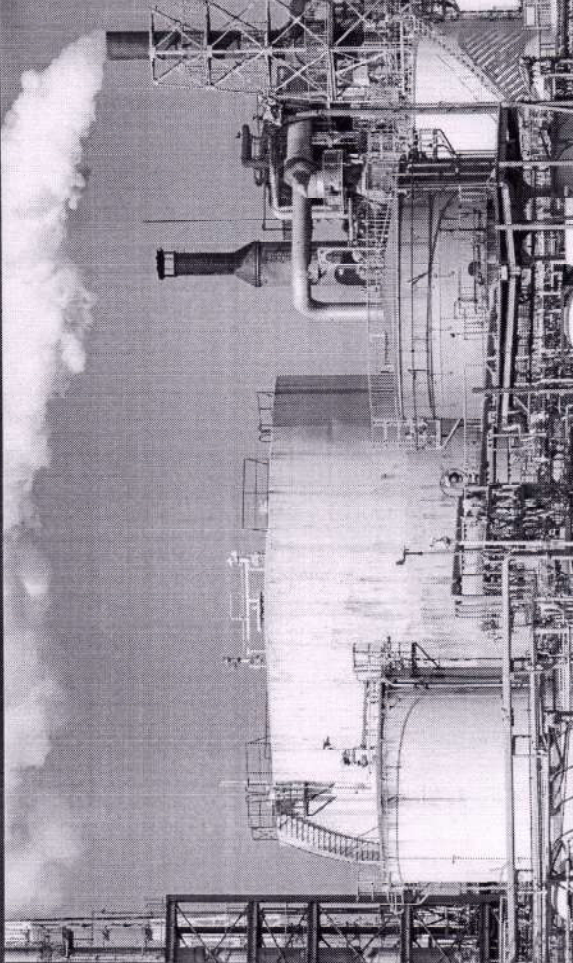


DSW is cumbersome, complex, highly polluted and generate intensive large volume of high strength unwanted residual wastewater that is of serious environmental concern. During ethanol production spent wash is generated and its characteristic depends upon the feed of raw material. In distillation process, ethanol production ranges from 5% to 12%, it means the amount of DSW varies from 95% to 88%. On an average 8 to 15 L of effluent is generated for every litre of alcohol produced. Indian distilleries produce 27,00,000 m<sup>3</sup> alcohol generating about 4,05,00,000 m<sup>3</sup> of spent wash annually. The population equivalent of distillery spent wash based on BOD<sub>5</sub> is in 6.2 billion which means that the contribution of distilleries in India to organic pollution is approximately six times the current population of India. Sugar cane is the major crop in Ahmednagar district so it is called as Sugar Bowl of Maharashtra. In this district 30 sugar factories are operating at full capacity and 20 distilleries in Ahmednagar district produce around 1000 KL of alcohol and generate 11,168 m<sup>3</sup> of wastewater daily. Biodegradation of DSW were carried out by using native culture present in contaminated soil sample.



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## Bioremediation of recalcitrant effluent

Bioremediation of recalcitrant effluent by using native culture present in contaminated soil

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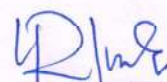
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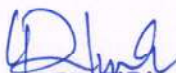
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