

Risks, hazards and vulnerability associated with overexploitation of groundwater in northwest India

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Abstract Overexploitation of groundwater in the most productive area in Indo-Gangetic plains of northwest India is a matter of concern. If the current rate of overexploitation is not stopped and the sharp fall in level of groundwater is not arrested, there is a great risk of conversion of the most productive area of northwest India into desert. Overexploitation of groundwater is mainly caused by a change in cropping pattern, increase in area under irrigation and number of tube wells, decline in rainfall and canal irrigated area, and lack of proper planning for systematic groundwater extraction. Management strategies for the arrest of declining water have been discussed. With limitation of water resources there needs to be a paradigm shift from agronomic yield maximization to maximization of water-productivity, and diversification from cultivation of high-water consuming crops to low-water consuming crops.

Key words groundwater; overexploitation; risks; management strategies