

## **Pondy Garbage Control: Collaborating for better waste management**

In October 2009, Auroville Today wrote about the health hazards caused by the Puducherry municipal landfill site at Karuvadikuppam, less than 4 kilometres from the Matrimandir. The thick clouds of grey smoke, produced by plastic trash burning at the landfill, which wafted over Auroville and the villages of Edaiyanchavadi and Morattandi in the hot dry summer caused headaches, nausea and sore throats. The article ended on the hopeful note that soon measures would be taken to address the problem. What has happened since?

In 2009 and early 2010, there was an active information and awareness campaign in various departments of Puducherry Government by Aurovilians, namely Angad, Renu, Akash and Dilip Kapur. This resulted in bringing the issue to national awareness through video coverage by NDTV, a well-known TV Channel. More importantly, a fertilizer company called Coromandel International started working on the dumpsite, sifting through the waste and composting the organic component of the waste to make fertilizer. These initiatives were not far-reaching enough, but they marked the beginning of a collaborative process with the Puducherry Government.

### **Problems in waste management and its privatization**

In July 2010, the Puducherry Government, that so far had been responsible for the waste, awarded a 19-year solid waste management concession to Kivar Environ Private Limited, a Bangalore-based firm that had no previous experience managing solid waste. For technical guidance, Kivar Environ entered into an agreement with Waste Connections Inc., one of the largest waste management firms in the USA.

To execute the work, Kivar Environ and the Puducherry Urban Development Agency formed a joint venture named Puducherry Municipal Services Private Limited. The scope of work was comprehensive: PMSPL was given responsibility for street sweeping and drain cleaning; door-to-door collection of approximately 146,000 tons of municipal solid waste per year (400 tons per day); waste transport and processing; design, construction and operation of a sanitary landfill; development of a state of the art laboratory; monitoring environmental impact and post closure monitoring of the landfill.

Puducherry then designated a 25-acre yard adjacent to the Rajiv Gandhi Government Veterinary College in Kurumbapet, nearby Ousteri Lake, for PMSPL to develop into a modern waste disposal facility. PMSPL started work in January 2011, deploying teams who collected waste door-to-door by pushcart and transferred the waste to plastic dumpsters. As the waste is not segregated at source (e.g. by the households) organic and inorganic waste is mixed. From the dumpsters, a fleet of mechanized compactor trucks transported and then dumped the unsegregated waste at Kurumbapet. With the move of the landfill site away from Karuvadikuppam to Kurumbapet, Aurovilians breathed a sigh of relief, for they thought that their problems were over, but their relief was short-lived.

On 22 January 2011, the *Hindu* newspaper reported that the Puducherry Pollution Control Committee (PPCC) had issued notice to Puducherry Municipality for dumping solid and medical wastes at Kurumbapet in violation of applicable regulations. According to the PPCC notice, “the activity leads to severe environmental degradation and is a gross violation of the Environment (Protection) Act, 1986, Bio-Medical Waste (Management and Handling) Rules, 1998, and the Municipal Solid Waste (Management and Handling) Rules, 2000”. According to *The Hindu*, Special Secretary to Government (Science, Technology and Environment) G. Theva Neethi Dhas said that the municipality has been asked to take steps to stop dumping of waste immediately, and that action would be initiated if the local body fails to do so.

The Comptroller and Auditor General (CAG) of India in its report for the financial year 2009-2010 also pointed out that Pondicherry had been dismal in ensuring observance of the solid waste management rules and that the PPCC had not properly monitored the implementation of bio-medical waste. Of the 211 hospitals/healthcare establishments in Pondicherry, 200, including 76 government institutions, had no valid authorization from the PPCC to dispose bio-medical waste. The CAG also criticized the absence of a common disposal and incineration site and the unhygienic transporting of the waste.

On 29 March 2011, The Hindu reported that PMSPL continued dumping mixed municipal waste at Kurumbapet, more than two months after the PPCC's notice to stop the dumping. The article quotes Deputy Conservator of Forests Anil Kumar as saying that although the dump is within 5 km of a bird sanctuary, the Ousteri lake, the Environment Department was never informed about the dumping. The article quotes Dhas, "as the yard is located within five km of the protected lake, it was mandatory for the Municipality as well as the company [PMSPL] to conduct an Environment Impact Assessment and a Public Hearing before converting the land into an area for garbage segregation. We do not have information on whether they had approached the Ministry of Environment and Forests for any clearance. However, the process would take long time to complete as it involved a lot of technicalities." Subsequently it turned out that an Environment Impact Assessment had indeed been done for the Kurumbapet landfill site and on 29 Dec 2011, a Public Hearing was sought to be organized in the presence of PSMPL. But so boisterous were the proceedings at that meeting that PMSPL was not even given a chance to explain their position, and for the sake of maintaining peace and order, the Collector cancelled the hearing.

Much before this aborted Public Hearing though, as early as in April 2011, PMSPL's dumping operation had shifted back to the landfill site at Karuvadikuppam due to large-scale protests and even a court-stay order preventing further dumping at Kurumbapet. PMSPL finds itself in an intractable situation where it has accepted the responsibility for the collection and management of Puducherry's waste, and yet, as the Puducherry Government cannot fulfil its part of the contract, PMSPL cannot implement proper waste management techniques. The relationship between the two parties is further soured by the fact that to date Puducherry Government is over Rs. 190 million in arrears in its payment to PMSPL.

### **A community-wide movement in Auroville**

With the landfill site being moved back to Karuvadikuppam, for Aurovilians, the summer of 2011 seemed the most toxic of all. Many Aurovilians complained of being smothered by the thick acrid smell and smoke produced by burning plastic. The problem is simply this: When unsegregated waste is dumped together, the anaerobic decomposition of organic component of the waste produces methane which spontaneously combusts and burns the plastic that is mixed in the waste. Some forms of plastic on being burnt release toxins such as dioxins, furans and polychlorinated biphenyls (PCBs) that are highly carcinogenic. And over the years, as a result of the changes in consumption patterns in globalized India, the plastic component in the garbage has greatly increased. It is also believed that the gypsies who live right at the site of the landfill [See AVT ??] and work as rag-pickers also deliberately set the waste on fire to extract recyclable metal from the waste. Whatever be the cause, uncontrolled and open burning of plastic creates a health hazard for Auroville and the neighbouring villages.

So severe was the problem that in September 2011 there was a community-wide movement and another group of Aurovilians, who called themselves the Ponds Garbage Control Group, came forward to volunteer their time and energy in tackling the issue. Bindu offered to coordinate the diverse initiatives that were proposed. Some Aurovilians led by Frederick and Sathyaseelan wanted to seek a legal action against the improper waste management. Others, like Angad, Ajit, Auralice, Akash and Renu, who

already had contacts the Puducherry Government and PMSPL, wanted to continue in their efforts towards greater collaboration. Collaboration with these key players, namely Puducherry Government and PMSPL, was deemed essential for litigation in India is a time-consuming process, and the main objective of the Pondy Garbage Control team was simply to stop the burning. Also, as some Aurovilians successfully argued, even if the courts passed a ruling in Auroville's favour, one would still require the Puducherry Government and PMSPL to implement the ruling. "In some ways," says Bindu, "collaborating with the Government as well as filing a Public Interest Litigation against them are not contradictory initiatives. While India has some strong environmental laws, it is abysmally poor in law enforcement. The law is often overlooked by politicians given vested interests and the growing corruption in the country. Filing a case in the interest of the public allows the administrative departments of the Government that are manned by the much-respected cadre of officers in the Indian Administrative Services in their work of law enforcement."

"One of my chief surprises," continues Bindu, "on taking up this work was to find out that there are clear Solid Waste Management laws in India, which are being flagrantly violated." In contravention to Indian laws, the Karuvadikuppam landfill site is too close to habitation clusters as well as to Auroville, which is 'a place of important cultural interest'. Moreover, the site is located next to the 125 acres of Auroville forests that harbours endangered species. Also, the location of the upgraded Pondicherry airport within two kilometres of the landfill violates the legal recommendation that airports be situated 20 kilometres away from landfills. The landfill also contravenes health regulations as the methane levels at the landfill are well over the acceptable level of 650 milligrammes per cubic metre, leading to the production of toxic fumes. "It was on the basis of this legal foundation that we launched a massive awareness and implementation campaign."

The awareness campaign comprised an audio-visual presentation in English and Tamil, made by the Auroville unit Ecopro, that highlighted the dangers of burning plastic. In the course of a month, Guna and Frederick showed this presentation to numerous Aurovilians, students in outreach schools and workers in Auroville, discussed the issue with them and collected over 3,000 signatures in a petition that appealed to the Puducherry Government to initiate proper waste management procedures.

### **Collaboration with Puducherry Government and PMSPL**

"While the awareness campaign was going on, we had a stroke of luck," says Bindu. "Ms. Ms. M. Sathiyavathy (IAS), the Chief Secretary of Puducherry consented to meet with us, and together we discussed solutions to the problem. We recognized that segregation of waste at the source is the best technique of proper waste management, but as due to numerous reasons that was not possible in the current scenario, we just want to prevent the production of methane and thereby stop the waste from burning. Based on our research and advice from Solid Waste Management experts, we knew that a simple effective remediation strategy to stop the production of methane is to constantly turn over the waste that is being dumped. So we merely requested Ms. Sathiyavathy to prevent auto combustion at the Karuvadikuppam landfill by ordering that the waste be turned over every day with excavators. And, to our surprise, she took immediate action. Since October there has been no continual fires at the landfill. Ribhu from Ecopro who periodically monitors the landfill has also seen the excavators and a bulldozer in action."

In another unplanned move, PMSPL, who had been given a copy of the petition with the 3,000 signatures contacted the Aurovillian volunteers and expressed their willingness to collaborate with them. Based on their meetings with Ecopro, PMSPL has started using Effective Micro-organisms (EM) that is mixed in their compactor trucks when picking up the waste in Pondicherry to control the stench

of decomposing organic matter and flies. Negotiations are still on with PMSPL to try and use larger quantities of EM that would eradicate the smell and flies at the landfill site as well.

## **Legal action**

Copies of the petition as well as a legal notification have also been sent to the responsible departments of the Puducherry Government. Initially, the plan was to revive the Public Interest Litigation (PIL) filed on the issue in Chennai High Court in 2009 [see AVT No. ??]. But then recently Aurovilians were advised to file a new case instead with the National Green Tribunal, a special fast-track court to handle the expeditious disposal of environmental cases, and currently steps are being taken in that direction. Thanks to the community-wide support for the issue many Aurovilians have made donations to cover the substantial legal costs. “We are prepared for the long haul,” says Bindu. “There is no saying if and when the landfill will be moved from Karuvadikuppam to Kurumbapet or elsewhere, so we want to have all our bases covered.

“And we definitely hope to continue our good-willed collaboration both with Puducherry government and PMSPL. For the first time in years, we may have a summer where we are free from the toxic fumes of burning plastic,” Bindu concludes, with a smile of satisfaction.

*In conversation with Carel.*

One of the Aurovilians who has done extensive research on solid waste management in India is Brooks Anderson, an American born communication and documentation specialist and director of *Clear Impression Documentation Services*. In June 2011 he released *Privatisation: A formula for provision or perversion of municipal solid waste management?* a 50-page policy review comparing the rationale for privatisation with the performance of privatised public services. The review also presents the track record of privatised waste management in Pondicherry and other cities, which has been used for this article. The full report can be downloaded from [http://www.environmentportal.in/files/privatisationofmswm\\_0.pdf](http://www.environmentportal.in/files/privatisationofmswm_0.pdf)

## **Box**

In 2000, in response to a Supreme Court order, the Government of India formulated and enacted the Municipal Solid Wastes (Management and Handling) Rules (hereafter referred to as the Rules) to mitigate a burgeoning solid waste crisis. Pollution from haphazard municipal solid waste disposal was gravely jeopardizing public health, thereby undermining the nation’s development gains. The Rules mandated measures by which local bodies were to minimize waste, in an attempt to avert a projected 500 percent increase in annual waste production in coming decades. The Rules’ prime objective was to protect public health and the environment by minimizing disposal of waste in landfills, thereby aligning the government’s municipal waste management policy with its commitments to international treaties to reduce greenhouse gas emissions, control the production of persistent organic pollutants, conserve finite resources, and achieve broad development targets.

Had they been implemented assiduously, the Rules stood a strong chance of transforming India into one of the world’s cleanest nations. However, in November 2009, nearly a decade after the Rules’ enactment, ex-Minister for Environment and Forests Jairam Ramesh publicly declared India’s cities the world’s dirtiest: the government had done little to bring the Rules into effect.