

عنوان مقاله:

Assessment and Characterization of Environmental Impact of Effluents in the Vicinity of Owerri Municipal Abattoir Service Unavailable

محل انتشار:

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خلاصه مقاله:

Contamination of the ecosystem from abattoirs could cause serious environmental hazards. Continuous monitoring and assessments remain imperative to forestall such harm to the ecosystem. The present study was undertaken to assess the physicochemical and selected heavy metal contents of wastewater in the vicinity of an abattoir within Owerri Municipal, Imo State Nigeria. Samples of wastewater were collected from three different points within the abattoir under stringent control measures and analyzed for physicochemical and selected heavy metals (Pb, Cd, Fe, Ni, and Cr) using standard procedures. Results obtained showed that the values for physicochemical parameters assessed exceeded WHO permissible limits except for EC. The heavy metal content of the wastewater was in the order: of Fe>Cr>Cd>Pb>Ni. The values for heavy metals were well above WHO permissible limits set by the WHO except for Ni. This study underscores the need for the government to provide wastewater treatment plants within the abattoirs before discharge as this could potentially harm the ecosystem. This further implies that the environmental and health status of the inhabitants could be severely affected if nothing is done to avert the current trend. Contamination of the ecosystem from abattoirs could cause serious environmental hazards. Continuous monitoring and assessments remain imperative to forestall such harm to the ecosystem. The present study was undertaken to assess the physicochemical and selected heavy metal contents of wastewater in the vicinity of an abattoir within Owerri Municipal, Imo State Nigeria. Samples of wastewater were collected from three different points within the abattoir under stringent control measures and analyzed for physicochemical and selected heavy metals (Pb, Cd, Fe, Ni, and Cr) using standard procedures. Results obtained showed that the values for physicochemical parameters assessed exceeded WHO permissible limits except for EC. The heavy metal content of the wastewater was in the order: of Fe>Cr>Cd>Pb>Ni. The values for heavy metals were well above WHO permissible limits set by the WHO except for Ni. This study underscores the need for the government to provide wastewater treatment plants within the abattoirs before discharge as this could potentially harm the ecosystem. This further implies that the environmental and health status of the inhabitants could be severely affected if nothing is done to avert the current trend.

کلمات کلیدی:

Pollution, Wastewater, Physicochemical, Heavy metals, Owerri

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