



THE SUDD INSTITUTE

ENVISIONING A PEACEFUL, JUST AND PROSPEROUS SOUTH SUDAN

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Policy Brief

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Confronting a Life-threatening Pollution: A Guide for Credible Environmental and Social Audit of Petroleum Companies' Operations in South Sudan

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Summary

This policy brief discusses how the recently proposed environmental and social audit of the petroleum companies' operations by the Ministry of Petroleum can be conducted to generate scientific evidence that can assist in finding a permanent solution to pollution in South Sudan's petroleum producing areas.

The environment is a human survival right that includes the rights to water, food, and health, as stipulated in the International Covenant on Economic, Social and Cultural Rights of 1966 (Hulme, 2017). South Sudan is facing a catastrophic pollution, a ticking time bomb, that started to accumulate during the Southern liberation war, when Khartoum used the oil at the expense of the local people and their environment to win the war. If this legacy pollution is not immediately addressed, it can destabilize the oil industry and threaten people's survival rights.

The proposed audit is a step in the right direction. However, it should not be a mere traditional audit of environmental standards compliance and management system inefficiencies. Instead, it should be broad based in scope by examining not only environmental standards compliance and management system inefficiencies but by also examining the extent of environmental and social damage. In addition to using environmental auditing best practices from the International Organization of Supreme Audit Institutions, the proposed audit should also use ASTM international standards to assess the extent of contamination of the petroleum producing sites.

The proposed audit should determine the extent of environmental and social damage, quantify the costs of remediation and rehabilitation, assess the petroleum companies' compliance with standards, and produce a detailed report with recommendations that include remediation and compensation measures enforceable by an Act of Parliament or Presidential Order. The audit process should be independent, transparent, inclusive or participatory. The firm to conduct the audit should be procured through an international competitive bidding to ensure the results are credible and acceptable to all stakeholders.

1. Introduction

Recently, the Minister of Petroleum, Hon. Awow Daniel Chuang, announced that South Sudan is planning to conduct what he describes as “environmental and social audit” of the petroleum operations. The announcement is a step in the right direction in addressing the consequences of petroleum environmental pollution created during the 21 years of war between the then Southern region of Sudan and the Sudan’s successive governments based in Khartoum. The audit will provide the evidence useful for restoring or protecting the environment.

During the war, the government in Khartoum displaced the people in the southern oil rich areas to allow for an unfettered oil exploitation whose proceeds were used to pursue military victory against the Southern region (Switzer, 2001, Gagnon and Ryle, 2001). During the war, oil extraction was carried out without enforcement of environmental measures (Moro, 2009, Switzer, 2002, Gagnon & Ryle, 2001). This resulted in high level of pollution in form of produced water¹, gas flaring, and oil spills, among others, eventually leading to (1) deaths of humans and livestock, (2) illnesses, (3) infertility, (4) premature birth, (5) abortion, (6) birth defects, (7) blindness, (8) population displacement, (9) ground and surface water contamination, (10) soil contamination, (11) land dispossession, (12) habitat and species loss, and (13) polluted agriculture and pasture lands (Moro, 2014, Bol, 2014, UNEP, 2007, Deodatus, 2010, ECOS, 2010, Rueskamp et al., 2014, Moro, 2009).²

The independence of South Sudan in 2011 came with high citizenry expectations to address these war-induced petroleum environmental and social damages to put the country on a path to sustainable development. The sustainable development principle, adopted by the United Nations as a way to prevent or minimize the negative consequences of development, recognizes that “the economy, society and environment are not in opposition, that economic activity is embedded in a social and political context, which is in turn embedded in the ecosystems of the world upon which life depends” (Daly, 1996). Destroying the ecosystem essentially destroys the foundation upon which the social and political systems are built. Based on this belief, governments are obligated to carry out economic and social development in

Sustainable development principle is a belief that “the economy, society and environment are not in opposition, that economic activity is embedded in a social and political context, which is in turn embedded in the ecosystems of the world upon which life depends” (Daly, 1996).

¹ Produced water is the water separated from the crude oil during extraction and is supposed to be treated of
² Also see reports of the government instituted fact-finding missions, both parliamentary and executive, which also revealed widespread complaints of birth defects, miscarriages, infertility, cancers and ubiquitous presence of produced water, oil spills, and mud pits, among others.

harmony with environmental systems (Hall and Wallingford, 1995). One of the ways to conduct development in harmony with the environment is environmental audit, which is defined as “a management tool consisting of a systematic, documented, periodic and objective evaluation of environmental performance, management systems and equipment with the aim of... facilitating management control of environmental practices and assessing compliance with an operation’s or activity's environmental policies, including meeting regulatory requirements.”³ We argue that the proposed audit should go beyond this traditional function of the audit by assessing the nature and extent of environmental and social damage, quantifying the cost of damage, and coming up with remediation and rehabilitation measures enforceable by an Act of Parliament or Presidential Order.

Using international best practices, as well as South Sudan’s legal provisions, this policy brief serves as a guide on how the proposed environmental and social audit can be conducted in a credible manner to garner credible results to address this legacy pollution. In the subsequent sections, we discuss (1) the importance of this exercise and (2) the requirements for making it credible. The last section concludes with a list of recommendations.

2. Why should a credible audit be conducted?

A credible environmental and social audit is needed for a number of reasons. First, it provides an empirical, scientific evidence to inform policy and build consensus on the nature and extent of pollution and social impacts in the oil producing areas in South Sudan. There is a disagreement among stakeholders about the current extent of environmental and social damage in the oil producing areas. For example, oil companies believe they have done nothing wrong while researchers, communities and other stakeholders believe the oil companies have indeed damaged the environment and ruined lives.⁴ Therefore, conducting a credible environmental and social audit offers a body of evidence that can build consensus on the nature and extent of impacts and the kinds of policy interventions that should be considered.

Environmental protection is a fundamental human right, that includes right to water, food, and health, parts of the economic, social, and cultural rights under the International Covenant on Economic, Social and Cultural Rights of 1966 (Hulme, 2017).

³ See Environmental Auditing Guide prepared by Middle East Cases Association.

⁴ See WNPOC. (2009). White Nile Corporation Response to Concerns over Water Contamination. http://www.ecosonline.org/news/2009/WNPOC_response/

Second, if it is credible, the evidence generated through the audit can be used to heal the war-torn society and provide petroleum companies with a social license to operate.⁵ Environmental protection is a fundamental human right, that includes the rights to water, food, and health, parts of the economic, social, and cultural rights under the International Covenant on Economic, Social and Cultural Rights of 1966 (Hulme, 2017). Petroleum pollution is a ticking time bomb in South Sudan, and if it is not addressed, it may destabilize the oil industry. But if it is addressed, it can allow the society to heal and enable communities to see oil companies as extracting oil for mutual gains.

Third, conducting the environmental and social audit in a credible way enables the government to achieve its mandate of protecting the people and national resources from foreign exploitation. The environmental and social audit is stipulated in the Petroleum Act 2012 and Exploration and Production Sharing Agreement signed with foreign oil companies. This legal requirement was put in the law as a way to provide the government with a tool to protect the health of the people and environmental resources. Implementing this legal requirement in a credible way positions the government in a legitimate position as the protector of people and national resources from foreign commercial exploitation.

Fourth, conducting the assessment in a credible manner can provide credible evidence that can be used to avert a potential ecological disaster and lay foundation for sustainable management of the economy. To be sustainable, natural resources should be utilized in a manner that creates a productive capacity for current and future generations (Solow, 1993). The evidence to be generated through the audit helps the government achieve this noble goal.

3. Requirements for making the proposed audit credible

3.1. The audit should be independent

The oil companies are required to conduct an independent environmental and social audit as stipulated in the Petroleum Act 2012 and Exploration and Production Sharing Agreements (EPSA). As responsible party, the oil companies are required to finance the cost of the audit but not to do the audit themselves. This requirement implements the Transitional Constitution 2011 (as amended), which provides for the protection of individual and communal right to a clean and healthy environment through measures that “(a) prevent 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.” To implement this constitutional requirement, the Petroleum Act 2012, section 100(8),

⁵ Social license is the acceptance by the communities to allow foreign companies to extract resources in their areas, which creates a peaceful operation environment.

requires the oil companies to “carry out and pay for an independent social and environmental audit, in compliance with international standards to determine any present environmental and social damage, establish the costs of repair and compensation and determine any other areas of concern.” The EPSA requires the oil companies and the government to “jointly appoint an environmental consultant of international repute selected by the Minister (acting reasonably) to carry out one audit of health, safety, environmental and social conditions.” Both the Act and the EPSA require a broad based comprehensive independent environmental and social audit.

3.2. It shouldn't just be a mere audit

While the Petroleum Act 2012 uses the word “audit,” the action required goes beyond a plain traditional audit. An environmental audit, in most cases, is the evaluation of compliance with environmental policies, rules and standards. Instead, the Act requires the oil companies to carry out three tasks as stated in its text, namely: (1) determining present social and environmental damage, (2) quantifying the costs of remediation and compensation, and (3) finding out any other areas of concern.

This legal mandate makes the audit more than a regular environmental audit. The mandate requires examination of various environmental and social conditions such as physical, biological, chemical and social components of the environment. This requirement falls within the post-project environmental impact assessment that does not only just look at whether the policies and standards were violated and who violated them but that also deeply looks at the extent of damage, where the damage originates, how to mitigate it. The Comprehensive Peace Agreement (CPA), which ended the war between the north and South Sudan in 2005 provided for the compensation of those whose environmental rights had been violated during the 21 years of war by the oil contractors. The provision includes an assessment of projects and compensation for the victims. However, this important provision has not been implemented. Nonetheless, the Revitalized Agreement on Resolution of Conflict in South Sudan (R-ARCISS) provides another window of implementation opportunity that should not be missed.

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3.2. There should be a competitive international bidding for a firm of international reputation

This is a highly technical work that needs to be carried out by a firm or an organization of high reputation and technical competence. There are very few precedents in Africa of a petroleum pollution threat of the magnitude seen in South Sudan's petroleum producing areas. Niger Delta in Nigeria with over 50 years of petroleum pollution comes to mind. Concerned, the Government of Nigeria contracted UNEP to conduct the assessment, an experience that is worth replicating in South Sudan. The assessment allowed the oil industry in Nigeria to regain credibility at local, national and international levels, resulting in popular acceptance of the results as the basis for resolving environmental pollution in the Niger Delta. In the interest of complying with best international practices, a firm or an organization of high reputation and technical competence, such as the UNEP, should be selected through an international competitive bidding process based on the criteria stipulated in the Petroleum Act 2012.

3.3. It should be transparent, inclusive and participatory

To produce credible evidence, the audit process should be transparent, inclusive and participatory. The Communities, oil producing states, Ministry of Environment and Forestry, Ministry of Health, Ministry of Labor and Public Service, the National Legislature, Civil Society and other relevant stakeholders, should be involved in the process. These stakeholders should have a say in the decision-making process with regards to scoping, contract, and decision on the firm to conduct it, and validation of the final results. The process should be open. For example, the bid for securing an internationally reputable firm should be published in accordance with the Petroleum Act 2012.

3.4. The scope should be broad and comprehensive

A scope is important in producing credible and acceptable outcomes of an environmental and social audit. We suggest that the proposed audit should focus on the following:

- i. *Determination of the extent of environmental and social damage.* To know the extent of damage and whether this damage has been caused by the petroleum activities, the audit process should assemble the data of baseline environmental and social conditions before the petroleum operations and the data of environmental and social conditions during the petroleum operations. These include collecting water, soil, air, human, animal, and vegetation samples and analyzing them in a state-of-the-art laboratory. Social indicators to be evaluated include settlements, economic activities and other socio-economic indicators before and during the petroleum operations to determine the extent of social damage. Other physical environmental indicators that also need assessing include geology and topography of the petroleum

producing areas, among others. EIA studies conducted before the operations in the three project areas of Melut Basin, Muglad Basin and Thar Jath (block 5A) should be evaluated to garner some baseline data which can be supplemented with counterfactual analysis in case of inadequacy of the documented baseline data. Ordinarily, sources of baseline data include new lab tests using counterfactual approach in case of inadequacy of available baseline data and past studies such as the past EIA studies. Given the inadequacy of the documented evidence at baseline,⁶ a counterfactual approach should be applied using data of similar environmental and social contexts.

- ii. *Determination of the cost of remediation and compensation in case environmental and social damage has occurred.* Remediation of Exxon Mobile's oil spill in 1989 in the USA set the precedent on how to determine the cost of a damaged environment. Best international standards should be used to measure the damaged environment and the affected lives in monetary terms.
- iii. *Auditing of the petroleum companies' standards.* These include appropriateness of technologies they are using, environmental management system, health and safety measures, and compliance with international and South Sudanese laws. This provides insights into the level of standards the companies are using, allowing for appropriate policy interventions when desired.
- iv. *Production of a detailed report with binding recommendations⁷.* Results of the whole process should be documented in a report. The report should include recommendations enforceable by either an Act of Parliament or a Presidential Order.
- v. *Remediation and compensation.* The assessment should end with remediation of environment, compensation and evacuation of the affected local communities.

The environmental and social audit should be divided into phases as outlined previously by IKV PAX Christi based on ASTM⁸ international standards, particularly its Standard Guide for Risk-Based Corrective Action Applied at Petroleum Release Sites.⁹ Phase 1 deals with assembling and analysis of baseline data, conducting counterfactual appraisal in cases

⁶ The Sudd Institute's recent review of documented evidence of baseline and current impacts, which is yet to be published, indicate the inadequacy of baseline data, which prompt the need for counterfactual analysis in similar contexts as a source of comparison.

⁷ By binding recommendations, we mean the recommendations are made legal and the responsible authorities are obligated by the law to implement them.

⁸ ASTM stands for American Society for Testing and Materials

⁹ Other ASTM's relevant standards that should also be used as a guide include:

1. Environmental Assessment Standards and Risk Management Standards
2. Environmental Toxicology Standards
3. Waste Management Standards
4. Water Testing Standards

of inadequacy of baseline materials, understanding the history of petroleum sites and categorizing these petroleum sites into critical and non-critical areas. Phase 2 samples the petroleum sites and tests these samples to establish the extent of contamination. This phase establishes contamination pathways, particularly regarding water, air, soil and vegetation and the links with people, livestock and wildlife species. Samples of livestock alleged to be suffering from possible contamination should be tested. In addition, samples of people or children born with defects and their parents should also be tested. Phase III deals with remediating the affected petroleum sites as well as compensating the affected people.

4. Conclusion

In conclusion, this work proposes the environmental and social audit guide that could help generate credible evidence for action. The audit and this guide are warranted because of the legacy pollution in the oil producing areas, a threat to people's survival and the oil industry's long-term viability. The process should be independent, transparent, inclusive, and comprehensive in scope by determining the extent of social and environmental damage as well as compliance with standards to ensure the results are credible and acceptable to all stakeholders. Conducting an assessment whose results can be acceptable to all stakeholders can lay the foundation for sustainable development, give oil companies a new social license to operate, avert potential conflict and ecological disaster, and catalyze sustainable peacebuilding in South Sudan.

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About Sudd Institute

The Sudd Institute is an independent research organization that conducts and facilitates policy relevant research and training to inform public policy and practice, to create opportunities for discussion and debate, and to improve analytical capacity in South Sudan. The Sudd Institute's intention is to significantly improve the quality, impact, and accountability of local, national, and international policy- and decision-making in South Sudan in order to promote a more peaceful, just and prosperous society.

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