The Asian Monsoon: Causes, History and Effects

The Asian monsoon is one of the most dramatic climatic phenomena on Earth today, with far reaching environmental and societal effects. But why does the monsoon exist? What are its driving factors? How does it influence the climate and geology of Asia? How has it evolved over long periods of geologic time?

Almost two-thirds of humanity lives within regions influenced by the monsoon. With the emerging economies of China, Vietnam and India now adding to those of Japan, South Korea and Taiwan, the importance of the region to the global economy has never been greater. Monsoon strength and variability have been and will continue to be crucial to the past and future prosperity of the region.

*The Asian Monsoon* describes the evolution of the monsoon on short and long timescales, presenting and evaluating models that propose a connection between the tectonic evolution of the solid Earth and monsoon intensity. The authors explain how the monsoon has been linked to orbital processes and thus to other parts of the global climate system, especially Northern Hemispheric Glaciation. Finally, they summarize what is known of the monsoon evolution since the last ice age and note how this has impacted human societies, as well as commenting on the potential impact of future climate change.

This book presents a multi-disciplinary overview of the monsoon for advanced students and researchers in atmospheric science, climatology, oceanography, geophysics and geomorphology.
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R. ALAN PLUMB is Professor of Meteorology and Director of the Program in Oceans, Atmospheres, and Climate at the Massachusetts Institute of Technology. He has been an editor of *Journal of the Atmospheric Sciences* and of *Pure and Applied Geophysics* and has published approximately 100 peer reviewed papers, as well as co-editing one previous book and co-authoring an undergraduate textbook on *The Circulation of the Atmosphere and Ocean* (Marshall and Plumb, 2008).
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