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## Water contamination index: Important tools for groundwater quality assessment

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Water is the essential part for the development of any area; in which groundwater is one of the most valuable resource and one of the basic needs for human being. The inadequate availability of surface water makes people dependent on ground water resources to fulfill their needs. Ground water is the major source of water supply for drinking purposes in most parts of India. It is also our most important sources for irrigation. But unfortunately, due to the rapid increase in population, intense urbanization and large extent of industrialization, ground water quality is being increasingly threatened by agricultural chemicals and disposal of urban and industrial wastes. It has been estimated that once pollution enters the subsurface environment, it may remain concealed for many years, becoming dispersed over wide areas of ground water aquifer and rendering ground water supplies unsuitable for consumption and other uses. The quality of water contamination index evaluation attempt single value which decreases the big quantity of parameters and represents data in a simple way. Water Contamination Index (Cd) is an effective tool for evaluating and mapping the degree of groundwater contamination. It is the sum of the individual factors of single component that exceeds the maximum permissible concentration of water quality parameters. These tools have been used for the classification of the contamination in terms of Low, Medium, or High grade. These methods provide a suitable technique to evaluate the actual and potential groundwater contamination of any area for environmental scientist and decision-makers. The present paper highlights in brief about the different contamination index methods for evaluation of groundwater quality assessment.

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