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**A Study of River Kshipra Pollution and Its Metal Toxicity Effects on
Livestock Health**

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ABSTRACT

The Kshipra River is an important water source for agriculture, domestic activities, and livestock in many regions of central India. However, increasing urbanization, religious activities, agricultural runoff, and the discharge of untreated sewage and industrial waste have significantly contributed to the pollution of this river. These pollutants often contain harmful heavy metals such as lead, cadmium, mercury, and arsenic, which can contaminate water, soil, and surrounding vegetation. Livestock that depend on the river for drinking water or graze on fodder grown near the riverbanks are highly susceptible to exposure to these toxic metals. Continuous intake of contaminated water and feed can lead to the accumulation of heavy metals in the bodies of animals. This bioaccumulation may result in several adverse health effects, including reduced growth rate, reproductive problems, weakened immune systems, organ damage, and decreased milk production. In severe cases, heavy metal toxicity can also lead to chronic diseases or death in livestock. Moreover, the presence of toxic metals in livestock products such as milk and meat can indirectly affect human health. Therefore, studying the pollution of the Kshipra River and its metal toxicity effects on livestock health is essential for protecting animal welfare, ensuring food safety, and promoting sustainable environmental management in the surrounding regions.