



Functions and benefits of ecosystem services in the Congo Basin forests

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The Congo Basin rainforest is the largest continuous rainforest in the world after the Amazon and at the same time an immense watershed.

The forests regulate water supply through their generation of rainfall. The value of this water in terms of sustaining human, animal and plant life in the region is immense.

INTRODUCTION The main functions of the Congo Basin rainforest are production of biomass and soil formation, nutrient cycling and water cycling. These functions are the basis for a whole range of ecosystem services that are important to the well-being and welfare of the people living in and outside these forests. Many such services are already mentioned elsewhere in this book; suffice to highlight a few common benefits to local communities that arise from provisioning services such as wild foods, medicines, building materials, water and fuel wood. Also important are cultural services such as spiritual places and symbols. On the broader national level some provisioning services are key factors, such as supply of industrial roundwood to the timber industry, medicinal plants for pharmaceuticals and hydropower energy are important to national economic development. The potential for hydropower generation is immense, the region could even export some of this energy, if such potential is fully exploited. The Congo River basin is the second largest river system in the world. It drains a watershed area covering the

Democratic Republic of Congo, Republic of Congo, Cameroon, Central African Republic, Equatorial Guinea, Gabon, Angola, Zambia, Tanzania and Burundi. Both on national and international levels the regulating services such as carbon sequestration to contain global warming and supply of water receive much attention and are increasingly recognised for their role in sustaining life on the planet.

AWARENESS Managing the Congo Basin forests to cater for the provision of these ecosystem services on all these levels is a major challenge. It requires the cultivation of public awareness about the functions, benefits and values of these forest ecosystems as a means to raise national and international understanding, appreciation and support for their sustained availability. This chapter highlights some of the benefits arising from the regulating and provisioning services, given the increasing attention they are receiving; and more specifically their role in human, animal and plant survival as well as in socio-economic development and environmental stability.