

NOTES

THE URGENT NEED FOR CLIMATE-RELATED RISK DISCLOSURES IN INDIA'S ENERGY INDUSTRY

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ABSTRACT

India's future energy trajectory is critical to global climate stability. The risks posed by climate change to infrastructure, economies, public health, and the environment continue to escalate around the world. Yet, at the UNFCCC 26th Conference of Parties in Glasgow, India pushed for a change of the wording of the Glasgow Pact from "phase out" of coal as an energy source to "phase down."¹ Even though the nation marginally increased its climate commitments at COP26, its economic goals are not compatible with global temperature goals as established in the Paris Agreement, particularly as the country seems poised to privatize existing, nationally-owned fossil fuel assets and is investing significantly in natural gas infrastructure.

India has announced a national goal to transition its economy from coal to natural gas in an effort to become a \$5 trillion economy by 2025. To accomplish this goal, India has amended a variety of laws and regulations in the last two years to i) support privatization of the energy sector in the name of efficiency and increased productivity, as well as to ii) increase the inflow of foreign direct investment into the sector to boost natural gas consumption, production, and infrastructure with minimum regulatory burdens. This will lead to a rapid transformation of India's energy sector, including the development of significant natural gas assets, infrastructure, and companies, in keeping with the Government of India's national policy.

India's Companies Law of 2013 ascribes a duty to directors to disclose material risks to enable stakeholders to remain informed about the risks faced by companies, but crucially omits an inclusion of risks from extreme climatic events in its definition of "material." The lack of climate-related risk disclosure

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1. Reuters, *China and India Will Need to Explain Coal Move, COP26 President Says*, ECONOMIC TIMES: ENERGYWORLD (Nov. 15, 2021), <https://energy.economicstimes.indiatimes.com/news/renewable/china-and-india-will-need-to-explain-coal-move-cop26-president-says/87707091>.

requirements for companies in the energy sector undermines the reliability of information available to companies, investors, and community members at large. India's corporate governance framework needs to evolve to include stricter and more robust climate-risk disclosure requirements because a director's failure to factor climate-related risks can cause a significant decline in the value of the company as well as cause avoidable damage to consumers and community at large. Given the similarities in the legal systems and the law between India and the United Kingdom, this Note undertakes a comparison of the corporate governance structures and the Companies Acts of the two nations. Further, this Note looks at the status and future of climate-related risk disclosure requirements for companies in the United Kingdom and the United States as possible models of nations transitioning from coal to natural gas economies for India to follow in instating its own stringent disclosure guidelines and requirements.

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I. INTRODUCTION

India, as the fastest growing large economy in the world, is well-positioned to lead global action towards ambitious climate targets.² Like many other nations around the world, India has an opportunity to build back more sustainably from the impacts of COVID on its economy. The nation has three main domestic goals for the near future: to become a \$5 trillion economy by 2025, electrify almost all homes in the nation in the near future, and become energy secure by 2047.³ However, India only marginally increased its climate commitments at the United Nations Framework Convention on Climate Change (“UNFCCC”) Conference of the Parties climate summit in Glasgow (“COP26” or “Glasgow Summit”) that concluded in 2021, and its economic goals are not aligned with climate action needed to meet the global temperature goals as established in the Paris Agreement, particularly as the country moves towards increased privatization of fossil fuel assets and infrastructure with a focus on natural gas build-out.⁴

At COP26, Indian Prime Minister Narendra Modi announced five updated and renewed climate targets for India, which if achieved, will likely result in a massive overhaul of the nation’s energy sector in the near future. They are: i) achieving 50% electricity power sourced from renewable sources by 2030, ii) installing 500 gigawatts of solar capacity by 2030, iii) reducing emission intensity per unit of GDP by 45% from 2005 levels by 2030, iv) cutting 1 billion tons of carbon dioxide emissions from the current business-as-usual levels by 2030, and most importantly, v) reaching net zero emissions across the Indian economy by 2070.⁵ For comparison, India’s commitments under the Paris Agreement in its 2015 Intended Nationally Determined Contribution (“NDC”) were to i) achieve 40% electric power capacity sourced from non-fossil fuel sources (totaling 450 GW),⁶ ii) reduce the emission

2. Indivjal Dhasmana, *GDP Grows at 8.4% in Q2: India Still Fastest Growing Large Economy in World*, BUSINESS STANDARD (Dec. 1, 2021), https://www.business-standard.com/article/economy-policy/gdp-grows-at-8-4-in-q2-india-still-fastest-growing-large-economy-in-world-121120100036_1.html.

3. MINISTRY OF PETROLEUM AND NATURAL GAS, SNAPSHOT OF INDIA’S OIL & GAS SECTOR (2021), <https://mopng.gov.in/en/pdc>.

4. See generally *infra* Section II.

5. Bloomberg, *PM Narendra Modi’s COP26 Goals Could Mean A Massive Energy Overhaul in India*, ECONOMIC TIMES: ENERGYWORLD (Nov. 4, 2021), <https://energy.economictimes.indiatimes.com/news/renewable/pm-narendra-modis-cop26-goals-could-mean-a-massive-energy-overhaul-in-india/87519688>.

6. This includes 450 GW of renewable energy capacity by 2040. See Shreya Jai, *India’s Climate Mitigation Plans Face a Threat as Earth Warms*, BUSINESS STANDARD (Aug. 17, 2021), <https://www>.

intensity per unit of GDP by 33-35% of 2005 levels by 2030, and iii) remove 2.5-3 billion tons of carbon dioxide equivalent by the creation of additional carbon sinks.⁷ The Paris Agreement, to which India is a party, sets global temperature goals of “well below 2 degrees Celsius (°C)” with an aspirational goal of holding global temperature increases to 1.5°C above pre-industrial levels.⁸ Therefore, India’s updated commitments at COP26 only represent slight improvements to its 2015 NDC commitments but still fall far short of aggressive climate action needed to keep in line with Paris Agreement 1.5°C goal. The Intergovernmental Panel on Climate Change has calculated precise emission reduction scenarios and reports that the 1.5°C goal may be necessary to avoid the catastrophic consequences that could still occur if nations only aim to remain under 2°C, and that nations globally must achieve net zero by 2050 to achieve the 1.5°C goal.⁹

India has committed more public spending to support its energy sector than any other nation to date since the start of the COVID-19 pandemic.¹⁰ India’s energy and electricity sector is evolving rapidly to keep up with the ever-expanding demand for power. The country is plagued with energy shortages due to inadequacies in generation, transmission, and distribution, as well as technical and commercial losses leading to inefficient use of electricity.¹¹ As outlined below, India has seen a swath of policy and regulatory updates in the last two years to reform the nation’s energy sector in keeping with ambitious domestic economic goals.¹² However, at a time when the nation should be transitioning to a net-zero economy on an ambitious timeline, the government is instead converting India from a coal-based economy to a natural gas-based economy.¹³

[business-standard.com/article/economy-policy/india-s-climate-mitigation-plans-face-a-threat-as-earth-warms-121081700014_1.html?action=profile_completion&](https://www.business-standard.com/article/economy-policy/india-s-climate-mitigation-plans-face-a-threat-as-earth-warms-121081700014_1.html?action=profile_completion&)

7. GOVERNMENT OF INDIA, INDIA’S INTENDED NATIONALLY DETERMINED CONTRIBUTION: WORKING TOWARDS CLIMATE JUSTICE (2015).

8. U.N. Framework Convention on Climate Change, *Adoption of the Paris Agreement*, art. 2(1), U.N. Doc. FCCC/CP/2015/L.9/Rev.1.

9. INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, 1.5°C SPECIAL REPORT – SUMMARY FOR POLICYMAKERS A.3–A.3.3 (2018), <https://www.ipcc.ch/sr15/>.

10. Vibhuti Garg, Christopher Beaton & Max Schmidt, *India’s \$122bn Stimulus for Energy Promotes Renewables but Lacks Clarity in Additional Funding Streams*, INST. FOR ENERGY ECON. & FIN. ANALYSIS (Mar. 22, 2021), <https://ieefa.org/ieefa-indias-122bn-stimulus-for-energy-promotes-renewables-but-lacks-clarity-in-additional-funding-streams/>.

11. Ministry of Power, Draft National Electricity Policy, No.23/23/2018-R&R, ¶ 1.4 (Apr. 27, 2021).

12. *See infra* Section III.

13. *Id.*

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Section II lays out the current status of natural gas in India’s energy sector, followed by a look at the domestic legislative and investment amendments that liberalize India’s energy sector and facilitate increased foreign direct investment (“FDI”) into the sector in Section III. Section IV briefly discusses the layout of India’s FDI regulatory framework, with examples of the privatization of India’s energy assets as a result of the liberalization of FDI policies. This Note then analyzes the shortcomings of the current corporate governance framework applicable to companies in the energy sector in Section V, comparing India’s framework with that of the U.K., which are both based in common law. Finally, Section VI addresses the lack of climate-related risk disclosure requirements in India’s corporate governance framework. This section assesses India’s framework in comparison to the U.K. and the U.S. as two examples of nations where the corporate governance frameworks are continually adapting to fit the needs of investors and other stakeholders as the climate crisis creates increased risks for companies. This section concludes with an explanation of the need for stringent climate-risk disclosure guidelines legislation and regulation applicable to India’s energy sector and provides recommendations for future regulatory approaches. This Note focuses on reporting and disclosure requirements applicable to companies incorporated under Indian company law and does not address how or whether Indian company law applies to companies in India but owned wholly or in part by foreign individuals or countries.

II. BACKGROUND

India is highly vulnerable to the negative impacts of climate change.¹⁴ A recent McKinsey Global Institute report highlighted the significant impacts that residents of India already are and will continue to experience.¹⁵ Some of the most detrimental effects will impact residents’ ability to work and live in various regions of the country due to rising temperatures.¹⁶ By 2030, several hundred million people could experience a lethal heatwave, leading to human rights crises, as well as negative impacts on domestic levels of productivity.¹⁷ The 2021

14. See THE WORLD BANK, INDIA: CLIMATE CHANGE IMPACTS (2013), <https://www.worldbank.org/en/news/feature/2013/06/19/india-climate-change-impacts>.

15. *Climate Risk and Response: Physical Hazards and Socioeconomic Impact*, MCKINSEY GLOBAL INSTITUTE 1–12 (2020), <https://www.mckinsey.com/business-functions/sustainability/our-insights/climate-risk-and-response-physical-hazards-and-socioeconomic-impacts>.

16. *Id.* at 3.

17. *Id.*

Intergovernmental Panel on Climate Change Report (“IPCC Report”) cautions that India will see increased heatwaves, heavy rainfall events, faster melting of glaciers and subsequent events from sea-level rise, and worsening tropical cyclones.¹⁸ The nation could also face compounding catastrophes caused by new weather extremes, where more intense heat can lead to worsening drought and wildfires.

At an important precipice when India should be transitioning from a coal-based economy to a net-zero economy for a sustainable future, the government is instead transitioning to a natural gas-based economy. This is in order to fuel its rapid economic growth to meet its goal of becoming a \$5 trillion economy in the next few years.¹⁹ With this tight timeline for India’s transition to a natural gas-based economy, investors and builders may overlook an important risk analysis step to evaluate how this infrastructure will be impacted by the worsening impacts of climate change. The IPCC Report finds that strong and sustained reductions of methane emissions will be crucial to reducing global temperature rise and would improve air quality.²⁰ The energy industry in India, comprising power, heat, and transport, accounting for 73% of the nation’s emissions, is the first place the government should focus its emission reduction strategies on.

To electrify all parts of the nation, the Ministry of Petroleum and Natural Gas (“MoPNG”) is providing nearly 1 billion free liquefied natural gas (“LNG”) connections to low-income homes across the country.²¹ For its goal of energy security by 2047, the government has set ambitious targets to multiply its domestic LNG production, consumption, and distribution, as well as diversify the portfolio of nations it imports LNG from.²² The government projects that the share of natural gas in the economy will be about 15% by 2030,²³ compared to a current 6% share in 2020.²⁴ The nation’s LNG import amounts will likely need

18. INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2021: THE PHYSICAL SCIENCE BASIS (2021), 1550, 1556–59, 1569, 1600, <https://www.ipcc.ch/report/ar6/wg1/#FullReport> [hereinafter IPCC 2021 Report].

19. See Notice Inviting Comments, Ministry of Petroleum and Natural Gas, Draft Petroleum and Natural Gas Regulatory Board (Matters Related to Natural Gas Sector Development) Rules, 2021, No. L-16016/10/2021-GP-II (E: 37350)1 (June 22, 2021).

20. See *About PDC*, MINISTRY OF PETROL. & NAT. GAS: PROJECT DEV. CELL, <https://mopng.gov.in/en/pdc> (last visited Feb. 5, 2023).

21. *Ministry of Petroleum and Natural Gas*, PRADHAN MANTRI UJJWALA YOJANA (2021), <https://mopng.gov.in/en/marketing/pmu>.

22. See *infra* Section I(ii).

23. SNAPSHOT OF INDIA’S OIL & GAS SECTOR, *supra* note 3.

24. U.S. ENERGY INFORMATION ADMINISTRATION, COUNTRY ANALYSIS EXECUTIVE SUMMARY: INDIA (2022). For detailed breakdown of India’s natural gas consumption by sector, see NITI AAYOG,

to rise from currently fulfilling roughly half of the local requirement to about 70% to keep up with the projected increase in demand, given India's low domestic production capacity.

India's current inability to import or produce natural gas in large volumes may stem from the country's inadequate infrastructure for refining, storage, and distribution, as explained in the next subsection. However, this seems to be changing with every passing year. India's trajectory fits into that of other growing economies in the region, like China, Pakistan, Thailand, and Bangladesh. Rystad Energy, an independent energy and business research company, has identified that Asia will absorb most of the rapidly growing global LNG supply to fuel its increasing power demands.²⁵ While this Note does not comment on what comprises an appropriate transition for India away from a fossil fuel economy, it does assert that India's transition towards a natural gas economy will substantially restructure the nation's energy sector.

A. *India's Natural Gas Industry: Production and Transportation Infrastructure*

The Indian government's roadmap for the nation's energy future sets a national policy of "promoting a gas-based economy, a pan-India network of compressed natural gas ("CNG") and piped natural gas ("PNG") and achieving 20 percent ethanol blending target."²⁶ At the end of 2019, India had proven natural gas reserves totaling 46,900 billion ft³.²⁷ India imported 1,161 billion ft³ of natural gas in 2019,²⁸ which makes up about half of India's local requirement for natural gas.²⁹ In

STATE ENERGY & CLIMATE INDEX: ROUND-I (2022), <https://www.niti.gov.in/sites/default/files/2022-04/StateEnergy-and-ClimateIndexRoundI-10-04-2022.pdf>.

25. *Gas Year 2020 Review: Global Gas Production Exceeded Demand, US Led Liquefaction Capacity Race*, RYSTAD ENERGY (Jan. 11, 2021), <https://www.rystadenergy.com/newsevents/news/press-releases/gas-year-2020-review-global-gas-production-exceeded-demand-us-led-liquefaction-capacity-race/> [https://web.archive.org/web/20210112145803/https://www.rystadenergy.com/newsevents/news/press-releases/gas-year-2020-review-global-gas-production-exceeded-demand-us-led-liquefaction-capacity-race/?utm_campaign=&utm_content=&utm_medium=&utm_source=linkedin] [permalink].

26. Bloomberg, *supra* note 5.

27. *Id.* at 32; *see also* Government of India, National Statistical Office, *Energy Statistics: India 2021* 1, 8, <https://mospi.gov.in/publication/energy-statistics-india-2021>.

28. BP, *Statistical Review of World Energy*, 1, 42 (2021), <https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/energy-economics/statistical-review/bp-stats-review-2022-approximate-conversion-factors.pdf> (converting 32.4 billion m³ to ft³).

29. Bloomberg, *supra* note 5.

the same year, India only produced about 950 billion ft³.³⁰ The nation consumes over two times the amount it produces, having consumed about 2,100 billion ft³ in 2019.³¹ India's gas output is expected to jump 52% by 2024 as state-owned Oil and Natural Gas Corporation (ONGC) and Reliance Industries continue extraction from the Krishna Godavari (KG) Basin.³² In June 2021, India's natural gas production jumped 19.5% to 97.8 billion ft³, factoring in production from the KG Basin, a sign of the economy recovering from the impacts of COVID-19.³³ To meet the new national energy policy, India's natural gas consumption will need to rise to 22.6 billion ft³ per day, more than quadruple from the current 5.5 billion ft³ per day, along with an increase in natural gas imports to about 7,546 billion ft³ per year.³⁴

India currently has over 17,000 kilometers of transmission pipelines³⁵ and is expected to build another 15,000 kilometers in the near future,³⁶ which would complete the integrated nationwide natural gas grid, with an expected design capacity of 28.8 billion ft³ per day by 2030.³⁷ There are currently five LNG terminals³⁸ and four distinct transmission and distribution geographic segments in the nation,³⁹ transporting CNG

30. *Id.* at 34 (converting 26.9 billion m³ to ft³).

31. *Id.*

32. PTI, *India's Gas Output to Jump 52 per cent by 2024 Led by Ongc, Reliance-Bp, Says New Report*, ECON. TIMES: ENERGYWORLD (Apr. 23, 2021), <https://energy.economicstimes.indiatimes.com/news/oil-and-gas/indias-gas-output-to-jump-52-per-cent-by-2024-led-by-ongc-reliance-bp-says-new-report/82205565>.

33. *India's Gas Production Jumps 19.5% in June on Back of KG-D6*, ECONOMIC TIMES: ENERGYWORLD (July 23, 2021), <https://energy.economicstimes.indiatimes.com/news/oil-and-gas/indias-gas-production-jumps-19-5-in-june-on-back-of-kg-d6/84676922> [converted from 2.77 billion m³, using a multiplier of 1m³ = 35.3ft³].

34. Nidhi Verma, *India Cabinet Eases Foreign Investment Rules to Aid BPCL Sale*, REUTERS (July 22, 2021) <https://www.reuters.com/world/india/india-cabinet-eases-foreign-investment-rules-aid-bpcl-sale-sources-2021-07-22/> [converted from 640 million m³, 155 million m³, and 155 million tonnes, respectively, using multipliers of 1m³ = 35.3ft³ and 1 tonne = 48,690 ft³].

35. *See generally* Advantage India, Indian Oil and Gas Industry Report, India Brand Equity Found. (Nov. 2022), <https://www.ibef.org/industry/oil-gas-india.aspx>.

36. Interview with Hemant Mallya, Senior Programme Lead, Industrial Sustainability & Competitiveness, Council on Energy, Environment and Water (June 9, 2021).

37. INDUSTRY GROUP FOR PETROLEUM & NATURAL GAS REGULATORY BOARD, "VISION 2030" NATURAL GAS INFRASTRUCTURE IN INDIA, 50-52 (2013), <https://www.pngrb.gov.in/Hindi-Website/pdf/vision-NGPV-2030-06092013.pdf> [hereinafter Industry Group for PNGRB] [converted from 815 million m³, using a multiplier of 1m³ = 35.3ft³].

38. *See, e.g., LNG Terminals*, GOV'T OF INDIA: MINISTRY OF PETROL. & NAT. GAS, <https://mopng.gov.in/en/natural-gas/lng-terminals> (last visited Feb. 4, 2023) (listing the five LNG terminals as in Dahej, Hazira, Dabole, Kochi, and Ennore).

39. The four regions are: Jagdishpur Haldia/Bokaro Dhamra Pipeline Project & Barauni-Guwahati Pipeline project, North East Region Gas Grid, Kochi-Kootanad- Bangalore-Mangalore (Ph-II)

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predominantly used in the country as auto-fuel and PNG used in domestic, commercial, and industrial sectors.⁴⁰ Currently, India has regasification infrastructure with a capacity of about 1,923 billion ft³ per year, which would support LNG imports through 2026, with an additional 1,460 billion ft³ per year in capacity expected to be added by 2023.⁴¹

GAIL India, a state-run natural gas company, owns the largest network of natural gas transmission infrastructure in the country and has a trading share of over 50% of India's gas assets and supply in India.⁴² The company currently owns and operates approximately 9,000 km of high-pressure natural gas pipelines with a transmission capacity of more than 5,648 billion ft³ per day. At around 3,750 km in length, GAIL's Hazira-Vijapur-Jagdishpur (HVJ) pipeline is the longest natural gas pipeline network in the country and is currently operating at 100% capacity.⁴³ With no free capacity, this transmission network has been unable to transport the increased domestic natural gas supplies produced at the KG Basin or India's LNG resources.⁴⁴

A push for privatization of India's energy sector to increase transmission capacity will likely result in an influx of domestic and foreign funds into natural gas production and transportation infrastructure. If this transition is improperly and shortsightedly managed, it can open up investors and consumers to risks from climate change, as outlined in Sections IV and V.

B. India's Natural Gas Industry: Importing LNG

India has traditionally heavily relied on the Middle East for its oil and gas imports. However, as a part of its push towards energy security by 2047, India has shifted its strategy to diversify the portfolio of nations it trades in oil and gas with in order to not remain reliant on one or two

Pipeline Project, EnnoreThiruvallur-Bangalore-Nagapattinum Madurai Tuticorin Natural gas pipeline. See *CGD Network*, GOV'T OF INDIA: MINISTRY OF PETROL. & NAT. GAS, <https://mopng.gov.in/en/natural-gas/cgd-network> (last visited Feb. 4, 2023).

40. *Id.*

41. *Gas Year 2020 Review*, *supra* note 25 [converted from 39.5 million tonnes and 30 million tonnes respectively, using a multiplier of 1 tonne = 48,690 ft³].

42. About GAIL, GAIL (India) Ltd., <https://www.gailonline.com/ABGailstory.html> (last visited Feb. 4, 2023).

43. INDUSTRY GROUP FOR PNGRB, *supra* note 37, at 44 [converted from 160 million m³, using a multiplier of 1m³ = 35.3 ft³].

44. *Id.*

nations for its energy needs.⁴⁵ India now imports LNG from the U.S., Australia, Russia, and Mozambique as well. Russia is the single largest recipient of India's overseas investment in oil and gas, with cumulative investments totaling over \$25 billion.⁴⁶ Russia, in turn, owns oil and gas businesses in India, including Nayara Energy, worth nearly \$13 billion.⁴⁷ India is now looking to expand its import of LNG from Russia and has committed about \$1 billion in infrastructure investments to build a direct maritime corridor between the two nations.⁴⁸

Petronet LNG, India's top gas importer and operator of two LNG import terminals, is in talks with Qatar to extend its contract for 365.2 billion ft³ per year of LNG, expiring in 2028.⁴⁹ Earlier in 2021, Qatar Petroleum undertook the world's biggest LNG project, a 1,558 billion ft³ per year capacity expansion of one of its largest LNG fields.⁵⁰ Mozambique is currently in the midst of a political and socio-economic crisis, which is jeopardizing India's state-owned ONGC's \$8 billion investment in a \$24.1 billion LNG project being built on the Afungi peninsula in Mozambique.⁵¹ This plant is expected to produce nearly 633 billion ft³ of LNG per year, and India is considering involving its navy in securing and stabilizing the region because of the critical trade relations between the two nations and because Mozambique may soon have the fourth largest reserves of gas in the world, behind Russia, Iran, and Qatar.⁵² Europe is also looking to make its investment entry into

45. See, e.g., PIB Delhi, Press Statement, MINISTRY OF PETROL. & NAT. GAS (May 4, 2022), <https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1822665>.

46. *India Gets Cheapest LNG as Russia's Gazprom Begins Supplies*, THE TIMES OF INDIA (June 4, 2018), <https://timesofindia.indiatimes.com/business/india-business/india-gets-cheapest-lng-as-russias-gazprom-begins-supplies/articleshow/64450442.cms>.

47. *India, Russia Discuss Expanding Cooperation in Energy Sector*, ECON. TIMES: ENERGYWORLD (Aug. 14, 2021), <https://energy.economictimes.indiatimes.com/news/oil-and-gas/india-russia-discuss-expanding-cooperation-in-energy-sector/85318860>.

48. *Id.*

49. *India's Petronet Aims to Extend Long-Term LNG Buy Deal with Qatar*, ECON. TIMES: ENERGYWORLD (Aug. 16, 2021), <https://energy.economictimes.indiatimes.com/news/oil-and-gas/indias-petronet-aims-to-extend-long-term-lng-buy-deal-with-qatar/85369040> [converting from 7.5 million tonnes, using a multiplier of 1 tonne = 48, 690 ft³].

50. *LNG Price Recovery Spurs Investment in Race Against Carbon Targets*, ECON. TIMES: ENERGYWORLD (July 28, 2021), <https://energy.economictimes.indiatimes.com/news/oil-and-gas/lng-price-recovery-spurs-investment-in-race-against-carbon-targets/84822667> [converting from 32 million tonnes, using a multiplier of 1 tonne = 48, 690 ft³].

51. *After Fresh Crackdown on ISIS, Indian Oil Majors Could Be Back in Business in Mozambique*, ECON. TIMES: ENERGYWORLD (Aug. 16, 2021), <https://energy.economictimes.indiatimes.com/news/oil-and-gas/after-fresh-crackdown-on-isis-indian-oil-majors-could-be-back-in-business-in-mozambique/85291170>.

52. *Id.* [converting from 13 million tonnes, using a multiplier of 1 tonne = 48, 690 ft³].

India's gas pipeline business, starting with Italian company Snam.⁵³ The influx of FDI into the energy sector, coupled with the rapid privatization of energy assets in India, will likely lead to a significant overhaul of the nation's energy sector and associated regulations, as outlined in the proceeding sections.

III. PRIVATIZATION OF INDIA'S ENERGY AND ELECTRICITY LEGISLATIVE AND REGULATORY LANDSCAPE

Rules, regulations, laws, and agency structures have been amended or updated within the last two years to accommodate the rapid economic growth India is facing.⁵⁴ As outlined below, energy transmission and distribution markets are being deregulated, foreign direct investment rules are being amended to raise the investment ceiling into the oil and gas sector, and the sector as a whole is moving towards privatization to increase productivity and efficiency. This move towards privatization means that India's energy industry is likely going to see a diversification of asset ownership to include new domestic and foreign investors. This section studies the amendments to energy sector regulation promoting privatization, which undergirds the transition of India's energy sector to a more corporate structure.

A. *Ministry of Petroleum and Natural Gas*

The Ministry of Petroleum and Natural Gas (MoPNG) is the primary regulatory agency for the exploration, production, and exploitation of petroleum resources, including crude oil and natural gas, and the refining, distribution, marketing, import, export, and conservation of petroleum products and natural gas.⁵⁵ The MoPNG is also responsible for overseeing the planning, development, and control of all energy-related industries under its purview.⁵⁶ Finally, this agency is tasked with strengthening energy security by acquiring oil and gas equity abroad and pursuing transnational oil and gas projects.⁵⁷ Recent initiatives and efforts from the MoPNG in India are largely designed to expand the

53. Gordon Feller, *Regional Focus: India Leaps Forward on Natural Gas Infrastructure*, MINISTRY GAS PROCESSING & LNG, <http://gasprocessingnews.com/columns/2021/04/regional-focus-india-leaps-forward-on-natural-gas-infrastructure/> (last visited Feb. 4, 2023).

54. *See infra* Section III(A).

55. *About the Ministry*, MINISTRY OF PETROL. & NATURAL GAS, <https://mopng.gov.in/en/about-us/about-the-ministry> (last visited Feb. 4, 2023).

56. *Id.*

57. *Id.*

gas infrastructure in all parts of the country per the direction set by the national government.

Prime Minister Narendra Modi recently announced a new \$1.35 trillion national infrastructure plan to meet the nation's goal of being energy independent by 2047⁵⁸ and plans to do so by moving towards establishing a gas-based economy in order to sustain its rapid growth.⁵⁹ The government also anticipates that green hydrogen⁶⁰ will play a significant role in India's energy future and announced the rollout of the National Hydrogen Mission as part of the new infrastructure plan in 2021,⁶¹ housed under MoPNG.⁶² MoPNG also recently rolled out the Project Development Cell, an initiative aimed at attracting investments into the oil and gas sector in India, as part of the nation's vision of becoming a \$5 trillion economy by 2025.⁶³ As part of this initiative, MoPNG will create projects in the O&G sector with approvals, land available for allocation, and with complete "Detailed Project Reports" for simple adoption/investment by investors.⁶⁴ The MoPNG is, therefore, one of the key agencies in India responsible for overseeing compliance by companies comprising the nation's energy sector.

B. *The Electricity Act*

The Electricity Act of 2003 consolidated laws relating to the generation, transmission, distribution, and trading of electricity in an effort to promote competition and increase the supply of electricity to all areas

58. *PM Modi Says India Will Soon Unveil \$1.35 Trillion Infrastructure Plan*, ET INFRA (Aug. 15, 2021), <https://www.reuters.com/world/india/indias-modi-says-135-trillion-infrastructure-plan-be-unveiled-soon-2021-08-15/>.

59. Notice Inviting Comments, *supra* note 19.

60. *India's Gas Production Jumps 19.5% in June on Back of KG-D6*, *supra* note 31. India projects that by 2050, three-fourths of all hydrogen produced domestically will be produced by renewal electricity and electrolysis, instead of from fossil fuels, which comprises the entire hydrogen mix in the nation at this time. *Id.* Studies in the U.S. on "blue" hydrogen, derived from natural gas paired with carbon capture have raised questions about the efficacy of this as a bridge fuel, because it often produces more emissions than burning natural gas in its production process. See David Iaconangelo, *Is 'Blue' Hydrogen Clean Energy? Studies Stir Climate Debate*, POLITICO: E&E NEWS: ENERGYWIRE (Aug. 16, 2021), <https://subscriber.politicopro.com/article/eenews/2021/08/16/is-blue-hydrogen-clean-energy-studies-stir-climate-debate-279602>.

61. See *PM Announces Hydrogen Mission, Self-Reliance in Energy by 2047*, ECON. TIMES: ENERGYWORLD (Aug. 15, 2021), <https://energy.economicstimes.indiatimes.com/news/renewable/pm-announces-hydrogen-mission-self-reliance-in-energy-by-2047/85347991>.

62. See *Hydrogen Mission – Hydrogen Initiatives of the Ministry of Petroleum & Natural Gas*, MINISTRY OF PETROL. & NAT. GAS, <https://mopng.gov.in/en/page/12> (last visited Feb. 5, 2023).

63. See *About PDC*, *supra* note 20.

64. See *id.*

of India.⁶⁵ This Act formalized the National Electricity Policy and Plan, which charged the central government with creating a national electricity and tariff policy every five years, with consultation from state governments and the Central Electricity Authority based on “optimum” utilization of the various sources of energy.⁶⁶ As part of the tariff provisions, this bill established India’s first renewable purchase obligation (equivalent to U.S.’s renewable portfolio standards).⁶⁷ More importantly, this Act established that the area of governance of electricity access and distribution was one governed by both the federal and state governments. After this Act, the nation passed a variety of additional laws related to various sources of energy, including coal, oil, gas, and renewables.

In August 2021, the federal government rolled out an Amendment to the Electricity Bill of 2003 (Electricity Amendment Bill 2022) with a focus on compliance and competition.⁶⁸ This bill marks an important turning point in the nation’s energy regulation because it aims to privatize power distribution in the country to make the transmission and distribution market more efficient.⁶⁹ This Act is a key component of the corporate governance framework applicable to companies in the energy sector.

C. National Electricity Policy

The National Electricity Policy that was formalized in the Electricity Act of 2003 was recently updated by the government in February 2021.⁷⁰ The update is an effort to enhance the accessibility and reliability of electricity, as well as to address the poor financial health of distribution companies despite increased governmental subsidies for them.⁷¹ Additionally, the 2021 updates should promote the clean and sustainable generation of electricity and lead to the development of efficient markets for electricity, among other things.⁷² The updates include an outline for building electrification⁷³ and energy efficiency⁷⁴ and they break down the nation’s generation mix by addressing

65. See generally The Electricity Act, 2003, Bill No. 36 of 2003 (May 26, 2003).

66. *Id.* §§ 3–6.

67. See *id.*

68. See generally The Electricity (Amendment) Bill, 2022, Bill No. 187 of 2022 (Aug. 8, 2022).

69. *Id.* § 11.

70. Ministry of Power, *supra* note 11.

71. *Id.* at 54, ¶ 1.4.

72. *Id.* 54, ¶ 2.0.

73. *Id.* 73, ¶ 13.3.

74. *Id.* 73–74, ¶¶ 13.5–13.7.

thermal, hydro, nuclear, and renewable generation, in addition to co-generation and microgrids.⁷⁵

India's NDCs⁷⁶ are formally incorporated into national policy in this bill, including the climate goal of reducing its emissions intensity per unit GDP by 33-35% below 2005 levels by 2030.⁷⁷ To adhere to this commitment, however, instead of calling for the orderly phase-out of fossil fuel sources of power, the Policy instead calls for addressing "environmental issues" through a variety of minor operational changes.⁷⁸ The updated National Electricity Policy still lacks a clear directive from the national government to phase out fossil fuel sources of energy.⁷⁹

D. *The Petroleum and Natural Gas Regulatory Board Act*

The Petroleum and Natural Gas Regulatory Board Act, 2006 (PNGRB) establishes the Regulatory Board to regulate the "processing, storage, transportation, distribution, marketing and sale of petroleum, petroleum products, and natural gas excluding production of crude oil and natural gas so as to protect the interests of consumers . . . and to promote competitive markets."⁸⁰ In June 2021, the MoPNG promulgated new rules under the PNGRB Act related to natural gas sector development (PNGRB 2021 Rules).⁸¹ These rules were drafted with a focus on natural gas infrastructure development in an effort to balance inter-regional interests, equitable distribution, and well-coordinated and speedy development across the country.⁸²

Like the MoPNG, the PNGRB is an agency responsible for overseeing the compliance of companies comprising the nation's energy sector.⁸³ The PNGRB has been at the forefront of updating its regulatory practices and procedures to promote the privatization of the petroleum

75. *Id.* 56–62.

76. *See Government of India, supra* note 7.

77. Ministry of Power, *supra* note 11, at 74, ¶ 14.1.

78. *Id.* at 278, ¶ 11.3.4.

79. *See generally* Ministry of Power, *supra* note 11.

80. The Petroleum and Natural Gas Regulatory Board Act, 2006, No. 19 of 2006 (Mar. 31, 2006) (emphasis added).

81. *See generally* Draft Petroleum and Natural Gas Regulatory Board Rules, 2021, File No. L-16016/10/2021-GP-II (June 22, 2021).

82. *See generally id.*

83. *See generally* *Petroleum and Natural Gas Regulatory Board*, FUNCTIONS OF THE BOARD, <https://pngrb.gov.in/eng-web/function.html> (last visited Feb. 5, 2023).

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and natural gas sector, as well as providing support to foreign investors looking to invest in energy assets and infrastructure in India.⁸⁴

IV. PRIVATIZATION OF THE OIL AND GAS SECTOR LEADING TO FDI POLICY LIBERALIZATION

In addition to legislative updates in relation to climate and energy infrastructure, 2021 also saw India easing its foreign investment rules to encourage greater international investment into the petroleum and gas sector.⁸⁵ The government now allows 100% foreign direct investment (FDI) in upstream and private-sector refining projects, which was previously capped at 49%.⁸⁶ The FDI limit for public-sector refining projects was raised to 49% without any disinvestment or dilution of domestic equity in existing state-owned entities.⁸⁷ The government previously approved fiscal incentives in 2018 to attract investments and technologies improving the productivity of the country's oil and gas fields.⁸⁸ In 2019, legislative amendments were made to permit 100% FDI in coal and lignite mining, including infrastructure for the sale of coal.⁸⁹ This move will also open the door for foreign investors to privatize other public-sector companies in the oil and gas industry.⁹⁰ Largely, the liberalization of FDI policies will lead to the diversification of ownership of energy assets and infrastructure in India between domestic and foreign owners.

In the petroleum and natural gas sectors specifically, a 100% automatic investment is permitted for most oil and gas exploration, and marketing infrastructure activities for both private-owned projects and state-owned operations, also known as Public Sector Undertakings ("PSUs").⁹¹ For PSU petroleum refining projects, FDI is capped at 49%

84. See *Oil and Gas Sector – Policies and Schemes*, INVEST INDIA: NAT'L INV. PROMOTION & FACILITATION AGENCY, <https://www.investindia.gov.in/sector/oil-gas> (last visited Nov. 28, 2021).

85. Verma, *supra* note 34.

86. *Id.*

87. *Id.*

88. *Id.*

89. See Gov't of India, Ministry of Petrol. & Nat. Gas, Policy Framework to Promote and Incentivize Enhanced Recovery Methods for Oil and Gas, No. O-22013, 2017-ONGC-V (Issued on Oct. 10, 2018).

90. Shreya Nandi, *Govt. Permits 100% FDI In Oil & Gas PSUs Approved for Disinvestment*, BUS. STANDARD (July 29, 2021), https://www.business-standard.com/article/economy-policy/govt-permits-100-fdi-in-oil-gas-psus-approved-for-disinvestment-121072901607_1.html.

91. See *Oil and Gas Sector: Snapshot*, INVEST INDIA: NAT'L INV. PROMOTION & FACILITATION AGENCY, <https://www.investindia.gov.in/sector/oil-gas> (last visited Feb. 22, 2023). The Automatic Route is one of three categories of FDI processes permitted in India, wherein neither the non-resident investor nor the Indian company requires approval from the government for the investment. See *Oil and Gas Sector: Industry Scenario*, INVEST INDIA: NAT'L INV. PROMOTION &

percent.⁹² Most importantly, the government is permitting 100% automatic FDI in PSUs that have an “in-principle” pre-approval to help the federal government “strategic[ally] disinvest” from the investment undertaking.⁹³ This is significant given that many pockets of India’s energy sector are composed of state-owned assets and utilities that the government is now seeking to divest from.⁹⁴

For example, the government owns a 52.98% stake in Bharat Petroleum Corporation Ltd. (BPCL), India’s second-largest oil refinery, and is currently attempting to sell its majority stake to private investors through its FDI liberalization efforts.⁹⁵ Should BPCL sell its stake, this refinery would transition to a 100% privately owned company. Earlier last year, BPCL also sold its 61.65% stake in another refinery to two domestic utilities, Oil India Limited and Engineers India Limited.⁹⁶ Regardless of whether BPCL accepts bids from foreign investors directly or whether foreign entities invest in Indian utilities buying these bids, there are ample routes for FDI into India’s energy assets and infrastructure. In another example, in October 2021, the MoPNG issued a letter to ONGC, a state-owned crude oil and natural gas company, directing the company to sell a 60% stake and operating control of the off-shore oil and gas fields.⁹⁷ ONGC is the largest energy company in India and accounts for about 71% of domestic production,⁹⁸ but this push towards privatization ultimately stems from the gov

FACILITATION AGENCY (2021), <https://www.investindia.gov.in/sector/oil-gas> (last visited Feb. 22, 2023).

92. See *Oil and Gas Sector: Snapshot*, *supra* note 91.

93. *Id.*

94. See *supra* Section II.

95. See *Government Moves Cabinet Note to Seek 100% Foreign Investment in Oil Companies*, NDTV PROFIT: ECON. (June 20, 2021), <https://www.ndtv.com/business/government-moves-cabinet-note-to-seek-100-foreign-investment-in-oil-companies-2468228>.

96. See Kalpana Pathak, *BPCL Privatization Likely to be Completed by March 2022*, MINT (May 28, 2021), <https://www.livemint.com/companies/news/bpcl-privatization-likely-to-be-completed-by-march-2022-11622191947214.html>.

97. See *Oil Ministry to ONGC: Give 60% Control in Mumbai High, Bassein Fields to Foreign Cos.*, ECON. TIMES: ENERGYWORLD (Nov. 1, 2021), <https://energy.economicstimes.indiatimes.com/news/oil-and-gas/oil-ministry-to-ongc-give-60-control-in-mumbai-high-bassein-fields-to-foreign-cos/87467419>.

98. See *About Us – ONGC at a Glance, Corporate Profile*, ONGC, <https://ongcindia.com/web/eng/about-ongc/ongc-at-a-glance/corporate-profile> (last visited Feb. 5, 2023). BPCL is a downstream company of ONGC, meaning it produces petroleum products for end-user consumption, like petrol, diesel, and cooking gas LPG. See *id.*

ernmental priority to increase capital efficiency and increase overall output from the oil fields.⁹⁹

These amendments to the FDI laws in favor of federal disinvestment from owning and operating national utilities came in late 2020¹⁰⁰ and are part of a series of efforts on the part of the federal government to solicit increased FDI directly into the oil and gas sector with minimal regulatory burdens. The government also approved an earlier round of fiscal incentives in 2018 to attract investments and technologies to improve the productivity of the country's oil and gas fields.¹⁰¹ A working group of over 200 Indian business professionals, in conjunction with various departments of the federal government,¹⁰² maintain an informative and interactive website outlining the most up-to-date investment opportunities in the sector as well as the multiple ways in which potential investors can receive support throughout the regulatory clearing process.¹⁰³ It is clear the Indian government is prioritizing increased foreign investment and is likely to swiftly deal with approval requests. The rapid transformation of India's energy sector needs a stricter corporate governance framework that protects consumers, the environment, and society at large from the climate-related risks facing the energy sector. India's company law should facilitate a nation's climate action through corporate activities rather than hinder it.

V. INCREASED FDI INTO THE ENERGY SECTOR CALLS FOR STRICTER CORPORATE GOVERNANCE REGULATIONS

The risks posed by climate change to infrastructure, economies, public health, and the environment continue to escalate around the world. The transition and development of economies to low carbon typically poses the same risks and challenges as traditional economic development,¹⁰⁴ but the urgency of the climate crisis and related sustainability

99. See Oil Ministry to ONGC: Give 60% Control in Mumbai High, Bassein Fields to Foreign Cos., *supra* note 97.

100. See Prashant Mara, *What Does India's Foreign Direct Investment Policy Mean for Businesses?*, FORBES (Aug. 6, 2021), <https://www.forbes.com/sites/forbesbusinesscouncil/2021/08/06/what-does-indias-foreign-direct-investment-policy-mean-for-businesses/?sh=8a7bc1a1c1b3>.

101. See Govt. of India, *supra* note 89.

102. About Us, INV. INDIA: NATIONAL INV. PROMOTION & FACILITATION AGENCY, <https://www.investindia.gov.in/about-us> (last visited Nov. 28, 2021).

103. *Natural Gas, Transportation & Storage*, INV. INDIA: NATIONAL INV. PROMOTION & FACILITATION AGENCY, <https://www.investindia.gov.in/sector/oil-gas/natural-gas> (last visited Nov. 28, 2021).

104. Amiera Sawas et al., *Climate Change, Low-Carbon Transitions and Security*, IMPERIAL COLL. LONDON, GRANTHAM INST., BRIEFING PAPER NO. 25 8, (Mar. 2018).

agendas can lead to these risks being overlooked. As it relates to India's energy sector, corporate social responsibility ("CSR") and environmental, social, and governance ("ESG") values become increasingly relevant. Companies should contribute to the quality of life of the local communities they serve and society at large, in addition to contributing to economic development. Accordingly, some reports suggest that ESG investing has become a viable mainstream avenue for investing in sustainable long-term financing of projects and companies.¹⁰⁵ Since the late 2000s, the Indian government has found different ways of folding CSR into the corporate governance of Indian businesses, including the good faith provision of India's Companies Act of 2013, as outlined in Subsection A.

The trend of growth in FDI can be traced to the increased liberalization in laws and practices applicable to foreign trade and investment, technological change, and growing competition. The past decade has seen widespread privatization and deregulation of public utilities on a worldwide basis, with electricity, gas, water, transportation, and telecommunications seeing the largest percentage increases in FDI.¹⁰⁶ Specifically in India, the government has opened the door for foreign investors to privatize public-sector companies in the oil and gas industry¹⁰⁷. As investment laws liberalize and the ownership of domestic energy assets and infrastructure diversifies, it is imperative for India to impose stricter CSR requirements for company policies, spending, and disclosures, with clear directives for doing so. Disclosing climate risks could help a company get ahead of inevitable regulatory changes as well as climate action that investors and customers are demanding worldwide.¹⁰⁸

A. Corporate Governance Framework in India

For Indian companies, the director's duties to the company and its shareholders were governed by common law and the equitable principles of fiduciary duties before being codified in the Companies Act of

105. ORG. FOR ECON. COOP. AND DEV., ESG INVESTING AND CLIMATE TRANSITION: MARKET PRACTICES, ISSUES AND POLICY CONSIDERATIONS 7 (2021), [https://www.oecd.org/finance/ESG-investing-and-climatetransition-](https://www.oecd.org/finance/ESG-investing-and-climatetransition-market-practices-issues-and-policy-considerations.pdf)

[Market-practices-issues-and-policy-considerations.pdf](https://www.oecd.org/finance/ESG-investing-and-climatetransition-market-practices-issues-and-policy-considerations.pdf).

106. See U.N. CONF. ON TRADE AND DEV., UNCTAD WORLD INVESTMENT REPORT 75–76 (2018), <https://unctad.org/webflyer/world-investment-report-2018>; see also ORG. FOR ECON. COOPERATION AND DEVELOPMENT, OECD. STAT (2019), <https://stats.oecd.org/index.aspx?r=169006>.

107. See *supra* Section IV.

108. See CARBON DISCLOSURE PROJECT, WHY DISCLOSE AS A COMPANY? (2021), <https://www.cdp.net/en/companies-discloser>.

2013 (“India’s 2013 Companies Act”).¹⁰⁹ Indian companies historically have followed CSR principles by having robust philanthropic programs,¹¹⁰ which were also formalized in Section 135 of India’s 2013 Companies Act by mandating a portion of net profits to be earmarked for CSR initiatives.¹¹¹

Section 166 of the India 2013 Companies Act clarifies and expands the responsibilities and duties of directors, which makes this a landmark legislation in the absence of other statutory law and jurisprudence focused on the director’s duties.¹¹² Section 166 also empowers members of the company, beneficiaries, regulators, and the courts to identify and regulate the obligations and conduct of company directors more objectively and effectively.¹¹³ Directors are “trustees” for the shareholders of the company and “have a duty to make full and honest disclosures to the shareholders regarding all important matters relating to the company.”¹¹⁴ There are several duties and responsibilities imposed on the directors of companies through Section 166, including a good faith provision, which imposes on directors a duty to promote the objects of the company for “the benefit of its members as a whole, and in the best interests of the company, its employees, the shareholders, the community and for the protection of the environment.”¹¹⁵ However, without any accountability mechanisms, the Act’s attempt to provide protection for the public at large falls short of materializing because the class of persons protected is not easily recognizable in Indian courts.¹¹⁶

The regulatory framework for corporate governance in India is largely governed by the India 2013 Companies Act and administered by the Securities and Exchange Board of India (“SEBI”) and the Ministry of Corporate Affairs (“MCA”). In the late 1990s, the Indian government undertook a corporate governance regulation overhaul after

109. The Companies Act, (2013) (India) [hereinafter India 2013 Companies Act].

110. AFRA AFSHARIPOUR & MANALI PARANJPE, HANDBOOK ON CORPORATE GOVERNANCE IN INDIA: LEGAL STANDARDS AND BOARD PRACTICES 106 (The Conf. Bd. & Russell Reynolds, eds., 2021).

111. For a detailed explanation of the provision, see LISA BENJAMIN, COMPANIES AND CLIMATE CHANGE: THEORY AND LAW IN THE UNITED KINGDOM 95–96 (Cambridge Univ. Press 2021).

112. India 2013 Companies Act, *supra* note 109.

113. Vijay P. Singh, *Directors’ Fiduciary Duties to the Company: A Comparative Study of the UK and Indian Companies Act*, 27 TRUSTS & TRUSTEES 132, 134–135 (2021).

114. Dale and Carrington Invt. P. Ltd. v. P.K. Prathapan, [2004] 12 SCC 212 (India).

115. India 2013 Companies Act, *supra* note 109, § 166(2).

116. *Id.*; see also W.E. PEEL & J. GOUDKAMP, WINFIELD AND JOLOWICZ TORTS 211 (Sweet & Maxwell eds., 15th ed. 1998).

large firms and industry groups lobbied SEBI.¹¹⁷ In 2000, SEBI issued Clause 49 of The Listing Agreement to the Indian Stock Exchange, which became a landmark regulation establishing company governance requirements, including disclosure to shareholders.¹¹⁸ In 2011, the MCA published the National Voluntary Guidelines on Social, Environmental & Economic Responsibilities of Business (“NVG”), comprising concrete measures that companies could adopt to address employees, customers, and environmental interests.¹¹⁹ Then, in 2013, India’s Companies Act (India 2013 Companies Act) was passed, containing more robust corporate governance provisions.¹²⁰

While SEBI formulated and passed the India 2013 Companies Act, the MCA facilitates the implementation of the Act and routinely issues notifications, clarifications, and notices regarding the Act to keep up with any amendments issued by SEBI. In 2015, SEBI published the Listing Obligations and Disclosure Requirement Regulations (“SEBI Listing Regulations”), further adding to the regulatory framework for corporate governance.¹²¹ The SEBI Listing Regulations functionally replace Clause 49 as the body of regulatory provisions applicable to corporate governance in India. The reform efforts in the SEBI Listing Regulations include a notable increase in disclosure requirements and public shareholder rights.¹²² Clause 49, among other things, required listed companies in India to periodically disclose financial and other matters to their shareholders to ensure transparency and publish annual reports stating compliance with corporate governance norms.¹²³ Starting in the early 2000s, MCA initiated working groups and

117. See Afra Afsharipour, *Corporate Governance Convergence: Lessons from the Indian Experience*, 29 NW. J. OF INT’L L. & BUS. 335, 340 (2009); Rajesh Chakrabarti, *Corporate Governance in India - Evolution and Challenges*, 18 (O.P. Jindal Glob. Univ., Working Paper, 2000).

118. Securities & Exchange Board of India, Amendments to Clause 49 of the Listing Agreement, SMDRP/POLICY/CIR-53/01 (Issued on Dec. 31, 2001); Securities & Exchange Board of India, Corporate Governance in Listed Companies – Clause 49 of the Listing Agreement, SEBI/MRD/SE/31/2003/26/08 (Issued on Aug. 26, 2003).

119. *National Voluntary Guidelines on Social, Environmental and Economic Responsibilities of Business*, GOV’T OF INDIA, MINISTRY OF CORP. AFF. (2011), https://www.mca.gov.in/Ministry/latestnews/National_Voluntary_Guidelines_2011_12jul2011.pdf.

120. See India 2013 Companies Act, *supra* note 109; Press Release, Ministry of Corp. Affairs, Gov’t of India, No. 2/19/2011-CL-V (Jan. 9, 2013).

121. Securities & Exchange Board of India, (Listing Obligation and Disclosure Requirements) Regulations, Gazette of India pt. III, § 4 (2015) [hereinafter SEBI Listing Regulations].

122. Securities & Exchange Board of India, Corporate Governance in Listed Entities - Amendments to Clause 36b and 49 of the Equity Listing Agreement, Circular No. CIR/CFD/POLICY CELL/2/2014 (2014).

123. See AFSHARIPOUR & PARANJPE, *supra* note 110, at 14.

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committees, which then released the National Guidelines on Responsible Business Conduct (“NGBRC”) in 2019, establishing the basic principles applicable to business in India.¹²⁴ The NGBRC builds on the framework established in the 2011 National Voluntary Guidelines by asking companies to “identify specific governance structures to oversee the adoption, implementation, and monitoring of each principle.”¹²⁵

B. *Corporate Governance Framework in the U.K.*

Corporate governance in the United Kingdom was first reviewed in 1992 with the publication of the Cadbury Report, named after the Chairman of the Committee on the Financial Aspects of Corporate Governance, Sir Adrian Cadbury.¹²⁶ This report established the “comply or explain” procedure, where companies were asked to either comply with the voluntary “Code of Best Practices” for companies or explain their departure from the Code.¹²⁷ The Cadbury Report was, therefore, a watershed moment in corporate governance for two reasons: first, it established a code of conduct for companies to voluntarily comply with which was then formalized in 2018 in the U.K. Combined Code of Corporate Governance, and second, it outlined the “shareholder-primacy” approach which places shareholders at the heart of corporate governance.¹²⁸

The U.K. Companies Act of 2006 (“U.K. 2006 Companies Act”) codifies seven director duties which are owed to the company instead of shareholders.¹²⁹ In *Coleman v. Myers*, a U.K. Court held that directors must make full disclosure of material facts to avoid misleading shareholders, particularly when their specific consent is required.¹³⁰ The

124. Hemang Prekh et al., *Corporate Governance and Directors’ Duties in India: Overview*, REUTERS 1, 3 (2021), <https://uk.practicallaw.thomsonreuters.com/0-506-6482>.

125. AFSHARIPOUR & PARANJPE, *supra* note 110, at 110.

126. ADRIAN CADBURY, REPORT OF THE COMMITTEE ON THE FINANCIAL ASPECTS OF CORPORATE GOVERNANCE, (The Committee on the Financial Aspects of Corporate Governance & Gee & Co. Ltd., 1992) [hereinafter Cadbury Report].

127. *Id.*

128. *Id.* ¶ 6.1.

129. Companies Act 2006, ch. 46, pt. 10, ch. 2 §§ 171–77, (UK) [hereinafter UK 2006 Companies Act].

130. *Coleman v. Myers* [1977] 2 NZLR 225 (N.Z.). (“[T]here is inherent in the process of negotiation for sale a fiduciary duty owing by the director to disclose to the purchaser any fact . . . which might reasonably and objectively control or influence the judgment of the shareholder in forming the decision in relation to the offer.”)

Court reversed this holding in *Sharp v. Blank*,¹³¹ clarifying that directors do not owe fiduciary duties to company shareholders outside of that which is contained within the statutory provisions of the U.K. 2006 Companies Act. The 2010 version of the U.K. Corporate Governance Code specified that the purpose of corporate governance in the U.K. is to facilitate the long-term success of the company,¹³² moving away from the dominant shareholder-primacy approach in U.K. company law. The 2016 version of the U.K. Corporate Governance Code further updates the purpose of corporate governance to include a focus on the “sustainable” success of the company over the longer term.¹³³ This 2016 Governance Code also “encourages” directors to consider non-shareholder constituents and their views,¹³⁴ but some scholars argue that this Code falls short of actually changing the existing corporate culture.¹³⁵

Section 172 of the U.K. 2006 Companies Act codifies a director’s duty to promote the success of the company and requires a consideration of its impact on the community and the environment.¹³⁶ Importantly, Section 172 explicitly identifies the environment as a stakeholder in the statutory language.¹³⁷ This section is also the “good faith” provision, guiding directors to act in good faith to promote the company’s success in the long term for the benefit of its members as a whole.¹³⁸ However, this requirement is only one of the seven factors that directors are duty-bound to consider, and so directors may be required to balance conflicting factors, including their obligation to act in good faith.¹³⁹ Another pitfall noted by some scholars is that the U.K. 2006 Companies Act does not contain any real definition or guidance of what comprises “long-term.”¹⁴⁰ This complaint regarding a lack of structured guidance is common across investment industries worldwide.¹⁴¹

131. *Sharp v. Blank* [2015] EWHC 3200 (Ch) (UK).

132. FIN. REPORTING COUNCIL, THE UK CORPORATE GOVERNANCE CODE ¶ 1 (2010).

133. FIN. REPORTING COUNCIL, THE UK CORPORATE GOVERNANCE CODE ¶ 4 (2016).

134. *Id.* 3, ¶ 9.

135. Lisa Benjamin & Stelios Andreadakis, *Corporate Governance and Climate Change: Smoothing Temporal Dissonance to a Phased Approach*, 40 BUS. L. R. 146, 150 (2019).

136. Companies Act 2016 § 172(1).

137. *Id.*

138. *Id.*

139. *See, e.g.*, Wai Shun Wilson Leung, *The Inadequacy of Shareholder Primacy: A Proposed Corporate Regime that Recognizes Non-Shareholder Interests*, 30 COLUM. J.L. & SOC. PROBS. 589 (1997).

140. Benjamin & Andreadakis, *supra* note 135, at 153.

141. *See generally infra* Section V.

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C. Analysis: Comparing India and the U.K.'s Companies Acts

The good faith provisions of India and the U.K.'s Companies Acts attempt to redefine and enlarge the duties and responsibilities of company directors to bring community members, consumers, and the environment into the ambit of stakeholders to consider in corporate management. Prior to the passage of their respective Companies Acts, the duties of directors and companies in both India and the U.K. were governed by the common law of negligence and the equitable principles of fiduciary duties.¹⁴² The good faith provision in Section 166 of India's 2013 Company Act mirrors Section 172 of the U.K.'s 2006 Companies Act. However, a key difference some scholars have identified is that the U.K.'s 2006 Companies Act does not give the courts any discretion to interpret the statutory language of the Act outside the scope of negligence and equity common law, whereas India's 2013 Companies Act contains no such restriction.¹⁴³ This means that Indian courts can read director duties more broadly to include a duty to disclose climate-related risks in a good faith effort to disclose the company's impact on the community and the environment.

Canada, another nation governed by common law,¹⁴⁴ has recently contributed to the global jurisprudence regarding shareholder primacy. The Supreme Court of Canada has issued two decisions in the last two decades that interpret corporate "purpose" to include the interests of consumers and the environment in addition to shareholders, employees, suppliers, and creditors.¹⁴⁵ Future updates to India's corporate governance framework should take advantage of liberal statutory interpretation in common law nations to provide clear guidelines for directors and companies to protect the environment under CSR regimes as outlined above. These updates should also include climate risk disclosure mandates for domestic and foreign-owned companies operating in India as outlined below.

VI. INDIA'S CORPORATE GOVERNANCE FRAMEWORK MUST NOW ADDRESS CLIMATE-RISK DISCLOSURES

Institutional investors today value climate risk reporting at nearly the same importance as financial reporting, regardless of investor beliefs

142. Singh, *supra* note 113, at 148.

143. *Id.*

144. See generally H. Patrick Glenn, *The Common Law in Canada*, 74 CAN. BUS. REV. 261 (1995).

145. See *Peoples Department Stores Inc. (Trustee of) v. Wise*, [2004] 3 S.C.R. 461, ¶ 3 (Can.); *BCE Inc. v. 1976 Debentureholders*, [2008] 3 S.C.R. 560, ¶ 81 (Can.).

about climate change.¹⁴⁶ In India, corporate governance advocates in the investment community are shifting their focus from short-term financial profit-seeking to long-term sustainable value (“LTSV”) of the company.¹⁴⁷ Risks caused by climate change, like any other risks to a company’s forecasted growth and profits, must be taken into account for a company to prepare for any risks or capitalize on any opportunities caused by future climate events. The LTSV approach requires the boards of companies to consider the environmental and social risks the companies face, as well as to have a strategy in place to communicate those risks and the appropriate remedial plan to various stakeholders.¹⁴⁸ Risk management is a critical component of the overall management of a company, and a director’s failure to account for climate-related risks can cause a significant decline in the value of the company (or hinder future gain in value).¹⁴⁹

Climate-related financial risks to shareholders, businesses, and regulators typically fall into two general categories: physical risks or transition risks.¹⁵⁰ The physical impacts of climate change include “intensification of storms, increase in heavy precipitation ... more severe droughts, and longer wildfire seasons.”¹⁵¹ These physical risks manifest by impacting a company’s operations, transportation and distribution chains, and physical facilities.¹⁵² In the case of investment

146. Emirhan Ilhan et al., *Climate Risk Disclosure and Institutional Investors* (Swiss Finance Institute Research Paper No. 19-66, European Corporate Governance Institute – Finance Working Paper No. 661/2020, 2020).

147. See Vikramaditya S. Khanna, *Global Asset Managers and the Rise of Long Term Sustainable Value*, NSE CTR. FOR EXCELLENCE IN CORP. GOVERNANCE, Q. BRIEFING (Oct. 2018), https://archives.nseindia.com/research/content/QB_October_2018.pdf.

148. Umakanth Varottil, *Environmental and Social Reporting by Indian Companies*, NSE CTR. FOR EXCELLENCE IN CORP. GOVERNANCE, Q. BRIEFING (Jan. 2019), https://www1.nseindia.com/research/content/QB_January_2019.pdf. For broader discussion about this temporal “dissonance” between short-term and long-term frameworks for corporate governance in the context of climate change, and solutions thereof, see Benjamin & Andreadakis, *supra* note 135.

149. See, e.g., Marcel W. Brinkman, Nick Hoffman, & Jeremy M. Oppenheim, *How Climate Change Could Affect Corporate Valuations*, MCKINSEY & CO. (Oct. 1, 2008), <https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/how-climate-change-could-affect-corporate-valuations>; Peter Schwartz, *Risk: Investing in Global Security*, HARV. BUS. REV. (Oct. 2007), <https://hbr.org/2007/10/climate-business--business-climate>; Brad Plumer, *Companies See Climate Change Hitting Their Bottom Lines in the Next 5 Years*, N.Y. TIMES (June 4, 2019), <https://www.nytimes.com/2019/06/04/climate/companies-climate-change-financial-impact.html>.

150. *Climate Related Financial Risk*, CTR. FOR CLIMATE & ENERGY SOL., <https://www.c2es.org/content/climate-related-financial-disclosures/> (last visited Feb. 23, 2023).

151. See *The Climate Risk Disclosures Act of 2019*, S. 2075, 116th Cong. § 3(2)(A) (2019).

152. CONG. RSCH. SERV., IF11307, CLIMATE-RELATED RISK DISCLOSURE UNDER U.S. SECURITIES LAWS 1 (2020).

institutions, the physical impact of climate change on infrastructure projects that a company has invested in, such as highways or stadiums, could cause losses that are not recoverable. Transition risks are financial or “reputational” risks to businesses associated with transitioning (or failing to) towards a lower-carbon economy, taking into account the technology, society, and market progress.¹⁵³ For example, these risks can manifest in fossil fuel assets becoming stranded as it becomes “uneconomic” for them to operate under new policies intended to move the energy sector towards clean and renewable energy sources,¹⁵⁴ which could likely be the case for Indian coal mines and plants in the near future.

The fundamental viability of companies and industries is at risk due to the worsening climate crisis,¹⁵⁵ and there is now an urgent need for these companies to broaden their view of physical and transition climate risks, as well as the plans to respond to those risks. BlackRock, one of the largest global institutional shareholders, published a letter by its CEO Larry Fink in 2020, stating the company’s stance on risk disclosure before considering investing as disposed against management and board directors when the companies are not making substantial progress on “sustainability-related disclosures and the business practices and plans underlying them.”¹⁵⁶ Since 2019, France, New Zealand, Japan, and the U.K. have passed disclosure legislation,¹⁵⁷ with the U.S. closely following suit.¹⁵⁸ A recent report from the U.S. Commodity Futures Trading Commission also addresses the financial risk caused by climate change to various markets, including the energy industry.¹⁵⁹ Importantly, the report highlights that market and industry regulators can promote the role of markets as providers of solutions to climate-

153. *Id.*

154. The Climate Risk Disclosures Act of 2019, S. 2075, 116th Cong. § 3(2)(C) (2019).

155. *See, e.g.*, Jeremy Martinich & Allison Crimmins, *Climate Damages and Adaptation Potential Across Diverse Sectors of the United States*, 9 NATURE: CLIMATE CHANGE 397 (2019); Katharine Ricke et. al, *Country-Level Social Cost of Carbon*, 8 NATURE: CLIMATE CHANGE 895 (2018); EUR. COMM’N, SECTORS AFFECTED: INFRASTRUCTURE AND BUILDINGS (2012), https://ec.europa.eu/clima/eu-action/adaptation-climate-change/how-will-we-be-affected/sectors-affected_en [permalink].

156. Letter from Larry Fink, CEO, BlackRock, to CEOs, *A Fundamental Reshaping of Finance* (Jan. 2020), <https://www.blackrock.com/corporate/investor-relations/larry-fink-ceo-letter>.

157. EY, *Global Climate Risk Disclosure Barometer* (2021), https://www.ey.com/en_us/climate-change-sustainability-services/risk-barometer-survey-2021 (last visited Nov. 1, 2021).

158. *See Climate Risk Disclosure Act of 2021*, H.R. 2570, 117th Cong. (2021).

159. U.S. COMMODITY FUTURES TRADING COMM’N, *MANAGING CLIMATE RISK IN THE U.S. FINANCIAL SYSTEM* (2020), <https://www.cftc.gov/sites/default/files/2020-09/9-9-20%20Report%20of%20the%20Subcommittee%20on%20Climate-Related%20Market%20Risk%20-%20Managing%20Climate%20Risk%20in%20the%20U.S.%20Financial%20System%20for%20posting.pdf>.

related risks in conjunction with climate change legislation from governments.¹⁶⁰

Shareholders and investors themselves have been increasing the pressure on companies to incorporate climate metrics into their financial disclosures, in addition to their CSR and ESG metrics.¹⁶¹ Globally, 72 of the 79 industries that comprise “equities” as asset classes globally are now vulnerable to climate risks, and therefore, investors cannot diversify their risks away from those caused by climate change but instead must now focus on “managing” it.¹⁶² The Task Force on Climate-Related Financial Disclosures (“TCFD”), an industry-led task force focused on incorporating climate risks to the financial system into risk analysis, has also declared that “climate-related risks and the expected transition to a lower-carbon economy affect most economic sectors and industries.”¹⁶³ The TCFD has designed guidelines for companies to a) use in voluntary financial disclosures to promote alignment across industries and economic sectors, b) clarify what constitutes material and relevant climate-related risks, including a formal categorization of risks into physical or transitional, and c) respond to the needs of lenders, insurers, and investors.¹⁶⁴ Importantly, the TCFD Recommendations incorporate global emission reduction goals by urging companies to base their climate risk calculations on a 2°C scenario.¹⁶⁵

A. *Climate Risk Disclosure in India*

Investors should have access to accurate information that is relevant, useful, and important to making investment and voting decisions to enable the proper functioning of financial markets.¹⁶⁶ However, some

160. *Id.* at 120.

161. See Connor Kuratek & Joseph A. Hall, *Legal Liability for ESG Disclosures*, HARV. L. SCH. FORUM ON CORP. GOVERNANCE (Aug. 3, 2020), <https://corpgov.law.harvard.edu/2020/08/03/legal-liability-for-esg-disclosures/>.

162. SUSTAINABILITY ACCT. STANDARDS BD., CLIMATE RISK: TECHNICAL BULLETIN, Bulletin No. TB001-10182 016 (2016), at 1. The Sustainability Accounting Standards Board (“SASB”) uses the Sustainable Industry Classification System to categorize companies into industries and sectors based on their “resource intensity and shared sustainability risks and opportunities.” *Id.* at 2.

163. TASK FORCE ON CLIMATE-RELATED FIN. DISCLOSURES, FINAL REPORT: RECOMMENDATIONS OF THE TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES II (June 2017).

164. *See id.*

165. *See generally* INSTITUTIONAL INV. GRP. ON CLIMATE CHANGE, UPDATED GUIDE – INVESTOR EXPECTATIONS OF OIL AND GAS COMPANIES 2016 (Nov. 22, 2016), <https://www.iigcc.org/download/updated-guide-investor-expectations-of-oil-and-gas-companies-2016/?wpdmdl=988&refresh=63f73cf520c271677147381>.

166. *See* Concept Release, SEC, Business and Financial Disclosure Required by Regulation S-K, No. 33-10064, 34-77599, 81 Fed. Reg. 23,916, 23,921 (Apr. 22, 2016) [hereinafter SEC 2016].

studies have found that risk management is not a top priority for boards at many Indian companies. A 2018 survey found that 39 percent of companies surveyed did not have a chief risk officer in their executive structure.¹⁶⁷

SEBI has been consistently issuing regulations to encourage the adoption of MCA's 2011 National Voluntary Guidelines,¹⁶⁸ which lay out the first concrete voluntary measures for companies to adopt to address the interests of various stakeholders, including the environment. India's corporate governance framework recognizes the central role of the board of directors in establishing risk management systems within companies. A 2003 SEBI report concluded that "it is important for corporate boards to be fully aware of the risks facing the business" and that shareholders must "know about the process by which companies manage their business risks."¹⁶⁹

India's 2013 Companies Act crucially fails to provide guidance to boards and directors on how to develop effective risk mechanism structures. Section 134 of the Act only states that companies should issue a disclosure statement addressing the company's risk management policy.¹⁷⁰ This disclosure should include elements of risk which, in the opinion of the board, "threaten the existence of the company."¹⁷¹ Section 177 requires the creation of internal audit committees for companies to evaluate risk management systems¹⁷² but again fails to provide any metrics or guidelines for effective risk management systems. In the absence of strict SEBI guidelines urging directors to conduct a climate-related risk analysis, corporate disclosure could fail to spot foreseeable setbacks related to climate change or, alternatively, potential strategic investments. Further, for companies looking to establish risk management systems in light of climate-related risks, the Act does little to provide direction on establishing and implementing an effective risk management system.

The SEBI Listing Regulations require the board of directors to create, implement, and monitor a company's risk management plan,¹⁷³

167. DELOITTE TOUCHE TOHMATSU INDIA LLP, RISK SURVEY 2018 11 (2018).

168. Securities and Exchange Board of India, (Listing Obligations and Disclosure Requirements) Regulations, ¶ 34(2) (f) (Issued on Sept. 2, 2015).

169. SEC. AND EXCH. BOD. OF INDIA, REPORT OF THE SEBI COMMITTEE ON CORPORATE GOVERNANCE (2003).

170. India 2013 Companies Act, *supra* note 109, § 134.

171. *Id.*

172. *Id.* § 177(4) (vii).

173. SEBI Listing Regulations, *supra* note 121, § 4, ¶ 17(9) (b).

which includes the creation of a risk management committee.¹⁷⁴ In November 2020, SEBI issued a Consultation Paper that finally contained specifications for the risk management commitment outlined in the SEBI Listing Regulations.¹⁷⁵ This Consultation Paper proposes that the commitment must formulate a detailed risk management policy to include risks and impacts faced by the company related to ESG, but notably fails to use “climate risks” as an independent category anywhere in the document.

B. *Climate Risk Disclosure in the U.K.*

In October of 2021, just prior to COP26, the U.K. announced that starting in April 2022, Britain’s largest companies and financial institutions will be subject to mandatory climate-related disclosure requirements in line with TCFD Recommendations (pending Parliamentary approval).¹⁷⁶ This was a landmark announcement because the U.K. became the first G20 nation to take this action towards its Net Zero strategy and in keeping with its global climate commitments.¹⁷⁷

Additionally, there are a number of provisions in the U.K.’s corporate governance framework that form the basic structure of climate-risk reporting requirements for companies and directors. Section 414 of the U.K. 2006 Companies Act requires U.K. companies to report certain environmental information to shareholders under its strategic reporting provisions.¹⁷⁸ A company’s duty to report under the U.K. 2006 Companies Act is overseen and enforced by the U.K. Financial Reporting Council (“FRC”). In 2018, the FRC issued a reform to its compliance guidance for directors,¹⁷⁹ explicitly referring to climate risk and requiring its inclusion in a company’s strategic report. Section 172 also instates a statutory obligation on directors to consider the impact of the company’s operations on the environment and the community at large.¹⁸⁰ However, while section 172 imposes a new obligation on directors to consider the externalities of company actions on the

174. *Id.* § 4, ¶ 21.

175. SECURITIES AND EXCHANGE BOARD OF INDIA, CONSULTATION PAPER ON THE APPLICABILITY AND ROLE OF THE RISK MANAGEMENT COMMITTEE (2020).

176. Press Release, Dep’t for Bus., Energy & Indus.Strategy, Gov’t of UK, UK to Enshrine Mandatory Climate Disclosure for Largest Companies in Law (Oct. 29, 2021), available at <https://www.gov.uk/government/news/uk-to-enshrine-mandatory-climate-disclosures-for-largest-companies-in-law>.

177. *Id.*

178. See BENJAMIN, *supra* note 111, at 99.

179. FIN. REPORTING COUNCIL, GUIDANCE ON THE STRATEGIC REPORT (2018).

180. *Id.* at 4.

environment, it contains no clear guidance on what constitutes the “environment” and how that may be different from “community.”¹⁸¹

The case of *Stimpson v. Southern Landlords Association* provided further guidance on Section 172, holding that when a director is acting in good faith while balancing mixed interests for the benefit of the company, the interests of the members cannot be ignored.¹⁸² *HM Treasury* is a more pointed case connecting Section 172 to climate change.¹⁸³ This case distinguishes that climate concerns are subordinate to shareholder concerns unless the two are “economically compatible.”¹⁸⁴ Some scholars have extrapolated four ways in which climate risk-related liability can arise for directors under Section 172: i) where a director acts in bad faith by ignoring climate risk, ii) fails to act in good faith by overlooking climate risk for innocuous reasons, iii) fails to obtain expert advice related to climate risks, or iv) has a defective decision-making process thereby failing to adequately consider the factors in Section 172(1).¹⁸⁵ These scholars argue that climate change has become a foreseeable and material risk now, which directors must adequately manage and mitigate.¹⁸⁶

The U.K. Government echoed this same sentiment in its press release, stating that the new requirements “will help investors and businesses to better understand the financial impacts of their exposure to climate change, and price climate-related risks more accurately . . .,” while supporting U.K.’s transition to a green economy.¹⁸⁷ By aligning with the TCFD recommendations, U.K. companies will now have a “uniform way to assess how a changing climate may impact their business model and strategy and ensure they are well placed to harness opportunities from the U.K.’s transition to net zero.”¹⁸⁸ As India’s energy sector is on the precipice of diversifying and restructuring, the time is ripe for the government to instate uniform risk disclosure requirements, especially as related to climate risks. India’s regulatory structure closely follows other common law jurisdictions like the U.K. However, India is yet to follow in the footsteps of the U.K. in issuing strict and clear guidelines to promote specific climate-risk disclosure from companies. As

181. *Id.*

182. *Stimpson v. Southern Landlords Association* [2009] EWHC 2072 (Ch).

183. *R (on the Application of the People & Planet) v. HM Treasury*, [2009] EWHC 3020.

184. *See* BENJAMIN, *supra* note 111, at 73.

185. ALEXIA STAKER & ALICE GARTON, COMMONWEALTH CLIMATE LAW INITIATIVE, DIRECTORS’ LIABILITY AND CLIMATE RISK: UNITED KINGDOM – A COUNTRY PAPER 15–18 (2018).

186. *Id.* at 14–15.

187. Press Release, *supra* note 176.

188. *Id.*

outlined in Section V, India's 2013 Companies Act contains the same "good faith" provision as in the U.K. 2006 Companies Act. However, a key difference between the corporate governance framework between the two is that India's jurisprudence on the matter is not bound to common law principles of equity and negligence.¹⁸⁹ Therefore, progressive climate-risk disclosure legislation in India may face even more success should it be challenged in court. The U.K.'s mandatory climate-risk disclosure requirements, as outlined above, are due to go into effect in April 2022, as outlined above. Closely following legal challenges to those regulations may provide further direction for the Indian government and SEBI to draft its own regulations in a way that avoids those legal pitfalls.

C. *Climate Risk Disclosure in the U.S.*

In the U.S., companies are typically required to disclose information related to climate risk or ESG impacts in any filings to the U.S. Securities and Exchange Commission (SEC) if the risks are "material."¹⁹⁰ However, similar to in India, directors and shareholders of fossil fuel companies and other publicly traded companies in the U.S. are increasingly calling for disclosure and corporate accountability to become a clearer requirement for public companies, either through new statutory requirements or through SEC rulemaking.¹⁹¹ In 2021, there were 146 shareholder proposals filed by U.S. companies on climate-related topics.¹⁹² Also similar to India, the impact of climate change is being felt in U.S. industries and sectors, including the investment, energy,¹⁹³ and agriculture sectors.¹⁹⁴

The Securities Act of 1933 and the Securities Exchange Act of 1934 requires domestic companies that issue equities to file disclosure

189. See Singh, *supra* note 113, at 148.

190. S.E.C., Commission Guidance Regarding Disclosure Related to Climate Change, 17 C.F.R. §§ 211, 231, 241, 27 (Feb. 8, 2010).

191. Connor Kuratek, Joseph A. Hall & Betty M. Huber, *Legal Liability for ESG Disclosures*, HARV. L. SCH. F. ON CORP. GOVERNANCE (2020), <https://corpgov.law.harvard.edu/2020/08/03/legal-liability-for-esg-disclosures/>.

192. *Engagement Tracker*, CERES (2021), <https://engagements.ceres.org/> (last visited Nov. 29, 2021).

193. See Natalie Nowiski, *Rising Above the Storm: Climate Risk Disclosure and its Current and Future Relevance to the Energy Sector*, 39 ENERGY L.J. 1 (2018).

194. See ZOE WILLINGHAM, PROMOTING CLIMATE-RESILIENT AGRICULTURE AND RURAL CREDIT (Jan. 14, 2021), <https://www.americanprogress.org/issues/economy/reports/2021/01/14/494574/promoting-climate-resilient-agricultural-rural-credit/>.

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reports directly with the SEC.¹⁹⁵ In July 2016, 45 investors, collectively managing \$1.1 trillion in assets,¹⁹⁶ sent a letter to SEC noting the shortcomings of the existing rules in promoting sufficient disclosure of relevant information for investors such that they can evaluate material risks caused by climate change. An important loophole identified in this letter was that if the SEC’s reporting requirements remain vague and ESG disclosures are perceived to be voluntary, investors will have to bear the large burden of “persuad[ing] companies to disclose material ESG issues.”¹⁹⁷ Following this, a more recent directive from the SEC in 2020 modernized the definitions of the risk reporting requirements for companies in an effort to simplify compliance efforts for public companies and improve the quality of disclosures for investors but crucially failed to include any language about climate risk reporting.¹⁹⁸ The U.S. Government Accountability Office issued a report in 2020 finding that the metrics being used by companies to disclose environmental sustainability were not uniform across the board and so the disclosures were not useful to investors due to the incomparability.¹⁹⁹ The SEC under the Biden Administration published a sample letter in September 2021 as an update to its 2010 Guidance (“2021 Sample Letter”), requesting additional information from companies related to material risks and litigation risks related to climate change, among other things.²⁰⁰ At the time of writing this Note in April 2022, it remains to be seen how the 2021 Sample Letter influences disclosures from companies and whether mandated climate disclosures will become a real possibility in the near future for U.S. companies.²⁰¹

195. Securities Act of 1933, 15 U.S.C. § 78(a) (1934).

196. Mindy Lubber, *Comments on the Climate Risk Disclosure Act of 2019*, HARV. L. SCH. F. ON CORP. GOVERNANCE (July 18, 2019), <https://corpgov.law.harvard.edu/2019/07/18/comments-on-the-climate-risk-disclosure-act-of-2019/>.

197. Letter from asset owners and asset managers, to Hon. Mary Jo White, Chair, SEC (July 20, 2016), <https://www.sec.gov/comments/s7-06-16/s70616-174.pdf>.

198. U.S. Securities & Exchange Comm’n, *Modernization of Regulation S-K Items 101, 103, and 105*, 17 C.F.R. 229, 239, 240 (Aug. 26, 2020); *see also* Esther Whieldon & Declan Harty, *Biden Plan to Make Companies Disclose Climate Risks Key to Decarbonization*, S&P GLOB.: MKT. INTEL. (Nov. 2, 2020), <https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/biden-plan-to-make-companies-disclose-climate-risks-key-to-decarbonization-60975902>.

199. GAO, *PUBLIC COMPANIES: DISCLOSURE OF ENVIRONMENTAL, SOCIAL AND GOVERNANCE FACTORS AND OPTIONS TO ENHANCE THEM* GAO-20-530, 17–18 (2020), <https://www.gao.gov/products/gao-20-530> [<https://perma.cc/A5KQ-6SN5>].

200. *Sample Letter to Companies Regarding Climate Change Disclosures*, SEC (Sept. 22, 2021), <https://www.sec.gov/corpfin/sample-letter-climate-change-disclosures>.

201. At the time of copyediting this Note for publication in May 2023, the SEC is expected to issue a final rule requiring climate-related disclosures from US companies in the coming months.

Investors rely on company filings submitted to the SEC as well as public statements by companies on climate change to assess risks to their investments. A report by Ceres estimated that 83% of asset managers relied on SEC filings, and 72% relied on sustainability reports published by companies.²⁰² To date, the SEC has largely been unsuccessful at mandating and regulating climate risk related financial disclosure from U.S. companies. The Climate Risk Disclosure Act of 2019, put forward by Senator Elizabeth Warren and currently pending before the U. S. House of Representatives, is a bill that seeks to remedy this and address investors' lack of access to basic information about the impact of climate change on their investments.²⁰³ This Act directs the SEC to require financial institutions that issue securities to annually disclose information regarding climate change-related risks posed to the institution, including the institution's strategy to mitigate those risks.²⁰⁴ This makes the Climate Risk Disclosures Act a climate-specific legislation that would require public companies to disclose the risks to their company's financial integrity caused by climate change—a requirement that is currently optional for companies.²⁰⁵

Though this Act is still pending in the U.S. legislature, it could act as a model for India to amend its own corporate governance reform with a specific focus on climate risk. Expert and academic analysis of this Act and other climate-focused regulatory actions by SEC should be closely tracked in the coming months to test applicability in India's energy sector.

D. *Analysis: The Importance of Climate-Risk Disclosures in India*

There are several benefits of comprehensive climate disclosure. For companies, the process of calculating its exposure to climate risks can allow them to i) proactively manage operations and assets to minimize, mitigate, or adapt to those risks, ii) communicate the risks and opportunities for investment to investors and capital institutions, iii) convey reliable data about energy markets to regulators, as well as provide feedback on the effectiveness of current laws and regulations, and iv) to

The SEC issued a proposed rule in March 2022 that was then open for public comment until May 2022. U.S. SEC, SEC PROPOSES RULES TO ENHANCE AND STANDARDIZE CLIMATE-RELATED DISCLOSURES FOR INVESTORS, (Mar. 21, 2022), <https://www.sec.gov/news/press-release/2022-46>

202. KIRSTEN SNOW SPALDING, INVESTORS ANALYZE CLIMATE RISKS AND OPPORTUNITIES: A SURVEY OF ASSET MANAGERS' PRACTICES 16 (Jan. 2010), https://motherjones.com/files/Ceres_AssetMgrSurvey_Jan2010.pdf [<https://perma.cc/QUQ6-SHX3>].

203. The Climate Risk Disclosures Act of 2019, S. 2075, 116th Cong. (2019).

204. *Id.*

205. *Id.*

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access climate resilience strategy and best practices from other actors in the energy sector.

Climate risk disclosure allows stakeholders, including state and local governments, investors, community members, and consumers to better understand how their local energy companies are preparing for climate risk. Extreme climate events could have adverse impacts on India's tax base, local economy, and electricity supply. In the context of foreign direct investment into India, domestic investors and society should have a greater assurance that asset owners and operators take climate risks seriously. If India does not mandate climate risk disclosures of a certain caliber, it could signal to domestic investors that a foreign-owned energy asset is unprepared to deal with extreme climatic events. Further, if a foreign corporation that owns and operates energy assets in India does *not*, in fact, take climate risks seriously, SEBI and other Indian governmental agencies will not be able to proactively regulate such a corporation to protect Indian investors and electricity customers against climate-related risks and losses. Ultimately, a lack of disclosure could also affect investor confidence in the energy market, especially with the increased frequency of extreme climatic events that cause severe physical damage and risks to assets and infrastructure.

Another dimension of incorporating climate-risk and ESG values is that with increased regulation around the quantity and quality of disclosures that companies will now be required to make, there will likely be increased litigation in the short-term by both investors and shareholders to hold companies accountable if their policies and procedures do not match the commitments made, or if the risk disclosures are ineffective. This is particularly relevant to the context of the rapid privatization and foreign investment and ownership of India's energy and electricity sector because, in the event that India's corporate governance and risk disclosure laws are not followed by foreign investors, citizens may find recourse in the judicial system. Some scholars argue that as federal legislation and climate litigation move a nation's energy policy towards environmentally sustainable alternatives, investors and stakeholders will demand a better understanding of the financial consequences they may face due to climate risks.²⁰⁶

VII. CONCLUSION

Ultimately, the best way for companies to prepare themselves and potentially mitigate risks caused by climate change is to follow the true

206. Nowiski, *supra* note 193, at 10–11.

spirit of the regulations as opposed to the bare minimum black letter law. However, as the corporate culture of India's energy sector shifts in the face of globalization, privatization, and diversified ownership, it is imperative for the regulatory framework for corporate governance to keep pace. If the Government of India requires mandatory stringent climate-risk reporting by domestic and foreign corporations that own and operate domestic energy assets in India, SEBI would be better able to understand the impacts of climate change on financial markets and consumers of electricity, especially during months of peak demand. This would also allow the regulatory agencies to continually issue guidance and regulation needed to improve the resilience of financial markets and energy providers in the face of climate-related risks and uncertainty.