



An Ecological Heritage of Global Significance

1. Introduction¹

The Congo Basin is one of the most strategically important ecological areas on the planet. As a true pillar of global climate balance, this vast forested region plays a crucial role in climate regulation, the preservation of biodiversity, and the survival of millions of people who depend on its natural resources. However, despite its vital importance, it faces numerous environmental, economic, political, and social challenges that jeopardise its future and that of its inhabitants.

As the second-largest tropical forest massif in the world after the Amazon, the Congo Basin spans several African countries, notably Angola, Burundi, Cameroon, Gabon, Equatorial Guinea, the Central African Republic, the Democratic Republic of the Congo, the Republic of the Congo, Chad, São Tomé and Príncipe, and Rwanda. Within this regional framework, the Central African Forest Commission (COMIFAC) plays a key role in co-ordinating, co-operating, and harmonising environmental policies among member states.

Beyond its vast area, the Congo Basin acts as a global climate regulator due to its exceptional carbon sequestration capacity and its influence on water ecosystems, both in Africa and globally. With around 268 million hectares of tropical rainforests, over 1.1 billion tonnes of CO₂ absorbed, and more than 10 000 species of plants, trees, and animals, this region is one of the planet's main reservoirs of biodiversity. Approximately 80 million people depend directly on the forest for their food, energy, health, economic activities, and even their spirituality.

2. The DRC at the Heart of Global Climate Balance

The DRC plays a central role in the preservation of the Congo Basin and in global ecological stability.

The DRC alone possesses around 155.5 million hectares of tropical rainforests and is home to 970 identified timber species, although only 47 are currently harvested for economic purposes.

The DRC's role in carbon sequestration is particularly remarkable, storing around 24.5 gigatonnes of CO₂, equivalent to three years of global emissions. This exceptional capacity makes the DRC one of the planet's main natural carbon sinks.

The country's ecological wealth extends beyond tropical rainforests; it is also home to other strategic ecosystems, such as Miombo woodlands, mangroves, and hydromorphic forests, which contribute to soil protection, water regulation, and the conservation of numerous animal and plant species.

Furthermore, the DRC possesses a vital resource: fresh water, accounting for around 10 per cent of global reserves and over 52 per cent of African reserves. Against a backdrop of progressively dwindling water resources, this wealth confers major geostrategic importance on the country for the future of Africa and the world.

3. The Contemporary Climate Crisis

To grasp the environmental challenges facing the Congo Basin, it is essential to situate this region within the global context of the current climate crisis. Terms such as climate change, global warming, or climate disruption refer to a rapid rise in the Earth's average temperature and a profound alteration in global weather patterns, particularly evident in the 20th and 21st centuries. The main cause of this crisis lies in the massive emission of greenhouse gases, notably carbon dioxide (CO₂) and methane (CH₄), resulting from industrial activities, transportation, deforestation, and certain consumption patterns.

The report published in March 2023 by the Intergovernmental Panel on Climate Change (IPCC) highlights several alarming findings. According to scientific projections, the critical threshold of 1.5°C of warming compared to pre-industrial levels could be reached as early as the early 2030s, even if immediate efforts are made to reduce global CO₂ emissions.

The report also indicates that global emissions continue to rise. Between 5 per cent and 45 per cent of emissions are linked to consumption by the wealthiest 10 per cent of households, while urban areas accounted for around 70 per cent of global emissions in 2020. Concurrently, populations and ecosystems are becoming increasingly vulnerable to climate-related disasters.

4. Visible Manifestations of Climate Change

The effects of climate change are manifesting in increasingly frequent and destructive extreme events. People around the world are facing extreme heat, prolonged droughts, devastating floods, violent storms, and other natural disasters of growing intensity. Recent examples include the gradual drying up of Lake Chad, the floods in Mbandaka in 2023, the disaster in Kalehe that same year, and the Kanagawa tsunami in 2011. These events illustrate the growing fragility of human societies in the face of climate upheavals.

The human consequences are dramatic: destruction of crops, worsening food insecurity, forced displacement of populations, the emergence of climate refugees, and an increase in conflicts linked to transhumance and access to natural resources. In several African regions, these tensions also contribute to social and security instability.

5. The Congo Basin as a Solution to the Global Climate Crisis

In the face of this global crisis, the Congo Basin is emerging as a major ecological solution. Its contribution to climate change mitigation rests primarily on three fundamental aspects: carbon sequestration, regulation of the water cycle, and the peatlands of the central basin.

- The Congo Basin sequesters around 1.5 billion tonnes of CO₂, six times more than the Amazon. Its forest ecosystems and peatlands also store over 30 gigatonnes² of CO₂, making this region one of the

planet's largest carbon reservoirs.

- The Congo Basin's forest generates a large proportion of its own rainfall through evapotranspiration. It also influences rainfall patterns across a vast swathe of the African continent, and helps prevent droughts in particularly vulnerable regions such as East Africa and the Sahel.
- The peatlands of the central basin constitute an exceptional ecosystem. These vast wetlands store around 30 billion tonnes of carbon, accumulated over more than 10 000 years. Approximately two-thirds of these peatlands are located in the DRC, and one-third in the Republic of the Congo. Their destruction would lead to a massive release of carbon and methane into the atmosphere, significantly exacerbating global warming.

5. Strategic Minerals and the Global Energy Transition

The Congo Basin, particularly the DRC, also plays a fundamental role in the global energy transition due to its strategic minerals. The DRC holds around 70 per cent of the world's cobalt reserves, the second-largest copper reserves, between 60 and 80 per cent of the world's coltan reserves, as well as significant reserves of lithium, zinc, tin, manganese, and other minerals essential for electric batteries, renewable energy, digital technologies, and a low-carbon economy.

These resources place the DRC at the heart of global technological and energy transitions. They could directly contribute to limiting global warming to 1.5°C by 2050, provided their extraction is sustainable, equitable, and respectful of local communities and the environment.

6. Other Environmental Challenges

Despite its global ecological importance, the Congo Basin still receives an insufficient share of international funding earmarked for forest protection and climate adaptation. Africa accounts for around 3 per cent of global greenhouse gas emissions while bearing the brunt of the climate crisis.

Numerous obstacles remain: difficult conditions for accessing international funding, the dominance of foreign expertise over local skills,

insufficient structural investment, and a culture of short-term projects rather than a genuine, sustainable vision for development.

- The **plundering of natural resources** constitutes a major challenge. Certain multinationals, foreign companies, and sometimes even national actors are involved in the overexploitation of forests, savannahs, watersheds, and mining concessions. This situation creates significant tensions with local communities, particularly due to the involvement of certain local elites, the manipulation of traditional authorities, and conflicts over access to land and natural resources.
- The environmental sector also suffers from **serious governance issues**. Public policies are often poorly implemented, political appointments sometimes take precedence over competence, and the participation of women and young people in decision-making processes remains insufficient.
- **Uncontrolled urbanisation**, particularly in a city like Kinshasa, exacerbates environmental problems, notably poor waste management, urban flooding, and the degradation of natural areas. Proposed solutions include strengthening local authorities, raising public awareness, and improving the authority of the state.
- **Wood fuel remains the main source of energy** for African households. This dependence places heavy pressure on forest resources, accelerates deforestation, and contributes to bushfires linked to charcoal production. Among the alternatives being considered are improved stoves, renewable energy, sustainable wood energy production, and the use of gas for cooking. However, these solutions require significant investment and public policies tailored to local realities.

- **Mining** represents one of the greatest paradoxes of the Congo Basin. Despite the immense wealth of its subsoil, local communities continue to suffer forced displacement, severe water and soil pollution, inhumane working conditions, and persistent poverty. Exposure to heavy metals leads to numerous health consequences: respiratory diseases, skin conditions, congenital malformations, and reproductive health problems. This situation raises important questions of social justice, public health, and environmental responsibility.

6. Building a Coalition for the Protection of the Congo Basin

In the face of these complex challenges, sustainable forest management requires a genuine coalition between universities, dioceses, community organisations, researchers, and public decision-makers. It is essential to identify synergies, pool expertise, and develop joint responses capable of sustainably protecting ecosystems, while improving the living conditions of local populations. Protecting the Congo Basin thus requires a multidimensional approach combining environment, economy, governance, social justice, and international co-operation.

7. Conclusion

Despite the challenges posed by poverty, armed conflict, and economic pressure, the Congo Basin remains a key player in global forest conservation. The world needs the oxygen produced by these forests, but local communities also require decent living conditions to survive. It is therefore urgent to implement ambitious funding, resource development projects, inclusive policies, and mechanisms ensuring that the wealth truly benefits local populations. The protection of the Congo Basin is not merely an environmental issue; it has profound implications for climate justice, peace, human dignity, and the very future of humanity.

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¹ This paper was first published by the SECAM-AU Liaison Office on its Substack page – secamauliaisoffice@substack.com It is based on a presentation by Mr Jean-Jacques Bambula Boole, an official of the Ministry of the Environment and Sustainable Development of the Democratic Republic of the Congo. As the paper makes clear, the environmental importance of the Congo Basin extends well beyond its immediate geographical area; it has continental and international significance. We are accordingly grateful to the SECAM-AU Liaison Office for permission to republish the paper.

² A gigatonne is equivalent to one billion tonnes. The figure of 30 gigatonnes refers to the Congo Basin as a whole. The DRC as a country contains 24.5 of the 30 gigatonnes.

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