

Book Review

*Rainforest – Dispatches from Earth's most vital frontlines by Tony Juniper (2020)*

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*Rainforest – Dispatches from Earth’s Most Vital Frontlines* (first published by Profile Books in 2018, and the updated paperback edition in 2020) has been written by Tony Juniper, who has been working in the field of environmental protection since decades. He is an expert in sustainability and an ardent writer. His professional profile includes his association with Friends of the Earth – an environmental organisation. At present he holds the position of Chair of Natural England, the statutory body that works for the conservation and restoration of natural environments in England. This book is a first-hand narrative in which the author Juniper stresses the vital importance of the tropical rainforests and expresses concern over how rapidly these forests are getting destroyed in the name of development. Juniper presents the most challenging and pressing problems related to this deforestation, including the billions of organisms and the indigenous people who are dependent on these forests, and also addresses how and what can/could be done to protect these forests. His deep sightedness emerges from his own research exploration and conservation experience while working with the Friends of the Earth organisation.

The 429 page book is divided into five parts and 22 chapters. Topics covered in the book include the role rainforests play in global climates; biodiversity; governance and geopolitics of rainforest preservation; colonial influences in shaping the economies, policies and people of Africa and Americas; and efforts of conservation.

Part 1 entitled 'Earth's Most Vital Systems', comprises four chapters. Juniper explains how tropical forests contribute to maintaining the interaction between the earth and atmosphere. These rainforests play a vital role in heat balance and tolerance. Rainforests play a key role in the entire circulation of heat and water through the process of evapotranspiration, rains and ocean heat transport. In the first chapter, *Rainforest- A Clue in the Name*, Juniper explains his concerns, thoughts, and experiences in the Amazon rainforest particularly. He cites his experience on a trip to the Amazonian Peru: the fusion between trees and atmospheric moisture; the humid air rising over the tropical rainforest and clouds discharging abundant rain; moisture emerging through solar powered leaves and again flowing into the atmosphere. Evaporation, transpiration, and photosynthesis in the tropical rainforests in the Amazon basins are highlighted in this chapter. The second chapter, *Living Atmosphere*, deals with climate change and global temperature based on the first report on climate change and tropical rainforests issued by the Friends of the Earth in 1990 that established a connection between deforestation and carbon dioxide emissions. This chapter underscores the problems caused by deforestation, namely, the increase in the amount of carbon dioxide in the atmosphere and how industrialisation plays a role in increasing carbon dioxide emissions. The negative impacts are not on tropical rainforests alone but also on marine equivalents: tropical coral reefs. In the third chapter, *The Ecological Weave*, Juniper talks about global linkages of the ecosystem. The Fourth chapter, *Evolutionary Treasures*, deals with the new variants of species that are evolving in the tropical rainforests, a phenomenon which carries hope for the sustenance of tropical rainforests. .

Chapters 5 to 11 are included in Part 2, titled 'The Americas' Chapter 5, *The New World Rainforest people*, presents an account of the decisive influence of European colonisation on the Americas and its devastating impact on the indigenous population, ecology and agricultural systems. In the period of European colonisation, more than 90 Amazon tribal communities disappeared or became extinct. The descendants and the survivors are living deep inside the Amazon Forests without any contact with the 'New World' outside and clearly, they do not want to mingle. Chapter 6, *Forest Clearance in the Americas*, links this absence of indigenous communities with reckless deforestation. The cleared

forestlands were either converted to settlements, or plantations like coffee, sugarcane, and cattle ranching as also infrastructure development projects.

Chapter 7, *Counting the Cost: Green Shields*, portrays the consequences of loss of rainforests: extreme weather conditions occurring in the Rio de la Plata basin which is one of the world's most productive agricultural regions; the severe prolonged droughts; agricultural problems in South Dakota; and increasing vulnerability to climatic variabilities and disasters. In Chapter 8, *Protest and Survive*, Juniper addresses the problems of declining biodiversity and highlights the need for protests, awareness campaigns, and pressure politics. Chapter 9, *Forest Dividends in Costa Rica*, offers a ray of hope to readers with its coverage of the very proactive role of the Costa Rican government that has identified the importance of conservation through forest conservation incentives, subsidies, tax breaks and payments. The policy has resulted in an increase in forest cover from 21 % in 1980 to 52 % recently. They have also been able to double their GDP rate and all developmental activities. Ecotourism has been implemented in a full-fledged manner. Costa Rica is an exemplar of how sustainable development can be brought at the core of any development policy and still the country can improve its economic standards. Chapter 10, *The Best Forest Custodians*, portrays the efforts of the indigenous groups in Peruvian Amazon, 'the Ashaninka', to get the legal rights to own their ancestral territory and forest rights. In Chapter 11, *Temperate Zone Rainforest*, Juniper describes Ty Canol in Western Wales, a small rainforest which housing 400 species and different from tropical rainforests.

Part 3, spanning three chapters, covers Africa in detail. Chapter 12, *Last Frontiers: The Congo Basin*, focuses not only on the exploitation of the natural environment but also the worst practice of human slavery causing millions of people to migrate out of Africa as slaves. Recently, the Congo basin which previously was unaffected is threatened by intensified logging and mining activities for exploration of oil and gas, posing a threat to Africa's oldest National Park. Chapter 13, *The Lost Forest of West Africa*, spotlights the problems faced by the Upper Guinea rainforests that lie between lower Guinea and the Congo basin. Palm oil, cocoa expansion and timber industry have led to deforestation and African countries continue these exports as their export trade has been shaped historically by European colonialism. Chapter 14, *Climate and Cocoa Challenges*, revolves around the

Ivory coast village Asabliko, the farmers and communities in cocoa production, their problems and future.

Chapters 15 to 18 comprise Part 4: 'Asia and the Pacific', covering the Asian rainforests. In Chapter 15, *A Short tour of the Eastern Forest*, Juniper discusses the Indonesian Archipelago, the Asian rainforest. He draws attention to the history of European invasion and conversion of Asian forests into cash crops, industrial crops and plantation economies like tea, sugarcane, and citrus fruits, on the reduction of millet production, with special reference to Borneo Island. There is an interesting discussion included on how the transmigration of people shipped out of Java and Bali has affected the forests and related equilibrium in the source as well as destination countries. Chapter 16, *How to Destroy a Rainforest*, deals with how the neoliberal financial regimes have structured the Indonesian and Sumatran economies to convert rainforests into farming and commercial activities exacerbating fire hazards, leading to high emissions of carbon dioxide, and complete absence of wildlife due to a toxic environment. Chapter 17, *Tigers, Pangolins and Honeycreepers*, is all about the remarkably diverse types of animals and birds in the Sumatra that Juniper has come across. The major threats to these rainforests are discussed Chapter 18, *Poachers into Gamekeepers?* Juniper highlights how the giant multinationals like APP (Asia Pulp and Paper) pretend to be the conservationists in the name of social forestry, agroforestry, and so on.

Part 5 which includes Chapters 19 to 22, underscores the importance of forest conservation, and is entitled *Worth More Than Dead*. In Chapter 19, *Globalised Deforestation*, Juniper highlights the geopolitics of rainforest conservation by citing how conservation of forest is considered to be a threat to 'Right to development' by G8 countries. Chapter 20, *And the Global Solutions*, uncovers the global efforts and environmental geopolitics involved therein. The Kyoto Protocol, the Bali Climate Change Conference 2007, REDD (Reducing emission from deforestation and degradation) have been discussed in detail in the book, capturing the struggles of green movements to make environmental conservation a core point of environmental deliberations at various UN forums. Chapter 21, *Valuing Nature and Rainforest*, expands upon the efforts of Juniper and his team in pushing the agenda of rainforest preservation. His work in influencing world leaders are part of this chapter. The concluding chapter, *Future Forests*, summarises the newer

international agreements, policies, and awareness that are now impacting various levels of economic production and consumption. A major positive impact has been seen in the action taken by multinational companies as they have started adopting zero deforestation policy and technological, policy-oriented intervention to promote conservation.

The book 'Rainforest' is an eye-opener to the readers and urges readers to give a serious thought to environmental conservation. The book, while documenting the complex dimensions of geopolitics, history, science, and culture that play a role in rainforest conservation, also presents the global efforts dedicated to rainforest conservation. Colour photographs, courtesy of Thomas Marent, make the book richer. However, most of these images and maps, barring a few, are provided in grayscale. In the map provided on page 277, the point that the author tries to put forth could be better understood if the image were in colour. Juniper also provides a link to his notes and reference sources at the end. The book is concluded with the '2020 Epilogue' wherein Juniper highlights the urgency of climate action in the wake of the rapidly changing climate and the difference that political action or inaction can make in this matter. The book is highly recommended for all types of readers as conservation is now a concern for every individual and requires each of us to engage in responsible action.

