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WORKING PAPER

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# A comprehensive review on origin, classification and risk assessment of groundwater contaminants in industrial and irrigation sector.

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**Title:** A comprehensive review on origin, classification and risk assessment of groundwater contaminants in industrial and irrigation sector.

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**Abstract (150 words):** Groundwater has always been considered as one of the major sources of fresh water on Earth and has been accessed by ecological, social consumers and supported socio-economic development. Owing to population growth and the rapid speed of industrialization, the demand for freshwater has risen tremendously over the last few decades, now leading to vulnerability and contamination. The risk of contamination indicates that groundwater may be subject to unacceptable pollution due to human activities. This paper review includes a comprehensive study and analysis of the various sources, effects, and impacts of contamination on the groundwater. The study was conducted to determine the contamination and associated health threats contamination indicates that groundwater may be subject to unacceptable pollution due to human activities. In today's time, groundwater contamination is possible through surface, subsurface, atmosphere, saltwater, landfills, waste disposal, and many more. This paper review includes a comprehensive study and analysis of the various sources, effects, and impacts of contamination on the groundwater. The study was conducted to determine the contamination and associated health threats to various populations. Climate change, the extraction, and mining of fossil fuels, natural toxins such as radium and arsenic, underground storage facilities, usage, and emissions of livestock are substantial current and future threats to the quantity and sustainability of freshwater that need policy and planning consideration. A part of the overall environmental sustainability is the high quality of groundwater. This study would help the end-users to understand the impacts caused by their extensive use, improper disposal and guide them to the appropriate selection of techniques, preventions, and steps to reduce the contamination of groundwater and clean-up goals for the betterment of human health and the environment.

**Keywords:** Groundwater; Contamination; Irrigation; Industrial