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Unilever-Kodaikanal Mercury Contamination:

A Case of Conflict Between Stakeholders with Different Power Dynamics

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Introduction

Kodaikanal mercury poisoning is one of the most popular cases of mercury contamination and corporate negligence at the hill station of Kodaikanal in Tamil Nadu by Hindustan Unilever in the process of making mercury thermometers for export around the world.

Fig. 1*. Mercury bottles found in the watershed forests behind the Unilever factory.*

In March 2001, residents of Kodaikanal, a pretty hill retreat in Southern India, caught the Anglo-Dutch multinational Unilever red-handed when they uncovered a dumpsite with toxic mercury-laced waste from a thermometer factory run by them (Jayaraman).

Unilever's thermometer plant in Kodaikanal (which was set up in 1984) exposed many workers to mercury poisoning, without giving them any protective equipment or information about the disastrous health effects of mercury. During its operations between 1984 and 2001, the factory admits to having discharged more than 1.3 tons of toxic mercury into the Pambar Shola - one of the most biodiverse forest ecosystems in South India (Das).

This toxic mercury, dumped around the factory and in forests, continues to contaminate soil and groundwater, hurting thousands of local people and can affect generations to come unless it is cleaned up to standards. The workers cannot afford private healthcare, and have been fighting since 2001, asking Unilever to clean up the toxic contamination, and to compensate them for their medical expenses and take accountability for what they have done. The company, for its part, acknowledges that mercury contaminates the environment but denies that its past practices and its failure to clean up is now hurting people.

Fig. 2. *Kodaikanal Lake, the most popular tourist attraction in South India, is also contaminated*

The relevance of this case is huge and this is one of the most important cases showing conflict between stakeholders with different power dynamics and how it can create externalities, for the environment and people, that last for decades. It also questions the role of a state when it comes to playing an active part in conflict resolution between two parties where one is more powerful than the other.

The reason this case became so popular is that it took more than 15 years of campaigning and a rap song that went viral to force Unilever to settle with its workers. But even after remediation, the mercury-tainted factory site continues to leak deadly neurotoxins into the environment and the forests nearby, contaminating the soil and water.

Historical Background

In 1983…

Amidst tightening environmental regulation in the US due to mercury's toxic effects, Chesebrough Pond's Inc. exported its decades-old mercury thermometer factory to India from the US. The factory was located in the verdant environment of Kodaikanal, bordering the dense watershed forests of Pambar Shola.

Fig. 3. *Kodaikanal…a beautiful city in the South of India*

In 1986…

Unilever's subsidiary Hindustan Lever Limited acquired this thermometer plant as a part of Unilever's acquisition of Chesebrough Pond's.

Till 2001…

The factory produced 163 million thermometers using about 900 kg of mercury annually. The thermometers were exported to the US and Europe. The toxic wastes were left to remain in Kodaikanal. The factory was wrongly registered as a "glass manufacturing unit" and allowed to come up in a residential area bordered by a watershed forest.

Fig.4. *HUL Factory at Kodai*

In March 2001…

Former workers and residents exposed a massive dump of Unilever's mercury containing wastes in a scrapyard in Moonjikal, a crowded part of Kodaikanal town.

The company was also found to have dumped mercury wastes in the forests behind its factory. The Tamil Nadu Pollution Control Board shut down the plant due to these violations. But even today several thousand tons of mercury-contaminated wastes and soils are lying inside and around the factory, leaching their deadly poisons into the surrounding environment.

Fig.5. *Empty mercury bottles and mercury containing wastes were found dumped in the eco sensitive Pambar Shola forests behind the factory*

In early 2003…

The company was forced to export 289 tons of mercury-contaminated material to a mercury recycling facility in the United States.

In 2016…

The settlement between workers and HUL was finally reached. But it is worth mentioning that in those 15 years, there was no cleanup or no clear admission of mercury poisoning by Unilever.

Fig.6. *Mercury Cleanup*

Theoretical Relevance

Unilever is one of the largest multinational corporations in the world with approximately 2.5 Billion people using their products on a daily basis, and the company boasts off an impressive turnover annually. India is the second largest market to Unilever, after the United States (Pinto). But at the same time, it is important to realize the roots of the corporation's standing and the origins to how the company has "accumulated" so much wealth at such a fast pace. One of the potential reasons for this accumulation is the process of "**Accumulation by Dispossession**", which is a concept coined by geographer and philosopher David Harvey. First of all, given the nature of Unilever's operations, it is important to realise that Unilever perfectly fits into the world of capitalistic processes. The company holds one of the largest amounts of capital stocks in the world, has a huge portfolio of investors, competes with some of the biggest brands and profit maximization and keeping its shares and turnovers high are some of the company's main goals.

While consumption remains a large determinant of Unilever's portfolio, the company's stature and the consistent market share show that the consumption might not be one of the major aims of the corporation, especially due to the monopolistic nature of Unilever. Unilever owns 400 brands and it is known for its large scale acquisitions. This means that there is a high probability of any product purchase in the FMCG sector to be a Unilever brand. Hence, making Unilever even more capitalistic in nature as the "purpose of capitalist production is not consumption but the expansion of value through production and realisation of surplus value"

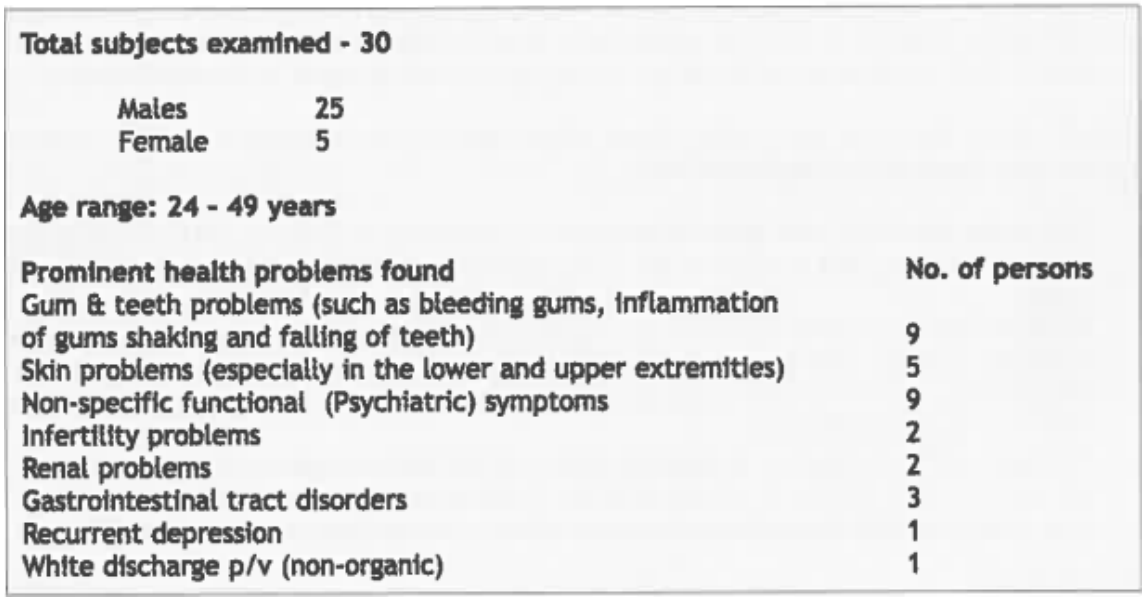
(Clarke). This is how Accumulation by Dispossession sustains Capitalism. It means that the profit and value that the labour and capital create gets reinvested into production and other assets. In other words, reinvestment leads to more money and more money leads to even more money. Therefore, via the process of accumulation, a cyclical process of profit and money generation is created.

In the case of the Unilever Kodaikanal Crises, the setup of the Unilever factory in Kodaikanal, is an example of accumulation. By investing into the setup of the factory in a developing country like India, Unilever could have strategically taken advantage of low labour costs and weak environmental laws. Hence, this way it can reinvest the "surplus of value" generated into further production. A country like India, especially in 1986 (during the setup of the Kodaikanal plant), would have had a shortage of capital and a surplus of land/or labour. This would enable higher profit maximisation and generation of surplus value. As mentioned by David Harvey in *The Limits to Capital (1984)*, the capitalists seek to gain absolute and maximum surplus value, by pushing the labourers to work for longer hours and at a higher productivity.

At the Unilever Kodaikanal factory, the workers, neighbouring areas, scrap dealers, wildlife, flora and fauna were being exposed to harmful Mercury leakages, contaminated water and contaminated soil. And more importantly, they are still being exposed. No proper protocols for Mercury disposal were followed and instead, Unilever made the workers dispose of the mercury in the backyards of the factory and to the local scrap dealers (Jayaraman 2011). All of these instances show the extent of capital accumulation and surplus value generation at the Unilever Kodaikanal factory. However, this is at the cost of dispossession. The local communities at Kodaikanal have been dispossessed from the right to clean water, health, and wealth and local natural resources such as forest land (For instance, the recent tree felling). Moreover, this dispossession is continuous despite the closure of the factory in 2001, due to the way Mercury potentially bioaccumulates and biomagnifies over the years.

Medical illnesses such as cancer due to the mercury poisoned water amongst the workers and the neighbourhoods, would potentially lead to poorer productivity and future prospects for the local residents. In other words,overall the company has dispossessed the local communities from living a healthy life and in many cases disrupting the families of several victims of Unilever mercury poisoning. The victims include a comprehensive list of people who have passed away and also others who have to permanently live with an illness.

A medical assessment conducted by Community Health Cell, Bangalore shows the extent of illnesses amongst the employees in 2001.



Total subjects examined - 30

Males	25
Female	5

Age range: 24 - 49 years

Prominent health problems found	No. of persons
Gum & teeth problems (such as bleeding gums, inflammation of gums shaking and falling of teeth)	9
Skin problems (especially in the lower and upper extremities)	5
Non-specific functional (Psychiatric) symptoms	9
Infertility problems	2
Renal problems	2
Gastrointestinal tract disorders	3
Recurrent depression	1
White discharge p/v (non-organic)	1

Fig 7. Preliminary Health Assessment from: The Indian People's Tribunal Report. https://hrln.org/uploads/2019/02/IPT_on-the-Alleged-Environmental-Pollution-and-Health-Impacts-Caused-by-the-Hindustan-Lever-Mercury-Thermometer-Factory-at-Kodaikanal.pdf, June 2003, p. 20.

Therefore, Unilever has in effect inflicted violence upon the working class (the Unilever factory workers, the local scrap dealers, etc.) and the Kodaikanal community(via the contamination of water bodies and soil etc), in order to sustain their accumulation of wealth and power in society. Moreover, the lack of acceptability and the coverups by Unilever towards the Kodaikanal Contamination ascertains the companies lack of responsibility towards the dispossession, in an attempt to maintain the accumulation of power and position in the society. In The *Limits to Capital*(1984), David Harvey mentions;

"The capitalist class must necessarily inflict a violence upon the working class in order to sustain accumulation, at the same time must also check its own excesses and resist those demands on the part of the working class that threaten accumulation".

Similarly, Unilever has been resisting the demands of the workers, the Kodaikanal community and Environmental activists. The settlement between Unilever and the workers took a period of 15 years. Moreover, in those 15 years, the lack of acceptance of the poisoning and the absence of any cleanup process shows the extent of Unilever's resistance towards the entire issue.

Moreover, the local community and environmental organizations have been demanding independent studies and external agency evaluations. However, Unilever has been denying/objecting to independent studies. Till today, not even one independent study has been conducted by an external agency (Jayaraman 2021). Notably, in a recent affidavit titled *OA 161 of 2021* dated 30th August, Unilever expresses the lack of necessity to conduct risk assessments during the cleanup process. This again shows that Unilever, by putting a blanket over its ill practices, is trying to protect the degree of accumulation it has gained over the years. In other words, Unilever has been creating an atmosphere of conflict with the Kodaikanal community in an attempt to protect the accumulation gained.

In order to achieve the process of accumulation, via the enclosure of the commons, Unilever has essentially created a "**Tragedy of the Commons**". By the creation of the factory in Kodaikanal, Unilever has in essence enclosed the commons for its own utility. By extending into the commons through the occupation of the factory and the land, Unilever has in effect enclosed it, denying other people from accessing it. This would ensure that there is accumulation while others are losing the rights to work on the land and also reducing the rights to a healthy life (due to mercury contamination). The source of capitalism lies in the extension of the spirit of capitalism into the human commons (Neill, Caffentzis, and Machete). However, when this extension into the human commons is beyond a certain prescribed limit or beyond the property rights of 'Unilever's Factory', Unilever is in essence distorting the natural resources of the region and creating a tragedy of the commons via the negative externalities of the Kodaikanal factory.

In the Unilever Kodaikanal contamination, the tragedy of the commons does not arise from taking resources out of the commons but instead by putting something in. And due to the lack of responsibility of Unilever towards the area beyond the Kodaikanal factory(or rather, the enclosure), there is an overexploitation and misuse of the Kodaikanal ecosystem. This misuse arises from the lack of waste management and poor mercury waste disposal strategies to begin with. As waste by nature is something that several enterprises like Unilever and rational beings take lack of responsibility towards due to the costs associated with waste disposal. In the *The Tragedy of the Commons(1968)*, ecologist Garrett Hardin mentions,

"The rational man finds that his share of the cost of the wastes he discharges into the commons is less than the cost of purifying his wastes before releasing them. Since this is true for everyone, we are locked into a system of "fouling our own nest..." (4)

Therefore, by dumping of toxic mercury waste and the poor handling of Mercury at the Kodaikanal factory along with the tardy cleanup processes, a tragedy of commons has been

created at Kodaikanal which is visible in the spread of mercury, the illnesses of the Unilever workers and the damage to the Flora and Fauna across the Kodaikanal region.

Externalities Pertaining to Unilever-Kodaikanal Case

Although the case under discussion does not evaluate the exploitation of natural resources directly, it is incumbent to realize the gruesome spillovers - in terms of ecological and health imbalances - or otherwise known as externalities of mercury waste dumping and subsequent poisoning. This section aims to furnish an understanding of the environmental and health impacts the Unilever-Kodaikanal case has had on the surrounding ecosystem - mainly in terms of Pambar Shola, as well as the plight of former employees and their children, in terms of health complications, amongst other important externalities:

Environmental Externalities

At the outset, addressing the location setting of the Unilever factory site is essential - surrounded by a largely tropical montane forest ecosystem of Pambar Shola, in the Western Ghats, which is prided to be one of the established global biodiversity hotspots. According to a 2003 Indian People's Tribunal on Environment and Human Rights report and ecological documentation by the conservation NGO called Palani Hills Conservation Council, Pambar Shola is a nature preserve with conservation implications fostering a home for at least 17 endemic species as specified on the Red Data List of endangered species. What makes the conservation of the Pambar Shola ecosystem more urgent is that the site has also been declared as a special Kurinji sanctuary for the Strobilanthes (*kunthiana*) species that blooms or flowers only once in 12 years. Furthermore, the water draining from Pambar Shola's watershed traverses through the Pambar river and eventually ends up into the Bay of Bengal through an integrated canal network. The Pambar Shola ecosystem has been subjected to deterioration by the Unilever factory management due to the dumping of broken mercury-encased thermometers and other similarly polluted waste material, which jeopardizes the resilience of endemic biodiversity in the habitat (Bhargava et al). Based on estimations made by Unilever's hired consultant via an environmental audit that was under the company's commission, about 300 kgs of mercury comprised the offsite discharge into the Pambar Shola ecosystem (Jayaraman, 2001). Additionally, the company's conspicuous treatment of the Shola's water bodies as a dumping vessel exposes the entire marine channel to the adversities of the neurotoxic waste. This inevitably indicates degradation of the marine ecosystem as well as aquatic life.

Health Externalities

The metal-induced neurotoxicity of mercury converts it into methylmercury once exposed to the environment. Being neurotoxic also adversely facilitates mercury to engender

severe health repercussions to the human sensory and motor systems - in terms of the brain, liver, stomach, kidneys, blood, urinary issues and may also be associated with natal defects (Jayraman, 2011).

Unilever's Stance

In the sanctity of establishing their transparency and responsibility, Hindustan Unilever Limited has announced on their platform of virtual presence that they prioritize the safety of their workers in their operations. Their correspondence to claims, articles or studies regarding the ill-health of workers due to mercury poisoning remains in opposition to said expert studies. Unilever bases its findings of no harm to former workers' health from their work on site of factory, amongst others, on its own occupational health monitoring backed by independent endorsement by All India Institute of Medical Sciences (AIIMS) and the National Institute of Occupational Health (NIOH) ("Kodaikanal Mercury Factory: Contamination").

In order to understand the intensity of environmental damages of their mercury dumping, Unilever also conducted an environmental and risk assessment, under independent consultation of URS Dames and Moore, after the factory's closure in 2001. Apart from certain areas that comprised the factory site, no major ecological adversities were identified via the assessment. Further, the company was officially permitted to remediate the soil, for the clean-up of the factory site, to the remedial standard of 20mg/kg at what used to be the factory site of Unilever in Kodaikanal on June 11, 2018 (HUL official page). To this effect, agreement to this level of mercury to remain in the soil for the clean-up is much beyond Unilever's international soil remediation standards, in terms of the Dutch standard, of 10 mg/kg. To make matters more paradoxical in the case of Kodaikanal or India, is that Unilever's soil remediation standard notified in the case of the United Kingdom is 1 mg/kg (Tamil Nadu Alliance Against Mercury).

To understand how severely the 20 to 25mg/kg level of mercury presence in the soil will jeopardize the Pambar Shola ecosystem, a 2002 report of the United Nations Environment Program titled "Global Mercury Assessment: Overview of Existing and Future National Actions, including Legislation Relevant to Mercury," is highlighted:

"*Increased concentrations of metals in forest soils, especially in the mor layer (upper layer containing decaying vegetation), imply risks of adverse effect on vital microbial processes and indirectly, of disturbance of ecosystem functioning*,"

The report further states:

"*...Disturbance of the functioning of the mor may therefore have considerable ecological consequences that may be difficult to prognosticate without a thorough knowledge of the entire system*,". (Tamil Nadu Alliance Against Mercury)

Unilever's Attempt At Downplaying

Based on the data from an environment sampling test conducted by Hindustan Unilever in collaboration with their environment consultant NEERI (National Environmental Engineering Research Institute), Unilever has been downplaying the exceeding level of mercury found in Pambar stream and the Kodaikanal Wildlife Sanctuary area. Environmental activists affiliated with Chennai Solidarity Group who have been covering the Unilever-Kodaikanal case, highlight that based on the NEERI study, mercury levels were exceedingly high in the soil, moss, and sediment samples taken from the Pambar stream. The solidarity group also asserts that both HUL and NEERI have compared this data to "incorrect standards" to make apparent the non-threat that the HUL site in Kodaikanal poses with regard to Pambar Shola ecosystem (Jayarajan).

According to the NEERI study data, sediment samples taken from the Pambar stream were observed with values as high as 0.251, 0.256 and 0.412 mg/kg. The Canadian Interim Sediment Quality Guidelines (ISQG) states that anything above 0.17 mg/kg is considered not safe. ISQG also associates incidence of 'adverse biological effects' as high as 34% when mercury sediment levels are between 0.17 mg/kg and 0.486 mg/kg.

Further, the findings furnish that the mercury level in the Pambar sediment is 1.5 to 2.4 times higher than what is considered a 'safe level'. Rather than acknowledging the adverse implications of these results on comparisons of the results with the ISQG, NEERI has compared them with the Probable Effects Level (PEL), which mentions anything that has mercury levels above 0.486 mg/kg the "adverse effects are even higher". Based on the PEL scale for reference, the findings of mercury levels of 0.251, 0.256 and 0.412 mg/kg are considered below range, while still posing extreme threat to the Pambar Shola ecosystem (Jayarajan).

Detailed Analysis of Strategies used for Conflict Resolution

It would be an exaggeration to say that the Kodaikanal conflict has been fully resolved. Infact, Nityanand Jayaraman, in our interview with him went to the extent of saying that the issue is lost. However, once the issue gained prominence and more people came to know about it, there were a lot of measures that were taken in the hope that this conflict between Unilever and Kodaikanal could be resolved – by people, activists, workers, campaigning networks etc. This section explains some of those strategies.

1) Reverse Dumping

Once Unilever's factory was shut down, public interest groups demanded the return of remaining mercury waste to the United States for recycling, remediation of the factory site, and action on the health complaints of the workers. Therefore, local groups and workers union under the leadership of Greenpeace (which is an independent global campaigning network), represented to the company, regulatory bodies, and the government, besides initiating legal action against Unilever (Simhan). The aim was to force the company to collect 290 tonnes of dumped mercury waste from the shola forest and send it back to the United States for recycling in 2003. This was widely hailed by the media as "reverse dumping".

2) Remediation of the Site

Greenpeace and workers' unions continued to mount pressure on the company to take responsibility for the dumping crimes it had committed and for meddling with a pristine environment. They asked the regulatory bodies to prosecute the company. With these demands, public interest groups led by Greenpeace campaign head Shahul spoke at the annual general body meeting of Unilever in 2004. Consequently, the company began working with the regulatory body Tamil Nadu Pollution Control Board (TNPCB) to remediate the soil, decontaminate and scrap the thermometer-making equipment at the Kodaikanal site. Eventually, the company appointed National Environmental Engineering Research Institute (NEERI) to finalise the scope for remediation (Rai).

3) Protests and Angst: Rebirth of the Issue in 2015 and a Viral Rap Song

Video link: https://www.youtube.com/watch?v=nSal-ms0vcI

In 2015, the issue was once again raised, and this time was brought into the centre of the international spotlight. Former workers protested in Kodaikanal and handed out pamphlets to Unilever shareholders detailing Unilever's irresponsible actions. The controversy began to become international when an Indian grassroots activist organization called "*Jhatkaa*" uploaded a Youtube rap video with the title "**Kodaikanal Won't**" by Sofia Ashraf, explaining Unilever's dealings with the Kodaikanal pollution. The video gathered 3 million views within the first 48 hours ("A Music Video Exposes Unilever of Environmental Racism").

International news agencies such as BBC, CNN, the Guardian, and CNBC reported on the phenomenal success of Sofia Ashraf's rap video and HUL's mercury contamination case in detail. This way, media attention and local people's frustration became an instigator for the rap song which eventually became viral beyond anyone's imagination.

Unilever initially denied claims that excessive damage to the environment had been done and stated that they had already taken action to remediate the soil, whose delay they blamed on the protests. They also denied that mercury poisoning damaged their workers' health. But, the viral success of the video led Unilever's global head Paul Polman to defend the company on Twitter, saying the firm was "determined to solve" the environmental problems at Kodaikanal.

4) Relaunch of the "Kodaikanal Won't" Campaign in June 2018

Video link: https://www.youtube.com/watch?v=UhZz5vKi01c

Artists and social activists in Chennai and Kodaikanal released "Kodaikanal Still Won't", a music video that shows Unilever's double standards in cleaning up its mercury contaminated factory site in Kodaikanal as a case of environmental racism.

The video was meant to be a vehicle for gathering signatures in a petition hosted by "Jhatkaa.org" targeting Unilever CEO Paul Polman. Jhatkaa also announced a "Missed Call" campaign that allowed people to sign the petition by giving a missed call to +917338730702. The petition is at: http://bit.ly/cleanupkodai

The relaunch of the campaign was triggered by Unilever's failed trial remediation in November 2017 that ended up mobilising more mercury into the environment than it recovered. The company's proposed clean-up left behind 20 times more mercury in Kodaikanal's soil than is considered safe for residential areas in the United Kingdom, and 66 times more than levels considered safe for soil, plant and animal life in the Netherlands ("Music Video Spotlights Unilever's Double Standards in Mercury Cleanup").

"Such a shoddy clean-up will never be permitted in Europe. Unilever's refusal to apply the best standards for India reeks of environmental racism," said Nityanand Jayaraman, a Chennai-based social activist who has been part of the campaign to hold Unilever accountable since 2000.

"Despite the failed remediation trials, Unilever has managed to get a go-ahead for a full scale clean-up. If that happens, it will be nothing short of a major environmental disaster that will poison the watershed forests of the Kodaikanal Wildlife Sanctuary," he added.

Fig.8. *Accusing Unilever of Environmental Racism*

Fig.9. *Mercury pollution victims seek justice*

Fig.10. *Activists call out Unilever's blatant "Environmental Racism" in Kodaikanal*

Fig.11. *Protesters in Kodaikanal highlight the UN's Minamata Convention on Mercury*

Stakeholders Analysis

The Stakeholder Salience Model by Mitchell, Agle and Wood (1997) provides a useful characterisation of stakeholders on the basis of "Power, Legitimacy and Urgency".

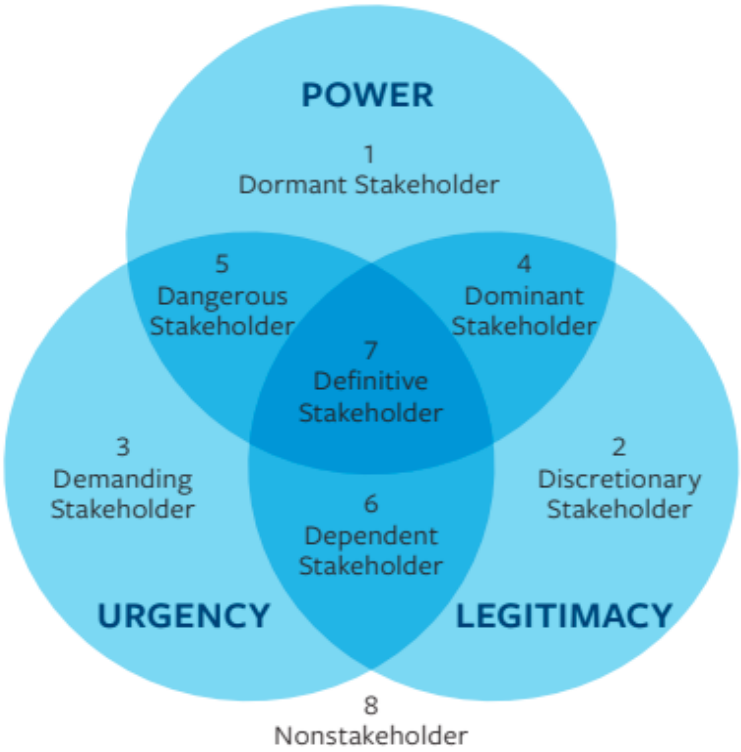


Fig 12. The Stakeholder Salience Model 1997. *http://www.jstor.org/stable/259247* Oct 1997, p. 874.

According to Mitchell's model, stakeholders can include "people, groups, neighbourhoods, organizations, institutions, societies, and even the natural environment." (855). Hence, if the Unilever Kodaikanal Contamination is viewed through the above model, the following Stakeholder Mapping can arise;

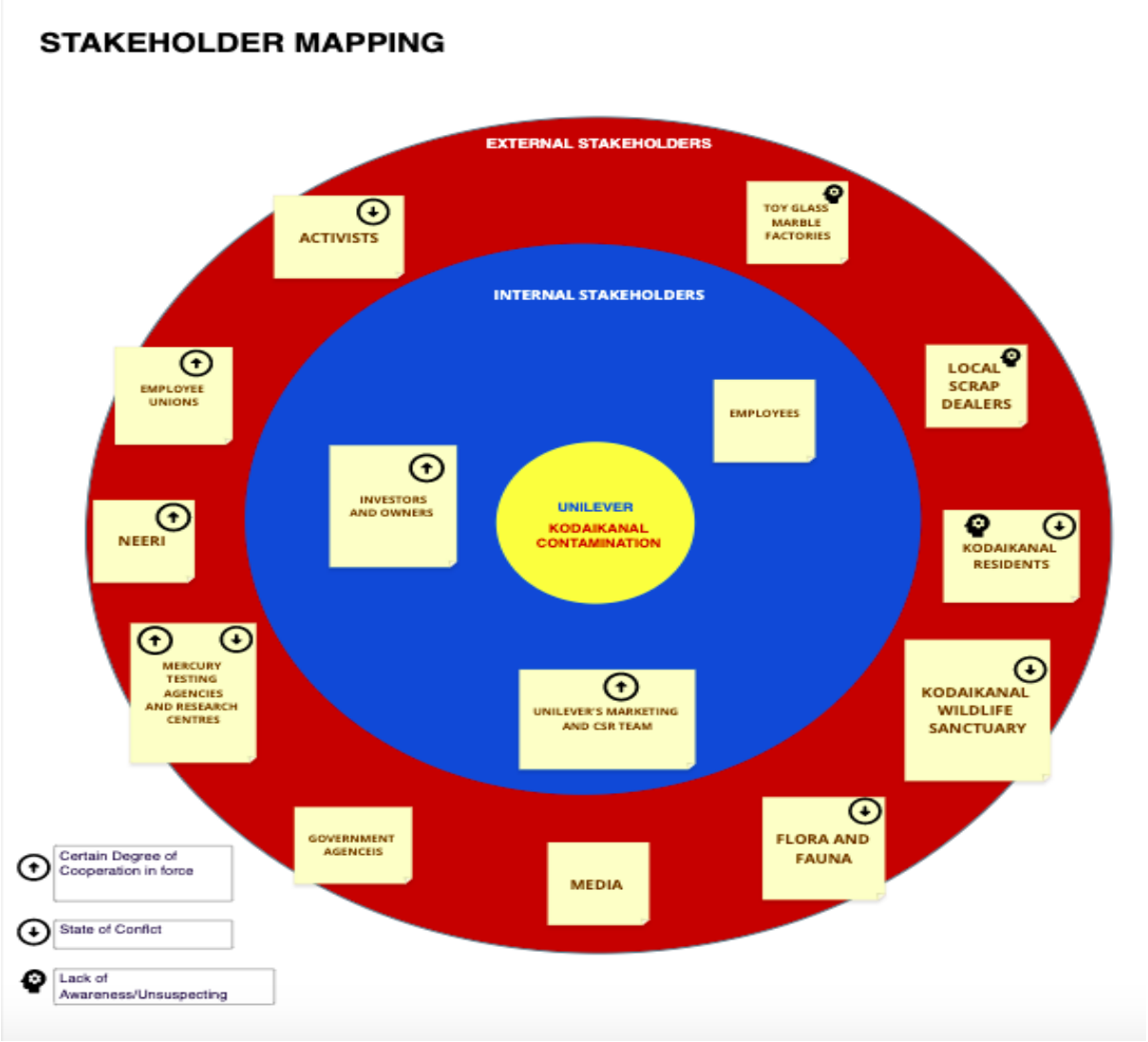


Fig 13. Stakeholder Mapping

However, this map is also limited to a certain number of stakeholders. There could be several other unidentified stakeholders. The Stakeholder salience model further segregates the stakeholders according to power, urgency and legitimacy. Hence, in the case of the Unilever Kodaikanal contamination, some of the following further segregations may arise;

- **Dormant Stakeholders**- They are the shareholders of Unilever along with the people in power but there is no urgency in this context.
- **Dangerous Stakeholders**- They are the stakeholders which have a mix of power and urgency. They are useful to ensure the welfare of the factory and the project. For instance, Unilever Kodaikanal project heads, the local CEO etc.

- **Dependent Stakeholders**- They are the stakeholders who are legitimate and have the urgency but don't have the power. These are the workers who have been working at the Unilever Kodaikanal factory, the employees and the employee unions. Due to their lack of power, they often struggle meeting the urgency of an incident like the mercury contamination.
- **Discretionary Stakeholders**- These are the legitimate stakeholders but have no power or urgency. Usually, these stakeholders are distant from the corporation. For instance, the Kodaikanal Wildlife Sanctuary, the Kodaikanal residents, Flora and Fauna, the local scrap dealers etc. These stakeholders could at times lack the knowledge or might be unsuspecting about the contamination.

As present in the Stakeholder Mapping diagram above, each of the stakeholders could have a certain degree of cooperation or conflict with the Unilever contamination. There is a sense of cooperation that has been achieved between the employee unions and Unilever due to the settlement achieved in 2016. However, there is still conflict between the flora and fauna, the wildlife sanctuary, the Kodaikanal residents and Unilever due to the spread of Mercury contamination. This conflict between these stakeholders and Unilever has been concluded by noticing the spread of Mercury contamination across the Kodai Lake (Karuna Sagar et al.) and the harms to the Pambar Shola forests.

One of the reasons behind the presence of conflict between these stakeholders and Unilever is due to the very nature of corporations in the first place. As per researcher and activist Nityanand Jayaraman (*Personal Interview*), corporations are legal constructs with no soul or conscience and with the sole aim of minimizing damage to the shareholders. Hence, it is the stakeholders that are in effect legally bound to the company, which the corporation is responsible for. This is contrasting to the theoretical broad definition of stakeholders mentioned in *The Stakeholder Salience Model*.

However, ethics and social responsibilities arise which ensures that the company is bound to other stakeholders as well. As is evident from the time duration of the contamination and the lack of efficient remediation processes, the non legally bound stakeholders like the employees, workers, the wildlife sanctuary and the surrounding region are the ones which still appear powerless compared to the shareholders who would be still enjoying higher profits and shares as described in the Theoretical Relevance section.

Comparative Case Study: The "Erin Brokovich", Anderson, et al. v. Pacific Gas & Electric Case

Between 1952 and 1966, a bigwig corporation PG&E (Pacific Gas and Electric) used hexavalent Chromium 6 to prevent corrosion in water towers on the Hinkley campus of PG&E. Chromium 6 was then released into the retention ponds that infiltrated the groundwater of the residents in the Hinckley area in California, United States. This hexavalent chromium, also known as chromium 6, is known to cause medical problems such as cancer, spinal deterioration, and Hodgkin's disease. However, PG&E claimed that there was no correlation between these medical issues in Hinkley and the groundwater. Instead, the corporate had been lying about the unhealthy amounts of Chromium in the water and rather covered up the true amounts of Chromium. The coverups were to the extent of manipulating science and Chromium test results, along with misrepresenting study designs ("Chrome-Plated Fraud").

These kinds of coverups are similar to the Unilever Kodaikanal case, where Unilever has consistently been making false and frivolous statements about the mercury levels in the region. Ultimately, the conflict between the Hinkley's residents and PG&E was settled for $333 Million in 1996 (Clifford). However, unlike the Unilever Kodaikanal case, another financial settlement was also achieved in 2012 due to persistent contamination. In other words the conflict between Hinkley and PG&E carried on and still carries on due to the poor progress in the remediation process.

As per 2016 Data and Maps at the *Hinkley Groundwater Remediation Program* records, the Chromium 6 levels still persistently remains high in several parts of Hinkley and neighbouring regions.

Despite the financial settlements in 1996 and 2012, the Chromium Contamination still exists. The Hinckley case was settled in 1996 and the clean up process started around the same time. It's been almost 2 decades and yet Hickley is not free of Chromium 6 contamination. Due to fear of Chromium 6, Hinkley has been abandoned by most of the residents and is effectively turning into a ghost town (Allen).

Hence, considering the way the circumstances have evolved at Hinkley, and the pace at which the remediation is being carried out currently(without proper risk assessments) at Kodaikanal, Kodaikanal could potentially see a downfall in the number of residents living there or the tourists visiting Kodaikanal, especially if Mercury starts spreading, bioaccumulating

further and biomagnifying. This could have dire consequences on the entire region of Kodaikanal.

Recommendations of Ways to Ensure Sustainable Natural Resource Extraction

One major venture that can be undertaken by corporations to hold themselves more accountable for the negative externalities of their handling of natural resources or of their operations in general is **internalizing externalities -** the social spillover costs and benefits of a commercial project must find place within the cost of production of the company itself, rather than being left to be dealt with by stakeholders who are affected at a later stage. The logistical complications of judiciously incorporating externalities into corporations' accounting can be facilitated by reflexive governance - "*the processes, procedures and relationships for mutual transformations of corporations and society*," (Johnston et al).

Before corporations make certain business decisions which have potential environmental impacts or market monopoly implications, multi-stakeholder consultations which involve the interests of employees, consumers, local residents and rival firms are required to be undertaken by regulation. These stakeholders would be better privately aware of their concerns and would provide a better understanding of gravity and nature of negative externalities or impacts than a public regulator or the firm. Internalizing of adverse externalities becomes a more transparent process through reflexive governance. It demands that consultations are undertaken in a collective process allowing stakeholders concerned to attend, reflect on and respond to various vantage points. It further assists in decision-making that can positively transform society considering the disparity in interests of stakeholders who represent different segments of society. This would allow for internalizing externalities into corporation accounting to be *'scientifically plausible', 'socially viable' and 'juridically acceptable,'*. UK National Institute for Health and Care Excellence (NICE) furnishes a practical example of actualizing obligated reflexive governance (Johnston et al).

Another innovative tool we would recommend was developed by a fashion group called "Kering" for measuring and quantifying the environmental impacts of the company's activities and it is called the "**Environmental Profit & Loss (EP&L) Account**,". The EP&L account measures environmental impact by analysing elements such as carbon emissions, water usage, pollution, land use, air pollution and waste. In addition, value chain elements such as raw materials, processing, manufacturing, assembly, operations and retail are also taken into account, thereby making the various environmental impacts of a company's activities visible, quantifiable, and comparable (Fernandes). These impacts are then converted into monetary values to quantify the use of natural resources. This method helps assess where maximum impact is occurring.

Another important tool to approach cases such as the Unilever-Kodaikanal episode is to have **green fiscal policies** in operation by way of governmental establishment of said mechanisms. Such policies support the endeavour of Sustainable Development Goals (SDGs) by reflecting externalities in prices, aligning government expenditures with environmental goals, raising revenues, creating fiscal space for green investment and broader fiscal reform. The holistic framework of green fiscal policy utilizes fiscal and budgetary tools to address environmental challenges such as climate change, pollution, congestion, waste, biodiversity protection, overfishing, and sustainable forestry ("Making Fiscal Policy Work for the Inclusive Green Economy").

In terms of institutional implementation, geen fiscal policies have the potential to raise revenues for the government. Green taxes can help raise revenue via the double dividend — "*the hypothesis that green tax reform can stimulate economic activity by using its revenue to reduce other distortionary taxes, such as labor and consumption taxes, thereby generating both environmental and economic benefits*," (Peters).

We also propose having an **independent committee** which comprises representatives of different stakeholders namely the local citizens, state officials, ministry of environment, social activists, researchers etc. Tasks undertaken by the committee should include:

a) **Impact Assessment Surveying and Research**: This step involves identifying the impact of each activity of a company at different stages of the production process
b) **System of checks and balances**: An organisation involving a wide gamut of stakeholders will naturally prevent corruption/illegal processes by acting as a check and balance over officials which to some degree may eradicate unfair practises.
c) **Ensuring Public Hearings**: Provision of a platform where all affected stakeholders can voice their concerns is the very essence of democracy. However, at various occasions this has only been true in theory but not in practicality. Thus, a body ensuring transparent bureaucratic communication enables the locals to embody trust in their superiors whilst providing them a space to equitably participate.
d) **Grievance Redressal System:** A system of optionally-anonymous communication of grievances should be instated. Quite a few times, people are deterred from speaking against the wrongdoings of the higher authorities due to asymmetric power distribution. Thus, a system such as this would aim to deal with that problem.

Conclusion

The Unilever-Kodaikanal case raises important issues pertaining to the conflict between stakeholders with different power dynamics. Through our research, we have managed to show that this case has a long history which can be traced back to the 1980s. After drawing connections with certain theories like “accumulation by dispossession” and “tragedy of the commons”, our paper analyzes how the case is indirectly correlated with natural resource extraction through environmental externalities - mainly in terms of the pambar shola. Unilever’s attempt at downplaying effects goes on to show how it is nearly impossible for companies to be human.

The arguments raised through our paper emphasis towards broad based economic growth - which is of paramount importance if natural resources are to be preserved going forward. Pricing externalities, green fiscal policies, environmental profit and loss accounts, impact assessment systems and community grievance redressal agencies are the need of the hour - to ensure capitalism doesn’t become a nightmare for innocent people like those in Kodaikanal. The case study under purview is testimony that corporations, institutional agencies and other legally established entities must endeavour to strike a balance between maintaining the long-term use of natural resources while maximizing social benefits and minimizing environmental impacts.

Appendix
Primary Research: Interview with Mr. Nityanand Jayaraman

Conducted on 27 Nov. 2021, 7 AM

Link to the interview: **https://youtu.be/duQfJOyL4vQ (Please access this link using the Ashoka University Email ID).**

Nityanand Jayaraman is a Chennai based writer and researcher. He investigates and reports on corporate abuses of environment and human rights, and is part of an anti-corporate collective called *Vettiver Koottamaippu* (Collective). Based on the tremendous on-ground the collective and Mr. Jayaraman, this paper is enriched with insights about the Unilever-Kodaikanal case through an exclusive interview we were opportune to have with Mr. Jayaraman himself, the transcription of which is provided below:

Question 1: The Indian People's Tribunal reported in 2003 that the Unilever factory management used the surrounding ecosystem of Pambar Shola as their dumping ground for mercury-containing waste. How would you say that affected the environment in the context of Pambar Shola?

The unfortunate thing is that there has not been even one study by an independent agency to assess the impact of mercury pollution in the Pambar Shola. Pambar Shola – "Shola," is a Tamil word for a sub-montane tropical evergreen forest and these are endemic to the Palani Hills. These Sholas grow at mid-to-high altitudes and are surrounded by grasslands. By a biodiversity point of view and for hydrological importance, these Sholas are extremely valuable. For instance, the Sholas are so disconnected from other surrounding landscapes that they are called island forests. These [passes] then break the mountain chain in distinct fragments, allowing for the creatures in those hills to evolve almost independently. So there are birds and plants in the Pambar Shola, especially a tree that is not found anywhere else in the world. There are birds, like the yellow-bellied Sholakili or Sholicola and these are endemic to the Palani Hills. Sholakili for instance, is an insectivorous bird – a voracious feeder, which means that it is likely to accumulate mercury if it is there in the environment, it is likely to magnify through the food chain and accumulate through the higher trophic levels. So it goes without saying that there ought to have been a very serious matter of concern for the wildlife at least and the people concerned with the security of the plains. Even though for 21 years now, we've been demanding for independent studies, the Government of Tamil Nadu or Unilever hasn't allowed for such a thing to happen. So we can guess what the impact could have been – through the biomagnification and bioaccumulation of the food chain which means you're likely to find either sub-lethal or lethal

effects. Sub-lethal effects could be repressed reproductive capacity or compromised immune systems for these animals and birds which will then manifest itself as a long-term decline in the population or the health of the population.

Question 2: Based on your direct or indirect interactions with former workers of the company, how would you say the neurotoxic waste affected them or even their children and to what extent?

Looking at what the workers present as evidence, what other medical professionals have done as evaluation and the Government of India's Department of Labour's report [in 2010] – the report finds widespread symptoms that could be attributed to exposure to mercury in the workplace. There was a team headed by the Department of Labour that came in and spent three days in Kodaikanal and looked at the various occupational safety and health protocols followed in the company and interviewed the company people and the workers over a period of two days and examined a select number of them and concluded that there were symptoms like memory loss, neurological disorders which manifest themselves as tremors, they had dental issues, kidney problems – mercury is a toxin that targets the kidney particularly.

When we first met the workers in 2001, the workers were unaware that mercury was poisonous. In 2001, under pressure from the citizen groups, the [Tamil Nadu] Pollution Board directed Unilever to clean up this [crap yard] where about 5.7 tonnes of mercury waste were dumped. We insisted on a world class clean up because India does not have clean-up protocols. We had men in space suits coming down to handle the mercury waste that the workers had been handling very casually over the last 18 years – that really freaked the workers out and that begun their process of enquiry into the toxicity of mercury and what it could mean. By the time the public hearing happened in late 2002, the workers had already gathered information, their own health effects. At the time, there were around 6 to 7 people who died at a very young age – all men – and all by kidney failure. 7 people from the same factory dying of kidney failure is a very significant finding. Another significant finding was that they found that there was a very high turn-around rate, which means that workers did not stay in employment for very long. Kodaikanal is a "one-horse town," and there is a multinational company operating there – the jobs would be things that they (the workers) hang on to – why are people only staying for two months/two years and leaving?

This is very well established in occupational safety literature that places that have a high employment turn-around are usually a workplace with some kind of an abusive work atmosphere. It could be an environment that is hazardous. Among children – there were people who had appeared to have exposed their families to the effects of mercury because if protocols

had been followed, the workers would have shed their [work] clothes in the factory, washed themselves, worn their home clothes and retuned home. Because protocol wasn't followed, they left in the clothes they came in without even having to wash themselves – which means when you go home and hug your child, you pass on the mercury from droplets inside your pocket because it might have condensed or someone might've thrown some mercury at you or mercury stuck to your mustache/beard – those things are passed onto their family members. For women, mercury can cause in utero exposure to a developing fetus. There is a woman called [Margaret] – she was pregnant with her first child (Nitish) when she had joined the company, she became pregnant and she left the company after a few months. Nitish was born with serious health effects. [Mercury] is a neurotoxin and he (Nitish) was born with a "compromised brain," and her second (younger) son is quite well. There were many cases like this – many children had succumbed to [brain-related] disorders or neuro-functions.

Question 3: Could you give us your insight regarding how transparent Unilever was in taking accountability for/or handling the actual consequences of the Kodaikanal mercury poisoning case?

Unilever has not behaved differently from any other corporation. Corporations are a legal construct. It does not have a conscience or a soul that you can appeal to. After the factory shuts down, a corporation does what it does best – cover up. They are legally required to do it so it minimizes damages to the shareholders, that's what a corporation's legal responsibility is. Unilever has done an excellent job of retaining shareholder value despite the fact that it has poisoned the environment and its workers. The first thing they did to downplay is promptly commission a study – the Tamil Nadu Pollution Control Board did not study to find out what is the extent of damage.

In the study, Unilever did a "Mercury Mass Balance," – an auditing or an accounting exercise which says that [so much of] mercury was exported from so many countries and here are the records – so we have "X," number of tonnes of mercury that came into the factory and "Y," number of tonnes that went out of the factory as finished thermometers, "Z," number of tonnes that can be accounted as waste stored over here and the rest of it is unaccounted loss. This "unaccounted loss," is what has been discharged to the environment or the bodies of the workers. In this accounting exercise, Unilever's interest is to ensure that the unaccounted losses is a very minimal amount. Unilever assigned a quantum of about 559 kgs as unaccounted losses to the environment – a very [significant amount]. The workers came in and said here are [10.8 tonnes of mercury] that you have not accounted for, that came in from Bombay. So we don't know how

much mercury was actually discharged to the environment. Between 2000 and 2016, they (Unilever) denied that there is any possibility that workers have been harmed, despite the fact that it had been demonstrated that the workers' safety protocols had not been followed/violated, despite the doctors and the Government of India Committee report that had established that workers had been injured. So for 15 years, they did nothing to compensate the workers or settle with them.

In 2015, after the viral [rap] song, Unilever found its responsibility. What the song did was it tilted the balance of power. Over a period between August and March, the workers negotiated along with their pro bono lawyer and managed to get a very healthy settlement. Do we [Anti-Corporate Collective] think it's a victory? No, it's not a victory – it's a good thing for the workers – but we've not managed to change the nature of the beast. Because our courts will not help us, the [State] government, Central Government is on their side, all the scientists of IIT, All India Institute of Medical Sciences on whom we've wasted public money, is on their side. People have to fight alone. Even solidarity workers are hard to come by. Until the nature of the corporation is changed, nothing has really been achieved. The 593 workers who got some settlement – very late – there is lot of good news there, but after the workers were settled, the spotlight has been taken away from Kodaikanal and bad things are happening in terms of the clean-up.

Question 4: We've heard of rap songs getting viral. But what have been some of the steps used by the people of Kodaikanal for conflict resolution?

Answer: When the song went viral, people were the main stakeholders. So they had to be prepared for it. Their background research was of utmost importance. "Between 2001-2015, thanks to the right to information act, we knew more about Unilever's activity than even Unilever or the PCB". The company claimed they had provided protective equipment. But we found out those equipment won't even last for few months. So there was a lot of information that was unearthed. Workers have their own skills and know exactly about what is going inside the factories. So this was used as evidence and was very useful for setting strategy in media and in front of other stakeholders. In 2013, we also did a campaign called **"have a heart Mr. Polman",** where school children asked the human inside CEO to resolve the issue.

Question 5: What do you think the role of the government and pollution control board has been in the unilever-kodaikanal case?

Answer: "**Going to the courts in India against large corporations for environmental concerns or crimes against labor is a waste of time**". It's because the state is a bourgeoisie one. Even in the Bhopal Gas Tragedy, the courts let the people down. People weren't allowed to represent themselves. The government represents the corporate sector and the elite and it was their failure to act that increased the problem exponentially.

Worker exposure to mercury is also a criminal offence. The PCB were supposed to have followed the law. They also had to initiate an independent study and file an FIR. The government of India was just absent from the situation. The courts needed to be more aggressive to protect the environment and workers. There is an evident pro corporation bias in the manner offences are dealt with. Authorities needed to keep Unilever out from the negotiation table.

Question 6: My question is in the context of the remediation process. So there is a recent affidavit dated 30th August 2021 by Unilever which sort of mentions speeding the processes by skipping certain risk assessments. What do you feel about it? How do you think the remediation process can be speeded up while not causing further harm to the communities and the natural resources of the region?

Answer: Let me start with this whole thing about risk assessment and why that is important. Normally when you want to clean up a contaminated place, the question is how clean is clean. For cleanup of a factory site, there is a different standards that Unilever deploys, which is very different from the standards it applies to its "detergents"! That cleanup process then becomes very important. How do you determine how clean is clean? For this the method that is used scientifically, involves evaluating the "Future use of the site". If the site is going to be used as a dumpyard, then the clean up would be of different extent. If the site is going to be used as a factory, there would probably be a different standard. If the site is going to be used as a residential complex, the cleanup process would have to be more careful because children could be playing on the ground. There may be people growing carrots etc. So the standard would be different. If the site is going to be remediated so that it can be used by wildlife and to prevent bioaccumulation, then a more stringent standard would have to be deployed. **So risk assessment is based on the target receptor and the future land use.**

Regardless of what future land use you dream up for that site, the fact that the site is ecologically and hydrologically contiguous and part of the pambar shola makes it important that the site has to be treated as part and parcel of an ecologically sensitive wildlife area which means that the risk assessment has to be done with nature as the target receptors. And Unilever's first fight which they won is to allow them to get away with a human risk assessment. So based on that,

they developed a cleanup protocol. So the cleanup protocol essentially involves digging up the soil, washing it, separating the fine fraction of the soil from the coarse fraction of the soil, working on the assumption that the fine fraction has more mercury adhered to it than the coarse fraction. And then subjecting the fine fraction to a heat process to allow the mercury to volatilize and distill it to allow the mercury to condense and collect it in boxes and keep it aside. In theory this is fine. But if mercury is adhering to the fine fraction then it is likely to be adhering more to the finer fraction that escapes the filters which means that it is going away as a toxin. A soil bound toxin along with water. Then the emphasis would have to be on the treatment of water and the amount of space you'll need for treating that water would be very high. The second issue that it raises is that this is an admission that mercury will be mobilized in fine sand particles when water flushes it.

This means with every rain, the runoff which carries soil will contain mercury. This has been our allegation. And I think anybody who has passed 8th standard should be able to understand that. But believe it or not, we have not been able to convince the Pollution Control Board or the wildlife department that the rainwater which is coming out of the factory site is contaminated. The act of cutting the trees made this problem worse. We were trying to establish that the factory is a source of mercury into the Pambar Shola even before the site was deforested . What happened with the removal of the vegetation, the three layers of protection - the canopies of trees, shrubbery and bushes, and the layer of leaf litter have been lost. **By removing the vegetation from the 4 acres, they have basically exposed all the soil. The trees were removed in January 2020. There have been intense rains since then. In terms of what can be done now. I think nothing. We have lost the case. The mercury which was inside the factory site has been Swachh bharat into the pambar shola.**

Question 7: In the context of the continuous damage which has been happening in the past some time, do you think there ought to be another lawsuit filed against unilever? This question is especially in the context of previous cases such as the Erin Brokovich case where another settlement was achieved in 2012. Do you think that the people and the community deserve greater justice with another lawsuit that ought to be filed within the next few months?

Answer: **You are assuming lawsuits lead to justice when we are trying to educate people that courts are dangerous places**. Courts are places which are favorable to corporations. See not because a judge may be biased but it is about who can bring in more powerful science. Science is not about objectivity. Scientists are human beings and some have a spine and some don't. In all the reports that NEERI has been bringing out… NEERI is supposed to be one of the most premier research institutes. It is supposed to be autonomous. Courts are not great places. The streets are a better place. The same thing is with the United Nations. Glasgow etc. You'll be just fighting…The streets are where we need to be located. So Erin Brokovich - it's a great case and all that stuff but I think that getting monetary compensation without dismantling the

corporate structure or without at least attempting to dismantle the corporate structure is a waste of time.

I am not saying corporations are evil. **I am saying that corporations are being set up to do one thing, which is to maximise profit for their shareholders**. They are not set up to be responsible. Their responsibility lies in ensuring that they maximize profits to their shareholders in a legal manner. Now who needs to ensure that that is legal - We need an enforcement agency. Who elects the enforcement agency? Not the people! Through electoral bonds, people like Adani, Ambani, Vedanta fund our politicians to fight their elections. At the end of the day, the people elect somebody who they are enslaved to. This is not a democracy that way. Unless you remove corporate influence from your governance… **And you can't remove corporate governance until the very system changes because wall street and dalal street are the most powerful entities.**

It's not about bringing attention to the issue. But when I brought attention to the issue, I want to tell you that I lost or that we lost. I want to tell you why. So that you don't go around following the wrong answer or answering the wrong question. The question is not how to make corporations accountable but to realise that **they cannot be made accountable because the system has been set up in that manner.** The system change has to be a complete change. Even Green Growth will never work. It just follows the same principle of exploitation of humans and nature but with a "Green" tag to it. Green is the most dangerous word. So when you see it, you know there is a scam in the making.

Courts have a place. They can be used tactically. However, don't get swayed by great pronouncements from courts. They are few and far between but by and large if you look at it, they follow the **global order of perpetuating the influence of the wealthy over the poor**.

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