

Deforestation and its Impacts on the Population in Uganda

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Abstract

Purpose: To examine deforestation and its impacts on the population in Uganda with a view to making recommendations.

Methodology: The study adopted documentary review as a method of data collection technique in which data is gathered from reports from different sources, journals, magazines, newspapers, institutional archives, reports, and articles that have data linked to the research being undertaken (Creswell, 2014). A documentary review checklist was employed to solicit data related to an examination of the effects of low pay in different offices of Forestry in districts in Uganda. This method was preferred by the researcher over other methods because was able to gain permission to access information from different land departments at the district's lands headquarters archives. In addition, document analysis takes out the personal aspect of the researcher's effect on an individual during an interview.

Findings: Deforestation is caused by the cutting of forests for cattle grazing, Industrial establishment where forests are cut down to provide land for industrial, Population Increase high demand for land for settlement, Mining, and Commercial agriculture, such as mangoes, oranges, and apples, destroys the availability of forest, Corrupt tendencies by forestry departments at the districts headquarters, looking for Charcoal, and firewood. This negatively impacts the population because of flooding which washes away houses and agriculture thus limiting human survival of the right to life which is against the international human rights declaration of 1948. Deforestation eliminates a great number of species of plants and animals which also often increases diseases which are forest-associated diseases including malaria, and sleeping sickness. Conclusively deforestation is no longer a national issue (Uganda) but a global enemy of limiting human life which is against the declaration of human rights, infectious diseases affecting humans, such as the SARS-CoV2 virus that caused the current COVID-19 pandemic, and is linked to habitat loss due to forest area change and the expansion of human populations into forest areas, which both increase human exposure to wildlife.

Keywords: Impacts, Deforestation, and population

1.0 INTRODUCTION

1.1 Background

This paper discusses the meaning of deforestation different types of forests worldwide its history, available Policies for its conservation in Uganda, and causes, its impacts on the population, conclusion, and recommendations. Deforestation or forest clearance is the removal of a forest or stand of trees from land that is then converted to non-forest use. Deforestation can involve the

conversion of forest land to farms, animal grazing, or urban use. The most concentrated deforestation occurs in tropical rainforests. About 31% of Earth's land surface is covered by forests at present. Max (9 February 2021)

History tells us that deforestation started around 3000BC–500AD Throughout the ancient world, these new trends of farming and crop cultivation continued, sometimes with negative environmental effects. In historical Greece, there is some evidence of soil erosion events that can be correlated to agriculture and human interference.

Around 1200-1500AD in Europe & North America. New agricultural technologies lead to surplus food, supporting population growth and in turn, fuels the expansion of the emergence of cities. These developments are again linked to deforestation. Trees were cut to make space for crops and livestock, as well as for use in cooking and heating. Moreover, by the end of the Middle Ages, lumber was in high demand for shipbuilding. These activities have historically led to deforestation, forest degradation, extinction, and loss of biodiversity. In North America, about half the forests in the eastern part of the continent were cut down for timber and farming.

There are four different types of forests worldwide: tropical forests, temperate forests, boreal forests, and plantations. Deforestation is happening around the world with all forest types but occurs mostly in tropical areas. The World Wildlife Fund (WWF) estimates that around 31% of the world's land is covered by forests. But this forest coverage is under severe threat due to factors including agricultural expansion, infrastructure, and logging. "In 2019, the tropics lost close to 30 soccer fields' worth of trees every single minute," according to a WWF report.

According to the available literature, deforestation is no longer a national but an international issue(Worldwide) for example between 15 million to 18 million hectares of forest, an area the size of Bangladesh, are destroyed every year. On average 2,400 trees are cut down each minute. The Food and Agriculture Organization of the United "Deforestation" and "forest area net change" are not the same: the latter is the sum of all forest losses (deforestation) and all forest gains (forest expansion) in a given period. Net change, therefore, can be positive or negative, depending on whether gains exceed losses, or vice versa (Global Forest Resource Assessment 2020")

26% of land in Africa is classified as forest and the continent is home to nearly 43 billion trees, the majority of which are found in South Africa, Ethiopia, and Nigeria. According to the UN Food and Agriculture Organization (FAO), nearly 4 million hectares of African forests are being cut down each year, at almost double the speed of the world's deforestation average.

Africa is one of the most diverse continents for land use, with the territory split between cropland, forests, grassland, wetland, and human settlements. Grassland and forests together make up more than 50% of the whole continent, while desert, barren, and unproductive areas – classified as 'other land' – represent 32.4% of the total land area. Africa is the world's third largest continent for global forest area, most of which is concentrated in central and southern countries characterized by a tropical climate like Zambia, Angola, Tanzania, and the Democratic Republic of Congo (DRC). The latter has the world's second-largest rainforest: boasting an area five times the size of France and with nearly 152 million hectares of forests, the Congo Basin has been renamed the 'lungs of the planet'.

In the late 1980s, 75,000 square kilometers of land in Uganda consisted of forest and woodland. About 15,000 square kilometers, or 7 percent of Uganda's dry land area, were protected forest

reserves. Roughly 250 square kilometers of protected reserves were tree farms.

Nationwide forest resources were being planted rapidly. Deforestation was especially severe in poverty-stricken areas, where many people placed short-term survival needs ahead of the long-term goal of maintaining the nation's economic sector. Agricultural encroachment, logging, charcoal making, and harvesting for firewood consumed more wooded area each year. An additional toll on forest reserves resulted from wildfires, often the result of illegal moonshine-making activity in reserves. Neither natural regrowth nor tree-planting projects could keep pace with the demand for forest products (December 1990).

In 1988 the Ministry of Environmental Protection was responsible for implementing forest policy and management. Ministry officials warned that the loss of productive woodlands would eventually lead to land erosion, environmental degradation, energy shortages, food shortages, and rural poverty in general, and they hoped to change traditional attitudes toward forests and other natural resources

In 1989 the government implemented a six-year forestry rehabilitation project financed by the United Nations Development Program (UNDP) and the Food and Agriculture Organization of the United Nations (FAO). This project included a nationwide tree-planting campaign and a series of three-year training courses for rural extension agents, leaders of women's groups, educators, and farmers. Britain, the Federal Republic of Germany (West Germany), and several multilateral donor agencies also assisted in the forestry sector.

Economic crises often hampered efforts to conserve natural resources. Many people lacked the motivation to plan for future generations when their survival was at risk. As a result, illegal activities, including logging, charcoal making, and firewood gathering in posted reserves contributed to rapid deforestation. Government forestry agents, who were generally underpaid, sometimes sold firewood for their profit or permitted illegal activities in return for bribes. In these ways, entrenched poverty and corruption drained public resources from use by present and future generations. In 1989 officials threatened to prosecute trespassers in posted forest areas, but by the end of the year, it had not implemented this policy.

In the years 2000sto revive forestry the government abolished the Forest Department and established the National Forestry Authority (Uganda)(NFA) in 2004. This action aimed to increase revenue and quality of forest management. In the financial year of 2004/2005, the first year after they took over from the Forest Department, the NFA increased the revenue from forest products to US\$ 5,400,000,000/= or US\$2,160,000 from the previous year's 1,200,000,000/= or US\$480,000 due open public tendering of 80.000m³ of timber. The total area of planted trees by the NFA stands at 12 km² in the same year. The areas under the Management of the NFA are gazetted to 506 Central Forest Reserves. Uganda Deforestation Rates & Statistics | GFW. In 2010, Mubende had 397kha of tree cover, extending over 64% of its land

area. In 2021, it lost 5.39kha of tree cover, equivalent to 2.86Mt of CO₂ emissions.

2.0 PROBLEM STATEMENT

Uganda's government has its origin of regulating deforestation from (1898-1961) by regulatory colonial forest service characterized by a centrally controlled and industry-biased forest policy with limited local stakeholder participation; followed by the post-independence era (1962-1971) and (1972-1987); more Policies were further initiated for example National Forestry Policy 2001, Enactment of the National Forestry and Tree Planting Act 2003, New institutional arrangements including the Forest Sector Support Department, the National Forestry Authority. All these several Policies, Legal and Institutional Reforms were put in place aimed at promoting the conservation, and sustainable use of the country's forest resources and supporting the population however all this has had limited success.

3.0 AIM OF THE STUDY

To examine deforestation and its impacts on food production in Uganda to make recommendations.

4.0 AVAILABLE POLICIES

1. The 1995 Constitution of the Republic of Uganda.
2. Putting in place the National Forestry Policy 2001.
3. Enactment of the National Forestry and Tree Planting Act 2003.
4. New institutional arrangements include the Forest Sector Support Department and the National Forestry Authority.
5. District Forestry Services
6. 1995 Water Policy, 1996
7. National Wetlands Management Policy,

5.0 CAUSES AND CAUSES OF DEFORESTATION

5.1 CAUSES OF DEFORESTATION

Deforestation for grazing of animals. Many trees have been cut down which we call deforestation because of cattle grazing. Many people in Uganda look at individual gain vs national where all people gain. For example, they look at grazing animals as daily income through selling milk which has affected the available forest. Overgrazing of both domestic and wild animals like Kadama forest reserves, Timu, and Morongole in the Karamoja area. Also, Aber and Agwata forests are facing illegal grazing by the Iteso pastoralists.

Industrialization: Industrial establishment where forests are cut down to provide land for industrial set up like in Namanve and to get firewood for tea processing in Ankole tea estate, firing bricks in Butende and Uganda clays in Kajjansi.

Population Increase: Rapid population growth, Uganda experiences a high population of 34.4 million people, and the increasing population in areas such as Kigezi, Mbale, and Bugishu has led to high demand for land for settlement and agriculture and infrastructure-building of roads thus destroying forests like Mabira, Kibale, mt. Elgon forests.

Mining. The increase in mining for gold and other valuable minerals in tropical forests is furthering damage due to the rising demand and high mineral prices. This causes environmental impacts like soil erosion, the formation of sinkholes, and contamination of soil, groundwater, and surface water by chemicals from mining processes.

Paper Production and construction: cutting of trees for, firewood, paper production, building materials, and furniture-making for stance doors and chairs. The increasing demand for timber for furniture, building, and construction has led to the clearing of parts of the Kibale forest, Kalinju, and Budongo which are accessible.

Commercial agriculture, such as mangoes, oranges apples destroys the availability of forest which has been available for several years.

Corruption: Corrupt tendencies by forest departments at the district's headquarters who receive money in the form of bribes for the illegal sale of timbers, and illegal lumbering, thus clearing mostly softwood trees like Mafuga. Pests and diseases have led to clearing forests to destroy tsetse flies like in southern Busoga, Bunya forest in Mayuge, and Kibale forests.

Charcoal and firewood: Forests are major sources of biomass in the form of firewood and charcoal, especially in rural areas. This has led to the cutting down of forests like Mabira, Bugongo, and Maramagambo

Burning of forest for grazing: Burning of forests, especially by hunters, farmers, and grazers has destroyed the Mwenge forest reserve, mt. Rwenzori forests and Luwero forests. Also, many hectares of forests of Aber and Opit in Gulu were burnt in 1982 by locals.

Ignorance of the population: Ignorance of the people especially in the rural areas like Kibale and Kigezi, who have inadequate knowledge about the value of forests. Such simply destroy forests because they look at them as obstacles to more meaningful land use.

Security reasons: Political insecurity where forests have been cleared to check on insecurity like in the 1980s Luwero forests were cut down, Nyamityobora forest in Mbarara, etc for security reasons.

Inadequate resources: Limited resources invested in the forest department leading to inefficient equipment used, limited rangers, wardens, and other staff to monitor forests and reduce encroachment on forests like Mabira, Budongo, and others.

Pests and diseases have led to clearing forests to destroy tsetse flies like in southern Busoga, Bunya forest in Mayuge, and Kibale forests.

5.2 IMPACT OF DEFORESTATION ON THE POPULATION

Global warming: Deforestation leads to Global warming that also put increased pressure on communities who seek food security by clearing forests for agricultural use.

Deforestation causes an increase in temperatures and changes in the amount and distribution of rainfall —generally creating a drier

climate. These impacts can affect soil moisture, reducing yields in some areas and increasing flooding in others this directly affects the population in Uganda

Changes in rainfall and temperature: Deforestation increases uncertainty and risks for food production due to direct physical changes that alter temperature and rainfall, both near and far from where forests are cleared.

Limitation of ability to absorb carbon dioxide: Cutting down trees (Deforestation) would reduce the forests' ability to absorb carbon dioxide and generate rainfall, exposing territories to severe droughts and worsening the ongoing water crisis that has plagued some parts of Uganda for decades.

Furthermore, a lack of soil cover has exposed the terrain to soil erosion and degradation in many parts of the country which has affected agriculture. Indeed, forests act as sponges that soak up rainfall brought by tropical storms. When heavy rainfall occurs but there are not sufficient trees to absorb the water and anchor the soil, flooding is more likely to occur. Both soil erosion and flooding heavily compromise agricultural productivity and food security across the continent.

Deforestation act as Public health issue. The degradation and loss of forests disrupt nature's balance indeed, deforestation eliminates a great number of species of plants and animals which also often increases disease, and exposure of people to diseases. Deforestation can also create a path for non-native species to flourish such as certain types of snails, which have been correlated with an increase in schistosomiasis cases. Other Forest-associated diseases include malaria and sleeping sickness.

6.0 CONCLUSION AND RECOMMENDATIONS

6.1 CONCLUSION

In conclusion therefore deforestation or forest clearance is the removal of a forest or stand of trees from land that is then converted to non-forest use. There are four different types of forests worldwide: tropical forests, temperate forests, boreal forests, and plantations. In Uganda, deforestation is caused by livestock farming, mining, and claiming of land for industrial development, its leads to abuse of human rights as it causes flooding which puts down houses thus making people homeless which is against the 1948 Declaration of human rights. Cutting down of trees lead to an increase in diseases like malaria and sleeping sickness which affects the population, deforestation also affects the population because it causes climate change that led to prolonged and common droughts in many parts of the country, particularly the northeast like the districts of Karamoja and Soroti, have led to almost continuous dependency on food aid. It's on a serious note recommended that there must be promotion of activities that divert people from cutting the available forests e.g. bees raring and continuous sensitization of the community about the dangers of cutting down trees.

6.2 RECOMMENDATIONS

Teamwork of stakeholders. There is a need for different stakeholders to work together and make sure that the available policies are implemented and address institutional irregularities such as corruption.

Promotion of activities that divert people from cutting the available forests e.g. beekeeping which can divert people from cutting down trees and instead use it to promote tree planting for keeping the bees which has advantages for example preserving the environment as bees are kept in the forest and use the honey got from the bees for income generation.

Formal Education: Sanitization of the community need to be considered for example to know the causes and effects of cutting down the trees. There should be an extension of formal education starting with primary school and going children to the University level, this will reduce the destruction of trees if the syllabus is made. land owners' management: landowners who own land privately with forests must be given a directive to use the land productively and avoid cutting down the available trees this will limit deforestation.

Research Encouragement: The government of the Republic of Uganda must encourage research of the youth and teach the advantages of conserving forests and how they impact the environment.

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