3. Study Area

The Union Territory of Pondicherry is predominantly urban covering a total area of 492 sq km. It comprises four interspersed geographic entities namely Puducherry (293 sq km), Karikal (160 sq km), Mahe (9 sq km), and Yanam (30 sq km) (http://en.wikipedia.org/wiki/Puducherry). Puducherry city is the capital city of the union territory of Pondicherry and the largest among the four encompassing a total area of 290 sq km. It is situated in the coromondal coast (Latitude 11° 56' N and Longitude 79° 53' E) of Indian peninsula about 160 km south of Chennai. The city was surrounded by Bay of Bengal on the east, Cuddalore district on the south and villupuram district on the north and west sides. The city was erstwhile French colony in India, having connections with France even now. It includes two municipalities - Puducherry and Oulgaret and five communes (derived from French word, meaning rural developments) - Ariankuppam, Bahoour, Mannadipat, Nettapakkam and Villianur. Urban activities in the Puducherry include commercial and industrial development as well as rapidly expanding residential areas. As of 2001 census, Pondicherry had a population of 973,829, out of which Puducherry comprising of 735,004 (http://www.pon.nic.in/open/depts/ecostat/census/RESULTS.HTM). Improved living standards of people in Puducherry due to its socio-economic development have lead to generation of enormous quantity of solid wastes. Puducherry is facing a crisis in MSW management with no suitable permanent site for either its dumping or an integrated scheme for its sustainable management (Dutta, 2008). However, information on the status of municipal solid waste management of Puducherry is too little (Kumar et al., 2009).

Main dumping site of Pondicherry is Karuvadikuppam is having area of 5 ha or 12 acre. It is located three km west to Puducherry town. The waste generated at various points along the Puducherry urban region is collected by the municipal workers and dumped into the dumping site through Lorries and trucks. This transfer operation is done every day in the morning hours. Every day, tractors dumped there around 350 tons of waste. Over the years, the dump has accumulated an estimated 150,000 tons of garbage. The cities alone generate more than 100 million tons of solid waste a year. The Bio Medical Waste (BMW) collected throughout the urban area of Puducherry is also dumped into the site without any prior treatment. This is the violation of BMW (Management and Handling) Rules, 1998, 2000 & 2003 amendments, according to which BMW shall not be mixed with other wastes.
Plate 4 Pondicherry U.T. comprising two municipalities - Puducherry and Oulgaret and five communes pointing out the main dumping site, Karuvadikuppam.

Plate 5 Karuvadikuppam: Main Dumping site of Puducherry