

# Cameroon's Disappearing Mangroves: A Call to Action

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## Introduction

Mangroves are rare and unique coastal ecosystems that thrive at the intersection of land and sea. These remarkable forests grow in calm, low-oxygen waters along coastlines and are characterized by their aerial and submerged root systems, which allow them to survive in saline environments. Some mangrove species can grow up to 40 meters tall, creating dense, biodiverse habitats that support a wide range of flora and fauna. Mangroves are classified into three main types: deltaic and estuarine mangroves, coastal embayment mangroves, and reef and lagoon mangroves.

In Africa, and particularly in Cameroon, mangroves play a critical role in protecting biodiversity, supporting the livelihoods of coastal communities, and regulating marine ecosystems. Cameroon is home to one of the largest mangrove expanses in Central Africa, covering approximately 234,000 hectares, which represents about 6% of Africa's total mangrove cover (MINEPDED-RCM, 2017). Despite their ecological and economic importance, Cameroon's mangroves are under severe threat, with significant portions disappearing every year. In the last 20 years, Cameroon's mangrove surface area has reduced by about 30 percent, to less than 200,000 ha (VOA, 2013).

## 1. Importance of Mangroves

Mangroves are vital ecosystems that provide numerous ecological, economic, and social benefits. They serve as spawning and nursery grounds for marine species, supporting fisheries that are crucial for food security and livelihoods. In Cameroon, over 30% of the coastal population depends on mangrove resources for their survival, including fish (80% of fish species caught at sea depend on mangroves), non-timber forest products, and wood for construction and fuel (AA, 2020). They also offer protection against swells and winds (AA, 2020).

Beyond their economic value, mangroves are powerful natural defenses against climate change. They have an exceptional capacity to absorb and store carbon, sequestering up to 3 to 4 times more carbon per hectare than terrestrial forests (Alongi, 2014). This makes them one of the most effective natural solutions for mitigating global warming, storing approximately 10% of the total global emissions from tropical deforestation (Tagne et al., 2022).

Mangroves also perform critical environmental functions, such as:

- Stabilizing coastlines and acting as natural barriers against erosion, storms, and floods (VOA, 2013).
- Acting as natural sponges, absorbing rainwater and reducing the impact of flooding.
- Replenishing groundwater and filtering pollutants, thereby improving water quality.
- Providing aesthetic and therapeutic value, as many medicinal plants found in mangroves are used by local communities for traditional healing practices.
- Holding cultural significance, serving as sites for spiritual retreats and traditional rites that help preserve the cultural identity of coastal communities (AA, 2020).

## 2. Threats to Mangroves

Despite their immense value, Cameroon's mangroves are under severe threat. Approximately 3,000 hectares are lost annually—equivalent to the area of 4,200 soccer fields (Ngounou, 2021). Almost 70,000 ha of mangrove forests were radically decimated between 1980 and 2006 (Tagne et al.,2022). As of two years ago, the mangrove forests were 75% degraded, and the situation is worsening (AA, 2020). The primary drivers of mangrove destruction include:

- **High population pressure:** Rapid population growth in coastal areas leads to increased demand for land and resources (Fongnzossie et al.,2022).
- **Unsustainable exploitation:** Overharvesting of mangrove wood for construction, fuel, and charcoal production (Fongnzossie et al.,2022).
- **Industrial and agricultural activities:** Pollution from industries and agricultural runoff degrade mangrove ecosystems (Tagne et al.,2022). Economic pressure from oil exploration also contributes to mangrove loss (Fongnzossie et al.,2022).
- **Unsustainable fishing practices:** Overfishing and destructive fishing methods disrupt marine biodiversity.
- **Misinformation:** Some communities view mangroves as breeding grounds for mosquitoes and reptiles, leading to their destruction. The laxity of national administrations and environmental ignorance also play a rôle (AA, 2020).

## 3. Consequences of Mangrove Destruction

The loss of mangroves has devastating consequences for both the environment and human communities. Key impacts include:

- Increased coastal erosion: Without mangroves, coastlines are more vulnerable to erosion, storms, and flooding, putting coastal communities at greater risk (Ellinson et al., 2012).
- Declining fish stocks: Mangroves serve as nurseries for many fish species. Their destruction leads to reduced fish populations, threatening food security and livelihoods (Mongabay, 2008).
- Loss of biodiversity: Mangroves are home to a wide range of species. Their destruction disrupts marine food chains and reduces ecosystem resilience.
- Climate change acceleration: Mangroves store vast amounts of carbon. When destroyed, this carbon is released into the atmosphere, exacerbating global warming (Tagne et al., 2022).
- Economic and social impacts: The loss of mangrove resources leads to food insecurity, loss of income, and displacement for coastal communities (VOA, 2013). Approximately five million coastline dwellers are threatened by the degradation of mangroves (VOA, 2013).

#### 4. Solutions to Protect and Restore Mangroves

To address the threats facing Cameroon's mangroves, a multi-faceted approach is needed. Key solutions include:

- **Community awareness and education:** Educating local communities about the importance of mangroves and involving them in conservation efforts (VOA, 2013).
- **Sustainable resource management:** Implementing practices such as controlled logging, sustainable fishing, and eco-friendly aquaculture.
- **Mangrove restoration:** Replanting and rehabilitating degraded mangrove areas. For example, organizations like Planète Urgence have launched initiatives to restore 1,000 hectares of mangroves in Cameroon (Ngounou, 2022). The government of Cameroon has teamed up with the FAO and local NGOs to safeguard the country's surviving mangroves and restore depleted zones through the Sustainable Community Management and Conservation of Mangrove Ecosystems in Cameroon project (VOA, 2013).
- **Policy and enforcement:** Developing and enforcing strict environmental policies to protect mangroves from illegal exploitation and industrial pollution.
- **Ecological compensation:** Requiring industries to offset their environmental impact by funding mangrove restoration projects.

- **Enhancement of sedimentation:** Restricting any further dam development on rivers, restricting coastal constructions that block sediment supply, and enhancing mangrove ecosystem health (Ellinson et al., 2012).

## Conclusion

Cameroon's mangroves are indispensable ecosystems that support biodiversity, protect coastlines, and provide essential resources for millions of people. However, they are under severe threat from human activities and climate change. The loss of mangroves has far-reaching consequences, including increased coastal vulnerability, loss of biodiversity, and accelerated climate change.

To ensure the survival of these vital ecosystems, it is imperative to adopt sustainable management practices, raise public awareness, and implement effective protection policies. Vulnerability can be reduced by ceasing any fuelwood harvesting from seaward edge locations (Ellinson et al., 2012). Preserving mangroves is not just an environmental issue, it is a necessity for the economic and social well-being of coastal communities and the planet as a whole. By taking action now, we can safeguard these natural treasures for future generations.

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