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Cleaner technologies through optimization of resources

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The paper describes the studies conducted on application of cleaner technology practices and its impact on environment in three industries at different geographical locations. The industries under investigation were a Brewery, Pharmaceutical Industry and a chemical additive industry. The studies involved industry specific issues such as cleaner technologies, substitution of process chemicals, use of alternate raw materials and process modification. The characteristics under consideration varied from energy consumption, water balance, hazardous waste handling and ambient noise levels. The studies were supplemented with estimation of carbon credits and economics. Studies were further facilitated by GIS tools involving GPS surveys, Geoinformatics to assess the impact on ground water quality by sampling and characterization of 90 ground water samples around these industries spread on a vast geographical area. Based on these studies need, based solutions have been arrived at to minimize environmental damage and strengthen green initiatives which has brought a distinct change in the quality of work practices in these industries and community at large.

Biography

Sampath kumar M C is faculty at the Civil Engineering Department at B.M.S College of engineering Bangalore, India. He is involved in Teaching, research and environmental application activities. His area of interest is in the field of remote sensing and GIS for natural resources conservation.

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