UNILEVER’S MERCURY POLLUTION IN KODAIKANAL, INDIA

Claim vs Reality

In 2001, a mercury thermometer factory operated by Unilever subsidiary Hindustan Unilever Ltd was shut down by state environmental regulators after it was found that the company had illegally disposed tonnes of waste containing mercury in a local scrapyard. The factory site, which is nestled between two biodiverse and ecologically valuable watershed forests in the beautiful south Indian hill town of Kodaikanal, was found to be heavily contaminated with mercury. Mercury levels in some hotspots are more than 50,000 times higher than naturally occurring soil background values.

Residents and environmentalists want Unilever to clean-up the factory site to levels appropriate for an ecologically and hydrologically important forest ecosystem so that wildlife and downstream water users and fish consumers can be protected. Unilever is insisting on applying a lax residential standard, that will leave behind more than a third of the mercury on the site even after a clean-up.

The incremental costs associated with a tighter standard is insignificant for a company of Unilever's assets and profits. Over the last few months, Unilever has advanced an argument that a tighter clean-

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up standard (a thorough clean-up) will harm the ecologically fragile forests. See https://www.unilever.com/Images/soil-remediation-note-update-on-7-april-2016_tcm244-479921_en.pdf

This argument is puzzling, particularly because it comes from Unilever – the manufacturer of Dove, Lifebuoy, Wisk, Omo, Persil, Surf Excel and Domex. Unilever spends billions of advertising dollars in telling the world that clean is good and that its products will clean every stain. It talks about leveraging technology, and deploying chemicals, polymers and enzymes to remove stains from children's clothes. When it comes to Kodaikanal's forests, Unilever is telling us it does not have the wherewithal to remove the mercury.

Unilever claims it did not dump any mercury in Kodaikanal, and whatever mercury remains on site poses no risk of contamination to the ecologically sensitive region surrounding the former factory site.

“A 2002 study by URS Dames & Moore, HUL's consultant, reports that the factory discharged more than 1.3 tonnes of mercury into the Pambar Shola Reserved Forest which is now part of the Kodaikanal Wildlife Sanctuary. The study notes that HUL illegally sold more than 43 tonnes of mercury wastes containing 440 kg of mercury to scrap merchants, including 5.3 tonnes that were found dumped in 2001 in a scrapyard in a crowded part of Kodaikanal town. It was for this offence that the state environmental regulator shut down Unilever’s thermometer factory.

The 1.3 tonnes of mercury discharged into the forest cannot be recovered. Much of it will circulate within the sensitive forest ecosystem, harming wildlife and accumulate in food chains. The Pambar Shola is a sub-montane tropical evergreen forest with vibrant floor-level, aquatic and arboreal ecosystems. The contaminated factory site continues to leak mercury-laden silt into the Pambar Shola watershed. An October 2015 study paid for by Unilever found high levels of mercury in three of five sediment samples taken from the Pambar Shola forests. However, 10 years earlier a study conducted by the Department of Atomic Energy of India in 2005, had already shown that mercury in fish from Kodai Lake contained mercury more than 500 times of the consumption advisories level.

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Unilever claims that applying a more stringent standard will harm the fragile local ecology as many mercury contaminated areas are on wooded, steep, erosion-prone slopes.

The presence of heavy contamination on steep erosion-prone slopes within an ecologically sensitive area is precisely the cause for concern of residents and environmentalists. Silt-laden mercury continues to wash out of the erosion-prone slopes into the Pambar Shola watershed. Rather than inaction, the situation demands urgent action and that a new innovative, effective solution be found. Unilever should find technologies and practices that are able to remediate and rehabilitate the site with appropriate management measures to ensure that the environment is not harmed in the process.

Unilever claims that a more stringent clean-up level will require excavation of a 5 times larger area, disturbing 3-4 times more trees

Both claims cannot withstand rigorous scrutiny. No study has been done to explore the implications of a clean-up at 6.6 mg/kg on trees or soil quantities to be treated. Rather, existing studies such as HUL consultant URS Dames & Moore’s 2002 study estimates that the soil area requiring treatment at 20 mg/kg is 10,000 square metres, while the corresponding area for 10 mg/kg is 13,430 square metres. At 13,430 square metres, the additional area to be covered for a more stringent clean-up is only 40 percent more not 500 percent or 5 times more than what is proposed under Unilever’s substandard clean-up.

A Plant Protection study commissioned by Unilever mentions that 300 trees will be “affected” – not felled – at 20 mg/kg. Unilever claims without basis or any study that 900 to 1,200 trees (3-4 times more) will be affected if the standards are tightened. A Soil Conservation study – also commissioned by Unilever – mentions that excavation of soil at shallow depths of up to 10 cm will pose no threat to trees. The 2002 URS Dames & Moore report observes that most of the lower level contamination is dispersed at shallow depths of less than 10 cm across the factory site. It is unclear why Unilever is throwing excuse after excuse. Any additional cost involved with a more thorough clean-up will be insignificant for a company of Unilever’s size. The reputational damage to the company by continually avoiding its liability in Kodaikanal will be substantial and significant. However, by conducting a clean-up to the safe standard required would confirm Unilever’s reputation as a company that delivers on its sustainable living commitments.

Unilever claims that it “has not proposed any standard for remediation, let alone 20-25 mg/kg” and that the standard was proposed by the state environmental regulator Tamil Nadu Pollution Control Board (TNPCB)

Between 2001 and 2005, Unilever said it will clean-up the site to a Dutch residential standard of 10 mg/kg. Environmentalists objected to the choice of a residential standard for a site that is part of a sensitive watershed forest, and called for a more stringent standard based on an assessment of risk to ecology. TNPCB was supposed to independently conduct studies and fix the standard after public consultation. Instead, it shut out public consultation, and allowed Unilever to engage its own consultants for all studies. In 2007, Unilever’s consultant NEERI proposed a diluted clean-up standard of 25 mg/kg on the basis of “techno-commercial aspects”. It argued that “The benefits likely
to accrue out of stricter norms are to be compared against the additional cost that may be incurred while undertaking such projects.” For this study, NEERI received $52,000 as consultancy fees, according to documents unearthed using Right to Information. Hidden from public view, Unilever, its consultants and TNPCB colluded to arrive at a lax residential standard instead of a stringent ecological standard. A Detailed Project Report prepared by Unilever’s consultant ERM does not even mention the public as a stakeholder.

Unilever claims that the clean-up standard of 20-25 mg/kg is internationally acceptable and safe for human health and ecology

The standard is not derived to prevent harm to the ecosystem. Unilever’s consultants derived the standard of 20-25 mg/kg based on a human health risk assessment considering the risk for a future child living in this area. Even this number is 20 to 25 times higher than the recommended soil quality of 1 mg/kg for residential areas in the UK. In any case, residential standards may have been deemed acceptable for an urban residential area such as Mumbai or New Delhi. But the factory site shares a fenceline with a biodiverse watershed forest which is part of the Kodaikanal Wildlife Sanctuary. Any target value for clean-up ought to have been based on an ecological risk assessment specific to the forest type and wildlife prevalent in and around the contaminated factory site. The factory site is located in the headwaters of a river that supplies water and fish to people from three districts of Tamil Nadu.

Responding to complaints, in 2010, Unilever commissioned a civil engineering department with no expertise in ecology, toxicology or biology, to conduct a study. The purpose of this study “is to generate risk-based site-specific target levels (SSTLs) that are protective to human as well as ecological receptors keeping in view future uses of the site.” This report chose quails and sparrows as target species and assumed a future “residential use.”

According to soil biologist Prof. Sultan Ismail whose opinion on the matter was sought by TNPCB, “Mercury is known to accumulate in aquatic food chains. In settings such as in Kodaikanal, mercury can also be found in high levels in moss and lichen, and in hard-shelled invertebrates like cicadas. Analysis of food chains that involve these life-forms are absolutely essential to understand or rule out the impacts that mercury may already be exerting on the environment. The reports sent to me do not contain any such information.” Additionally, commenting on the 2010 report, Prof. Ismail writes: “The report ought to have considered piscivorous fauna prevalent in the region. Given the findings that confirm that mercury has and is migrating off-site, the target species should not be restricted to those that feed exclusively on the site. The ecological toxicity assessment to my knowledge therefore seems without relevance.” Neither quail nor sparrow is piscivorous. Quails are not found at altitudes above 1,200 metres. The factory site is located at 2,180 metres.

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