

Socio-economic Dimensions of Natural Hazards in India: Mitigation Measures and Management

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Natural Hazards are those elements of the physical environment, which are harmful to man and caused by the forces extraneous to him. Of all the natural hazards, that affect life, economy and society in India, it is drought, with its associated problems of water shortage and famine, that can be most widespread and all-pervasive.

Drought is perennial feature in some states of India. About 16 per cent of the total geographical area of the country is prone to droughts and approximately 50 million people are annually affected by drought. Each drought is unique in its set of physical characteristics as well as in its geographic scope and location.

The south-west monsoon rainfall for the country as a whole was 19 percent below normal making 2002 as the first *all India drought year* of 21st century after a continuous spell of 14 good monsoons that followed the previous all-India drought year of 1987. Twenty nine per cent area of the country experienced drought conditions during 2002. Out of which 10 percent area was under severe drought and 19 percent area under moderate drought. Out of the total of 35 states and union territories in India, 16 states and 4 union territories were drought affected comprising 312 districts identified as drought-prone. The state of Rajasthan with 64 per cent departure from normal rainfall was the worst-hit followed by Tamil Nadu (-45 per cent of normal) and Haryana (-38 per cent of normal).

The present study is an endeavour to give an in-depth analysis of the socio-economic implications of drought hazard in 2002. It is also aimed to study the mitigation measures adopted to deal with the drought hazard and to suggest some appropriate hazard-reduction strategies for management.

Rain water harvesting, watershed management, artificial recharge of ground water, pricing of water, proper maintenance of irrigation systems, sprinkler and drip irrigation, construction of percolation tanks and renovation of existing tanks, water consciousness, conjunctive use of surface and ground water, creation of surface storages, integrating small reservoirs with major reservoirs and inter-basin transfer of water by interlinking of rivers are some of the mitigation measures to be followed for drought management in the country so that adverse socio-economic implications of drought hazard could be minimized. At present, the three life support systems i.e. land, water and forests remain unintegrated administratively and management-wise. Thus, the integrated approach of drought management is the need of hour.