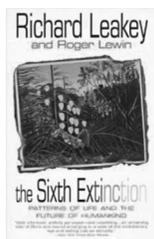


which discussed how sea birds are affected by plastic wastes. According to one study, nearly a third of all the sea birds around the world have plastics in their stomach. It is shocking to know that we are slowly wiping out other species on earth because of our carelessness. As I write, the Great Indian Bustard is becoming locally extinct at the Rollapadu Wildlife Sanctuary in Andhra Pradesh. Fewer than 200 individuals are found in other parts of the country. We are effectively destroying the beauty, the variety and the richness of the world, which has taken millions of years to evolve. We have now reached a tipping point.

We can proceed to do things as we always have done – with very little regard or concern for the future. Alternatively, small changes that each of us makes in our current lifestyle could help reduce the pace of change and save the planet for our future generations. After reading this book one is left with a lot of grief and anger, which should be channelled to prevent the planet from the upcoming danger. I strongly recommend this book to everybody and also request every individual who has read this book to spread the awareness among others. It is a must read for every student.

## Prevent or Perish

*Prasanna Venkatesh V*



*The Sixth Extinction: Patterns of Life and the Future of Mankind*

**Richard Leakey and Roger Lewin**

Anchor Books, Reprint Edition,

Pages:288, 1996.

Paperback, Price: ~₹650

(ISBN-13:9780385468091)

This book is a predecessor to Elizabeth Kolbert's, *The Sixth Extinction: An Unnatural History*. The central themes of both these books are the same; however there are subtle differences. While both the books talk about the eroding diversity of life on our planet at an alarming rate by anthropogenic activities, Elizabeth Kolbert lays more emphasis on the role of climate change whereas Richard Leaky

and Roger Lewin give numerous persuasive reasons for saving the biodiversity and its inherent values which benefit humanity. Although first published 19 years ago, sadly the state of affairs has not changed even now and it appears that the contents are fresh.

The authors perfectly blend various concepts from geology, palaeontology, anthropology, ecology, evolutionary biology and conservation biology to give a cogent picture of the life on planet Earth in the past, present and future. To aid this, the authors discuss the history of ideas like catastrophism, extinction, uniformitarianism and evolution originally proposed by giants like Cuvier, Charles Lyell and Charles Darwin. The authors present excerpts from the works of highly acclaimed scientists including E O Wilson, Jared Diamond, Stephen J Gould, David Tillman, James

Lovelock and Thomas Lovejoy among many others. Since the authors of this book are trained as scientists by profession, the contents of the entire book is intellectually dense and supported by a rich bibliography. The book has 14 chapters in four major parts each having a particular broad theme. It is written as a first person narrative in Richard Leakey's voice. Controversial topics are well handled without bias with most possible arguments for and against the contention with copious evidences. Richard Leakey's experience as a paleoanthropologist and conservationist combined with Roger Lewin who is an evolutionary biologist and ecologist gives unique insights and greater appreciation for the intricacies and interconnectedness of flora and fauna on Earth and their fate. This book leaves the reader with an unnerving and unsettling feeling because the root causes for extinctions and possible solutions are complex. This book is a must read for all students of science, and politicians and economists who make decisions about environmental policies. After reading this book, one might see the world around in different light.

The first part of this book deals with the theme of the complex and unpredictable interplay between evolutionary creativity and the capricious extinction events that determine the diversity of life on Earth at any one point in history. The author's ideas are summarized in the following lines, "Prevailing biological diversity is the product of the past and it sets the stage for the future... Humans are in the company of lucky survivors of the cataclysmic

convulsions in the Earth's history, not the modern manifestations of ancient superiority."

In the second part (the most interesting, informative and thought provoking part) the author deals with position of *Homo sapiens* in evolutionary history, who share the Earth with the richest diversity of lifeforms that ever existed. The author builds arguments to support the point that we cannot seek solace in believing that the evolution of *Homo sapiens* was inevitable, we are 'a wildly improbable evolutionary event'.

The interdependence of humans with Nature, the value of biodiversity and our responsibility as well as self-interest in it are presented in a stimulating way. The author also discusses the reason for biodiversity and its non-uniform distribution and what shapes it. He exemplifies three principle ways to value biodiversity namely the economic return, the maintenance of physical environment in its circulation of gases, chemicals, moisture, health of the global environments and aesthetic pleasure. The author argues that, "the current level of biodiversity should be valued as a resource from which a more varied and sustainable future agriculture may be assembled... Each time a species goes extinct, the potential is depleted never to be regained by our children". 25% of the pharmaceuticals including aspirin and life-saving alkaloids (like vincristine, vinblastine) are all obtained from plants, microorganisms and some animals. The authors stress the point that, apart from all the economic values, it nurtures the human



psyche, the human spirit and the human soul.

The penultimate part deals with the nature of ecosystems and the ruinous signatures of humans on planet Earth in the past and examples from the present. The author establishes the point that ecosystems are shaped by many forces which are chaotic and random and there is constant dynamic change. The frustration due to the lack of our complete understanding about Nature comes out when the author says, "It is far better to understand and accept the world of Nature in its infinite variety and its infinite complex processes, acknowledging the real futility of attempts to control them, than to imagine through ignorance that it is possible to do so". Fragmentation, habitat destruction, invasive species and poaching are cited as the major reasons for the current extinction event.

Moas, thylacines and the heath hens are some examples of the species that got exterminated in the past mainly because of human actions. The great depletion of biodiversity in Galapagos, Hawaii, New Zealand and Henderson

Island stands as a testimony to that same fact in the present. Richard Leakey's association (as the Director) with Kenya's Wildlife Services and later at the Wildlife Conservation Department has given him the opportunity to witness and put a halt to the mayhem of elephant poaching (the keystone herbivore). From his words, we can sense the emotional turmoil that he must have gone through, "It was a truly sickening and emotional sight. Add to this the common occurrence of an emaciated perplexed infant pathetically trying to rouse its mutilated mother and the rational urge to put an end to the slaughter became an emotional obsession."

The last theme is about *Homo sapiens*: the single most dominant species on earth – a mere accident of history. Our ethical and moral imperative to protect Nature's diversity and not destroy it is strongly motivated. He concludes the book by saying, "For each of the Big Five there are theories of what caused them, some of them compelling, but none proven. For the sixth extinction, however, we do know the culprit. We are."

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