



**EFFECTS OF UNTREATED DOMESTIC SEWAGE ON MARINE PRIMARY
PRODUCTIVITY OF VELLAR ESTUARY**

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ABSTRACT

The effect of untreated domestic sewage on primary productivity of the marine and tidal zones of the Vellar estuary was studied. This revealed the fact that among the two zones (marine and tidal) studied, the marine zone was found to be less resistant whereas the tidal zone was comparatively more resistant to raw sewage toxicity with reference to estuarine primary productivity.

Keywords: Domestic Sewage, Vellar Estuary, Dissolved Oxygen, BOD, COD

INTRODUCTION

Sewage that has not had any treatment is called raw sewage. This raw sewage is detrimental to plankton and fish life because of its i) high BOD and COD values ii) low dissolved oxygen content iii) high carbon dioxide content iv) high ammonia and hydrogen sulphide contents and v) high bacterial load.

The ill-effects of raw sewage on aquatic life can be mitigated by mechanical, chemical and biological treatments. The treated sewage intrinsically rich in nitrogen and phosphorus, effectively raises the fertility of waters if discharged in controlled quantities.

Sewage in different forms is rather widely used for raising fish yield in ponds in several countries viz. Asia, Far East, Middle East, Germany etc. and in fact, sewage wastes sustain some good production of inland fisheries in India.

Most of the study proved that the raw domestic sewage carried away into the estuary, marine water and freshwater is detrimental to the primary productivity and plankton. Extensive works have been carried out in India and other part of the world on the sewage pollution in relation