertification
UNSC	United Nations Security Council

Executive summary

This research project was commissioned in response to a growing concern among civil society, faith-based organisations, affected communities, and refugees about the negative impact of logging on local communities in South Sudan, particularly in the Equatorian Region and Greater Bahr El Ghazal. It was envisaged that through the initial research and deeper understanding of the issues involved, opportunities for engagement would be identified to inform strategic programming in a subsequent phase. This document therefore is both a report on the findings from the research phase, and a discussion document which provides as evidence base for future programming on this important issue.

The **key findings** of the research were as follows:

i. A great deal of forest cover still remains in South Sudan, an important and hopeful starting point from which to propose a comprehensive strategy of engagement to stop unregulated activities.

ii. Logging activities accelerated across the Equatorian region during 2016–2018 after local communities fled the violence. There is a sense of grievance within the communities most impacted by the violence against those who remained, who they see as collaborators with the political and military forces that have promoted logging.

iii. Uganda is the main export route where timber enters the formal export market to final destinations in India and the United Arab Emirates (UAE).

iv. Logging in South Sudan involves a network of local and foreign actors operating within an enabling environment facilitated by political and military leaders. These networks facilitate the cross-border transportation of timber and charcoal.

v. The scale of charcoal production has increased significantly in recent years, in conjunction with the expansion of logging, and is now an export commodity in its own right.

vi. There are three types of forests in South Sudan – government plantations, indigenous community forest, and private plantations – each with its own governing legislation. This has created much ambiguity on how to manage forests, especially with regard to community forests, which are tribal lands governed by traditional leaders and are of particular significance for each community.

vii. Differentiation between indigenous (mahogany) and exotic (teak) species is important because reference to the logging of 'teak and mahogany' fails to distinguish their indigenous/ exotic origins, which have different governance systems.

viii. Communities have spiritual or religious attachments to forests, which they perceive as the places where their ancestors live and are honoured. They also believe that sacred trees protect their communities from evil.

ix.   There is poor collaboration and coordination between institutions dealing with forests and other natural resources, which undermines attempts to address the impact of logging and charcoal production within communities.

x.   There is almost no evidence of tree planting by companies and individuals involved in logging.

xi.   Traditional leaders entrusted to protect the forests and play an important role in community-level forest management strategies are also complicit in supporting logging activities.

The **main recommendations**, around which future programming opportunities will be discussed, are as follows:

To Development Agencies

i.   Ensure support to national NGOs and other local actors to create awareness and build capacity of local communities on effective and conflict sensitive resource management.

ii.   Include natural resource management and sustainable harvesting as a component of development programmes where possible, to assist local communities understand the economic and ecological values of their natural resources, to build their capacity to sustainably manage, harvest and market these resources.

iii.   NGOs and local communities should be supported to hold logging companies accountable for fully implementing their Social Corporate Responsibility policy and commitments with regards to service or infrastructure provision as part of their logging activities.

To the South Sudan Council of Churches (SSCC)

i.   SSCC should engage the Minister for Environment and Forestry and other relevant ministries to share the concerns of this report and explore joint efforts to address the impact of logging and charcoal production on local communities.

ii.   SSCC should engage with like-minded organisations to raise public awareness of the impact of logging and charcoal production, and to develop means of promoting environmental protection at the community level.

iii.   SSCC should continue to strengthen the Inter-Church Committees (ICCs) in affected areas, and provide support to address identified conflict issues (e.g. land and resource-based conflict) in specific locations.

To the Minister for Environment and Forestry

i.   The Minister should work with the national government to ensure the Forest Act and Environment Act are passed, to strengthen the legislative and institutional framework to manage logging and charcoal production, and to ensure environmental safeguards.

ii.   The Minister should strengthen collaboration and coordination between institutions dealing with natural resources in order to effectively manage forests.

1 Introduction

The issue of logging as a conflict driver and its impact on local communities is under-researched in South Sudan. POF analysis in Eastern Equatoria State established a link between logging activities and the potential for refugee return from Uganda, with refugees fearful to return home because of the conflict dynamics surrounding logging in their home areas. POF identified the need for analysis, particularly at community level, to ensure greater understanding of the key issues and actors involved, to inform a second phase of engagement. Research aimed highlight conflict dynamics and inform discussion with SSCC and other relevant actors on future programmatic responses.

The interface between conflict and illegal logging in border areas, where mahogany, teak, shea, and other trees are being felled, impacts the communities in these areas.[1] Hardwood exports, such as teak and mahogany, have played a significant role in the country's socio-economic and political dynamics. A UN Security Council (UNSC) report in 2017 described South Sudan as a war economy, 'wherein the extraction of resources (oil, gold and teak, inter alia) is carried out in the furtherance of, and in parallel to, military operations and the enrichment of elites'. This context has brought loss of livelihoods and caused significant population displacement.[2] While logs from indigenous trees are transported across the border to overseas markets, the booming charcoal business is taking a significant toll on many fruit trees, such as mangoes and shea trees, especially along major routes.

The eruption of conflict in 2013 increased the scale of logging and charcoal activities in government plantations and community forests. The involvement of state and county authorities, as well as organised forces and armed groups, has had a negative impact on local communities.

1.1 Report structure

The report is structured as follows: the remainder of this section outlines the methodology used to develop this research, a collective effort between POF researchers and SSCC, and concludes by addressing the operational definition of 'illegal logging', which informs the analysis throughout this report.

Section 2 takes a look at the three types of forests in South Sudan, and the indigenous and exotic trees within these forests, particularly teak and mahogany, which are the main focus of loggers. Section 3 assesses legal frameworks, noting that there is much work to be done to remove the legal ambiguity that underpins the three types of forest outlined in law.

In Section 4 the research draws on Alex de Waal's political marketplace framework as an analytical tool to explore the political economy of South Sudan. While useful, this tool has limitations when undertaking community-based research in insecure environments, where interviewees were cautious or reluctant to comment on the identify of those involved. This

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[1] https://reliefweb.int/report/south-sudan/south-sudan-strengthens-environmental-protection
[2] www.openglobalrights.org/Illegal-logging-fuels-conflict-and-violence-against-women-in-south-Sudan/

has been addressed by drawing on media and UNSC reporting, which were more investigative in nature.

Section 5 outlines where the forests are in South Sudan, and the key logging locations. Section 6 deals with the impact of logging on local communities, setting out the evidence gathered during this initial phase. The key findings set out in the executive summary are drawn from this section. Section 7 makes recommendations.

1.2   Research methodology

A qualitative methodology was applied in all research locations. Primary data were collected between February and March 2019 from Yambio and Nzara in Western Equatoria State, Yei and Juba in Central Equatoria State, Magwi and Nimule in Eastern Equatoria State, and Wau, Busere and Bazia in Western Bahr el Ghazal, the key forest locations in South Sudan. Specific locations visited for research were selected based on accessibility by road (Eastern Equatoria State) and air (the other three locations), and local security considerations.

Data were collected from a range of respondents, including chiefs, landlords, church leaders, women, youth, and civil society, through in-depth open-ended interviews and one-to-one meetings. Unstructured interviews were also conducted with traders and representatives of logging companies. These included informal conversations, observation, and other forms of documentation (photos of wood, timber, and deforested areas). Data from unstructured interviews were included in the analysis because they provided important sources for comparison of logging activities, different views, and corroboration of information across geographic areas.

Induction and orientation sessions were conducted with a 15-person research team (focal persons) from the four research locations prior to fieldwork, to familiarise them with the research objectives, tools (questionnaires/interview guide), and ethics. Some were directly linked to SSCC and local churches. They were selected based on their experience, gender, and knowledge of the research areas. After the induction, they were provided with an interview template (guide) for data collection (Annex 1). Researchers were trained to ensure they sought the views of men and women, youth and elderly, and people living with disability.

A total of 67 key informant interviews and 81 informal interviews and consultations were conducted. These brought the total number of people consulted to 148, of which 53 were females and 95 males. Interviews were conducted at locations convenient to the interviewees. Due to the sensitivity of the study, interviews were not recorded. Written reports were developed for each location, and the research team came together for an analysis workshop in Kit, Juba, from 27 to 31 March 2020, at which cross-case comparisons were explored and key findings discussed and developed.

Table 1 - Interviewees

Grouping	#	Location (County)
Key informant interviews		
Chiefs and Landlords	19	Magwi – 7; Yambio/ Nzara – 5; Yei – 6; Wau – 3
Women	19	Magwi – 6; Yambio/ Nzara – 4; Yei – 7; Wau – 2

Church leaders	20	Magwi – 7; Yambio/ Nzara – 6; Yei – 5; Wau – 2
Youth	9	Magwi – 2; Yambio/ Nzara – 2; Yei – 2; Wau – 3
Total	**67**	

Informal Interviews		
Traders	18	Magwi – 3; Yambio/ Nzara – 4; Yei – 4; Juba – 4; Wau – 3
Logging company officials	20	Magwi – 5; Yambio/ Nzara – 4; Yei – 5; Juba – 4; Wau – 2
Community members	43	Magwi – 9; Yambio/ Nzara – 7; Yei – 13; Aru – 6; Wau – 8
Total	**81**	

1.3   Research limitations

The research had a number of limitations. Firstly, the research design assumed that the scale of logging could be determined by getting close to affected areas and interviewing local communities – that doing so would develop a clear and accurate picture. While the research has substantially achieved this, many of the affected areas are insecure and direct access is inadvisable.

Secondly, the key actors are often armed groups or the organised armed forces, with whom research engagement would be imprudent. The assumption that the research would reveal who key actors are was validated, but identification beyond the level of governor and military commander was difficult to ascertain. While the political marketplace framework speaks strongly to what is happening and suggests illegal financial flows, which may be part of a systemic approach, a community-focused research project operating within this marketplace did not establish if a 'system' operates. Also, as has been learned elsewhere from programming,[3] attempts to probe and identify key actors run the risk of undermining the core purpose of the project, and thus being counterproductive.

Finally, capturing and communicating an event unfolding over time is different to capturing and communicating sudden-onset disasters, such as floods and earthquakes, where footage quickly illustrates the impact of what has happened. The research had hoped to obtain satellite imagery to communicate before and after images of impacted areas, but attempts to do this were unsuccessful. Nevertheless, the Global Forest Watch imagery presented later does offer a picture of impact over time.

1.4   Definitional issues

While the distinction between legal and illegal logging is important within this research, the lack of clear legislation makes such a distinction problematic. Much ambiguity surrounds

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[3] The example refers to learning within the Pageri Peace Forum, where senior political and military leaders are frequently referenced as being the owners of the cattle herds that have caused such problems for local communities. In discussions with those responsible for the herds, it became clear that questions that sought to determine who the owners are, were immaterial to the processes being supported, that it was sufficient to know that 'senior political and military leaders' were involved.

the policy and legal frameworks governing ownership of land and forests, and there is a serious lack of clarity regarding state and communal ownership, which blurs lines between legal and illegal activity. From a legal perspective, the key issue is to clarify how communal land is separate from government administered land. This ambiguity has perpetuated the proliferation of multiple claims over communal forest ownership.

As will be seen, the Chatham House operational definition of illegal logging is useful and insightful, where consultation and transparency process are central to the determination of whether logging is legal or illegal. This operational definition provides a clearer analytical basis upon which to assess and conclude that, for the most part, logging activities in South Sudan involve illegal activity:

> This definition … extends to breaking the law at any point along the supply chain – for example, logging under an illegally acquired licence or in protected areas, exceeding permitted harvest quotas, processing logs without the necessary licences, tax evasion and exporting products without paying export duties' (Chatham House, 2014, p. 2).

This definition aligns with the experience of many local communities, where the evidence points to a lack of transparency on the issuance and acquisition of licences; the use of the same licence in multiple locations; intimidation of local communities by military forces protecting logging companies; the absence of evidence to show that proceeds from the logging are remitted to state finances; and the use of minor border crossings to avoid export duties.

For local communities, however, there is little ambiguity: they invariably reference the illegality of logging activities. This is based on their expectation of how logging should be conducted, which is informed by their customary 'legal frameworks'. For them, landlords, rainmakers, and other traditional stakeholders have been the guardians of the forests for generations, they know what belongs to their community. They have always governed forest access, which is now in dispute. Their legal framework is cultural and undocumented, but community members instinctively understand how the forest should be governed and accessed. Non-fulfilment and non-compliance with cultural expectations and rituals relating to access to forest resources is the basis upon which they determine logging to be 'illegal'.

2 Types of forest

Different categories of forest exist in South Sudan: government- or state-owned plantations, mostly planted during the colonial period; indigenous community forests, which have strong links to individual communities and their heritage; and privately owned forests belonging to individuals and families. Each of these are recognised under state legislation, which treats forests as renewable resources to be used towards national development and revenue generation for the state at all levels.

Government-owned plantations: These plantations consist of teak, cedrela, cassia, and eucalyptus and originally aimed at diversifying sources of revenue and to power steamship boilers for trade along the Nile (Adkins, 2015). Kegulu plantation in Yei and Loka plantation in Lainya were established by the colonial administration in 1919 and 1936, respectively (Adkins, 2015, p. 8).[4] The Government of Southern Sudan assumed ownership of these forest reserves from the central government in Khartoum immediately after the signing of the Comprehensive Peace Agreement, and maintained the 1989 Sudan Forest Act (Gafaar, 2011) as the legal framework for the management of these resources.

The South Sudan Forest Policy of 2013 stipulates the sharing of royalties from forest resources among the different levels of government. For example, revenues from National Forest Reserves were to be collected by the national government, with 70% going to the national treasury, 20% to the relevant state government treasury, and 10% to a National Forest Fund.[5] Similar revenue allocations exist for State Forest Reserves and County Forest Reserves.

One of the paradoxes of South Sudan is that, with little or no central funding, sub-national governments are expected to improvise and secure resources to ensure a semblance of governance. Forest revenues received by sub-national governments are sometimes used to resource local government institutions, though little transparency surrounds these financial flows. For example, a UNSC (2019, para 85) report notes that local government in Maridi 'sold $400,000 in teak from Zaria plantations to various traders. These revenues reportedly went, in part, towards purchasing uniforms for the graduates of the Maridi Training and Research Centre of the South Sudan National Police Service and to pay salaries to police and SSPDF units, which had been unpaid for six to seven months'.

Indigenous community forests: The basis for communal ownership of forestry is provided for in the Southern Sudan Land Act 2009,[6] which states that community lands shall include 'land lawfully held, managed or used by specific community as community forests, cultivation, grazing areas, shrines and any other purposes recognized by Law.'

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[4] UNSC (2019, para 186) states that Central Equatoria State is 'home to the largest remaining teak plantations in South Sudan, including the Loka plantation, which covers some 1,751 hectares. The total value of this teak may be in the region of $50 million to $70 million.'

[5] Researchers inquired about the National Forest Fund, and whether it was ever operationalised. No information was available.

[6] South Sudan Land Act 2009, www.refworld.org/docid/5a841e7a4.html

Ownership of community land and forest is based on ancestral rights under the trusteeship of traditional customary land tenure principles. There is no title deed to prove ownership for community lands in project locations and this ambiguity is identified as a cause of concern in the South Sudan Forest Policy 2013 (Deng, 2014). For traditional leaders, such as landlords, rainmakers, and other traditional stakeholders who govern access, the forests are more than economic assets to be harvested: they provide local communities with food and meat, are home to a range of wild animals, provide poles and grass for housing, and contain sacred spaces. The forest is an extension of the community, and access to its resources is mediated by traditional leaders and specific rituals.

Forest Customs in Magwi

Traditionally, forests are respected and no one is allowed to enter the forest without the consent of the traditional leaders. Forests are divided according to the ancestral ownerships, whereby for one to enter the forest, traditional rituals are carried out, involving the slaughter of a male goat or a sheep as a sign of blessing to the ancestors, with the intention that no one will get harmed when he/she enters the forest.

The South Sudan Forest Policy 2013 states that revenues from community forests are collected by boma and payam administrations, with 60% of revenue to support community development projects, 30% towards boma and payam development projects, and 10% to the National Forest Fund.

It is particularly with regard to indigenous community forests that the services which forest ecosystems provide is best understood. The table below outlines different categories of ecosystem services globally, with those in **bold** specifically relevant to research findings detailed later in this report.[7]

Table 2 - Global ecosystem categories

Provisioning services[8]	Regulating services[9]	Habitat or supporting services	Cultural services
Food	Local climate and air quality	**Habitats for species**	Recreation, mental and physical health
Raw materials	**Carbon sequestration and storage**	Maintenance of genetic diversity	Tourism
Fresh water	Moderation of extreme events		Aesthetic appreciation
Medicinal resources	Waste-water treatment		**Spiritual experience and sense of place**

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[7] See the Economics of Ecosystems and Biodiversity located at www.teebweb.org/resources/ecosystem-services/

[8] Provisioning services are ecosystem services that relate to the material or energy outputs from ecosystems.

[9] Regulating services are the services that ecosystems provide by acting as regulators, e.g. regulating the quality of air and soil or by providing flood and disease control.

	Erosion prevention and maintenance of soil fertility		
	Pollination		
	Biological control		

While this framing is useful and captures important services provided, it does not fully capture a number of services identified during the research. For example, many indigenous species occupy key places in cultural life, where individual trees represent the 'town hall' under which meetings are held, the 'courthouse' where customary courts are conducted, or 'sacred spaces' where ancestors are honoured and consulted. The loss of these trees profoundly affects community practices and has a different impact to the loss of exotic trees.

Privately owned plantations: Planted and managed to supplement local livelihoods, family-owned and individually owned plantations are a third category of forest. Anecdotal evidence indicates that these forests were severely impacted across the Equatorias during the conflict, because of their accessibility and proximity to transport routes. However, private forests were not included in this research as their identification depends entirely on local knowledge, which would necessitate additional research in refugee and internally displaced persons (IDPs) camps.

Owners of private plantations are required by the South Sudan Forest Policy 2013 to remit 2.5% to the state government, 2.5% to the national treasury, and 1% to the National Forest Fund at the time of harvesting.

2.1   Types of trees

Differentiation between indigenous and exotic species is important within the research. Indigenous trees are mostly found in community forests, while exotic trees are found in state plantations. Therefore, references to the logging of 'teak and mahogany' occurring across all four states fails to distinguish their indigenous/exotic origins, which have different governance systems, as outlined above.

Table 3 - Indigenous and exotic trees

Indigenous trees		Exotic trees
Afzelia (*Afzelia Africana*)	Shea (*Vitellaria Paradoxa*)	Teak (*Tectona Grandis*)
Mahogany (*Swietena Mahagoni*)	Tamarind (*Tamarindus Indica*)	Eucalyptus (*Eucalyptus globulus*)
Ebony (*Diospyros Ebenum*)	Marula (*Sclerocarya Birrea*)	Cassia (*Cassia Siamea*)
Mvule (*Milicia Excelsa*)	Bamboo (*Bambusa Vulgaris*)	Cederela (*Cedrela Toona*)

The list below provides a brief summary of the principal types of trees being logged in the four states:

- Eastern Equatoria State (Magwi, Nimule): mahogany, teak mvule, and afezilia.
- Central Equatoria State (Juba, Yei, Lainya, Morobo, and Kajo keji counties): mahogany, teak, bamboo, tamarind, afezilia, and Shea.
- Western Equatoria State (Yambio, Nzara, and Maridi counties): teak, mahogany, and mvule.
- Western Bahr el Ghazal (Wau): teak, mahogany, and bamboo.

The intensity of logging activities significantly increased in all the above locations after the resurgence of conflict in 2016.

3   Legal frameworks

Forestry and environmental laws in South Sudan have not been enacted. The governance of the forest set out in the Transitional Constitution of South Sudan 2011, as amended in 2015 under Articles 37, 41, and 157 about forest protection, is insufficient to deal with the complexities pertaining to indigenous community forests in particular.

Article 37 (2) (a) states that:

> 'all levels of government shall protect and ensure the sustainable management and utilisation of natural resources including land, water, petroleum, minerals, fauna and flora for the benefit of the people. Article 41 (1, 2, 3, 4) guarantees people's rights to a clean and healthy environment. Specifically, it calls for enactment of legislations that "a) prevents pollution and ecological degradation; b) promote conservation; and c) secure ecologically sustainable development and use of natural resources while promoting rational economic and social development so as to protect genetic stability and biodiversity.'

The 2013 Forest Policy and the National Environment Policy 2015–2025 both underscore the Government's principal role in coordinating the international, regional, national, and sub-national policies and programmes that ensure sustainable use of the forests.[10] A key recommendation in this report refers to the need for new legislation to clarify and strengthen legal frameworks. Passing the Forest Act and Environmental Act would be significant in this regard, and is also a key recommendation in this report.

The importance of collaboration and coordination between institutions dealing with forests and other national resources is important to address the impact of logging and charcoal production within communities. Coordination is required between the ministries of forestry, environment, agriculture, and wildlife, in particular, and with law enforcement bodies at all levels of national, state, and local government to provide unified leadership and ensure enforcement.

In terms of international frameworks, South Sudan has ratified the United Nations Framework Convention on Climate Change (UNFCCC), the United Nations Convention on Biodiversity (UNCBD), the United Nations Convention to Combat Desertification (UNCCD), and it has joined the Global Environment Facility, which provides funding for the three conventions. South Sudan has not ratified the Kyoto Protocol to the UNFCCC. The country is also a member of the Reducing Emissions from Deforestation and Forest Degradation (REDD+).[11] It is unclear whether South Sudan adopted the 2005 Hyogo Framework[12] or the 2015 Sendai Framework for Disaster Risk Reduction 2015–2030.[13]

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[10] The National Environmental Policy, 2015-2025: Ministry of Environment Republic of South Sudan, Juba January 2015.

[11] REDD+ is a mechanism to reduce greenhouse gas emissions and to protect threatened forest ecosystems by paying developing countries to stop cutting down their forests.

[12] www.preventionweb.net/english/hyogo/framework/

[13] www.unisdr.org/files/43291_sendaiframeworkfordrren.pdf

4   Political marketplace analysis

The research draws on Alex de Waal's political marketplace framework of analysis. This holds that in countries affected by violent conflict, the ability of public authorities to provide any level of governance is often subordinated to the functioning of the 'real politics' of gaining, managing, and holding power, which he argues functions as a 'political marketplace' (de Waal, 2015). Governance in these difficult places is dominated by the logic of political markets, which are turbulent, violent, kleptocratic, and integrated into regional and global networks.

Key research findings demonstrate that logging in South Sudan presents most attributes of a political marketplace. It involves a network of actors, both local and foreign, who transport timber and charcoal across the border and operate within an enabling environment facilitated by political and military leaders. Uganda is the principal export route for the timber into the formal export market, and onwards to final destinations in India and the UAE. This makes South Sudan an example of a violent, fragmented, kleptocratic political marketplace (de Waal, 2014), where state-level institutions are subsidiary to the transactional politics pursued by a narrow group of elites.[14]

By revealing the frustrations of state-building and institutionally focused engagement, the application of the political marketplace logic can inform the design of improved interventions which can reduce the risk and impact of conflict and violence. As argued by de Waal, current policy frameworks and tools do not fully capture the everyday realities of politics and governance in these environments.[15] It is therefore important that recommendations advocating policy reform and deeper collaboration among state institutions, as suggested above, provide a wider suite of interventions as part of a change process. However, these interventions should start from a deeper understanding of the contemporary logics of the political marketplace, and the networks and roles of prominent political and military entrepreneurs that facilitate its workings,

POF political economy analysis in Eastern Equatoria found that logging mostly takes place in locations where communities have been displaced by violence, where government and military leaders provide an enabling environment for logging, part of a war economy. While governors, county commissioners, the South Sudan People's Defence Forces (SSPDF), Presidential Guard (Tiger Division) military commanders, and the National Security Service provide protection to loggers, it was not possible to ascertain the extent to which political and military leadership above state governors and local military commanders benefit from logging and charcoal production.

A UN Panel of Experts report (November 2019) offers interesting insights on military involvement in logging. The report confirmed that SSPDF commanders in Pageri county and units of the Tiger Division in Moli had actively cut timber and taxed logging companies for permission to harvest and transport timber. The Panel corroborated the fact that the final

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[14] 'Conflict Research Programme Synthesis Paper – South Sudan', presented by Alex De Waal at the South Sudan Panel Meeting in Arusha, Tanzania, July 2018.
[15] *Ibid.*

beneficiary of the illegal logging was SSPDF administration and finance. The Panel highlighted SPLA-IO involvement in the 'illegal exploitation of and trade in timber in Kajo Kaji,' stating that it was involved in the taxation of teak and mahogany illegally harvested, and active in the transit of logs to the borders with the Democratic Republic of the Congo.

The Sentry (2020) and various media reports highlight the involvement of governors and other senior officials as drivers of logging activity in the Equatorian states, with the Sentry also reporting on gold mining enterprises, linked mining to the President's inner circle.

The UN Panel of Experts states that 'the Panel has consistently identified how the competition for natural and public resources threatens peace and security' (No. 48). The report provides a case study on 'the exploitation of timber by the Sudan People's Liberation Army in Opposition (SPLA-IO) and the South Sudan People's Defence Forces' (SSPDF) (Nos. 56–61), stating that 'the leadership of both have continued to exploit and trade in timber in areas under their control in the former Central Equatoria and Eastern Equatoria States'. Both groups were found to have generated revenues through the illegal harvest, sale and taxation of teak and mahogany.'

Governance concerns over forests has been an important theme of the Pageri Peace Forum,[16] where community representatives challenged local authorities and military commanders for their direct involvement in, and their facilitation of, logging, despite a state ban. Military commanders justified their involvement by claiming that the revenue collected was being used to top-up and also compensate for late salary payments for soldiers in their units. As part of their apology, they promised to cease logging, which would suggest that their logging involvement was not linked to a corporate approach.

4.1   Enabling roles of government and military

The transactional politics and governance practised paralyses coordination and law enforcement efforts. The 2013 Forest Policy provides for strong collaboration between national and state governments to operate a system of land concessions for plantation development based on long-term land lease agreements. The Forest Law has not been enacted and vested interests, corruption, and a lack of accountability have created a fertile ground for illegal logging, the unsustainable use of forest resources, and the loss of revenue meant for development programmes in South Sudan. This aligns with the political marketplace logic analysed.

Respondents from all research sites confirmed the role of organised forces and armed groups in granting access to and protecting loggers and their equipment. Loggers were guarded by government-allied armed groups. In parts of Kejokeji, Morobo, and Lainya, former rebel groups played a significant role in the logging industry, with the aim of resourcing their movements. Logging is lucrative and this perhaps explains why some rebel leaders have been reluctant to negotiate peace in good faith.

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[16] The Pageri Peace Forum, chaired by local government and the Inter Church Committee, is funded by the POF.

5 Forest locations

The four states selected for research represent the main forested areas in South Sudan. The map from Global Forest Watch reproduced in this page highlights forest locations. Global Forest Watch data show that in 2010, South Sudan had 13.3Mha of tree cover, extending over 21% of its land area. By 2019, the data estimate that the country had lost approximately 3.75kha or 28% of tree cover. The online graphics permit an annual tracking of the areas most impacted, highlighted in purple in the map.
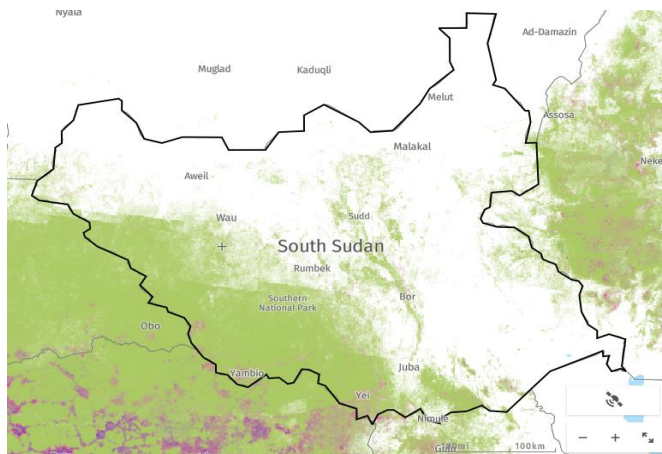

Figure 1 - South Sudan forestation

The FAO 'Global Forest Resources Assessment' (2015, p. 4) presents a different dataset using different categories, which is useful to highlight. It estimates 11.3% forest cover and 51.6% 'other wooded land'. A follow-on report is due for publication in 2020, which will facilitate comparative analysis.

A key message from both reports is that a great deal of forest cover remains. This is an important starting point from which to propose a grounded and comprehensive strategy of engagement to stem unregulated activities. A future phase could: support coordination and collaboration between key institutions with responsibility for forest management, including action to support effective legislation; explore public advocacy, communications, and education with key national actors working with the Ministry of Forestry and relevant institutions; and support concrete interventions within communities impacted by logging.

5.1 Key logging locations

The extent of logging activities in the accessed areas was readily visible to researchers. While unable to provide quantifiable data, most interviewees described the logging activities taking place as 'massive'. The list of areas outlined below is not exhaustive, but it points to areas that can be referred to as the epicentres of logging activity. Researchers were unable to access insecure locations where National Salvation Front and other armed groups are known to operate.

The forested area stretching over 40 km from Aru up to Kit River in Eastern Equatoria State is now locally referred to as the 'city of destruction', due to the scale of logging taking place. Loggers are guarded by heavily armed soldiers from the Presidential Tiger Division, the SSPDF, and the National Security Service. Other areas severely impacted include Katire, Upper Talanga, and Lerwa.

The major logging areas in Central Equatoria include Lainya, Morobo, and Kajokeji counties. Researchers were unable to reach these areas for security reasons. Researchers also identified Kegulu, Kejiko, and Loka teak plantations in Nyamini, along the Juba-Yambio road, as another extensive forest that has been significantly affected by the logging. Interviewees in Lo'bonok noted that the area has been logged at an alarming speed.[17]

The alarming extent of logging in the dense natural forests and plantations in Yambio, Nzara, and Maridi counties of Western Equatoria State is said to have extensively depleted the forest cover.

In Western Bahr el Ghazal eight of the nine teak plantations are described as degraded. The Dogrongo (Bussere) forest reserve, for example, in Wau, was previously protected by forest police in the 1970s and 1980s, who maintained fire breaks and cared for the reserve. With the start of the second civil war (1983–2005), Sudanese Armed Forces began harvesting timber, which was transported to Khartoum by road, rail, and air. Following the Comprehensive Peace Agreement, the reserve has been neglected, and plantation teak is sold openly in Wau markets. As a result of logging, regular fires, and a failure to maintain and replant trees, the reserve is currently much depleted.

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[17] Interview 8, with a schoolteacher in Lo'bonok Payam of Juba County (22 March 2020).

6 The impact of logging on local communities

This section sets out the key research findings. Some positive benefits of the logging were identified, such as employment opportunities and community development projects. That said, the logging is unsustainable and if allowed to continue unchecked it will have a significantly destructive and destabilising impact on local communities and local ecosystems.

The findings relate to employment and livelihoods; community development projects provided in exchange for access to forests, which have mixed results; intra-communal division and grievance among refugees and displaced communities directed at fellow-community members who did not flee the violence; the place of charcoal production and its relationship with logging; climate change considerations, including migration and loss of wildlife within logging areas; a perspective on the forest as a sacred and safe space that is of immense cultural importance; a reflection on traditional leadership as both guardians of the forest and enablers of logging; and, finally, an attempt to map the logging and charcoal routes.

6.1 Employment opportunities and livelihoods

Companies and individuals engaged in logging require labour to extract timber, which has provided benefits at the local level. Community members are hired as machine operators, drivers of light vehicle, loaders, cooks, and cleaners, which provides opportunities for livelihood diversification and increased income to supplement earning from farming and livestock rearing. These opportunities are usually gendered, with men operating machines and loading trucks. Researchers found that significant numbers from Lainya and Yei work for logging companies and individual dealers. Loaders, for example, are paid 11,000 South Sudanese pounds (USD 30–35) to load a truck with timber, which is then divided among the group.

These employment opportunities undermine the more traditional livelihoods. Local communities have always depended on the forests for building materials, firewood, bush meat, vegetables, fruit, and medicinal herbs and honey, but this is now being interrupted by the logging operations. The intensity and expansion of the logging is equally affecting other local enterprises, which use shea trees to make oil, soaps, and cosmetics.

Women interviewed in Western Equatoria State spoke of their experience of exploitation by the logging industry. A respondent from Nzara stated that women and children are attracted by companies to work as cooks, cleaners, and porters. Interviewees in Western Bahr el Ghazal highlighted the growing demand among traders for forest products such as teak branches and bamboo, which enticed women and children. They referenced work overload,

injuries, and fatalities associated with felling, processing, and handling of the logs, for very little pay.[18] They also cited exposure to sexual violence, assault, harassment.

6.2   Community development projects

The 2013 Forest Policy envisaged that the harvesting of trees would result in community development projects that would be beneficial to the local populations, through revenue collection and project funding. Researchers identified direct support by logging companies to local communities, for agreed project activities.

Figure 2 - Community development project

Examples of projects encountered included the construction or renovation of local administrative offices, and educational and health facilities. Researchers noted general disappointment with the quality of these projects, many of which were incomplete. The construction or renovation of roads and bridges can also be advantageous to the loggers, facilitating access to and extraction of timber. The photo reproduced in this page is an example of one such community development Project in Himodonge, not far from Torit, inaugurated in March 2020.

Interviewees from Magwi, Yei, Kajokeji, Lainya, Morobo, Maridi, Yambio, and Nzara attributed road deterioration and damage to bridges to the movement of logging-related heavy trucks and machinery. Access to these locations, especially during the rainy season between April and November, is now extremely difficult.

6.3   Displacement and intra-communal conflict

There was little evidence to suggest that logging activities cause displacement, though one example is cited below. Logging activities appear to accelerate where displacement has occurred as a result of violence linked to the 2016–18 conflict in the Equatorias.

The example of displacement occurred in Nzara County in Western Equatoria State, where communities along the Nzara–Sakure road were displaced without compensation by Equatoria Teak Company, to create space for teak trees in community lands in fulfilment of its commitment to replant the forest. Researchers were unable to ascertain why it was necessary to displace communities, but this has resulted in conflict between the company and affected communities.

In Eastern and Central Equatoria states, and particularly in Magwi, Nimule, Yei, Lainya, and Kajokeji counties, violent conflict intensified from 2016 to 2018, creating a refugee crisis in

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[18] Interview 17, with an Anglican Pastor in Nzara (23 March 2020).

northern Uganda. According to interviewees, the resulting vacuum opened the door for indiscriminate and illegal logging in the home areas of the refugees. The conflict sowed the seeds for a new conflict, which is brewing between the 'stayees' (those who remained) and those in IDP and refugee camps, with the latter accusing stayees of collaborating with companies, dealers, and state officials to destroy their natural heritage and plunder communal means of livelihoods. Intra-communal grievance between the displaced and stayees has been identified in multiple locations, and was considered to be very serious by the researchers. POF planning under the Pageri Peace Forum is supporting intra-Madi dialogue on this issue, but intra-Acholi tension is also high. This intra-communal tension is an impediment to the return of refugees to their home areas.

6.4   Charcoal production

Figure 3 - Charcoal transportation at Aru Junction, Central Equatoria

In all research locations, charcoal producers are mainly from the local community, with some Sudanese, Ugandans, Kenyans, and Congolese foreign nationals. The lack of other opportunities has attracted many to the charcoal business as a means for sustaining family incomes to enable households afford basic provisions like soap, sugar, salt, and other necessities.

Local communities state that the scale of charcoal production has increased dramatically in recent years, particularly with the extensive use of chainsaws to fell trees, compared to traditional methods using axes. One interviewee quantified the difference by observing that where there used to be 10 charcoal sacks, there are now 100.[19] The place of charcoal production was understated in designing the terms of reference for this research – it was assumed that it played a minor role compared to the impact of logging. What emerged from the research was that this minor role is also of great significance given the volume of charcoal production.

Soldiers involved in charcoal, especially in Lokiliri Payam and Magwi county, where mahogany, shea (Lulu), tamarind, mangoes, and lalok are used, highlight destructive practices underpinning charcoal production. Local communities are angered by the destruction of fruit trees in the home areas of refugees and the displaced.[20] The organised armed forces have resorted to charcoal production to supplement meagre salaries, which are normally delayed for months. During the research (on 20 April 2020), the Defence

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[19] Interview 7, with a youth in Pajok Payam in Magwi County (9 March 2020).
[20] Pageri Peace Forum minutes, 8 March 2020.

Ministry confirmed that military salaries were last paid in December 2019.[21] A non-commissioned officer can earn a monthly salary from the sale of one sack of charcoal in Juba, at around 3,500 South Sudanese pounds (USD 18). Thus, charcoal production is a survival strategy for soldiers that have effectively been abandoned by the state (except for providing them with a weapon), who are expected to provide security while working out local solutions to ensure their survival.

Local communities, particularly between Nimule and Juba, are also involved in charcoal production as a survival strategy. This is fuelled by the fact that communities avoid cultivation of crops and vegetables (mainly sorghum, cassava, maize, tomatoes, groundnuts, cucumber) for fear of these being destroyed by cattle[22] – the large presence of cattle in the area, protected by armed herders, means farmers avoid cultivation, in favour of generating income from charcoal.[23]

Traders travel to rural areas to buy charcoal in large quantity for sale in towns across South Sudan, and for export to Sudan, Uganda, and Kenya. This is despite the export ban on charcoal announced by the Ministry of Trade and Environment in July 2018.[24] While the export of charcoal to UAE through the airport has ceased, respondents in Magwi confirmed ongoing large-scale exportation of charcoal to Kenya and Uganda.

6.5   Climate change

While climate change was not a direct focus for this report, logging and charcoal production in South Sudan is clearly relevant to wider environmental discussions. The South Sudan Forest Policy 2013 lists current climate change impacts with regard to unreliable and unpredictable rainfall patterns, increases in temperatures, evapotranspiration, and increased frequency of droughts and floods.

Researchers observed that local communities are noticing changes to weather patterns, particularly the arrival of the rainy season and levels of rainfall. These have become unpredictable and a cause of concern, as they directly impact the planting season and ability of crops to thrive and produce a harvest. The 2013 Forest Policy is aware of climate change's potential to exacerbate food insecurity, biodiversity loss, water shortages, and conflicts due to scarcity of water resources.

Deforestation is a known contributor to climate change, removing capacity to absorb and store carbon dioxide, and affects local rainfall patterns. Global Forest Watch estimated that South Sudan's 3.75kha loss of tree cover is equivalent to 908kt of CO_2 emissions. The contribution of national deforestation to climate change needs to be framed within international conversations on the collective impact of global activity which influences local

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[21] https://eyeradio.org/finance-urged-to-release-3-months-salaries-for-the-army/ (Accessed on 6/5/2020)
[22] Interview 11, with a woman in Moli (10 March 2020).
[23] https://eyeradio.org/cattle-in-pageri-hinders-return-of-refugees-bishop/ (Accessed on 4/5/2020)
[24] Article entitled 'South Sudan bans exportation of charcoal, wood' located at www.sudantribune.com/spip.php?article65796

weather. However, the logging of timber without replanting trees is negative behaviour that contributes to climate change, and is detrimental to local ecosystems and habitats that have emerged over generations. The Equatoria Teak Company was the only company identified to be engaged in replanting the forests under its policy of 'cut one tree, plant five'.[25]

Migration and loss of wildlife

The extent of deforestation is also having a direct impact on wildlife and migratory patterns. In conjunction with poaching, which is more lethal than logging because of the use of automatic weapons rather than traditional hunting methods, local wildlife habitats are being doubly impacted. Local communities note the disappearance of 'bush meat', traditionally part of their diet, as animals are killed or have moved away to safer areas. Species considered here include antelope, monkey, bush rat, and wild birds, such as ostrich, guinea fowl, wild dove, and owl.

Rhino and lion are rarely seen. Elephants have moved out of previously safe locations, such as the Nimule National Park to Moli and Opari, because of poaching and cattle grazing. Interviewees expressed concern about extinction and depletion of wildlife for future generations if efforts to manage logging are not put in place, poaching prohibited, and cattle encroachment curtailed.

6.6   Safe and sacred spaces

The forest is an immediate place of refuge during conflict, to which people flee and where they hide when threatened or under attack.

Communities have a spiritual or religious attachment to the forests. It is where the ancestors live and are honoured, and sacred trees protect the communities from evils such as natural disasters and disease. Consequently, it is believed that those who cut a tree without reason or permission will be hurt or killed by snakes or wild animals. Some trees are used as places for resolving disputes, for conferring blessings, and to send away evil.

In Aru Boma, the '*Pito* tree' is used by elders to bless families, especially children when they are sick. Similarly, the 'Melele tree' is believed to call home its sons and daughters living outside the community, by making their hearts beat abnormally – a summons from the sacred tree to return home.

In Maridi, the sacredness of the forest can be seen in how chiefs conduct certain rituals. For example, if a person seeks permission to cut trees, he (women do not cut trees) is required to bring two goats: one for the chief and his people, the other for the woodcutters. Spilling the goats' blood is meant to please the gods or ancestors and to bless the workers. Communities believe that if these rituals are not fulfilled it may result in people being killed. Respondents indicated that logging activities have impacted negatively on their sacred places, and on their ability to go there safely.

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[25] See https://equatoriateak.com/ for additional information.

6.7   Traditional leaders

The report earlier highlighted the trusteeship role of the traditional leadership in regard to protecting forests. However, this role is complex, and reference must be made to traditional leaders' powerlessness to deal with logging, and indeed their complicity with logging actors.

At the community level there is a strong belief that those involved in authorising, protecting, and effecting logging (government, companies, dealers, armed groups, and traditional leaders) benefit at the expense of the community. The 2013 South Sudan Forest Policy envisages 60% of revenue for community development projects, as referenced above, which is negotiated by the traditional leaders.

In locations where state officials and organised armed forces are protecting logging companies, or armed actors have sourced timber to finance the conflict, traditional leaders have been powerless to stop the logging. When landlords, rainmakers, and chiefs intervened, researchers reported that they were ignored or threatened – their role in protecting and controlling the forests has been diminished. Intervening to challenge well-armed groups was regarded as courageous, or foolish. Elsewhere, there were strong suggestions that traditional leaders have been corrupted and bribed to facilitate access to the forest, as negotiations to secure access are carried out privately, not in public spaces before the community, where there can be high levels of accountability and collective decision-making.

For the researchers, any solution to the issue of logging and the production of charcoal requires engagement with the traditional leadership to reposition their authority over the forest. This observation from the researchers resonates with Deng's (2014) argument that customary legal systems have been undermined by decades of conflict, and they struggle to cope with the challenges facing the country, particularly during times of conflict. The existing legal protections are insufficient to protect public goods, such as forests.

6.8   Logging and charcoal routes

The map below in Figure 4 illustrates the main logging routes: to Juba, to support the construction industry in the capital city; to Sudan, for construction in Khartoum; to Kenya, and particularly Uganda, with the latter being the main transit point to international markets. The same routes are used for the movement of charcoal and timber.

The three principal routes were identified as Obbo−Pogge in Eastern Equatoria, Liwolo−Kerwa in Central Equatoria, and Nzara−Sakure in Western Equatoria State. The multiple border crossings along the southern border have Kampala as their destination. It is here that export routes converge, and where timber enters the formal market.[26] Timber from Western Equatoria State transits through the Democratic Republic of the Congo to Arua and onwards to Kampala. Liwolo−Kerwa and Panyume−Keri are the main routes for SPLM-IO timber crossing to Uganda.

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[26] Comment made by Adrian Garside during panel discussion at 'Roundtable on cross-border conflicts and their connections: the case of the African Great Lakes and South Sudan', held in Oxford on 4 July 2019.

Security, taxation, and seasonality in South Sudan have seen the importance of routes change in recent years. For example, National Salvation Front-related insecurity in Central Equatoria meant that timber could no longer transit through Yei, so alternate routes were promoted. The imposition of taxes and seizure of timber in Nimule effectively re-routed timber to border crossings that are less scrutinised. The rainy season slows the extraction of timber, with the Kayo river in Central Equatoria making it difficult to transport logs when there are floods. The volume of timber exported from Western Bahr el Ghazal, a semi-arid region, is small in comparison to the Equatorias. Similarly, volumes transported through Napapal in Kenya are also relatively insignificant.

Figure 4 - Logging routes national map
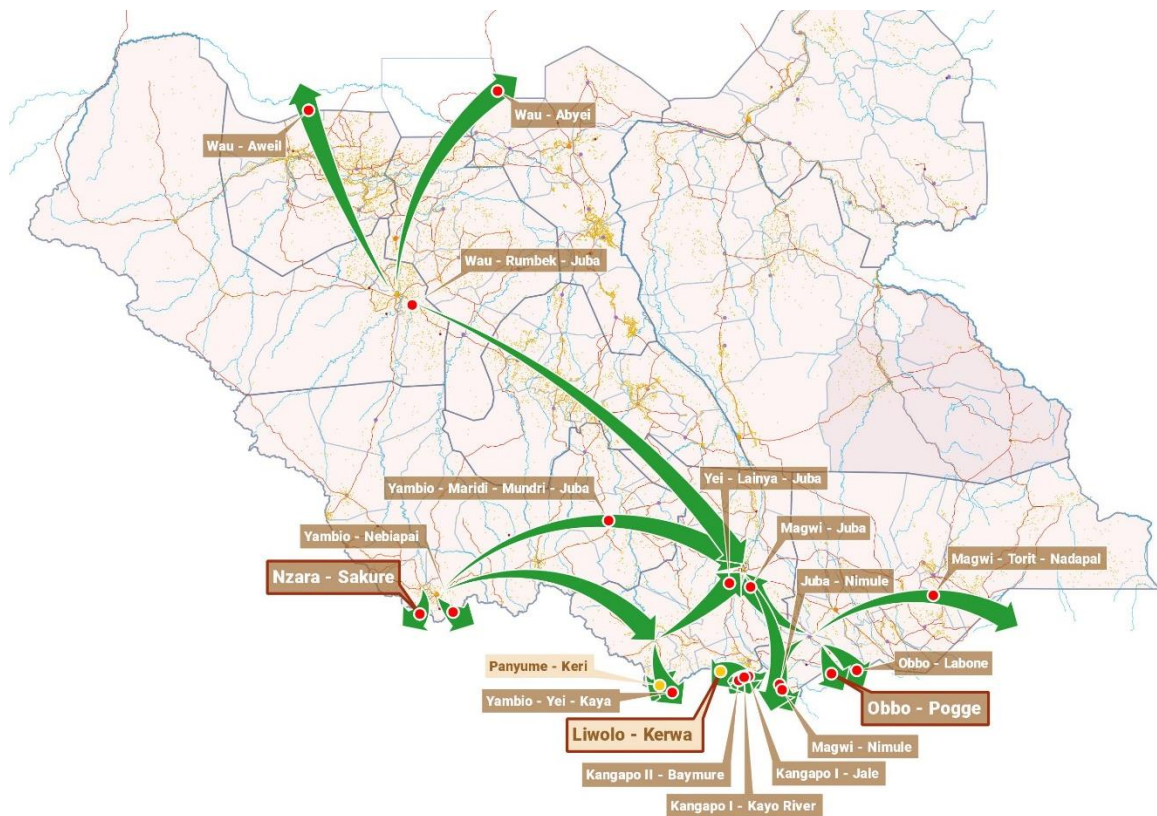
Many interviewees had no knowledge of where timber went once it was loaded and moved away from local communities (it is destined for international markets in India, the UAE, and elsewhere). The importance of Juba as a market for timber should not be underestimated, given the continued expansion of the city. However, it is thought that some of the softwoods used for construction in Juba originate in the Democratic Republic of the Congo, and transit through Western Equatoria State.[27]

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[27] *Ibid*., comment made by Adrian Garside.

7   Recommendations

To Development Agencies

i.   Ensure support to national NGOs and other local actors to create awareness and build capacity of local communities on effective and conflict sensitive resource management.

ii.   Include natural resource management and sustainable harvesting as a component of development programmes where possible, to assist local communities understand the economic and ecological values of their natural resources, to build their capacity to sustainably manage, harvest and market these resources.

iii.   NGOs and local communities should be supported to hold logging companies accountable for fully implementing their Social Corporate Responsibility policy and commitments with regards to service or infrastructure provision as part of their logging activities.

To the South Sudan Council of Churches (SSCC)

iv.   SSCC should engage the Minister for Environment and Forestry and other relevant ministries to share the concerns of this report and explore joint efforts to address the impact of logging and charcoal production on local communities.

v.   SSCC should engage with like-minded organisations to raise public awareness of the impact of logging and charcoal production, and to develop means of promoting environmental protection at the community level.

vi.   SSCC should continue to strengthen the Inter-Church Committees (ICCs) in affected areas, and provide support to address identified conflict issues (e.g., land and resource-based conflict) in specific locations.

To the Minister for Environment and Forestry

vii.   The Minister should work with the national government to ensure the Forest Act and Environment Act are passed, to strengthen the legislative and institutional framework to manage logging and charcoal production, and to ensure environmental safeguards.

viii.   The Minister should strengthen collaboration and coordination between institutions dealing with natural resources in order to effectively manage forests.

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