



Adoptive National Park Management: Assessing the Governance and Institutional Capacity of CITES Implementation for Conservation in Sapo National Park, Liberia

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Abstract

Management of wildlife species has recently become a global concern as most are threatened to near extinction or endangered. The establishment of national parks such as the Sapo National Park (SNP) in the 1980s as a conservation area has been found as one of many solutions for protection of wildlife species in Liberia. Nonetheless, due to various natural and anthropogenic drivers and pressures, the SNP is under consistent threat of losing its biodiversity integrity. Various factors including weak national environmental policy formulation and institutional capacity building have been observed as factors contributing to these impacts on the SNP. Therefore, adoption of international regulation such as the Convention on International Trade in Endangered Species (CITES) in 1981 to curtail the menace has been a plausible solution. However, this is yet challenged by several factors. This has led to over exploitation of CITES-listed species from the SNP overtime. In this study, the authors provide an overview of institutional capacity challenges through interactive stakeholder engagement with managers of the SNP and identify causative measures which have impeded and limited the enforcement and implementation of CITES in the SNP to control the trade in wildlife. Through consultative discussion with relevant private and public stakeholders, the study explores the possible weakness of CITES implementation in Liberia and for the SNP. The findings of this study are relevant for the managers of the SNP as well as contributing to the international context of determining national park management challenges and measures. A DPSIR framework of the various causes, effects and resolutions to the SNP is provided.

Subject Areas

Environmental Science

Keywords

Conservation, CITES, Governance, Sapo National Park, Management

1. Introduction

Forests play a critical role in addressing current global socio-ecological challenges, including biodiversity loss, climate change, and natural resource-based livelihood [1]. Due to the continuous depletion and extinction of the world's biodiversity, it has become a vital process among the global community to protect the environment through safeguarding natural habitats and thousands of species. In developing African countries, factors such as growth and development of urban and rural spaces, industrialization, high population growth and agricultural activities have added extra pressures to the countries' biodiversity and natural environment [2].

In Liberia, the significance of forest resources can be seen in the periodic decline and amount of emissions contributed. As estimated, from 2002 to 2021, Liberia lost 284 kha of humid primary forest, making up 14% of its total tree cover loss in the same time period [3]. The growing concerns of unsustainable forest resource use and management of resources in Liberia are increasingly gaining relevance [4]. However, forest management in Liberia is immersed in diverse and complex ecological, socio-cultural, political, economic, and technological contexts [5] [6]. Hence a critical pathway to conserve the ecological integrity of the country has been through establishment of national parks [7] [8]. Liberia established its first national park, Sapo National Park (SNP) in 1983 and has since been a resource of biodiversity conversation for the country [9]. Over time, the SNP due to its pristine ecological and resource integrity has undergone several threats and currently, there are commercial hunting camps in the park's vicinity and illegal gold mining. Previous surveys estimated that there were 18,000 miners in nine camps in the Park [10].

Management of national parks can be challenged by several multi-socio-political dimensions [1]. Institutional management of these parks has been conceptualized in different ways. On the basis of formality, they are categorized under formal and informal institutions [11]. While the former consists of written and codified laws, largely driven by national governments, the latter represents unwritten or uncoded rules that are communicated through customs and traditions, and handed over from one generation to the other, usually at local levels. By and large, both forms of institutions manifest differently in regulating the use and management of forest resources with some being rendered ineffective, transformed, or modified [12] [13]. Application of environmental policy instru-

ments and regulations has also become a critical pathway to managing the diverse biodiversity and ecological aspect of national parks. Hence, several governments use environmental policy instruments either national or international to carry out environmental goals through national, regional, and international obligations. An important international regulation to control the use and management of biodiversity is the Convention on International Trade of Endangered Species (CITES) of which Liberia became a party in 1981 [14]. CITES aims to ensure the international trade in species of wild animals and plants does not threaten the existence and survival of the species [15]. Based on the most recent data available in 2016, Liberia is home to 35 plants and 151 animals CITES-listed species [16]. However, due to a lack of cooperation, coordination, enforcement, and compliance among implementing stakeholders, key organizations and agencies, Liberia's CITES participation has been unsuccessful over the decades resulting in reported cases of some CITES-listed species discovered in the United States [17]. Since there aren't enough national laws in Liberia to enforce and implement CITES regulation, the country is currently designated under CITES category three [18] [19]. Nonetheless, the country-initiated steps to prevent all commercial commerce in wildlife and enacted the National Wildlife Conservation and Protected Area Management Law (2016) which was meant to have a direct bearing on the implementation of CITES rules and regulations in the country. In addition, other legislation meant such as NBSAP (2017-2025), Forest and Wildlife Policy, Environmental Protection and Management Law, NBSAP (2006-2007), Chain of Custody Regulations 101-07, 101-08, and 101-09 were enacted but does not have specificity to CITES [20] [21].

The SNP has been a target for illegal trade of wildlife due to unsustainable management practices by the different stakeholders hence further limiting the implementation and enforcement of CITES. In this study, the researchers sought to: 1) Analyze and contrast Liberia's main wildlife protection policy in Liberia viz-a-viz CITES regulation to identify any relevant gaps; 2) Identify institutional and stakeholder challenges towards implementing and enforcing CITES in the SNP; 3) Discuss through DPSIR framework recommendations which can be put forward for efficient enforcement of CITES in the SNP. To date, there is no up-to-date comprehensive model developed incorporating the diverse pertinent environmental, socio-cultural, institutional and legal processes for the SNP which projects the novelty of this study.

2. Materials and Methods

2.1. Study Area

The SNP since establishment in 1983 has been extended to cover 180,363 hectares (ha). It constitutes a significant portion of the remaining south-east rainforest block of Liberia and is located in three sub division counties which includes, *i.e.*, Grand Gedeh, Sinoe and River Gee (**Figure 1**). The SNP supports 1500 chimpanzees, an estimated 20% - 25% of the national population [22].

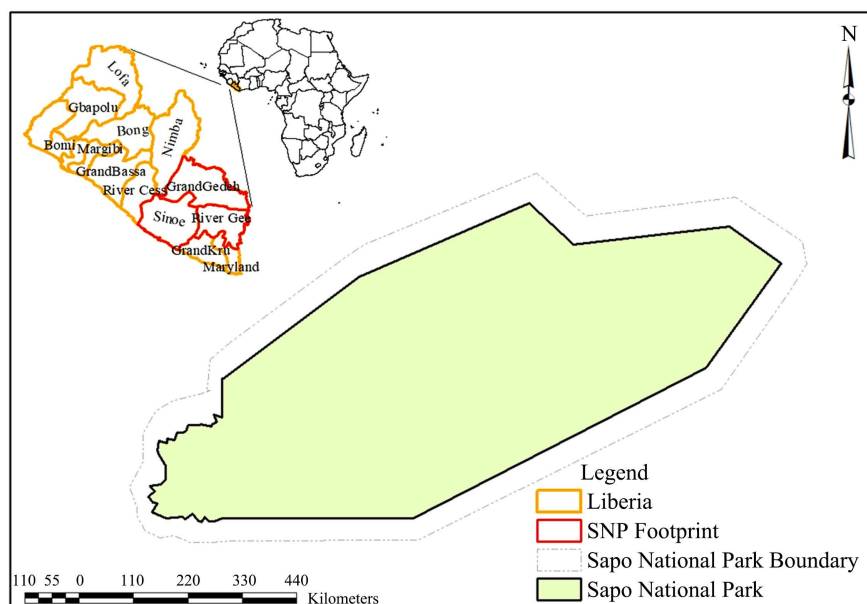


Figure 1. Study area.

A large portion of the SNP is found in Sinoe County which is located in the South-eastern region of the Republic of Liberia. It is bordered by Grand Gedeh County on the North, Rivercess County on the West, Grand Kru and River Gee Counties on the East, and by the Atlantic Ocean on the South. Sinoe covers a land area of about 3861 Square miles (10,000 square kilometers) and has a total coastline of 86 km. Sinoe County has a total population of 104,932 people. Grand Gedeh County is located in the southeast part of Liberia. It is bounded in the northwest by Nimba County, and by the Cavalla River in northeast in turn forming the boundary with La Cote d'Ivoire. In the southeast Grand Gedeh is bordered by River Gee and in the southwest by Sinoe County. The total land area of the County is 10,276 square kilometers, which is about 9.22% of the total land area of Liberia. Zwedru serves as the capital with the area of the county measuring 10,484 square kilometers (4048 sq-mi). As of the 2008 Census, Grand Gedeh had a population of 126,146, making it the ninth most populous county in Liberia. River Gee is one of the newest counties in Liberia. It was carved out of Grand Gedeh County, which was formerly part of the Eastern Province prior to 1964. The County was established in 2000 and has its political seat in Fish Town. As of the 2008 Census, River Gee had a population of 66,789, making it the third-least populous county in Liberia [23].

2.2. Stakeholder Interviews and Focused Group Discussion

The study employed a participatory process to solicit the views of different stakeholders involved in the management of the SNP and to understand the strengths, weakness, opportunities and threats of enforcing CITES regulation in the management of the SNP. Formal letters of invitation were distributed to selected institutions. To avoid and reduce biases in the choice of selections, insti-

tutions which had a direct obligation under Liberia laws for management of the SNP and conservation of the biodiversity were selected. Overall, 5 public institutions and 4 private institutions were engaged where stakeholders were unavailable at the period of conducting the interviews; official letters with a structured open-ended questionnaire was distributed for answering and subsequent delivery to the researchers. All interviews and field data collection were undertaken in December-January 2023.

2.3. Analysis and Resolution of Problems

The environmental and sustainable development problems can often be resolved through the interaction effect of multi socio-political agenda. A DPSIR framework is one approach to reveal such interactions between society and environment bringing into perspective various scientific disciplines. The model framework utilizes driving forces (D), which define factors/interest which could lead to deterioration of the water quality status of the river; pressures which come about as a result of realizing the driving forces (P); states describe the spatio-temporal conditions of the river as a result of the exerted pressures (S); impacts (I) are the resulting short-long term effects on rivers species and responses are outcomes which can be formulated into policies to improve on CITES implementation for SNP (R).

3. Results

3.1. Analysis of Respondents' Understanding of Governance Challenges in Sapo National Park

The response rate to the 65 structured questionnaires issued to different stakeholders was 73.8 percent (48 participants answered, $N = 48$), which was quite excellent. As a result, this study is based on the replies of research participants (48 respondents). The fact that 87 percent of respondents were male and 13 percent were female reflects the reality that the forestry and environmental professions in Liberia are dominated by males. The responders came from a diverse range of stakeholders, including 85 percent from government agencies, mostly the FDA, 13 percent from CSOs and environmental groups, and 2 percent from academia. The majority of responders were between the ages of 18 and 45, with 45 percent (age 31 - 45) and 42 percent (age 31 - 45). In the end, most people who responded had a bachelor's degree and a professional certificate

3.2. Knowledge about CITES Management and Challenges in Sapo National Park

According to the findings, 69% of respondents have never worked in Sapo national park, while 31% have worked or are currently working in Sapo national park. All (*i.e.*, 100 percent) of the respondents who have not worked or are currently working in Sapo national park ($N = 33$) have an awareness or knowledge of the park, which is useful for this study. It should be noted that the vast major-

ity of respondents had been with SNP for at least a year. Only 73 percent of respondents (N = 48) indicated that they knew about CITES, indicating that the bulk of respondents had some understanding of it.

3.3. Administrative or Management Challenges at Sapo National Park

Respondents indicated several management challenges associated to management of the SNP which had direct impact on the enforcement of CITES. Amongst, these, respondents indicated that local authorities lacked a clear understanding of the management principles of the SNP and there was significant lack of funding from the Government of Liberia which hindered their operational activities. In particular those related to ensuring protection of wildlife and CITES law implementation.

Additionally, respondents mentioned that the high dominance of local groups and outsiders who are engaged in poaching is continuously increasing as well as illegal mining operations. Further, number of respondents mentioned that in the event where persons are charged with crimes of illegal activities in the SNP, court judges lacked appropriate knowledge on national forestry laws and CITES in general hence, other aspects such as prosecution and sentencing were hindered. Culprits are typically charged with a fee fine which does not deter them from continuing the action. There has been a lack of follow-up on wildlife-related issues in the legal system, particularly at the FDA.

Due the large extent of the SNP, community encroachment has been a common practice and the SNP has become a significant means of alternative livelihood for these community persons.

3.4. Potential Problems Affecting CITES Implementation at Sapo National Park

16 percent (79.2 percent of all respondents) identified a possible challenge linked with implementing CITES in Sapo national park as a lack of institutional capacity, which is defined by inadequate equipment, insufficient logistics to deal with, and so on. Furthermore, 15.5 percent identified inadequate park funding support, while 15.1 percent identified poverty (limited livelihood options/alternatives and job) as likely factors influencing CITES in Sapo national park.

3.4.1. Sapo National Park Communities Understanding and Perception on CITES

The FGDs were performed in six (6) forest dependent communities, to investigate the locals' perceptions of SNP administrative and governance problems related to CITES implementation. Putu Jarwodee has the biggest population among the six villages, with an estimated 4352 residents, followed by Geeblo Town and Chebioh Town, which have 1000 and 969 residents, respectively. Twenty people were chosen from each of the six communities to participate in the focus group discussions. The FGDs drew a total of 120 participants, 50 of

whom were female and 70 of whom were male.

All 120 participants (100%) “do not know anything about CITES”. However, all 120 participants replied “yes” to raising awareness about animal conservation in their particular areas. The communities reacted enthusiastically to the development of awareness, which was done via plays, fliers, rangers, and other environmental NGOs. Furthermore, the community watch teams are assisting in raising awareness about animal protection.

3.4.2. Recommendations on How CITES Law Should Be Enforced at Sapo National Park

The FDA headquarters in Town hosted a countrywide stakeholder meeting on February 26, 2021, in Monrovia. The researcher organized a workshop with participants from various stakeholder groups to discuss and develop strategies for dealing with these issues, as well as to make recommendations on how CITES Law should be implemented in the park. Strategies that can be used to overcome the governance challenges at Sapo National Park Participants in the event recognized the following administrative and governance difficulties at Sapo national park; Sapo national park has a shortage of skilled personnel, inadequate logistics, a lack of community engagement, and a lack of empowerment, due to a lack of a national database for Park, there is a weak legal enforcement system. The workshop participants believe that by implementing CITES Law at the international, national, and community levels at Sapo national park, the park’s management objectives can be fully realized at the national park. They did, however, jointly propose the following strategy for implementing CITES Law at Sapo national park and throughout Liberia:

- Formation of a national species working group;
- Development of CITES field guides in Liberia;
- The formation of a national confiscating unit;
- Formation of a sub-national bio-monitoring working committee;
- Creating a list of keystone species (pigmy hippo, chimpanzees) for Liberia;
- The 2016 Wildlife and Protected Areas Management Plan has been revised;
- Liberia’s law will be aligned with the CITES convention.

4. Discussion

4.1. Management Challenges That Sapo National Park Faces in Terms of General Conservation of Wildlife Species or Habitat

Sapo national park management relied heavily on forest communities. Because they inhabit the forest’s peripheries, rural forest communities are best suited to oversee its management. One thing to note: all of the 120 participants in the FGDs didn’t know about CITES, but they all agreed to raise awareness about wildlife conservation in their own communities. The conservation of wildlife is made possible in part by the efforts of local communities. For example, Dood-wicken, passed a law prohibiting the killing of animals. Children were not allowed to fish or hunt in the park, as well as not to mine in the park by their par-

ents.

As a result, the watch team in the Blewriah community warned the community not to kill protected animals, such as elephants, buffalos, chimpanzees, and leopards. The residents of Geeblo also pledged to assist the FDA in removing the illegal hunters from the park by providing any information they have. Animal species must be protected for present and future generations because they realised this was the only option. In the end, the Sapo national park was well-received by all the communities. All participants from the communities agree that the Sapo national park is “adequately known.” There is no doubt in their minds that the park was established by law and that it is illegal to hunt and farm in it. Community members spoke up during the focus groups to say that the park should not have any settlements in it, and that they have told their children not to go there or engage in any illegal activities.

The Sapo national park’s CITES implementation has been hampered by a lack of community input during the focus group. Putu Jarwodee advocated the creation of eco-guards as one of the possible solutions. The Doodwicken community argued that the FDA should set up a conservation training school around Sapo national park. The communities’ most important strategies included supplying sources of income and disseminating knowledge about wildlife’s significance. As an additional option, communities offered to arrest illegal poachers and turn them over to the local law enforcement agencies.

4.2. Effectiveness of the Design and Implementation of Sapo National Park MP in Addressing Threats to the Priority CITES-Listed Species

Currently, the Sapo national park has a draught MP who hasn’t been confirmed. Over the course of five years, FDA and Sapo national park staff will use this plan as a manual to instruct the many stakeholders on what and how to do. The following is included in the draught MP: A draught plan, a review of the park’s current state, an evaluation of the available baseline data, and an assessment of the policy and legislative environment. Analyze the Plan Outline, Vision, and Strategic Objectives, Analyze Park Value, assessing the most important problems and including SWOT analyses (Strengths, Weaknesses, Opportunities, and Threats). Beginning in 1985 and concluding in 1986, the first Sapo national park management plan was created. A series of studies and surveys were carried out by international technical consultants, with some assistance from FDA staff. It appears that there was little interaction with the local community and other stakeholders. However, a substantial amount of the information contained in that strategy is still relevant and has been incorporated into the current project. A civil war prevented its implementation.

A decision-making framework and guidelines for park management and supervision are provided by the park’s MP, which serves as a blueprint. The Sapo national park continues to engage in illegal activities despite the existence of this plan. Illegal occupants continue to poach, trade, or traffic in wildlife species, il-

legal artisanal mining, and shift cultivation in the park. This is evidence that the Park's management regimes have, over time, faced some challenges in putting the management plan into practise effectively.

Research questionnaires were used to gather respondents' views and opinions on the effectiveness of Sapo national park MP's design and implementation in dealing with threats to priority species listed on the CITES list. According to 9 respondents (26%), the management plan is "very effective" in addressing threats to priority CITES-listed species, while 13 respondents (38%) agreed that the plan is "partly effective" in addressing the same, according to (N = 34). Other than that, 8 people responded "ineffective" and 4 people said it was "very ineffective," which is 24% and 13%, respectively. As a general rule, respondents believe that the Sapo national park Management Plan is ineffective in addressing threats to the priority CITES-listed species because of the park administration's budgetary constraints.

4.3. Application of DPSIR Framework

The DPSIR framework is frequently used in the literature on sustainable development to examine the interactions between social and environmental elements, which broaden our understanding of environmental concerns on scales spanning from local to global [24]. The DPSIR architecture serves as an efficient and straightforward example of ecosystem-based management. Relating large-scale change agents (such as population growth or increased human activity) to the pressures they place (such as domestic grazing and deforestation) that change the state of the park's environment (such as habitat degradation) and have an impact on biodiversity, human well-being, and socioeconomics (such as the destruction of wild animal habitats), which in turn prompts institutional responses, policy, target setting, and measures (such as reforestation) [25]. **Figure 2** shows the proposed DPSIR framework of the SNP.

4.3.1. Drivers

1) Forest Policy Lapses

Defects in forest policies are probably the cause of a variety of illicit activities in the SNP. Because Liberia's forest policy has not been sufficiently updated to meet the rights and benefits that would allow for the conservation of wildlife species in the SNP, rampant illicit logging has resulted. Due to gaps in the current forestry laws and policies surrounding ownership and access rights, locals and communities are able to deliberately take possession of and access to lands in the SNP [26]. Among the many issues with Liberia's forest laws, some studies have shown that corruption, insufficient and unworkable laws, weak structures for detection and punishment, and forestry officials, police, and the judiciary accepting bribes to avoid harsh penalties are among the challenges facing Liberia's forest governance. All of them have a tendency to make it more difficult to enforce CITES rules and regulations for the SNP's wildlife protection. Since those who engage in these unlawful activities virtually ever get arrested and

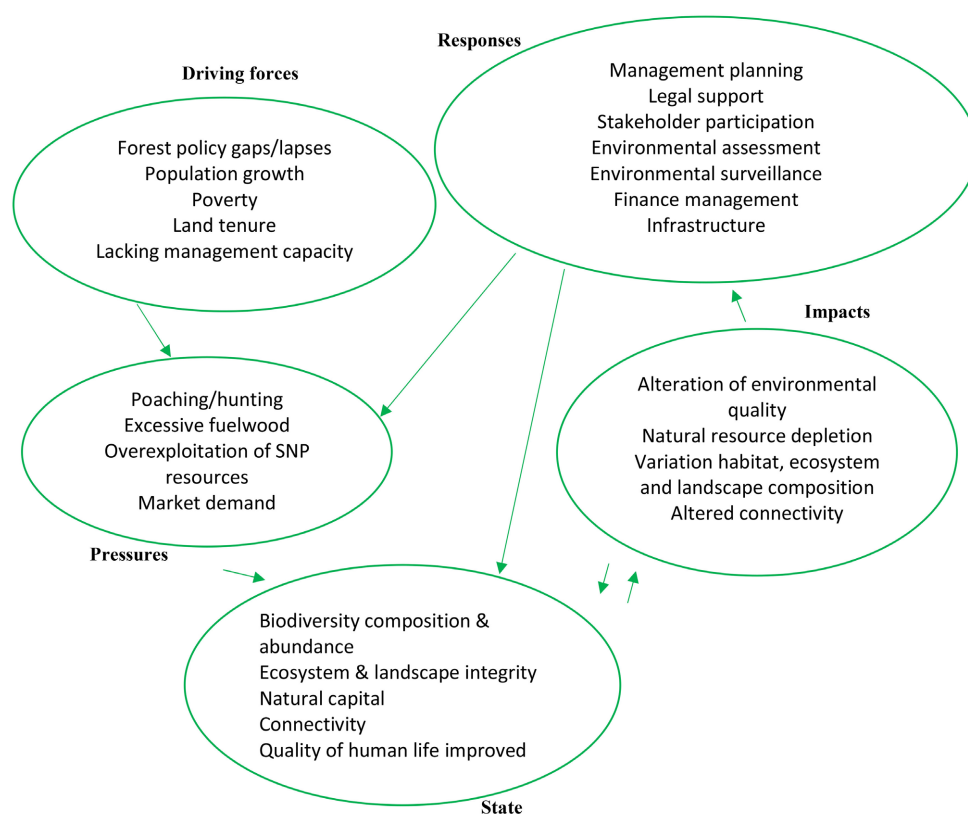


Figure 2. Proposed DPSIR framework of the SNP.

penalized, policy gaps in the forestry and national park management sectors have encouraged illicit chainsaw milling, illegal logging, and illegal farming [6].

2) Population Growth

The high population expansion in the SNP regions is one of the main factors influencing forestry and national park management in Liberia. Due to the SNP's high prevalence of dependency on forest resources, the rapid rise of these rural communities has had both a direct and indirect impact on the SNP [27]. Massive farm expansion, a surge in housing, and land fragmentation have all contributed significantly to the SNP's loss of forest biodiversity. A significant reliance on forestlands for farming and other livelihood activities to meet their socio-economic needs has resulted from increased migration towards the SNP footprint regions in addition to the natural population growth by residents living near the SNP [28].

3) Land and Tree Tenure

For communities and individuals who depend on forests, access to and rights to benefit from forestland and forest resources are still hampered by the forms and dynamics of land and tree tenure. Contextually, the state of Liberia owns all woods, including naturally occurring trees that reside in both reserves and outside of reserves, and it also possesses all user rights. Conflicts arise because Liberia's formal and traditional tree and land tenure arrangements lack an adequate legal definition. Additionally, Liberia's tenure systems are intricate and impre-

cise, which results in an unfair and unequal allocation of the country's natural resources. Lack of tree and land tenure security places a number of restrictions and dangers on using forest land and resources in an environmentally unsound manner. Farmers only receive a small advantage from the current forest strategy due to gaps in the tenure and ownership of timber trees. Farmers and landowners are discouraged from participating in local/community tree planting efforts as a result of this circumstance, which results in illegal logging and the removal of naturally occurring trees on their property.

4) Institutional Lapses

Inadequate coordination, insufficient competence, and lapses and failures are characteristics of forest institutions, as well as other agencies and ministries with a connection to forests. Due in part to inadequate forest monitoring, institutional flaws and poor coordination across forest organizations and agencies have fostered illegal logging and overexploitation of forest resources. The FDA, which is anticipated to be crucial in the coordination and integration for monitoring of all the forests and resources in the SNP in Liberia, is largely inactive and lacks community-level bottom-up inclusion for involvement, participation, and decision-making in forest governance. The lack of proper accountability and transparency in Liberia's forest institutions leads to competing stakeholder claims and disputes that impede the implementation and enforcement of CITES regulations [18] [24].

4.3.2. Pressures

1) Poaching and Hunting

In the upper forest zones, indiscriminate hunting is a common activity practiced by both young and old people as a source of subsistence. Many poachers and hunters use fires to trap the animals, especially during the harmattan seasons, which frequently starts forest fires that wipe off huge areas of forestland [29] [30].

2) Excessive Fuelwood

As almost every rural home today uses fuelwood or charcoal as a domestic and household energy source, the usage of fuelwood for domestic and household use in Liberia is concerning and places a significant strain on the country's forests and SNP wood resources [31].

3) Overexploitation of SNP Resources

Local populations heavily contribute to the massive deforestation of SNP resources through the excessive exploitation of non-timber forest products, which causes a severe reduction in forest biodiversity and ecosystem services. The weak institutional framework and insufficient forest monitoring are to blame for the overexploitation of forest resources. Among the species on the CITES list are some of these overfished species. Similar to this, unsustainable farm-forest landscape conservation management is influenced by the overexploitation of wildlife and the consumption of plant protein by 10% to 50% of Liberian families. The SNP and other forests' flora and fauna are being degraded in a similar manner

by unsustainable overexploitation and illegal resource extraction, which is hastening the depletion and loss of their resources [20].

4) Market Demand for CITES-Listed Products

The strong demand for lumber on both the domestic and international markets has put great strain on SNP's high biodiversity, which has resulted in illegal harvesting and trade. Additionally, the high price and great demand for particular CITES-listed species on the global market have encouraged a significant level of criminal activity in the SNP. The enormous market demand for lumber for domestic uses has been blamed for the ongoing and widespread illicit logging activities in the high forest zones and the reserves [32]. A significant domestic supply-demand gap results from the huge timber enterprises and companies with legal concessions only focusing on exporting lumber to overseas markets where they may earn foreign currency. This is the cause of the lack of or insufficient supply of lumber to the domestic and local markets. The result is widespread non-compliance with CITES regulations as illegal chainsaw operators log unlawfully in high forest zones and reserves to cover this demand-supply gap caused by the enormous local and domestic market demands for lumber [33] [34].

4.3.3. States

The state of SNP resources is severely depleted as a result of the combined direct and indirect effects of anthropogenic and natural forces, and the lack of CITES control has contributed significantly to the loss of biodiversity. These elements have accelerated the loss and depletion of forest biodiversity and ecological services. Due to widespread unauthorized access and trade, the SNP's forest resources are on the verge of being exhausted and lost. Due to surface forest mining in all forests and reserves, the rivers and other water sources in the SNP are becoming poisoned and drying up. According to a study, unlawful mining contributes to forest degradation, river pollution, and water body degradation. While overexploitation and unsustainable and illegal logging resource extraction have led to flora fauna depletion, loss, and habitat destruction in the SNP, illicit mining activities have significantly reduced habitat and biodiversity in the forest reserve and any buffer regions [35] [36].

4.3.4. Impacts

Lack of CITES implementation causes a variety of pressures and motivations, which have a detrimental and considerable impact on the SNP's biodiversity and ecosystem services. This has led to significant loss of flora and fauna in several areas of Liberia's high forest zones as well as extensive devastation of wildlife habitat in the SNP. The majority of rivers and waterways are contaminated as a result of unauthorized open-surface mining that takes place in the forests. Illegal forest mining has a negative impact on rural residents that rely solely on rivers, streams, and other bodies of water for their water supply. For the communities who live in the forest, using contaminated streams and rivers for drinking water

and domestic needs has serious health repercussions. Additionally, the SNP's effects on the forest's vegetation cover have a negative impact on ecosystem services and functions, biodiversity, and ecosystem health. Additionally, both legal and illicit logging significantly harm the understory vegetation and animal behaviors, which may force some CITES-listed species to leave their natural habitats [9]. Induced climatic variability is also raising temperatures, which is producing unpredictable rainfall patterns. Variations in high temperature and low rainfall patterns have an impact on ecosystem services and biodiversity, and climate variability also affects the SNP's forest resources [37].

4.3.5. Responses

In order to stop the wanton SNP resource loss and depletion, Liberia has implemented a number of policies, legislation, regulatory mechanisms, and initiatives over the years. The nation has passed a number of laws and set up the necessary organizations to carry out other international regulations like CITES as well as to police domestic laws. To guarantee that citizens and communities take part in the SNP resource management, the Liberian government has also proposed a local community-level intervention known as the activities [38] [39].

5. Conclusion

Sapo national park (SNP) is Liberia's largest protected area. Since its establishment, the SNP has contributed to the diversity of biological and forestry resources in the country. The findings in this study, obtained through a stakeholder analysis, reveals that various threats from both national institutional capacity and national environmental policies hinder the implementation of CITES in SNP, thereby resulting in a continuous increase in trade of listed species. Some of the issues were related to the lack of judicial power in prosecuting culprits. The study adopts a DPSIR framework to analyze the context and make appropriate recommendations. The observation and discussions are relevant to encourage measures for CITES implementation in the SNP to achieve its sustainable agenda.

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Conflicts of Interest

The author declares no conflicts of interest.

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