

On Pollution Abatement in Tamil Nadu, India:

The Case of Sakthi Sugars Ltd.

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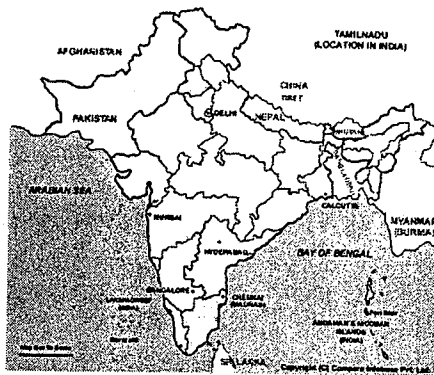
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from tamilnadu to massachusetts

introduction

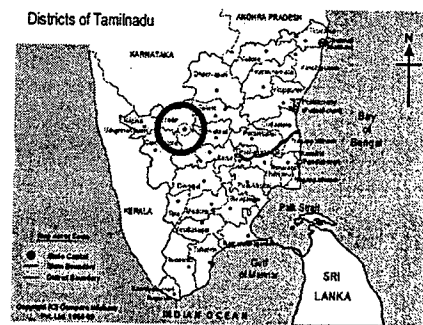
Case 1: Tamil Nadu, India



Map of India:
Tamil Nadu in Yellow

The green fronds of coconut trees sway under the hot Indian sun. Tall thick sugar cane grow green and tall in the background. White cranes walk among the water soaked paddy fields. This is the small village of Appukudal, which lies in the heart of Tamil Nadu, one of the

southern most states in India. Here the wells and the river provide the water people require while the land gives the villagers their food and income and support their cattle and livestock. They are farmers, dependent on the water and land for all their needs. In this same village, a large alcohol distillation factory, Sakthi Sugars Ltd. Distillery Unit (SSD) was built in 1972. Like other factories built in the economically booming state of Tamil Nadu, SSD did not realize the environmental impact caused by its disposal methods. Untreated diluted effluent water coming from the distillation process was simply sprayed onto the land for use as fertilizer. After



Tamil Nadu:
Appukudal in Red Circle

production. This means that they must deal with similar impacts arising from their waste, hence similar methods might be used to treat and dispose of their effluent. As well, both SSD and BBB are situated in rural agricultural settings next to surface waters. SSD is surrounded by the farmlands of Appukudal, Trichery, and Punnam Villages in Erode District, Tamil Nadu, while BBB is surrounded by the farmlands in Westport, Massachusetts. SSD lies next to the River Bhavani and at times discharged into it. BBB is situated in the Buzzards Bay Watershed along next to a small stream. Surrounding both factories are communities heavily dependent on groundwater, therefore, both BBB and SSD must take groundwater contamination into account.

But have SSD and BBB responded similarly or achieved comparable results because of these similarities? Are there similarities in how SSD and BBB have been regulated even though one is located in Massachusetts and the other in Tamil Nadu? To examine these two cases and to understand the processes happening in Tamil Nadu a comparative study seems to be an appropriate method to enlighten differences and similarities between pollution abatement methods in India and the U.S. Thus, the main driving question of this thesis is to ask: "Using a comparative study between the Sakthi Sugars Distillery (SSD) case in India, and the Buzzards Bay Brewery (BBB) case in the U.S., what lessons can be learned about pollution abatement in Tamil Nadu?" As well, from the knowledge gained from the comparative study, what recommendations regarding environmental legislation in Tamil Nadu can be given to N.K.K Periasamy, the Tamil Nadu Minister of Handlooms, Textiles & former minister of Environmental Pollution Control?

To answer these questions Chapter 1 examines the industrial processes of distillation and brewing found in SSD and BBB respectively, and to compare the waste associated. Applicable environmental legislation, the governmental and community action, and the role of NGOs will be looked at in Chapter 2. Chapter 3 will compare and examine SSD's and BBB's current treatment and disposal methods. Finally Chapter 4 will explore lessons that have been learned about pollution abatement in Tamil Nadu and the recommendations regarding environmental policy.