



## Repercussions of Urbanization on Surface Water Quality in Northern Hilly State of India

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**Abstract:** Water is one of the most precious resource and essential needs of life. Only 0.3 % water resources are usable in the world and with ever increasing population, urbanisation is leading to the poor quality of water resources which is a major concern of today's life. Hilly states of India are not untouched from growing population and resultant repercussions of the urbanisation; thus this study is a pioneer in accessing water quality in urban areas of Himachal Pradesh. Three areas were chosen depending upon the level of urbanisation and water samples were collected during monsoon and post monsoon season. Different water quality parameters such as pH, electrical conductivity (EC), turbidity, total dissolved solids (TDS), biological oxygen demand (BOD), chemical oxygen demand (COD) and dissolved oxygen (DO) were analysed by using standard methods. All the parameters were observed significantly different in surface water quality in selected urban areas. However, all the water parameters were within permissible limits as prescribed by ICMR but these tend to increase with years and urbanisation. Seasonal effect on water properties was significant. The pH, turbidity, BOD and COD was higher during monsoon as compared to post monsoon, whereas EC, DO and TDS were lower in monsoon as compared to post monsoon. Therefore study concluded that urbanisation had started impacting the surface water quality. Henceforth, further surveillance for quality assessment of water sources in urban areas is the need of the hour.

**Keywords:** Surface water quality, Urbanisation, BOD, pH

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