THE PRICE OF SECRECY: A DOCTRINAL AND POLICY ANALYSIS OF COMPULSORY LICENSING OF TRADE SECRETS IN INDIA

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ABSTRACT

Trade secrets (TS) are emerging as major drivers of innovation. They shield internal know how, confidential business information, and other information not protected by patents. In the Indian context, there is no specific legislation related to TS. Due to this, they remain vulnerable to misappropriation. TS simultaneously restrict public access to information, even during dire need in times of emergencies. This article contributes to the discourse on compulsory licensing (CL) as a balancing mechanism between private secrecy and public needs, extending beyond traditional patent-centric models. It examines the present legal and policy landscape in light of the Protection of Trade Secrets Bill, 2024, which proposes narrowly tailored mechanisms for government-authorised use of TS during declared emergencies, while also embedding appropriate checks and balances, including limited scope, confidentiality obligations, and proportionate remuneration. Traditional IP frameworks alone cannot ensure equitable access to critical knowledge in complex industries, where TS monopolise proprietary processes and tacit knowledge as primary barriers to public-interest objectives. Neither TRIPS nor global mechanisms preclude well-designed CL for TS during emergencies. This article examines the doctrinal and policy effects of CL and highlights its structural lacunae in India's proposed domestic legislation. These reforms offer a framework for a future-ready TS regime in India while also meeting the minimum intellectual property protection mandate, thus resolving public-interest access challenges in both domestic and global contexts.

Keywords: Trade secrets, know-how, compulsory licensing, Protection of Trade Secrets Bill 2024, confidentiality.

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I. INTRODUCTION

"*Knowledge is power. Information is power. The secreting or hoarding of knowledge or information may be an act of tyranny camouflaged as humility.*"

- Robin Morgan[3]

Trade secrets [hereinafter referred to as "**TS**"] underpin India's innovation-driven economy, particularly in sectors where patent disclosure is commercially unviable or strategically risky.[4] Empirical research highlights their macroeconomic importance. Studies by the Indian School of Business reflect the complementary role TS play in sustaining innovation ecosystems, finding that jurisdictions with strong TS protection record 18% higher patent filings per capita and nearly 9% greater research and development [hereinafter referred to as "**R&D**"] expenditure.[5] Misappropriation of TS is estimated to cost certain advanced economies 1-3% of their Gross Domestic Product (GDP) annually, reflecting both the value and vulnerability of TS.[6]

In India, this vulnerability is magnified by the absence of a dedicated statutory framework. India's Trade Secrets Protection Index score of 2.92 trails that of comparable economies.[7] This gap is estimated to cause nearly ₹2,000 crore in annual TS leakage and deters Foreign Direct Investment (FDI) in technology-intensive sectors.[8] Weak protection directly threatens domestic innovation and may cause corporations to outsource their R&D activities to countries with more explicit protection regimes.

At the same time, absolute secrecy *ipso facto* creates systemic risks. Especially in the pharmaceutical and agritech sectors, both of which will be examined in detail later in this article, confidential know-how accounts for nearly 40% of such firms' competitive advantage.[9] Secrecy of

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[3] R. Morgan, *Knowledge is power. Information is power. The secreting or hoarding of knowledge or information may be an act of tyranny camouflaged as humility*, BRAINY QUOTE (Jan. 21, 2026, 3:15 PM), https://www.brainyquote.com/quotes/robin_morgan_271953.

[4] Mahalakshmi S & Madhangi N, *Trade secrets in the Modern Economy: An analysis of the proposed Bill's ability to protect intellectual property and foster innovation*, 11 TIJER – INT'L RES. J. 5, 5–14 (Nov. 2024), https://tijer.org/tijer/papers/TIJER2411121.pdf.

[5] M. Schultz, *Enhancing Trade Secret Protection in India*, ISB INSIGHT (Apr. 27, 2019, 12:00 AM), https://isbinsight.isb.edu/enhancing-trade-secret-protection-in-india/.

[6] Center for Responsible Enterprise And Trade & PricewaterhouseCoopers LLP, *Economic Impact of Trade Secret Theft: A Framework for Companies to Safeguard Trade Secrets and Mitigate Potential Threats*, CREATe.org-PWC REPORT (Feb. 2014, 12:00 AM), https://www.innovation-asset.com/hubfs/blog-files/CREATe.org-PwC-Trade-Secret-Theft-FINAL-Feb-2014_01.pdf.

[7] M. Schultz, *supra* note 3, at 2.

[8] Nimitt Dixit, *IPIC Series: Can India Plug Its INR 2,000 Crore IP Leak?*, ETLEGALWORLD (Nov. 5, 2025, 04:40 PM), https://legal.economictimes.indiatimes.com/news/law-policy/ipic-series-can-india-plug-its-inr-2000-crore-ip-leak/125107368.

[9] European Commission, Directorate-General for Internal Market and Services, *Study on Trade Secrets and Confidential Business Information in the Internal Market*, EU DOCSROOM STUDY (2013, 12:00 AM), https://ec.europa.eu/docsroom/documents/27703/attachments/1/translations/en/renditions/native.

manufacturing processes and formulations of essential medicines, seeds, and other technologies can undermine public health and food security. Such concerns are already acute in developing economies such as India. In the pharmaceutical industry, for one, TS protections over manufacturing processes and clinical data have delayed biosimilar approvals by years.[10] This has kept treatments for rheumatoid arthritis, anaemia, multiple sclerosis, and cancer unaffordable for millions in developing countries.[11] In these countries, the cost of biologics can exceed annual incomes.[12] Moreover, even after patents expire, secrecy over cell lines and purification methods forces redundant testing, inflating generic prices and reducing access.[13] This is especially concerning for India, which relies on generics for 70% of essential drugs.[14]

Similarly, in agritech, proprietary seed technologies are often shrouded as TS. Bt cotton is a prime example. Its escalating costs after its introduction in 2002 have driven India's cottonseed market into illegal channels.[15] Moreover, this perpetuates the risks of malnutrition by monopolizing high-yielding technologies.[16] As per the annual report by the Food and Agriculture Organisation (FAO), 2024, India had 194 million people who were undernourished, the highest globally.[17]

Thus, the dual challenge of preventing misappropriation while avoiding overarching monopolization of TS demands a carefully calibrated legal framework. In this setting, whether and to what extent TS should be subject to compulsory licensing [hereinafter referred to as "**CL**"] is a central issue in India's innovation and public-interest policy. In light of this, the article pursues three objectives. ***First***, it examines India's existing TS framework in light of innovation and competition policy. ***Second***, it analyses CL under Indian IP law. It assesses whether and to what extent TS falls within its scope. ***Third***, it evaluates the Protection of Trade Secrets Bill, 2024 [hereinafter referred to as "**the TS Bill, 2024**"].[18] The Bill was recommended by the 22nd Law Commission of India in March 2024 in its 289th Report titled "Trade Secrets and Economic Espionage" to identify structural, enforcement, and conceptual gaps.[19] On this basis, it proposes

[10] T. Gebrye et al., *Economic Burden of Rheumatoid Arthritis in Low-, and Middle-Income Countries* (2025) 77 ARTHRITIS CARE & RES. (HOBOKEN) 1 (2025), https://pubmed.ncbi.nlm.nih.gov/40827016/.
[11] *Id,* at 3.
[12] T. Gebrye, *supra* 9 at 3.
[13] V. Galani, *Choice of better medicine in India: branded vs generic medicine*, MEDCRAVEONLINE (Jan. 21, 2026, 11:50 AM).
[14] Professor T. Aplin & Dr. J. Liddicoat, *Discussion Paper on the Interplay between Patents and Trade Secrets in Medical Technologies*, WIPO DISC. PAP. ON IP & MED. TECH. 1, 55 (2023).
[15] B. Ramaswami et al., *Spread of Illegal Transgenic Cotton Varieties in India*, 40 WORLD DEV. 177, 177–188 (2012).
[16] B. Harriss, *Innovation Adoption in Indian Agriculture*, 6 MOD. ASIAN STUD. 71, 71–98 (1972).
[17] M. Wiemers et al., *Global Hunger Index 2024*, 1–80.
[18] Trade Secrets Bill, 2024, Bills of Parliament, 2024 (India).
[19] Law Commission of India, *Trade Secrets and Economic Espionage: 289th Report* (Report No. 289) 1 (Mar. 17, 2024), https://lawcommissionofindia.nic.in/report_twentysecond/.

targeted reforms to balance confidentiality with legitimate access needs and support a globally sound, forward-looking TS regime for India.

II. TRADE SECRETS: MEANING, DEFINITION, AND LEGAL NATURE

A. Definition and Nature of Trade Secrets

TS is any confidential business information that confers a competitive advantage and is protected through secrecy rather than registration.[20] Legally, they must meet three conditions: (i) the information must be secret; (ii) be subject reasonable protection measures such as NDAs, access controls, and security protocols; and (iii) it must have commercial value because it is confidential.[21]

Industry Case 1 (Agritech Sector): In the agricultural biotechnology sector, TS plays a central role because patent protection for plants and seeds is excluded under Section 3(j) of the Patents Act, 1970.[22] Proprietary hybrid seed lines data are therefore protected through non-disclosure agreements and restricted licensing grants with seed companies. One relevant instance is of *Emergent Genetics India Pvt. Ltd. v. Shailendra Shivam & Ors* (2011), where the plaintiff alleged misappropriation of its TS after DNA fingerprinting showed genotypic identity between its hybrids and those sold by the defendants.[23] The court examined claims of breach of confidentiality and unauthorized reproduction of genetic sequencing formulae to successfully enforce secrecy obligations even in the absence of statutory plant variety rights for the breed concerned.

Industry Case 2 (Pharmaceutical Sector): The pharmaceutical sector provides an even clearer illustration of the centrality of TS, which became especially evident during the COVID-19 pandemic. In biologics and vaccines, production relies on particular, proprietary processes. Elements such as proprietary cell lines, fermentation conditions, purification methods, and analytical assays are closely guarded as TS.[24] These aspects cannot be fully captured in patent documents.[25] Without access to these confidential elements, even a manufacturer holding a CL for a patent cannot reliably produce a safe, effective, and regulator-compliant product.[26] Therefore, TS

[20] Mahalakshmi, *supra* note 3, at 2.
[21] Mahalakshmi, *supra* note 3, at 2.
[22] Patents Act, 1970, § 3(j), No. 39, Acts of Parliament, 1970 (India).
[23] Emergent Genetics India Pvt. Ltd vs Shailendra Shivam, 2011 (125) DRJ 173.
[24] A. Rejeb et al., *A Review of Two Decades of Academic Research on Electric Vehicle Battery Supply Chain*, 8 VEHICLES (MDPI) 1 (2025).
[25] K. Hickey & E. Ward, *Role of Patents and Regulatory Exclusivities in Drug Pricing*, CRS REPORT R46679 1, 1–61 (Jan. 30, 2024), https://www.congress.gov/crs-product/R46679.
[26] Lisa Larrimore Ouellette, *Do Patents Disclose Useful Information?* 25 HJLT 545, 545–601 (2012), https://jolt.law.harvard.edu/articles/pdf/v25/25HarvJLTech545.pdf.

forms the backbone of pharmaceutical innovation and production. Patent licensing does not enable genuine technology transfer in itself.

B. Current Legal Framework Governing Trade Secrets in India

India's TS protection has developed without a dedicated statute. The Indian Contract Act, 1872, provides the legal basis for non-disclosure agreements (NDAs) and confidentiality clauses.[27] Common law equity, crystallized in cases such as *John Richard Brady v. Chemical Process Equipment's* (1987), recognises breach of confidence as a protectable wrong.[28] The erstwhile Indian Penal Code, 1860, and the now Bharatiya Nyaya Sanhita, 2023, penalize theft, misappropriation, and criminal breach of trust involving confidential business material.[29] This framework was reinforced by India's accession to the TRIPS Agreement in 1995. TRIPS, under Article 39, requires the protection of undisclosed information.[30] Subsequently, the Information Technology Act, 2000, was enacted to penalize offences concerning unauthorized access and breach of confidentiality.[31] Judicial development has further shaped the regime through High Court decisions that have applied the four-fold test for confidentiality. The test is that the information (i) is not public knowledge; (ii) has commercial value because it is secret; (iii) was disclosed or accessed in circumstances importing an obligation of confidence; and (iv) has been subject to reasonable steps to keep it secret.[32]

Assessments at a policy level, such as through the WIPO Country Report on India's trade secrets, consistently note the absence of a unified statute.[33] As the next section shows, CL in India has evolved only within patent law. There are no corresponding authority empowering courts to compel disclosure of TS or technical know-how, even in public or national emergencies.

III. COMPULSORY LICENSING: CONCEPT AND CONVENTIONAL APPLICATIONS

A. Rationale and Legal Framework for Compulsory Licensing

CL has its roots in public interest rationales of IP law. It seeks to strike an appropriate balance between private rights of exclusion and public interests.[34] It has been primarily justified based on

[27] Indian Contract Act, 1872, §§ 10, 27, 73–74, No. 9, Acts of Parliament, 1872 (India).
[28] John Richard Brady v. Chemical Process Equipments Private Limited, AIR 1987 Delhi 372.
[29] Indian Penal Code, 1860, §§ 378, 403, 405, No. 45, Acts of Parliament, 1860 (India); Bharatiya Nyaya Sanhita, 2023, §§ 303, 314, 316, No. 45 of 2023, Acts of Parliament, 2023 (India).
[30] Agreement on Trade-Related Aspects of Intellectual Property Rights, art. 39, Apr. 15, 1994.
[31] Information Technology Act, 2000, §§ 43, 66, 72, No. 21, Acts of Parliament, 2000 (India).
[32] Bombay Dyeing & Manufacturing v. Mehar Karan Singh, 2010 (112) BomLR 375; Zee Telefilms v. Sundial Communications, 2003 (3) Mah LJ 695.
[33] WIPO, *Overview of National and Regional Trade Secret Systems: India* (2024).
[34] K. Vincent, *The Use of Compulsory Licenses*, WIPO REGIONAL SEMINAR ON PATENT-RELATED FLEXIBILITIES 1, 1–5 (2013).

public interests related to access to necessary technologies, which patents deny due to low affordability or poor availability.[35] In cases of emergency, say a pandemic, epidemic, or outbreak of disease, requiring immediate life-saving treatments, voluntary licences and market negotiations often fail due to delay, unaffordability, or refusal by rights holders.[36] Even in the absence of emergencies, CLs can serve as a means to solve the problem of access in low- and middle-income countries.[37]

At the international level, CL of patents is governed primarily by Articles 30 and 31 of the TRIPS Agreement.[38] Article 30 allows limited exceptions to exclusive patent rights.[39] Article 31 provides for the usage of a patented invention without authorization in certain circumstances, including national emergency, public non-commercial use, or extreme urgency under certain conditions, including prior negotiation, adequate remuneration, and predominantly domestic use.[40] Most of these principles have been incorporated into the domestic law of India, Brazil, Thailand, and Germany, among others, in furtherance of the TRIPS Agreement.[41]

B. Compulsory Licensing of Trade Secrets: Gaps and Absence of Explicit Mechanisms

Unlike patents, for which Article 31 TRIPS sets out a detailed CL framework, TRIPS contains neither an explicit mechanism nor an express prohibition on CL of TS. This creates a regulatory silence regarding compulsory TS transfer. Article 39 protects undisclosed information only against unfair acquisition, use, or disclosure.[42] Many scholars read this formulation as leaving room for a CL regime.[43]

WTO jurisprudence on TRIPS flexibilities confirms this position. *Canada-Patent protection of pharmaceutical products* (WT/DS114) iterates that Members may regulate IP rights in the public interest.[44] The case acknowledges that since Articles 30 and 31 operate within the patents chapter, they cannot be directly extended as exceptions to Article 39.

C. Limitations of Restricting Compulsory Licensing to Patents

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[35] *Id*, at 7.
[36] K. Vincent, *supra* note 37, at 7.
[37] H. Mowafi et al., *Emergency Care Surveillance and Emergency Care Registries in Low-Income and Middle-Income Countries*, 4 BMJ GLOB. HEALTH (SUPP. 6) e001442, 1–9 (2019).
[38] Agreement, *supra* 32 at 6, arts 30, 31.
[39] Agreement, *supra* 32 at 6, art 30.
[40] Agreement, *supra* note 32 at 6, art 31.
[41] R. D. Anderson et al., *Competition Policy and Intellectual Property in Today's Global Economy* (part 1 chp 3), 62 CUP 62, 62–98 (2021).
[42] Agreement, *supra* note 32 at 6, art 39.
[43] O. Gurgula & J. Hull, *Compulsory licensing of trade secrets*, 16 JIPLP. 1242, 1242–1261 (2021).
[44] *Canada-Patent Protection of Pharmaceutical Products*, WT/DS114/R (Mar. 17, 2000).

CL of patents addresses only the formal, codified layer of innovation. It does not extend to the TS, tacit know how, process optimisations, and operational protocols that make a technology commercially workable. In most sectors, these critical elements are protected as TS.[45] They are neither disclosed in patents nor transferable under a patent licence. As a result, patent-only CL leave licensees legally authorised but remain technically unable to use the technology in practice.[46]

Industry Case 1 (Agritech Industry): The agricultural sector offers a clear illustration. In *Monsanto Technology LLC v. Nuziveedu Seeds Ltd* (2018) in India, Monsanto and its joint venture Mahyco Monsanto Biotech exercised tight control over Bt cotton trait technology imbibing TS, and continued to exploit Indian farmers even after court holdings against their practice of demanding excessively high trait fees.[47] There were related CCI proceedings (2020) as well that triggered challenges under both patent law and competition law[48].

In *Bowman v. Monsanto Co.* (2013), before the United States Supreme Court, Monsanto used its patents. Monsanto also used its confidential control.[49] The control was over Roundup Ready soybean technology. This was used to prevent farmers from replanting harvested seeds. This reinforced a model in which self-replicating technologies and critical agronomic information remained proprietarily controlled. Similar patterns also appear in disputes involving Pioneer Hi-Bred and other seed multinationals, where proprietary parent lines and breeding data were held as TS, which limited follow-on breeding and constrained competition.[50]

Similarly, in Argentina, where Monsanto could not secure patents on first generation Roundup Ready soybeans, it relied on contracts and technology fees backed by private grain testing to extract royalties on later varieties such as Intacta RR2 Pro despite the absence or expiry of patents, demonstrating how a non-disclosed technological package protected through contracts and TS can sustain a *de facto* monopoly long after formal patent rights weaken.[51]

Industry Case 2 (Pharmaceutical Industry): The CL of patents provides only one layer of pharmaceutical protection. For modern medicines, inputs such as cell lines, purification methods, stability conditions, and analytical assays are protected as TS rather than patents.[52] One instance of rigid monopolisation of such TS was observed during COVID-19. Leading vaccine developers

[45] K. Linton, *supra* note 23 at 5.
[46] *Id*, at 9.
[47] Monsanto Technology LLC v. Nuziveedu Seeds, [2019] 3 SCC 381.
[48] Nuziveedu Seeds Ltd. v. Mahyco Monsanto Biotech, 2020 SCC OnLine Del 598.
[49] Bowman v. Monsanto Co., 569 U.S. 278 (2013).
[50] Competition Commission of South Africa v Pioneer Hi-Bred International, CCT 58/13) [2013].
[51] M. Municoy, *Judicial Decision in Argentina Tackles the Interplay between Enforcing Patent Rights and Antitrust Law*, GLOBAL COMP. POL'Y (Release One), June 2009, 1.
[52] Robin Feldman, *Trade Secrets in Biologic Medicine: The Boundary with Patents*, 24 CSTLR 1, 1–36 (2022).

declined to share critical manufacturing TS with capable producers, especially in low- and middle-income countries. For instance, Pfizer BioNTech and Moderna refused to transfer mRNA technology initiatives, such as the WHO mRNA hub in South Africa, to other manufacturers.[53] This withholding of TS occurred despite substantial public funding for the underlying research, which was widely seen as having entrenched global vaccine inequity.

IV. LEGAL FOUNDATIONS FOR EXTENDING COMPULSORY LICENSING TO TRADE SECRETS

A. An Equity and Human Rights-based Justification for Compulsory Licensing

CL of TS lies at the intersection of two powerful ethical claims. One claim is the right of innovators to protect legitimately acquired commercial advantages. The other claim is the right of populations to access essential innovations in emergencies.

The UN Sub-Commission on the Promotion and Protection of Human Rights (2000) established "*the primacy of human rights obligations over economic policies and agreements,*" including those on IP.[54] Similarly, UN Special Rapporteur on Cultural Rights Farida Shaheed (2015) affirmed: "*Where patent rights and human rights are in conflict, human rights must prevail.*"[55] Hence, most TS should fall under the ambit of these obligations.

Industry Case 1 (Agritech Industry): The agricultural sector illustrates this tension sharply. The right to food security is protected under Article 11 of the International Covenant on Economic, Social, and Cultural Rights (ICESCR) and Article 25 of the Universal Declaration of Human Rights (UDHR).[56] International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA)'s Article 9 and the Convention on Biological Diversity (CBD) similarly require IP regimes to be balanced against farmers' rights to genetic resources, implying that TS barriers in seeds and agritech must give way when they undermine access to food.[57]

For this purpose, Article 19 of the United Nations (UN) Declaration on the Rights of Peasants (2018) protects peasants' rights to "*save, use, exchange and sell farm-saved seed or other*

[53] Andreas Panagopoulos & Katerina Sideri, *From Lab to Mass Production*, 11 FRONT. PUB. HEALTH 1151713, 1–10 (2023).
[54] Sub-Commission on the Promotion and Protection of Human Rights, *Intellectual Property Rights and Human Rights*, U.N. Doc. E/CN.4/SUB.2/RES/2000/7 (2000).
[55] UNGA, *Report of the Special Rapporteur in the Field of Cultural Rights on Patent Policy and the Right to Science and Culture*, U.N. Doc. A/70/279 (2015).
[56] International Covenant on Economic, Social and Cultural Rights, art. 11, Dec. 16, 1966, 993 U.N.T.S. 3; Universal Declaration of Human Rights, art. 25, G.A. Res. 217 (III) A, U.N. Doc. A/810 (Dec. 10, 1948).
[57] International Treaty on Plant Genetic Resources for Food and Agriculture, art. 9, Nov. 3, 2001, 2400 U.N.T.S. 303; Convention on Biological Diversity, June 5, 1992, 1760 U.N.T.S. 79.

propagating material" and access to quality seeds.[58] UN Special Rapporteur on the Right to Food Olivier De Schutter (2009) warned that "*stringent plant variety protection based on UPOV 1991 restricts small-scale farmers' access to seeds and puts their Right to Food at risk*."[59] This occurs as it limits seed saving and exchange practices. These practices are essential for food sovereignty.

In the Indian context, research asserts "*trade secret cannot have priority over right to safe and nutritious food*," as citizens' right to information under Article 19(1)(a) and life under Article 21 prevail over proprietary secrecy in food items, implying that withholding agricultural TS could undermine public access to vital technologies.[60]

Industry Case 2 (Pharmaceutical Industry): The pharmaceutical sector raises comparable concerns. The right to health was first recognised as a fundamental human right in 1946 in the World Health Organisation (WHO) Constitution, which declared that "*the enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being*."[61] It was later affirmed in the UDHR, 1948, and the ICESCR, 1966.[62] This creates a strong ethical claim in favour of sharing life-saving technologies when they conflict with proprietary control. The case for sharing is reinforced by the scale of public funding behind many pharmaceutical innovations. Moderna, for example, received nearly $1 billion from the United States (US) government for COVID-19 vaccine development, raising serious questions about its obligations to the public good.[63] Where taxpayer money has materially contributed to innovation, there is a compelling moral and ethical case for sharing TS during a global health crisis, not merely as corporate social responsibility but as an obligation arising from public investment.

At the same time, ethicists caution against regimes that normalize mandated disclosure. Any compulsory access should be confined to clearly defined emergencies, accompanied by fair remuneration, and embedded in governance structures that prevent opportunistic use for purely economic gain. Under the UN Guiding Principles on Business and Human Rights, corporations have human rights responsibilities, but states remain the primary duty bearers under international law, and corporate responsibility cannot become a pretext for state inaction.[64] The architect of this

[58] United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas, art. 19(d), G.A. Res. 73/165 (Dec. 17, 2018).
[59] Olivier De Schutter, *Report of the Special Rapporteur on the Right to Food: Crisis into Opportunity: Reinforcing Multilateralism*, U.N. HUM. RTS. COUNCIL REP. A/HRC/12/31 (July 21, 2009).
[60] Dr. R.R. Mishra & M. Chakrabarty, *Right to Safe Food: Constitutional Perspectives*, LAW MANTRA QUARTERLY ONLINE J. 1 (2016).
[61] Constitution of the World Health Organization, July 22, 1946, 14 U.N.T.S. 185.
[62] Universal Declaration of Human Rights, art. 25, G.A. Res. 217 (III) A (Dec. 10, 1948); International Covenant on Economic, Social and Cultural Rights, art. 12, Dec. 16, 1966, 993 U.N.T.S. 3.
[63] B. A. Dahl et al, *Global VAX: A U.S. Contribution to Global COVID-19 Vaccination Efforts, 2021–2023*, 42 VACCINE (SUPP. 3) 125827, 125827–125827 (2024).
[64] United Nations Guiding Principles on Business and Human Rights, U.N. Doc. A/HRC/17/31 (Mar. 21, 2011).

framework, John Ruggie, notes that companies engaged in public functions, such as healthcare, may bear heightened responsibilities, but it is ultimately for states to protect human rights through the provision and regulation of public services.[65]

B. The Protection of Trade Secrets Bill, 2024: Key Provisions and Implications

The Bill, 2024, directly acknowledges this lacuna by proposing a domestic mechanism for government-authorised use of TS in situations of national emergency or public interest, illustrating how Member States can legislate where TRIPS provides no mandatory model.[66] While TRIPS protects undisclosed information, it leaves mechanisms for compulsory access undefined. Building on this space, the Bill introduces a narrowly tailored government-use CL framework with four core safeguards: activation only on government notification of a "*circumstances of national emergency or extreme urgency involving substantial public interest, including situations of public health emergency, national security etc*." under clause 6(1); government determined compensation reflecting the value and development costs of the TS under clause 6(2); identifying the rights holder backed by strict confidentiality peri and post transfer and termination under clause 6(3); and automatic termination once the emergency ends under clause 6(4).[67] The silence of the TRIPS on CL of TS specifically creates doctrinal space for such measures while remaining consistent with TRIPS, since these mechanisms operate within its flexible, minimum-standards structure.

C. Aligning Trade Secret Licensing with TRIPS Obligations

Extending compulsory access to TS is reconcilable with the existing TRIPS framework. ***Firstly***, Article 1(1) of the TRIPS grants Members the freedom to choose the "appropriate method" of implementing their obligations, allowing States to adopt domestic laws that permit government-mandated access to TS, so long as minimum standards of protection are preserved.[68] This flexibility underpins national emergency regimes, such as India's Bill, 2024.

Secondly, Article 39 reinforces this space.[69] Article 39.2 protects undisclosed information only against "unfair" use. Article 39.3 expressly permits disclosure of regulatory data. This is permitted when necessary to protect the public. This signals that controlled, nonpublic disclosure in

[65] Conectas Human Rights, *The Ruggie Framework*, SUR.CONECTAS.ORG, https://sur.conectas.org/en/the-ruggie-framework/.
[66] Trade, *supra* note 17 at 4, cl 6.
[67] Trade, *supra* note 17 at 4, cl 6.
[68] Agreement, *supra* 32 at 6, art 1(1).
[69] Agreement, *supra* 32 at 6, art 39.

exceptional circumstances is not *per se* incompatible with TRIPS. WTO practice treats Article 39 as a negative right. It is a right against unfair conduct and is not treated as an absolute property right.[70] This leaves Member States free to mandate access.

Thirdly, as discussed before, Articles 30 and 31 apply solely to patents.[71] However, the Doha Declaration on TRIPS and Public Health (2001) has affirmed no TRIPS's Article under the TRIPS must prevent Members from protecting public health.[72] It affirmed that each State may determine what constitutes a national emergency. Under Article 31 of the Vienna Convention on the Law of Treaties (VCLT), these provisions should be read in light of TRIPS Articles 7 and 8.[73] These Articles place technology transfer and public health at the center of the TRIPS. For instance, if pharmaceuticals are considered, Article 8(1) authorizes measures "*necessary to protect public health and nutrition*" if consistent with TRIPS, allowing States to justify CL for vaccine processes, biologics manufacturing steps, or diagnostic protocols during crises, provided the measures are proportionate and confidentiality-preserving.[74] Conversely, post-COVID scholarship by Gurgula and Levine (2025) argues that Article 8 operates as an interpretive principle rather than an independent exception, meaning that any compulsory access to TS must be narrowly tailored, proportionate, and confidentiality preserving, in the same way that patent CL is accepted when read with Articles 7, 8, and 31.[75]

Lastly, domestic emergency powers supply the legal machinery for such access. Many constitutional and statutory systems contain expropriation, government use, or national security powers that allow States to compel access to proprietary TS subject to compensation and procedural safeguards to preserve confidentiality, such as India's Bill, 2024.[76] Other jurisdictions rely on similar tools. Israel's Defence Regulations Order No. 3737 of 2020 authorised government use of patents and TS for COVID-19 technologies.[77] New Zealand's COVID-19 Public Health Response Act 2020 empowered the Prime Minister to use CL and issue government use orders for patents and TS relating to vaccines.[78] In Brazil, the Industrial Property Law, Law No. 9.279 of 1996,

[70] Rajat Kathuria & Julien Corcelle, *TRIPS, Pharmaceutical Patents and Access to Medicines: India's Options Under International Law*, IIFT-WTO CENTRE WORKING PAPER No. 1, 1–42 (2012), https://wtocentre.iift.ac.in/Papers/1.pdf.
[71] Agreement, *supra* 32 at 6, arts 30, 31.
[72] Declaration on the TRIPS Agreement and Public Health, WTO Doc. WT/MIN (01)/DEC/2 (2001).
[73] Agreement, *supra* note 32, at 6, arts 7, 8; Vienna Convention on the Law of Treaties, 1969, 1155 U.N.T.S. 331. art 31.
[74] Agreement, *supra* note 32, at 6, art 8(1).
[75] O. Gurgula, *supra* note 46, at 9.
[76] Trade, *supra* note 17, at 4, cl 6.
[77] Defence Regulations (Authorisation of Government Use of Patents and Trade Secrets for COVID-19), Order No. 3737, Defence Regulations, 2020 (Israel).
[78] COVID-19 Public Health Response Act, No. 12 of 2020, Public Acts, 2020 (N.Z.).

provides for the CL of patents in national emergencies but not for the TS.[79] Subsequently, Law No. 14.200 of 2021 proposed extending this to include know-how, but key provisions were vetoed, leaving emergency decrees as the remaining route for compelled disclosure.[80] In the European Union, a 2023 proposal for an EU-wide CL regime includes supplementary protection that could extend to TS for crisis-relevant technologies, although it remains under negotiation.[81] Comparable authority also exists under the United States Defence Production Act,[82] EU crisis-response regulations,[83] and China's national-emergency IP requisition powers.[84] Together, these frameworks show that compulsory access to TS, while exceptional, is legally anchored in sovereign emergency powers and remains compatible with TRIPS' flexible, minimum standards architecture.

V. DECODING POLICY CONSIDERATIONS FOR A COMPULSORY LICENSING REGIME OF TRADE SECRETS: A DOMESTIC PERSPECTIVE

A. Selecting an Appropriate Model for India's Trade Secret Licensing Framework

Cross-jurisdictional analysis shows that there are two major operational models that can emerge as viable frameworks for implementing CL for TS for India over and above the framework currently suggested under the Bill, 2024.

1. Limited-Disclosure Compulsory Licensing Model

Under a limited-disclosure model, authorities compel only the minimum subset of "essential" TS necessary to achieve the public-interest objective, rather than full access to the owner's entire platform. United Kingdom Intellectual Property Office (UKIPO) research (2021) warns that while stronger TS protection encourages R&D, overly broad access reduces knowledge spillovers and future innovation.[85] Olga Gurgula (2025) stresses that any CL regime must include strict confidentiality, non-exclusivity, prior negotiations, and adequate compensation to remain consistent with Article 39 of the TRIPS.[86] The COVID-19 experience illustrated that unprotected disclosure will result in industrial unwillingness; hence, limited and protected access becomes the only workable model, and India's Bill imbibes that.[87] For India, however, defining "essential"

[79] Industrial Property Law, Law No. 9,279, arts. 68–71, Diário Oficial da União, 1996 (Brazil).
[80] Law Amending the Industrial Property Law, Law No. 14,200, Diário Oficial da União, 2021 (Brazil).
[81] Proposal for a Regulation of the European Parliament and of the Council on Compulsory Licensing for Crisis Management, COM (2023) 224 (European Union).
[82] Defense Production Act of 1950, 50 U.S.C. §§ 4501–4568 (United States).
[83] Regulation on Serious Cross-Border Threats to Health, Regulation (EU) 2022/2371, O.J. (L 314) (European Union).
[84] Patent Law of the People's Republic of China, arts. 49–50, Order No. 11 of the President, 2020 (China).
[85] O. Gurgula, *supra* note 46, at 9.
[86] Agreement, *supra* note 32, at 6, art 39.
[87] Trade, *supra* note 17 at 4, cl 6.

remains the central challenge. Although Section 2(f) of the Bill, 2024, defines "trade secrets," it does not clearly specify the extent of disclosure required under CL.[88]

Comparative practice offers guidance. The US,[89] EU,[90] European Medicines Agency (EMA),[91] France,[92] and China[93] allow public interest access to TS through regulatory and inspection powers. Germany's Trade Secrets Act (GeschGehG) permits mandatory inventory disclosure.[94] It also permits expert verification and statutory inspection once a licensee is designated. In cases such as the US Federal Trade Commission's (FTC) *Mallinckrodt/Questcor* consent order (2017) involving ACTH and the FTC consent order in Hospira and Mayne Pharma (2007), firms were compelled to provide detailed documentation.[95] They were also required to provide facility access, staff support, and operational guidance. COVID-19 transfers further show the need for structured, supervised disclosure. Relevant examples also include Oxford University to the Serum Institute of India,[96] Corbevax's open licensing,[97] and the NIH's support to Afrigen.[98]

A workable Indian CL regime must therefore precisely define the scope of transfer, which must not restrict itself to only TS but also the patents, know-how, technical documents, and relevant samples, etc. used in combination.

2. Independent Monitor Compulsory Licensing Model

This is the approach India should embed in its domestic regime. US FTC's *Mallinckrodt/Questcor* consent order (2017) provides a concrete model for supervised compulsory access to both patents and TS.[99] The company had to supply the licensee not only with IP rights but also with

[88] Trade, *supra* note 17 at 4, cl 2(f).
[89] Federal Food, Drug, and Cosmetic Act, 21 U.S.C. § 374(a), Pub. L. No. 75-717, 52 Stat. 1040 (1938) (U.S.); Defense Production Act, § 101, Pub. L. No. 81-774, 64 Stat. 798 (1950) (U.S.); Freedom of Information Act, 5 U.S.C. § 552(b)(4) (U.S.).
[90] Regulation (EC) No. 726/2004, art. 57, 2004 O.J. (L 136) 1 (EU); Regulation (EU) 2019/933, art. 3, 2019 O.J. (L 153) 1 (EU); Directive (EU) 2016/943, art. 1(2), 2016 O.J. (L 157) 1 (EU).
[91] European Medicines Agency Policy 0043, *Access to Clinical-Trial Data*, EMA/240810/2013 (EU).
[92] Public Health Code (Code de la santé publique), art. L.5121-8, L.5311-1 (Fr.); Law No. 2020-290, *Law on Emergency to Address the COVID-19 Epidemic*, Mar. 23, 2020 (Fr.).
[93] Patent Law of the People's Republic of China (2020 Amendment), art. 53 (China); Drug Administration Law of the People's Republic of China, art. 72, 2019 (China); Anti-Unfair Competition Law of the People's Republic of China, art. 9 (China).
[94] Act on the Protection of Trade Secrets (Gesetz zum Schutz von Geschäftsgeheimnissen- GeschGehG), § 5, BGBl. I at 466 (2019) (Ger.).
[95] Federal, *supra* note 97 at 18.
[96] Serum Institute of India & University of Oxford, *Landmark Licensing Agreement for a Protein-Based Vaccine*, SERUMINSTITUTE.COM (Apr. 16, 2024), https://www.seruminstitute.com/press_release_sii_160424.php.
[97] F. M. Abbott, *Intellectual Property and Technology Transfer for COVID-19 Vaccines*, WIPO, at 1–117 (2023).
[98] O. Kolawole et al., *Open Science, Intellectual Property and the South African mRNA Vaccine Hub*, OPEN AIR BRIEFING PAPER, Apr. 2024, 1.
[99] Federal, *supra* note 97 at 18.

manufacturing documentation, process know how, facility access, and technical support. All of this was under an independent monitor appointed by the competition authority.[100]

The monitor was tasked with ensuring that all required information was delivered in an organized and usable format, supervising site visits and staff training, resolving disputes and preventing over-disclosure. The order required a "*complete copy of all tangible documentation and records embodying the Licensed IP and Manufacturing Technology.*"[101] These had to be provided "*in good faith, promptly, and in an organized and comprehensive manner.*"[102] The order also mandated access to manufacturing sites and required reasonable access to personnel for instruction and problem-solving.[103]

This model illustrates that the CL of TS must be paired with institutionalised oversight, such as through a regulator, a specialised agency, or a court-appointed expert to integrate technological transfer with the preservation of secrecy.

B. Facilitating Knowledge Transfer through 'Show-How' Facilitation

Written documentation is inadequate for complex technologies. Effective transfer depends on tacit knowledge, experienced personnel, and on-site coaching. This raises the question of whether CL can operate as a mandatory injunction to compel the licensor's staff to travel, supervise plant setup, guide operations, and train personnel. It also raises the question of how such duties can be enforced across borders. If country A issues a CL against a technology owner in country B and the licensor refuses in-person training, enforcement depends on cross-border recognition of orders. Many jurisdictions do not grant such recognition. The *Moderna/BioNTech* case hints that even when patent rights are overridden, production can still take years without the guided transfer of TS.[104] Although clause 6 allows governments to override secrecy claims and compel access to TS for life-saving drugs or vaccines, it does not address the operational reality of transferring process-embedded expertise. CLs risk becoming paper entitlements.

A workable statutory design would require reasonable technical assistance proportionate to complexity. It would mandate site visits and personnel access, set time-bound training milestones and empower an independent monitor to assess compliance. This mirrors the US FTC's antitrust consent orders. Scholars O. Gurgula and L. McDonagh (2025) therefore define training

[100] Federal, *supra* note 97 at 18, 18-21.
[101] Federal, *supra* note 97 at 18, 11.
[102] Federal, *supra* note 97 at 18, 11.
[103] Federal, *supra* note 97 at 18, 13.
[104] BioNTech Manufacturing GmbH v. ModernaTX, UKSC/2025/0160 (U.K. Sup. Ct.).

obligations.[105] They acknowledge that on-site support is often essential and specify where and how instruction is delivered. This is supported by specific performance, strong confidentiality duties, government guarantees of secrecy, and remuneration reflecting both the value of technology and the assistance burdens. Remote training is treated only as a partial substitute.

The UN mRNA Technology Transfer Hub at Afrigen demonstrates that supervised training with milestone-based handholding converts legal rights into real capacity.[106] This is a structure that India currently lacks. Singapore's biologics licensing framework further mandates sequential validation milestones before scale-up.[107] It requires that each phase of knowledge transfer be demonstrated in practice. Applied to India, this staged validation model would ensure that CLs deliver actual production capability.

C. Maintaining Peri-Transfer Confidentiality to Avoid Secrets' Leakage

CL of TS raises acute enforcement challenges because it involves not only documents but also tacit, experiential know how transmitted through people, site visits, training, and technical support. Even with a carefully drafted order, there is a persistent risk of over-disclosure, onward leakage to affiliates or regulators, and of learning-by-doing that cannot be contained once engineers internalize the knowledge. Comparative regimes show how deterrence can be strengthened. The EU Trade Secrets Directive (EU TSD) provides injunctions, damages, and confidentiality protections in litigation.[108] The US, under the Uniform Trade Secrets Act (UTSA),[109] the Defend Trade Secrets Act (DTSA), 2016,[110] and the Economic Espionage Act (EEA), 1996,[111] provides civil and criminal remedies of seizure and recovery of unjust enrichment. For India, the Bill, 2024 must therefore be backed by Rules that clearly specify the extent, scope, and responsibilities of non-disclosure for both the compulsory licensee and the government.

D. Post-Transfer Monetary Obligations of the Government for Compromised Trade Secrets

Clause 6(3) of the Bill requires peri- and post-transfer measures.[112] For putting the clause in force, this requires the Bill to also define both the parties and the scope of CL through a three-party order naming the TS holder, the qualified licensee, and the Government, and limits the authorization to

[105] O. Gurgula, *supra* note 46, at 9.
[106] O. Kolawole, *supra* note 114, at 19.
[107] S. Yang et al., *Aspects and Implementation of Pharmaceutical Quality by Design from Conceptual Frameworks to Industrial Applications*, 17 MDPI 623 (2025).
[108] Directive 2016/943 of the European Parliament and of the Council, arts. 9–15, 2016 O.J. (L 157) 1 (EU).
[109] Uniform Trade Secrets Act (UTSA) §§ 2–4 (U.S.).
[110] Defend Trade Secrets Act of 2016, 18 U.S.C. § 1836, Pub. L. No. 114-153, 130 Stat. 376 (2016) (U.S.).
[111] Economic Espionage Act of 1996, 18 U.S.C. §§ 1831–1832, Pub. L. No. 104-294, 110 Stat. 3488 (1996) (U.S.).
[112] Trade, *supra* note 17 at 4, cl 6(3).

a non-exclusive, non-assignable, and non-sublicensable licence confined to the specified product, field of use, and territory. Government-compelled disclosure may either make a TS public or permit limited third-party use under secrecy conditions. In either case, compensation for loss of value addresses concerns of regulatory expropriation, but this requires clear national legal authority to compel and supervise sharing.

Since TS loses all value once it is publicly disclosed, it is essential that the Bill, 2024, include appropriate provisions for security, accountability, and management. A workable model is under the US Defense Production Act,[113] which provides that: (i) The government indemnifies or compensates the right owner for loss or assumed risk for compelled access; (ii) Such compelled information shall be treated only within federally managed environments with appropriate government-set standards for security, which places the responsibility for that security on the State;[114] (iii) There shall be independent federal bodies that impose penalties for non-compliance; and (iv) all compelled information is protected similar to as under Exemption 4, Freedom of Information Act (FOIA), which protects "*trade secrets and commercial or financial information obtained from a person [that is] privileged or confidential.*"[115] Any unauthorised disclosure thus attracts a penalty under 18 US Code Section 1905.[116] India should strengthen the Office of the Controller General of Patents, Designs & Trade Marks (CGPDTM) to perform these four functions and reinforce penal codes to ensure equivalent protection of secrecy.

E. Expressly Iterating the Article 31bis TRIPS Clarification for Trade Secrets

Article 31(f) of the TRIPS Agreement on territorial restrictions and Article 31(h) on adequate remuneration protect other markets from low-cost CL-enabled products while ensuring fair returns and sustaining innovation.[117] Since Article 31 applies only to patents, Article 31(h) on adequate remuneration doesn't extend to TS in principle; however, the 2024 Bill has voluntarily adopted it.[118] Similarly, domestic-market supply rules under Article 31(f) do not automatically extend to TS. For patents, Article 31bis of the TRIPS Agreement was brought in to address the limitation Article 31(f) creates, and Section 107A of the Patent Act, 1970 incorporates the principle domestically for patented products.[119] TRIPS imposes no such limits on TS, but the domestic

[113] Defense, *supra* note 84 at 16.
[114] Defense Federal Acquisition Regulation Supplement (DFARS), 48 C.F.R. pts. 200–299 (U.S.); National Institute of Standards and Technology, *NIST Special Publication 800-171* (rev. 2, 2020) (U.S.).
[115] Freedom, *supra* note 105 at 19.
[116] 18 U.S.C. § 1905 (U.S.).
[117] Agreement, *supra* note 32 at 6, arts 31(f), 31(h).
[118] Trade, *supra* note 17 at 4, cl 6(2).
[119] Agreement, *supra* note 32 at 6, arts 31bis; Patents Act, 1970, § 107A, No. 39, Acts of Parliament, 1970 (India).

regime should consider clarifying it regardless to avoid any ambiguity. Clause 6 of the Bill should explicitly acknowledge this flexibility and adopt a framework that avoids the procedural and export complications associated with Article 31bis, ensuring smoother transfers of products involving the use of compulsory licensed TS to nations facing an emergency but either lacking or only having insufficient manufacturing facilities.[120]

F. Addressing Compensation Uncertainty

There is a clear policy tension in setting remuneration. Rates that are too low appear expropriatory and weaken incentives to innovate, while overly generous payments make licences economically unworkable for public manufacturers in low- and middle-income countries.[121] TRIPS requires adequate remuneration based on the economic value of the authorization and permits adjustment for emergency conditions, rather than relying on ordinary market pricing. Clause 6(2) of the proposed Bill follows this approach by requiring the government to promptly set remuneration that reflects the nature, value, and development and maintenance costs of the TS.[122] Because CL overrides consent, royalties must balance public health with fair compensation. Article 31(h) TRIPS offers no formula.[123] It provides no guidance for TS, leaving wide national discretion and creating uncertainty and retaliation risks, such as Abbott's withdrawal from Thailand after a human immunodeficiency virus (HIV) licence, and heavy reliance on domestic capacity to manage Article 39 secrecy.[124] Broad waivers may also weaken R&D incentives if firms anticipate losing control over their TS.[125]

In practice, CL royalties vary widely, ranging from 4% in Malaysia to 2% in Mozambique, 2.5% in Zambia, and 0.5% in Indonesia, in the context of HIV drugs.[126] On the contrary, private pharma licences for such HIV drugs clustered around 4-5%, among the highest across industries.[127] To avoid such disparity, scholars propose mixed valuation methods, including benchmarking against comparable patent royalties, discounted cash flow of profits attributable to the secret, and avoided R&D and scale-up costs for the licensee.[128] Royalty setting weighs value, affordability, public and private R&D costs, urgency, market returns, and competitive conduct, but TS are harder to price

[120] Agreement, *supra* note 32 at 6, art 31bis.
[121] K. Outterson, *Pharmaceutical Arbitrage*, 5 YJHPLE 193, 193–291 (2005).
[122] Trade, *supra* note 17, at 4, cl 6(2).
[123] Agreement, *supra* note 32, at 6, art 31(h).
[124] *Abbott withdraws HIV drugs from Thailand after patent row*, PHARMAFILE.COM (Mar. 21, 2007), https://pharmafile.com/news/abbott-withdraws-hiv-drugs-thailand-after-patent-row/.
[125] *Id*, at 26.
[126] *Intellectual Property and Access to Medicines: Papers and Perspectives*, SOUTH CENTRE (2013), https://www.southcentre.int/wp-content/uploads/2016/05/Bk_2013_IP-and-Access-to-Medicines_EN.pdf.
[127] *Id*, at 26.
[128] J. Baron et al., *Contribution to the Debate on SEPs*, EUROPEAN COMMISSION (2021).

because R&D inputs, the profit contribution of know-how, and the value of secrecy are opaque.[129] The United Nations Development Programme (UNDP) Guidelines 2001 propose a 4% baseline for the generic price, adjustable by ±2 %.[130]

It is suggested that it is most practical for India to adopt a statutory structure with patent-style royalty bands, for example, 2-4% in health emergencies, adjusted for R&D, public funding, and secrecy costs. The law should permit interim royalties upon issuance, with a true-up after independent valuation, secured through escrow and with fixed timelines, and compensation should cover both access to the TS and the licensor's technical assistance costs.

G. Innovation Disincentives and Their Implications for Private R&D and Investment

Concerned about patent CL, firms may lean even more on TS, which some authors describe as "*among the most powerful legal weapons against the public.*"[131] Because TS can, in principle, last indefinitely, firms invest heavily in process optimization, scale-up expertise, and platform technologies.[132] The only recognised exceptions are reverse engineering or independent creation.

However, CL for TS also creates a paradox. On the one hand, once licensees access confidential know-how, they become "contaminated" and can no longer rely on the two exceptions to recreate the TS. However, if all competitors eventually become compulsory licensees, this would lead to a *de facto* elimination of these exceptions to a large extent, as no firm within the industry could rely on them, and actors outside the industry would lack sufficient incentive to do so.

Hence, India should therefore preserve reverse engineering and independent creation as default defenses, while restricting their use by compulsory licensees. Non-licensee competitors must retain these defenses to prevent a perpetual monopoly. A workable solution is a statutory clean room pathway in which licensees cease using or disclosing compelled secrets after termination, but may pursue independent R&D through documented clean room procedures that demonstrate non-reliance on the compelled information.

H. Empowering Private Parties to Pursue Compulsory Licensing of Trade Secrets

The current framework does not allow private parties to apply for CL. In the patent system, the only effective CL ever granted was *Bayer v. Natco* (2016).[133] By contrast, Section 100 government

[129] *Remuneration Guidelines for Non-Voluntary Use of a Patent on Medical Technologies* (WHO Technical Cooperation for Essential Drugs and Traditional Medicine Series No. 18, 2005).
[130] *Id*, at 26.
[131] Li Liu, *Patent Quality*, 55 IIC IRIPCL. 499, 499–529 (2024), https://doi.org/10.1007/s40319-024-01444-w.
[132] European Commission, *Study on Trade Secrets and Confidential Business Information in the Internal Market- Final Study* (Apr. 2013).
[133] Bayer Corporation v. Natco Pharma Limited, 2014(60) PTC 277 (BOM).

use powers have never been exercised, and the absence of any CL during COVID-19, despite full statutory authority, reflects a broader reluctance to deploy CL in ways that could unsettle multinational innovators and place India on the United States Special 301 report.[134]

In matters of overriding public interest, Section 84 of the Patents Act, 1970 recognises Article 31's conditions as valid grounds for CL, even by private parties. A mechanism parallel to Section 84 is what the CL regime needs to greatly increase the likelihood that CL for TS is actually used.[135]

I. Ambiguities in Review Duration, Wind-Down, and License Termination

Clause 6(4) of the Bill addresses automatic termination upon expiry of an emergency, and it should be linked to post-termination obligations, including maintaining confidentiality, imposing use limitations, deleting and returning material through escrow, and demounting facilities to prevent leakage.[136] A more specific sunset clause, based on Sections 84 and 100 of the Patents Act of 1970, would be required in this Bill. It would include an 'annual' review to assess the continued necessity for a CL. It would permit use only for essential purposes. It would provide automatic termination when there is no longer a public exigency. The Bill should adopt a similar statutory framework to the CL exception time-bound.

VI. CONCLUSION

Traditional IP frameworks alone cannot ensure equitable access to critical knowledge in complex, knowledge-intensive industries. Neither the TRIPS Agreement nor existing international mechanisms preclude well-designed CL regimes for TS. Thus, India requires a balanced domestic regime authorizing confidentiality-preserved TS transfers through models such as emergency-exclusive licensing, limited disclosure, hybrid patent-trade secret bundling, and independent monitor oversight. The Bill 2024 needs to be upgraded to include facilitating 'show-how' through supervised training and site visits, peri-transfer confidentiality *via* statutory non-disclosure duties and penalties, post-transfer compensation for secrecy loss modeled on the US Defense Production Act, tiered royalties of 2-4% adjusted for emergencies, private party applications akin to Section 84 of the Patents Act, 1970, and annual reviews for termination. These measures preserve

[134] Patents Act, 1970, § 100, No. 39, Acts of Parliament, 1970 (India).
[135] Patents Act, 1970, § 84, No. 39, Acts of Parliament, 1970 (India).
[136] Trade, *supra* note 17 at 4, cl 6(2).

innovation incentives while enabling timely access to pharmaceuticals and agritech emergencies. Only coordinated domestic operational models can ensure IP regimes promote innovation and enable equitable access to essential knowledge during global crises.