

Issues of water quality, health and poverty: the Indian scenario

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Abstract India faces a significant challenge from environmental pollution as almost 85% of the most prevalent diseases are water-borne due to microbiological or chemical contamination. In Rajasthan, the country's largest state, about 50% of the potable water sources are contaminated with total dissolved solids, fluorides and nitrate in excess of the prescribed national standards for human health. This paper presents an overview of the major water quality problems faced by India and especially the state of Rajasthan, and summarizes some recent developments in the field of fluorosis and nitrate toxicity along with the technologies devised to remove these chemicals from drinking water supplies, as a result of recent research.

Key words drinking water quality; human health; microbiological contamination; fluorosis; nitrate toxicity; new pathophysiologicals