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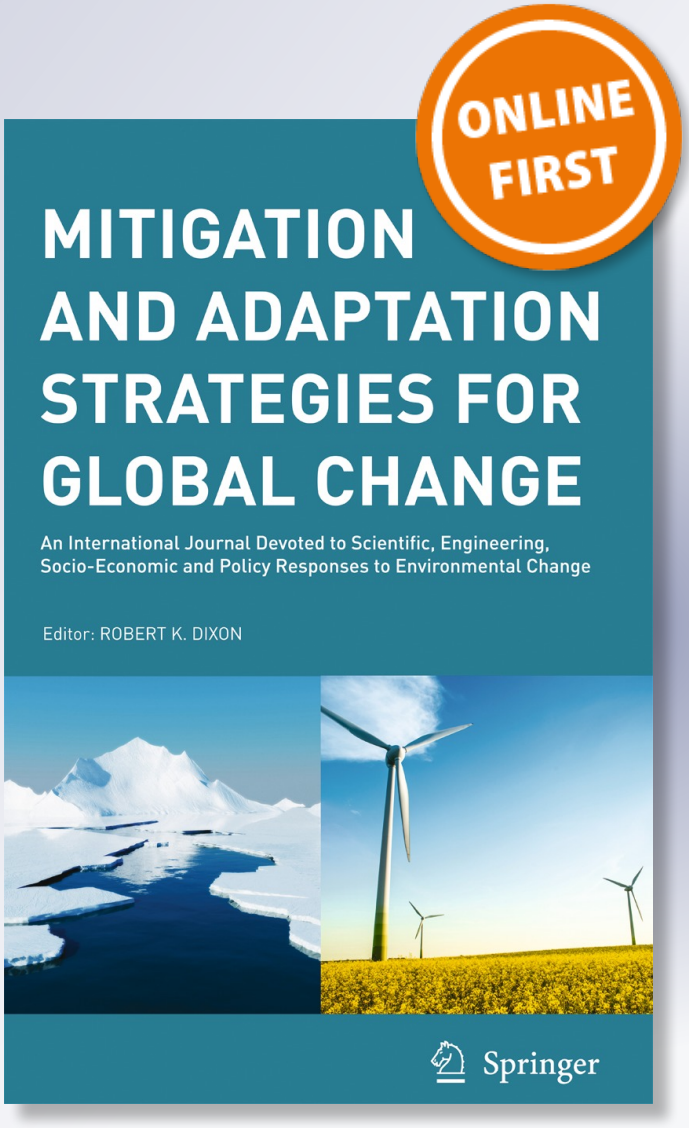

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Abstract In recent years climate variability has threatened the sustainability of inland fisheries and dependent fishers in India. Systematic methodology to assess the vulnerability of the fisheries sector to climate variability is currently not available. Towards this end, the present work deals with the assessment of inland fisheries vulnerability to climate variations in 13 districts of West Bengal state in India. For this purpose, a composite vulnerability index (0.0–1.0) has been developed on the basis of functional relationships amongst sensitivity, exposure and adaptive capacity using 19 indicators related to inland fisheries. The data obtained reflected different spatial combinations of climate exposure, sensitivity and adaptive capacity among the districts. Five districts were highly vulnerable which was attributable to low adaptive capacity of the fishers which played an important role in altering the spatial pattern of vulnerability among the districts. Thus our research will provided an important basis for policy makers to develop appropriate adaptation strategies to minimize the risk of fisheries sector to climate variability.

Keywords Vulnerability index · Inland fisheries · Climate variability · West Bengal · India

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