Industry is the second important source of income after agriculture in India. Since the plan period among the various achievement the country have diversified structure. Moreover, the special effort are being made for reshaping and reorienting the old structure of industry. As such the industrial scenario of the country is changing rapidly, in which agro-based industry, are predominate (Gaikwad, 2004). Among agro based industry sugar industry rank second after textile industry. As a policy matter, the Government of India has paid more attention towards sugar industry by providing incentive to states to establish sugar factories, especially in India has all the possibilities of changing the very face of rural India. Among Indian state Maharashtra tops in recovery of sugar as well as sugar production (Gaikwad, and Pawar 1992). Due to the weight loosing nature of the sugarcane, all sugar factories are established in sugarcane area. Through the growth of various urban centers are helping to solve the problem of unemployment by providing employment to the rural masses without much of their migration to urban center need emphasis (Kharche, 1990). The Sangli district having 16 sugar factories with 27,500 T.D.S. (Installed Capacity), 62 lakh M.T. tone cane crushed, 70 lakhs Qtls. Sugar production, 11.29% recovery of sugar in cane and 185 average days cane crushed in the year (season) 2010-2011.
India is the largest sugar producing country in the world. The sugar industry plays an important role in Indian economy. It is the second largest industry in the country, next to textile and provides direct employment to more than 3.6 lakh person’s. The Cultivation and transportation of sugarcane to the large number of farmer’s, laborers, technicians, transport operators. It also support a number of engineering industries. located both in rural and urban areas (Khare & Yadav 2001).

Sugar is known to India’s since vedic period. There are reference of 'Sarkara' in 'Atherva Veda' when only sweetening agent known to the rest of the world was honey. (Pawar and Gaikwad 2002).

In developing country like India, it is not possible to make progress only by developing upon agriculture. However, agriculture helps to develop the allied industries to which as well as 'agro-industries', conceptually, the agro industries which are either the uses of agricultural output or producers of agricultural inputs. The term 'agro-industry' is of recent origion, though such industries have been in existence for quite along time on our country (Rein. 2007). Rise and growth of agro industries being on agro based industry, is an old industry in India. Sugar industries have strengthened the economy of states like Uttar Pradesh, Maharashtra & Karnataka. Specially, in Maharashtra sugar factories have helped to improve the rural economy and well spread out industrial structure (Bhusari 1990). They have comprehensively affected the development of both agriculture and industry. Especially they have played pivotal role in changing the rural face (Abbasi, 1998).
Indian sugar mills generate the 0.16 - 0.76 m$^3$ of waste water for every tonne of cane crushed by them. During 2011-2012 produced 243.65 lakh tone of sugar; at this production level, on an average the Indian sugar mill generated 234699.59 lakh m$^3$ of waste water. The combined sugar mill waste water has a Biochemical oxygen demand (BOD) of 1000 to 1500 mg/ltr the pollution standards stipulate that BOD of waste water should be less than 30 mg/ltr for disposal into inland surface water and less than 100 mg/ltr for disposal on land BOD can be 500 mg/lit in case land application of treated waste water is envisaged as a secondary treatment system for further removal of BOD.

During the process of sugar manufacture, condensate are available from juice heaters, multiple effect evaporate, vacum pan etc. Condensates, if contaminated with juice, have to disposed off as waste water. It is therefore, desirable to take preventive steps to avoid contamination of condensate. The uncontaminated condensate can be recycled. A large quantity of water is required for cooling of required of bearings, glands of machinery, air compressons, sulphur, burner, c massecuites etc. it is estimated that 2500 TCD sugar mills required 129.50 m$^3$ of cooling water per tone of cane crushed. It is suggested that cooling water be recycled instead of being released as waste water. (Krishna Gopal 2007). Recycling of condensates and cooling water helps in minimising the amount of water joining the waste water helps stream.
The sugar mill waste water contains large quantities of bio-degradable organic matter and therefore biological treatment are most commonly used for its treatment. In general anaerobic biological processes (oxidation ponds & biomenthanation) have advantage over aerobic processes (aerated, lagoons, activated sludge process). Anaerobic processes decompose the organic compounds in an atmosphere free of oxygen and consequently require significantly less energy as compared to aerobic processes. As compared to aerobic processes anaerobic processes are easier to control and operate, produce the lower quality of sludge and their annualized costs are lower. In view of the above, it is the preferable to treat sugar mill waste water by anaerobic processes rather than aerobic process. Treated waste water with a BOD level of about 100 mg/ltr can be used for irrigation of sugar cane fields (Gaikwad et al., 2007).

India is the topper sugar production from cane in the world. When indian sugar industry has produced 100 lakh tonnes of pressmud and 333 lakh tonne of bagesses with 16 to 76 m$^3$ waste water. It discharged with 234699.59 lakh m$^3$ waste water in the flow of river as well as in open duct. Due to concern waste water flow in the river 20% water have polluted within one km. length of river. And when the waste water stored in open big duct when air pollution have been created around 1.5 to 2 km catchment area of concerned sugar factory Meilyn(2000). Considering all above situation, I have selected the topic i.e. "Geoeconomical Study of Waste Water Management of Sugar Industry in Sangli district of Maharashtra" for further investigation.