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Water quality of District Hardwar (UP)

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ABSTRACT

The quality of water is deteriorating day by day due to the increase in population and in living standard. This decrease in water quality is due to the continuous addition of undesirable chemicals in water resources. Therefore, the preservation of water quality of the natural water resources is essential and important. In view of this the water quality of district Hardwar, U.P., an important district of western U.P., has been determined.

The physico-chemical parameters of surface, ground and waste waters of district Hardwar were determined. The total samples collected were 102 including 16, 60 and 26 samples from surface, ground and waste waters respectively. The effect of monsoon on the water quality was studied by collecting and analyzing the pre- and post-monsoon samples. The results obtained were compared with the permissible values (Indian Standards) and it was found that the water quality of surface and ground water is safe except in some cases. It has also been observed that the quality of ground water is poor in the upper zone while it become good on going down (more than 100 feet). The SAR values calculated for surface, ground and waste waters indicate that waters are of excellent and good classes by the irrigation point of view. The possible sources of water pollution have been determined and discussed. It has been observed that the main sources of pollution are municipal, industrial and agricultural activities, land disposal of solid wastes, sewage disposal on land and geochemical reactions. Finally, it has been observed that the quality of surface and ground waters of district Hardwar is good and safe. However, the quality of ground water upto 50 feet is not good.

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