



HEAVY METAL AND MICROBIAL CONTAMINATION IN WESTERN UTTAR PRADESH

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ABSTRACT

Heavy metals are being the global threat to human civilization regarding the health perspective. Several parts of India are severally affected by this problems including Odisha, Bengal are facing severe problem of arsenic (As) and other heavy metal contamination. Because of the bioaccumulation properties (the tendency to get accumulate in higher concentration in living tissues as compared to its natural concentration in the environment), heavy metal are drawing much attention of environmentalist as well as medical practitioners. Heavy metals can enter a water supply by industrial and consumer waste, or even from acidic rain breaking down soils and releasing heavy metals into streams, lakes, rivers, and groundwater. Heavy metal toxicity becoming lethal due to effect on central nervous system and also affecting the other vital organs like heart, lung and liver etc. If the exposure being persistent for longer duration then it results into some severe disease like Alzheimer's disease, Parkinson's disease, muscular dystrophy, and multiple sclerosis (International Occupational Safety and Health Centre, 1999). People of Western Uttar Pradesh are claiming that the frequency of cancer is increasing due to contaminated Kali river water.

Key words : Toxicity, Heavy metals, Contamination.

INTRODUCTION

Water is an integral part of life and about 80 per cent of human body is composed of water. However, this critical resource is perhaps one of the most stressed elements necessary for life. Multiple and sometimes competing demands—human consumption, agriculture, industry, recreation, electric power, and ecosystem requirements make water an essential component. Our planet contains vast amount of water, but making pure

and pristine water available is a challenging task. This is due to the contamination of water by physical, chemical and biological agents. Variety of physical agents get absorbed, precipitate and settle down in water bodies in due course of time. Chemical agents get dissolves in water that remain for longer duration making water toxic and unfit for consumption. Biological agents are more important contaminating agents as compared to others. Biological contamination may be due to viruses, bacteria,

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