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# RECYCLING AND WASTE MANAGEMENT

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## Case study-meeting environment norms: Mawana sugars Ltd. (distillery), India

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In India, environment norms are being tightened every day. In early 80s, effluent from distilleries having COD of about 100000 ppm was discharged to rivers without any treatment. The norms were tightened over the years and today a distillery is classified as highly polluting industry and it is not allowed to discharge any effluent. To meet this norm distilleries in India started composting the effluent using press-mud sourced from the nearby sugar factories and some opted to incinerate the effluent after concentrating it. We are a large sugar, alcohol and chemicals producer in India, known as Mawana Sugar Ltd. We have a 120 kl/day molasses based distillery located near Delhi, which was set up about 10 years ago. To meet the environment norms, our distillery had opted to treat the effluent by composting process. This was achieved by using the waste spent wash from our distillery and press mud from our own sugar factories and converting it into useful bio-compost. We produce and sell about 100,000 tons of compost annually. Amid tightening of environment norms, we had to review the composting process being followed. Leachate formation during rains was a major cause of concern and we realized that composting operation may not be possible for long unless this problem was overcome. Last year we decided to go ahead with covering our compost yard which was spread over 20 acres area. We installed a shed which is of a unique design, which allows the gases to escape and yet does not permit the rain water to enter the compost yard. Rainwater is isolated in a network of internal drains and is passed off as clear water to rainwater harvesting pit and excess water is sent to drain as storm water. With this unique shed the composting operations can be continued even during rainy season. We also imported high capacity turning machines for making compost. But all these come with many teething problems. The experience will be shared in greater detail.

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