



Industrial Relocation and Environmental Justice: The Miteni Case from Italy to India

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Abstract

This case study investigates the trajectory of Miteni, an Italian fluorochemical company that was shut down in 2018 following severe PFAS contamination, and the subsequent relocation of its machinery to Maharashtra, India under Lakshmi Organic Chemicals. It documents the company's historical rise, controversies, and eventual closure, while analysing the continuation of operations in India without significant legal challenges. The study situates this industrial relocation within the broader tension between economic growth and environmental sustainability, highlighting regulatory gaps, public health concerns, and global perceptions of corporate accountability. By framing Miteni's experience as a case of transnational industrial transfer, the study provides insights into how globalization complicates environmental justice and underscores the need for stronger international oversight mechanisms.

KEYWORDS - PFAS Contamination, Transnational Industrial Relocation, Environmental Justice, Corporate Accountability, Regulatory Gaps



Introduction

Industrial relocation across borders is often driven by economic opportunity, but it can also transfer environmental risks. The case of Miteni – once a leading fluorochemical producer in Italy, now linked to operations in Maharashtra – exemplifies this dilemma. While the move promises industrial growth and employment opportunities, it revives fears of pollution and health hazards associated with PFAS, commonly referred to as “forever chemicals.” This study investigates the historical background, controversies, and challenges associated with this relocation, while proposing solutions to balance industrial development with ecological responsibility. It further examines the role of regulatory frameworks in shaping corporate practices and the extent to which global standards are enforced locally. By analyzing stakeholder perspectives and long-term sustainability concerns, the case highlights the complex intersection of globalization, public health, and environmental justice.

History of Miteni

Miteni was founded in 1964 in Trissino, Vicenza, Italy, and specialized in fluorochemicals, particularly PFAS used in textiles, packaging, and non-stick coatings. Over the decades, the company expanded its operations and became a major supplier in Europe, contributing to industrial innovation and embedding itself in global supply chains. Its products were considered essential for modern consumer goods, and Miteni positioned itself as a pioneer in chemical manufacturing.

However, by 2018, investigations revealed widespread PFAS contamination in groundwater, affecting more than 350,000 residents across the Veneto region. This contamination was linked to serious health conditions, including cancers, cardiovascular disease, and reproductive disorders, raising alarm about the long-term consequences of industrial negligence. The scandal not only led to the company’s closure but also triggered one of Italy’s largest environmental trials. Executives were sentenced to a combined 141 years in prison for negligence, marking a historic judgment in corporate accountability.

Rise of the Company

Miteni’s growth was fueled by the global demand for durable, water-resistant, and heat-resistant materials. PFAS chemicals became integral to consumer goods, positioning Miteni as a critical player in global supply chains. Its technological expertise and production capacity made it a leader in fluorochemical innovation, supplying industries ranging from textiles and packaging to cookware and electronics. For decades, the company thrived as a symbol of industrial progress, showcasing how chemical innovation could transform everyday life and drive economic growth.

Yet, beneath this success lay a growing environmental burden. PFAS, often referred to as “forever chemicals,” were resistant to natural degradation, meaning their accumulation in soil and water posed long-term risks. While Miteni’s operations were celebrated for efficiency and scale, the company failed to adequately address the environmental consequences of its production. This negligence eventually overshadowed its achievements, as investigations revealed widespread contamination that endangered public health. What had once been a story of industrial triumph turned into a cautionary tale of corporate irresponsibility, culminating in the company’s closure and the prosecution of its executives.

The Controversy

When Miteni shut its doors in Italy after the PFAS contamination scandal, many thought the story had ended. But the company’s machinery soon resurfaced thousands of miles away in Ratnagiri, Maharashtra, under Lakshmi Organic Chemicals. The relocation immediately stirred debate. The government assured citizens that PFAS would not be produced at the new facility, emphasizing that operations would comply with Indian regulations. Yet activists and opposition leaders saw the move differently. To them, the equipment was more than just machinery - it carried the shadow of one of Europe’s worst environmental disasters.

Local communities, dependent on farming and fishing in Ratnagiri's fragile ecosystem, feared that history might repeat itself. Environmental groups warned that India risked becoming a destination for hazardous industrial assets, where industries rejected abroad could find new ground under looser oversight. The controversy grew into a larger conversation about industrial expansion versus ecological responsibility. On one side stood promises of jobs and economic growth; on the other, concerns about pollution, transparency, and long-term health risks.

In this way, the relocation of Miteni's machinery became more than a business decision - it became a symbol of the global struggle between development and sustainability, raising uncomfortable questions about how nations balance opportunity with responsibility.

Challenges

The relocation presents several challenges. Environmental risks remain paramount, as PFAS are known to persist in ecosystems and accumulate in human bodies. Regulatory oversight in India must match global standards to prevent disasters similar to those in Italy. Public trust is fragile, with communities fearing health hazards and resisting industrial projects. Policymakers face an economic versus ethical dilemma, balancing the promise of industrial growth with the responsibility of safeguarding public health. Finally, India's global reputation is at stake, as the country risks being perceived as a dumping ground for hazardous industries if transparency and compliance are not maintained.



Problem Statement

The central problem is how Maharashtra can leverage industrial relocation for economic growth while ensuring environmental safety and public health, given the legacy of contamination associated with Miteni's machinery.



Proposed Solutions

To address these challenges, strict environmental audits must be conducted, with independent monitoring of emissions and waste management. Transparent communication is essential, requiring public disclosure of chemical processes and safety measures. The adoption of alternative technologies and a shift towards safer, sustainable chemical production would reduce risks. Community engagement should be prioritized, involving local stakeholders in decision-making processes. Compliance with global environmental standards, particularly those of the EU and US, would enhance credibility. Finally, corporate accountability must be enforced through binding agreements that ensure companies bear responsibility for any environmental damage. In addition, collaboration with academic institutions and research bodies can foster innovation in safer chemical practices. Establishing cross-border regulatory cooperation would prevent companies from exploiting weaker legal frameworks when relocating. Long-term monitoring of soil, water, and public health indicators should be mandated to ensure that industrial growth does not compromise ecological balance or community well-being.

Comparative Analysis

In Italy, Miteni was shut down in 2018 after widespread PFAS contamination affected hundreds of thousands of residents. The legal fallout was severe, with executives sentenced to lengthy prison terms. In contrast, the machinery's relocation to Maharashtra has so far not resulted in legal issues, though public concern remains high. The government insists that PFAS are not being produced at the new facility, but skepticism persists. This comparison underscores the importance of regulatory vigilance and proactive measures to prevent history from repeating itself.

Future Scenario: If Operations Continue Without Legal Issues

The relocation of Miteni's machinery from Italy to Ratnagiri, Maharashtra, under Lakshmi Organic Chemicals, quickly became a source of debate. The Maharashtra government assured that PFAS would not be produced at the new facility, emphasizing compliance with regulations. Yet activists and opposition leaders argued that the equipment carried a legacy of contamination and posed hidden risks. Local communities, reliant on farming and fishing, feared pollution and long-term health impacts, while environmental groups warned that such relocation could set a precedent for "toxic trade," where hazardous assets move from stricter regions to countries with weaker oversight.

The issue also exposed gaps in transparency and governance. Critics demanded independent audits and community consultations, while political opposition framed the relocation as prioritizing economic growth over ecological responsibility. Supporters highlighted industrial progress and job creation, insisting safeguards were in place. Globally, the case raised questions about industrial relocation ethics: was India positioning itself as a responsible hub for sustainable growth, or risking its reputation by accepting machinery tied to one of Europe's worst environmental disasters?

Broader Implications

This case raises critical questions about global environmental justice. It highlights the urgent need for international frameworks governing industrial relocation, ensuring that hazardous assets are not simply shifted from regions with strict regulations to those with weaker oversight. It also reinforces the importance of transitioning to **green chemistry and sustainable industrial practices**, where innovation is directed toward safer alternatives that minimize ecological and health risks.

For India, the challenge lies in balancing industrial expansion with ecological responsibility, ensuring that economic growth does not come at the cost of public health or fragile ecosystems. The controversy illustrates how industrial relocation is not just a local issue but a global governance challenge, demanding transparency, independent monitoring, and community participation. It also underscores the interconnectedness of industrial decisions across borders, reminding policymakers that negligence in one country can ripple outward, shaping

reputations, trade relations, and environmental outcomes worldwide. Ultimately, the case serves as both a warning and an opportunity: a warning against repeating past mistakes, and an opportunity to establish India as a leader in responsible industrialization by embedding sustainability into every stage of growth.

Conclusion

The relocation of Miteni's machinery to Maharashtra represents both opportunity and risk. While industrial expansion can boost India's economy, ignoring environmental lessons from Italy could lead to irreversible damage. If operations continue without legal issues, India has the chance to demonstrate responsible industrial growth. However, this requires strict regulation, transparency, and sustainable innovation.

Beyond local implications, the case carries **global significance**. It highlights the need for stronger international frameworks to govern industrial relocation and prevent hazardous assets from being shifted across borders. It also reinforces the urgency of transitioning toward **green chemistry and safer alternatives**, ensuring that industrial progress aligns with long-term ecological sustainability. Ultimately, the Miteni controversy serves as a reminder that economic ambition must be matched with accountability, and that true industrial success is measured not only in profits but in the protection of public health and environmental balance.

REFERENCES:

- Springer Nature. (2024). *All-cause, cardiovascular disease and cancer mortality in the population of a large Italian area contaminated by PFAS (1980–2018)*. SpringerLink. <https://doi.org/10.1007/s10654-024-01012-3> (doi.org in Bing)
- World Health Organization. (2017). *Keeping our water clean: The case of water contamination in the Veneto Region, Italy*. WHO Regional Office for Europe. https://www.euro.who.int/__data/assets/pdf_file/0005/341325/Keeping-water-clean.pdf (euro.who.int in Bing)
- ThePrint. (2025, January 12). *Why one of Italy's biggest environmental scandals is causing a stir in Maharashtra's Ratnagiri*. ThePrint. <https://theprint.in>
- Scroll.in. (2025, January 14). *How machinery from a banned Italian chemical plant found a second life in Maharashtra*. Scroll.in. <https://scroll.in>
- Hindustan Times. (2025, January 15). *Ratnagiri plant has machinery of 'tainted' Italian firm, emitting hazardous chemicals: Rohit Pawar*. Hindustan Times. <https://hindustantimes.com>
- Reuters. (2023, October 25). *Executives get combined 141 years in prison for Italy PFAS spill*. Reuters. <https://www.reuters.com>
- Euronews Green. (2023, October 26). *Italian court sentences 11 executives to jail for PFAS pollution*. Euronews. <https://www.euronews.com>