## BOOK REVIEW

Anu Kapur (2010) '*Vulnerable INDIA : A Geographical Study of Disasters*'- Indian Institute of Advanced Study & Sage Publications India Pvt. Ltd, New Delhi, pp.Xxii+269, Price Rs. 850/-

The readers of this review have to be reminded that the present volume is the third book on 'Disasters in India' authored by Anu Kapur, the first one being ' Disasters in India: Studies in Grim Reality' authored jointly with A. N. Chopra, M. Ajit, D. Massey, R. Ravi, and D. Chakraborty, published in 2005, by Rawat Publications, Jaipur, the second being ' Disasters in India' published in 2009, by Cambridge University Press, New Delhi, and the third one is the volume under review. The publication of this 'trilogy' tells the story of Anu Kapur's involvement with, and an in-depth understanding of disasters in India.

'Vulnerable India' is a dream of a book-production, printed on crown size glossy paper, multi-coloured tables, graphs, charts, and maps, all sequenced and bound in an impressive jacket - all in all, a weighty book.

The volume divided into three broad sections - Fact, Response and Realty - and eight chapters, runs into 270 pages, with a foreword by Professor Gopal Krishan, appendices, bibliography, image credits and index, and is profusely illustrated carrying 78 tables, 40 figures (diagrams), 29 images (photographs) and 33 maps - adding to 180 illustrations. Then, there are appendices which also incorporate a few maps of India showing Macro, Meso, and Micro regions of India, a regional planner's delight, though at odds with the Content of the book. An inventory of institutions teaching courses on Disaster Management in India and a bibliography with over 250 references complete the book.

The preface of the book carries a sub-title 'Carrying a Cross', a symbolism from Jesus's crucifixion, implies a sense of dedication and sacrifice which Anu explains as 'longing to contribute in some small way to the betterment of this world, a cross each academician carries'. One cannot but be impressed with her definition; Are the academicians, especially the geographers, listening! To be sure, Anu has carried the cross superbly well to fulfil her dreams,

The book opens with 'India's Disasterscape', a term proudly coined by the author, which denotes the 'area that manifests the hallmark of disaster'. The term requires further clarity and is subject to universal acceptance. The discussion is more about the concept of disaster in history and literature including the 6$^{th}$ century *Brihat Samhita* of Barahamihir and the changing nature of disasters, their number and variety multiplying, as the civilizations become more complex, This is supported by numerical presentation of the impact of disaster during a twenty-year period from 1982 to2001, establishing an increase in deaths and destruction. Looking at the causes and varieties of disasters ascribed to different natural processes which the author terms 'geophysicals', another invented term,

used for the earth system processes, she lists sixteen geophysicals (cloud burst, cold wave, cyclone, drought, dust storm, earthquake, flash flood, flood, gale, hail storm, heat wave, heavy rain, lightning, snowfall, squall, and thunderstorm - Tsunami is surprisingly missing). It is the impact of these natural events, their frequency and intensity causing disasters over a period of 25 years (1977-2002) and their impact that form the core of the first part of the book.

In comparative terms of frequency and occurrence, heavy rainfall tops the list of geophysicals, though earthquakes with periodic occurrences bring enormous death and destruction. The areal coverage of the individual agents of disaster, the so-called geophysicals, is well illustrated on digitized district level maps of India, sufficiently described yet not quite adequately explained. The sixteen maps depicting the frequency of disaster associated with each geophysical, grouped into five/six categories devised by the author, with varying tint intensity giving a synoptic spatial picture, are quite valuable and instructive. This, in effect, groups the districts into most and least susceptible, to a specific kind of disaster. The attempt to find or establish a seasonal rhythm of disasters hardly needs any emphasis as the disasters attributed to atmospheric circulation or disturbances are obviously linked to rainy, winter or summer season; but in the process, the Nov-Feb quarter showing the highest frequency percentage of occurrence of earthquakes is, to say the least, highly misleading, based as it is on 25-year data. Certain natural events like earthquakes are highly episodic and don't follow a seasonal rhythm as suggested by the author.

The combined impact of different types of disasters in each district presented by adding up the scores of each disaster, obtained by multiplying the frequency by the weighted value of every category of disaster, in turn, obtained by dividing the number of deaths with the frequency of occurrence of the event, brings out at a glance a scale of vulnerability to which the districts are assigned. The map (fig 2-19:85), is not only very valid and meaningful but could be used by planners at the national level to prioritize their effort at the redressal and mitigation of the situation. The map shows Coastal Andhra Pradesh, Brahmaputra valley, western Rajasthan, Kutch, Uttarakhand and Bengal delta as the most vulnerable regions of India.

The second section of the book 'The Response' combines the reality with the author's perception of the nature, adequacy and effectiveness of the response from various quarters. In an interesting discussion of traditional response in India to disasters, the author summarises the response in a phrase- 'Absorb and Appeal', i.e. absorb the impact of disaster howsoever severe and destructive it may be, and propitiate the Gods for its prevention in future. In a discussion of traditional approach to disasters, philosophical and folkloric, the author gets deeply involved with several concepts like *purus and prakrit* and tries to view disasters through this philosophical view point, not limiting to what is just relevant, but descends into concepts like *Brahman* and *Maya*, a concept that implies that since Brahman transcends the realm of cause and effect, the principle of causation doesn't apply. What of disaster? Disaster is therefore an illusion. A discussion of the doctrine of Karma to be able to bear the sufferings caused by disaster, and Vedic conceptualisation of disasters bringing into

focus the rivalry between *Indra* and *Vritta* appear fascinating. Woven together with mythological and Puranic tales it suggests a system where atmospheric circulation and hydrological cycles are controlled by gods justifying the need for their invocation. This is the story of an entrenched belief and helplessness of the mass of Indian humanity during the Vedic and subsequent ages, a response that defies reason. Such responses relate to a pre-scientific age when humanity had very little understanding of the planetary system. The 28 pages of Vedic-Puranic cosmology and the perception of the people about natural disasters, followed by the genesis of idea of the natural in Europe and successive theories of natural disasters, with quotes from the 'Book of Genesis' occupying another eight pages, only add to the number of pages and discomfort of the reader, without appearing of much significance. Such lengthy discussion of perception of drought in Ancient India could have been either relegated to a paragraph of introduction or dropped altogether without in any way harming the book.

A similar introductory unassailable background is introduced in the chapter- 'Colonial: The Idea of natural Disaster' that begins by defining a shift from human to natural, as outlined by the colonial masters and maintained even today by official agencies and the Government, as suggested by a High Power Committee Report of the Government of India (2001) that lists 31 natural disasters each entitling the people in the area to relief and rehabilitation. The chapter closes with the 'Genesis of the Idea of Natural in Europe', popping up from nowhere and hardly fitting the sequence. There is, to my mind, excessive emphasis on defining 'natural' and the evolution of the concept through history of science and philosophy. Here, one finds a discussion of Greek philosophy and physics, Pythagoras theorems and Aristotle, the advent of Renaissance and Galileo, followed by successive theories of natural disasters and earthquakes in Europe and the transmission of the idea of natural to India with the arrival of the British. This rather lengthy conceptual discussion of 'Natural' could have found a place in the introduction in the beginning.

The author appears quite dissatisfied with the application of determinism in explaining disasters as natural events what she ironically calls' a Nature's nature'. She presents an outline of India's physical geography to demonstrate the widely accepted notion of natural event being nature of 'Nature's nature'. Not quite willing to accept the idea of disasters being the result of the capricious nature of, and uncertainty in, natural events and their extremes, she believes that "being unprepared and unaware because the event was unscheduled, unlikely or unknown is trying clearly to bluff the people and shift the responsibility to the shoulders of the natural and is a way to defocus the real cause" (p.177).

In 'Post Independence (1947-90): Apathy and Blame', the chapter talks of administrative laxity, failure of planning authorities, apathy of the Government and people and the indifference of academics and educational boards to disasters. The collective apathy is illustrated in figure 5-1(p.157) where the Government, Five Year plans, Finance Commissions, Media, cinema and other documentation centres are reviled for their failure to take adequate notice of disasters as a major problem area. There appears, however, some salvage effort at the international level by the concern

shown by the UNO and declaration of the decade of 1990s as the International Decade for Natural Disaster Reduction. This had a global impact following which a number of bodies were constituted in India to prevent, fight and mitigate disasters, leading finally to the 'Disaster Management Act of India, 2005' meant to make plans for preparedness, mitigation and response capacity building.

A very relevant section of the book is covered in Ch.7, 'Vulnerable India'. Unlike the previous chapters that concentrated on disasters, their frequency, time of occurrence and their devastating impact in certain areas, the present chapter concentrates on the vulnerability of the people based on some relevant indicators grouped under three categories, viz. disadvantaged people, fragile living conditions and inadequacy of public services. A set of 13 indicators, drawn from Census and land use data, passed through the screen of 'Principal component Analysis' gives the level of vulnerability of people in all the districts of India. Surprisingly, the district wise composite indices of vulnerability of the districts correspond to their income levels. Parts of Odisha, Jharkhand, Chhattisgarh, some districts of Arunachal Pradesh and Nagaland appear to be most vulnerable. These are regions where 80 to 90% of the population is vulnerable, caught in a web of fragile living, inadequate services and a socially disadvantaged status. This is a very valid and useful contribution and could be used by planners or anyone interested in understanding the vulnerability of the people in a spatial context.

What is again surprising is the author's enthusiasm for walking an extra mile to fish out the origin and meaning of vulnerability, akin to a ropewalker condition or a circumstance akin to the 'Sword of Damascus' (sic). Being the introductory part, it fits in the chapter, though one wonders if it is a challenge to sustain readers' interest.

The book closes with five appendices, of which the most laboriously worked out is the division of India into Macro, Meso and Micro regions, aggregating and grouping districts into larger regions - a regional planner's delight. This exercise doesn't quite fit the context, though another appendix with an inventory of institutions teaching courses on disaster management is very relevant. Bibliography is a very useful part of the book, especially for researchers interested in natural disasters.

'Vulnerable India' is a formidable book, rich in qualitative thinking and statistical information. The author has written this book, it appears, moved by the concern for the people and the areas severely affected by natural disasters. A peep into the living condition of the people, especially the disadvantaged ones with inadequate access to services, more vulnerable than others, brings out the socio-economic factors that influence the degree of suffering caused by disasters to different sections of the society. The bibliography, including texts ranging from Vedic texts to those on western philosophy and Greek thoughts, as much as reports from a host of commissions and committee is so copious that anyone interested in research on disasters can start with Anu Kapur's book. The sequential arrangement of sections and chapters - The facts, the Response and the Realty - is well conceived. There are, no doubt, certain frailties that have crept in the book. Much of the statistical analysis is based on 25-years data, a fact that limits the scope for generalization. Author's fondness for catchy and rhyming titles and sub-titles militates

against clarity, the principal objective of subtitles. Considerable space is occupied in discussing ancient beliefs, mythology, and philosophy and in explaining the concept of vulnerability. These appear like semantic jugglery.

The reviewer has not seen any text so profusely and superbly illustrated including bas relief from temple facades and picture of disaster sites, a treat to the cartographically oriented geographers, but there are occasional grammatical and syntactic errors, e.g. 'many a ways' (p.xx), 'Multiple Naturals ascribed to Disasters' (p.29) or 'Sword of Damascus' as pointed out earlier. These minor errors don't detract from the merits of the book which, and as the reviewer sees, it is going to remain an unmatched book in terms of voluminous information, presentation of facts, and quality of analysis and interpretation.

Indeed, a great book on disasters which every institution, library, teacher or student must possess as a ready reference The reviewer highly recommends it as reading material to those concerned with understanding of disasters and their impact in India.

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