

About the Book

This volume is the outcome of more than 25 years of research in the field seismology in various parts of south Asia. It comprehensively deals with plate tectonics and seismic waves in general and earthquake monitoring by permanent and temporary network for active fault mapping, aftershock, swarm and induced seismicity investigations in interplate collision and subduction zones and in intraplate shield regions. Data acquisition as well as data analysis are well presented for clear understanding of interpretation with limitation of the techniques. State-of-the-art techniques in earthquake location/relocation, fault plane solution, waveform inversion, seismic tomography, fractals etc. are discussed, and the results are interpreted in terms of seismic source processes in the region. A large quantity of seismic data in the Himalaya from western syntaxis, Pamir-Hindu Kush to western (Garhwal) Himalaya, Central (Nepal) Himalaya, Eastern (Sikkim and Bhutan) Himalaya to the eastern syntaxis and Arunachal Himalaya are analysed to understand seismotectonics of the Himalayan collision zone. The typical continental plate (Indian continental plate) subduction beneath the Indo-Burma ranges and the examined with the available data. Temporary and permanent microearthquake network data in the peninsular India shield region and in Bangladesh and Sri Lanka shed light on the intraplate tectonics in South Asia.

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