

Box 1 The Importance of Central Africa's Rainforest Ecosystems

Central Africa is home to one of the world's largest contiguous blocks of tropical rainforest, second only to the rainforest of the Amazon Basin in South America. These regional rainforests perform valuable ecosystem services, support globally important biodiversity, are essential to regional economies, and contain the most intact forest ecosystems left anywhere in Africa.

Ecosystem services provided by tropical forests include watershed protection, maintenance of water quality and supply, regulation of local climate patterns (such as rainfall), carbon sequestration, and timber and wood fuel production, among others. Central Africa's dense rainforests sequester two-thirds of the carbon stored in live vegetation in tropical Africa. Forest loss and degradation in central Africa already are responsible for the release of more carbon to the atmosphere than any other source of land use change on the continent (73% of total carbon released from land use changes) (Gaston et al. 1998). Forests have considerable economic importance across the region: wood fuel accounts for the majority of national energy consumption (e.g., over 80% of energy use in the Democratic Republic of Congo (IEA 1996)) and timber production and export are major contributors to the region's economies.

In terms of globally important biological diversity, the rainforests of central Africa are significant both for the total number of species found there and for endemic species (i.e., species found nowhere else on earth). Intact forest communities of large mammals—including gorillas, bonobos, bongos, mandrills, and forest elephants—are unique to this region. Regional centers of biodiversity and endemism include the Cameroon highlands, the western equatorial forests of Cameroon and Gabon, coastal mangroves, the Albertine Rift highlands, and the eastern lowland forests of the Democratic Republic of Congo (Sayer et al. 1992). These forests are also notable for plant biodiversity; some areas in Cameroon contain levels of plant diversity that are among the highest recorded worldwide (Sayer et al. 1992). However, outside a few well-studied areas (e.g., Mount Cameroon, Gabon's Lopé Reserve), central Africa's rainforests remain largely unknown and their species undocumented.

Central African rainforests take on added importance because so much rainforest has been lost in neighboring West Africa, the only other rainforest region on the continent. Once extending from Guinea-Bissau to Ghana, West African rainforests share many common species with the forests of central Africa. Logging, fragmentation, and clearing for agriculture have largely degraded West African forests in this century: by some

estimates, these are the most fragmented tropical forests in the world (Sayer et al. 1992, Myers et al. 2000, Rudel and Roper 1997). In contrast, the rainforests of central Africa encompass many areas that remain largely undisturbed, due in large part to low population density and the remoteness of interior rainforests. The rapid expansion of commercial logging, however, is opening access routes into previously remote areas, threatening these relatively pristine ecosystems.

References

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