

A Comparative Analysis of Air Pollution Control in Delhi and Beijing: Can India’s Model of Judicial Activism Affect Environmental Change in China?

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I. INTRODUCTION

New Delhi and Beijing are in the midst of an environmental crisis.¹ Rapid industrialization over the past two decades has resulted in consistent and severe air pollution in both cities.² India's emphasis on jobs and economic growth has allowed citizens to accept the environmental costs for many years.³ Now, however, the costs have become too great, with thousands of New Delhi residents dying every year from air pollution caused primarily by vehicular emissions.⁴ Similarly, Beijing's persistent smog stems from recent changes in Northern China, specifically the accelerated development of heavy industries, the accompanying surge in coal burning, and increased car ownership.⁵ This pollution worsens in the winter when slower winds and colder temperatures trap more smog in the cities.⁶

Given that both Beijing and Delhi are capital cities, their respective national governments have taken steps to regulate pollution within city borders.⁷ However, pollution in both cities is caused, in large part, by the

1. See generally Merrit Kennedy, *Smog Police: New Beijing Force Created to Tackle Air Pollution*, NAT'L PUB. RADIO (Jan. 9, 2017), <https://www.npr.org/sections/thetwo-way/2017/01/09/508965737/smog-police-new-beijing-force-created-to-tackle-air-pollution>; Aniruddha Ghosal & Pritha Chatterjee, *Landmark Study Lies Buried: How Delhi's Poisonous Air Is Damaging Its Children for Life*, INDIAN EXPRESS (Apr. 2, 2015), <http://indianexpress.com/article/india/india-others/landmark-study-lies-buried-how-delhis-poisonous-air-is-damaging-its-children-for-life/>.

2. See Leeza Mangaldas, *India and China Both Struggle with Deadly Pollution—but Only One Fights It*, FORBES (Oct. 25, 2017), <https://www.forbes.com/sites/leezamangaldas/2017/10/25/india-and-china-both-struggle-with-deadly-pollution-but-only-one-is-fighting-it/#1b54012a707a>.

3. Aseem Prakash et al., *Delhi Is Blanketed with Toxic Smog. This Is Why.*, WASH. POST (Nov. 11, 2017), https://www.washingtonpost.com/news/monkey-cage/wp/2017/11/11/delhis-been-hit-with-toxic-smog-why-its-political/?utm_term=.374bacf5bf98.

4. See Huizhong Wu, *Delhi Pollution Crisis Prompts City-Wide Emergency Measures*, CNN (Nov. 10, 2017), <http://www.cnn.com/2017/11/08/health/delhi-pollution-health-emergency/index.html> (stating that Delhi has more than 10 million vehicles and emissions from those vehicles account for more than twenty percent of Delhi's annual PM_{2.5} levels).

5. Hepeng Jia & Ling Wang, *Peering into China's Thick Haze of Air Pollution*, C&EN (Jan. 23, 2017), <https://cen.acs.org/articles/95/i4/Peering-Chinas-thick-haze-air.html>; *China Fights Uphill Battle Against Air Pollution*, MINISTRY ENVTL. PROT. CHINA (Oct. 26, 2017), http://english.mep.gov.cn/News_service/media_news/201710/t20171026_424079.shtml; see Louisa Lim, *Beijing's 'Airpocalypse' Spurs Pollution Controls, Public Pressure*, NAT'L PUB. RADIO (Jan. 14, 2013), <http://www.npr.org/2013/01/14/169305324/beijings-air-quality-reaches-hazardous-levels> (noting that, historically, about fifty percent of Beijing's air pollution has resulted from coal-fired power stations).

6. Jia & Wang, *supra* note 5.

7. See *What Is Delhi's New Odd-Even Vehicle Rule All About? Where Did It Come from?*, INDIA TODAY (Dec. 8, 2015), <http://indiatoday.intoday.in/story/delhi-odd-even-vehicle-rule-arvind-kejriwal-aap-government-air-pollution/1/541371.html>; Kyle Mullin, *Beicology: Beijing's Last Large Coal-Fired Power Plant Suspends Operations, No One Notices*, BEIJINGER (Mar. 21,

surrounding, less developed cities.⁸ Delhi's air is adversely affected by polluting factories in the surrounding states of Haryana, Uttar Pradesh, and Rajasthan.⁹ Beijing's air quality is affected by the high levels of pollutants emitted from nearby Tianjin and Hebei provinces.¹⁰

Air pollution levels are monitored through the Air Quality Index (AQI), which records daily levels of major air pollutants, and aggregates them into a single number, ranging from "healthy" (0 to 50) to "hazardous" (301-500).¹¹ Particulate matter (PM) is the combination of solid particles and liquid droplets floating in the air.¹² Larger, coarse dust particles (PM₁₀) are 2.5 to 10 micrometers in diameter while smaller, fine particles (PM_{2.5}) are 2.5 micrometers or less in diameter.¹³ China's Ministry of Environmental Protection (MEP) has been measuring AQI in Beijing since 2012.¹⁴ And the Indian central government launched an AQI system in 2014.¹⁵ It uses information from air pollution monitors operated by the national pollution-control board (CPCB) and state pollution-control boards (SPCBs) in 240 cities, including seven monitoring stations

2017), <https://www.thebeijinger.com/blog/2017/03/21/beicology-beijings-last-large-coal-fired-power-plant-suspends-operations-no-one>.

8. See Jacob Koshy, 'Bulk of Delhi's Pollution Comes from Neighbouring States,' HINDU (Oct. 6, 2016), <https://www.thehindu.com/news/cities/Delhi/Bulk-of-Delhi%E2%80%99s-pollution-comes-from-neighbouring-States/article15472292.ece>; Xie Wenting, *EPB's 2013 Pollution Goals Set Far Too Low: Experts*, GLOBAL TIMES (Mar. 17, 2013), <http://www.globaltimes.cn/content/768694.shtml>.

9. Koshy, *supra* note 8.

10. Wenting, *supra* note 8.

11. Rukmini S., *How to Read India's New Colour-Coded Air Quality Index*, HINDU (Apr. 9, 2015), <http://www.thehindu.com/opinion/blogs/blog-datadelve/article7083985.ece>.

12. *Particle Pollution (PM)*, AIR NOW (Jan. 31, 2017), <https://airnow.gov/index.cfm?action=aqibasics.particle>; *Air Pollution Levels Rising in Many of the World's Poorest Cities*, WORLD HEALTH ORG. (May 12, 2016), <http://www.who.int/mediacentre/news/releases/2016/air-pollution-rising/en/>.

13. *Particle Pollution*, *supra* note 12.

14. Angel Hsu, *China's New Air Quality Index: How Does It Measure up?*, DATA-DRIVEN YALE (Mar. 28, 2012), <http://datadriven.yale.edu/air-quality-2/chinas-new-air-quality-index-how-does-it-measure-up/>.

15. Press Release, Gov't India, Ministry of Env't, Forest, & Climate Change, National Air Quality Index (AQI) Launched by the Environment Minister AQI Is a Huge Initiative Under 'Swachh Bharat' (Oct. 17, 2014), <http://pib.nic.in/newsite/PrintRelease.aspx?relid=110654>.

throughout Delhi.¹⁶ The United States also maintains independent air quality monitors above its embassies in both cities.¹⁷

PM_{2.5} pollutants are so small that they easily enter the lungs, causing chronic health problems.¹⁸ Severe pollution, caused by high levels of PM_{2.5}, has been linked to increased risk of asthma, heart disease, respiratory infections, and lung cancer.¹⁹ Delhi's air is particularly toxic, with its AQI reaching 999 in November 2016.²⁰ It remained hazardous over a year later, with CPCB data placing the AQI at 480 on November 10, 2017.²¹ A 2015 study conducted by India's Chittaranjan National Cancer Institute found that about half of Delhi's 4.4 million schoolchildren had irreversible lung damage.²² And "reduced lung capacity in adults is a highly accurate predictor of early death and disability."²³ In China, the World Health Organization concluded that 1,032,833 deaths in 2012 were attributable to air quality.²⁴

II. INDIA/NEW DELHI

A. Environmental Legislation and Administrative Agencies

Starting in the 1970s, the Indian Parliament began to focus on environmental protection.²⁵ It highlighted this commitment by passing Amendment 51A to the Indian Constitution, which provided that it "shall be the duty of every citizen of India to protect and improve the natural

16. Antara Chakrabarti, *Ambient Air Quality Monitoring Stations*, PERFECT POLLUCON SERVS. (Aug. 15, 2016), <http://www.ppsthane.com/blog/ambient-air-quality-monitoring-stations>; Urvashi Narain & Alan Krupnick, *The Impact of Delhi's CNG Program on Air Quality*, RESOURCES FOR FUTURE (2007), <http://www.rff.org/files/sharepoint/WorkImages/Download/RFF-DP-07-06.pdf>.

17. Hsu, *supra* note 14; see *New Delhi US Embassy Air Pollution: Real-Time Air Quality Index*, AIR QUALITY INDEX, <http://aqicn.org/city/india/new-delhi/us-embassy/> (last visited Mar. 25, 2018).

18. *Particle Pollution*, *supra* note 12.

19. Charles Riley, *Death by Pollution: Delhi's Fight for Clean Air*, CNN MONEY (Feb. 18, 2016), <http://money.cnn.com/2016/02/17/news/economy/india-new-delhi-air-pollution/>.

20. James Griffiths, *New Delhi Is the Most Polluted City on Earth Right Now*, CNN (Nov. 8, 2016), <http://www.cnn.com/2016/11/07/asia/india-new-delhi-smog-pollution/index.html>.

21. *No Improvement in Delhi's Air Quality Today*, TIMES NOW (Nov. 10, 2017), <http://www.timesnownews.com/india/article/delhi-pollution-levels-today-air-quality-smog/122849>.

22. Ghosal & Chatterjee, *supra* note 1.

23. Gardiner Harris, *Holding Your Breath in India*, N.Y. TIMES (May 29, 2015), https://www.nytimes.com/2015/05/31/opinion/sunday/holding-your-breath-in-india.html?_r=1.

24. Kennedy, *supra* note 1.

25. See INDIA CONST. pt. IV, art. 51A (1949); SA Rizwan et al., *Air Pollution in Delhi: Its Magnitude and Effects on Health*, 38 INDIAN J. CMTY. MED. 4 (2013).

environment.”²⁶ Parliament also passed three major antipollution laws: (1) the Water Act of 1974, (2) the Air Act of 1981, and (3) the Environmental Protection Act of 1986.²⁷ While the Air and Water Acts addressed the narrow issues of air and water pollution, the Environment Act provided for broader environmental protection.²⁸ It gave the central government sole authority to regulate polluting industries by issuing direct orders to shut down operations that did not meet environmental standards.²⁹ It also established the Ministry of Environment and Forests (MoEF) as the national administrative agency for environmental programs, thus “giving it the legal authority and responsibility to effectively handle the country’s complicated pollution problems.”³⁰

The Air and Water Acts established the central pollution-control board (CPCB) and state pollution-control boards (SPCBs).³¹ The boards are intended to act “as autonomous bodies” under the MoEF to establish and enforce emissions standards.³² The CPCB functions as a technical advisory board to the MoEF by compiling data as needed.³³ The SPCBs must implement standards established by the CPCB by inspecting and monitoring pollution levels of various industries.³⁴ The SPCBs can set their own emissions standards, as long as they are more stringent than CPCB standards.³⁵ While SPCBs have the power to cut off water and

26. INDIA CONST. pt. IV, art. 51A.

27. Rizwan et al., *supra* note 25.

28. Anand Grover, *India Country Report*, 1 ASIA PAC.J. ENVTL. L. 87-88 (1996). *Compare* Environment (Protection) Act, 1992, No. 29, Acts of Parliament, 1986 (India), with Air (Prevention and Control of Pollution) Act, 1981, No. 14, Acts of Parliament, 1981 (India), and Water (Prevention and Control of Pollution) Act, 1974, No. 6, Acts of Parliament, 1974 (India).

29. Environment (Protection) Act, 1986, No. 29, Acts of Parliament, 1986 (India), § 5; Armin Rosencranz & Michael Jackson, *The Delhi Pollution Case: The Supreme Court of India and the Limits of Judicial Power*, 28 COLUM. J. ENVTL. L. 226 (2003); Grover, *supra* note 28, at 88; Peggy Rodgers Kalas, *Environmental Justice in India*, 1 ASIA-PAC. J. ON HUM. RTS. & L. 97, 104 (2000).

30. Rosencranz & Jackson, *supra* note 29, at 226-27.

31. *Id.* at 227.

32. *Id.* at 245.

33. Grover, *supra* note 28, at 87; Devdas Baliga et al., *The Environmental Law Landscape in India: A Walk Through Consent and Compliance Requirements*, 34 No. 9 ACC DOCKET 60, 66 (2016).

34. Rosencranz & Jackson, *supra* note 29, at 228.

35. *Id.*

electricity to industries violating emissions standards, they are reluctant to do so as it will likely result in surges of unemployment.³⁶

B. The Supreme Court's Judicial Activism

1. Developing the Constitutional Right to a Healthy Environment

The Supreme Court of India began to take an activist role by establishing public interest litigation (PIL) and allowing citizens to appeal directly to the Court to protect their fundamental rights.³⁷ PIL suits involving environmental protection evolved from the Court's interpreting the fundamental right to life, as guaranteed in the Indian Constitution, to include the right to a healthy environment.³⁸ The Court relaxed the concept of standing, which has allowed public interest lawyers, such as M.C. Mehta, to petition the Court on behalf of diffuse public injuries and has allowed the Court to initiate actions on its own motion (*suo motu*).³⁹

Although the Indian Constitution contains two provisions expressly referencing environmental rights, they are located in an unenforceable section.⁴⁰ However, through a series of decisions, the Supreme Court established that Article 21, which protects the fundamental right to life, encompasses the right to a healthy environment.⁴¹ In 1994, the Court expressly stated that the right to life includes the right to a clean environment, holding that an action causing "environmental, ecological, air, water pollution, etc., [is] a violation of Article 21."⁴² Further, the Court has held that the government has an obligation to protect the rights of its

36. *Id.*; see Shubhankar Dam, *Green Laws for Better Health: The Past That Was and the Future That May Be—Reflections from the Indian Experience*, 16 GEO. INT'L ENVTL. L. REV. 614 (2004).

37. Rosencranz & Jackson, *supra* note 29, at 230.

38. INDIA CONST. pt. III, art. 21; see Kalas, *supra* note 29, at 108; M.C. Mehta v. Kamal Nath, (2000) 6 S.C.C. 213 (India); Subhash Kumar v. State of Bihar, (1991) 1 S.C.R. 5 (India).

39. Rosencranz & Jackson, *supra* note 29, at 230.

40. Article 48A of the India Constitution says that "[t]he State shall endeavour to protect and improve the environment," and Article 51A imposes a similar responsibility on citizens, stating that they have "the duty . . . to protect and improve the natural environment." INDIA CONST. pt. IV, art. 48A, 51A. However, Article 37 states that Part IV of the Constitution, which includes Article 48A and 51A, "shall not be enforceable by any court." *Id.* art. 37.

41. INDIA CONST. pt. III, art. 21; see Kalas, *supra* note 29, at 108-09; M.C. Mehta, (2000) 6 S.C.C. 213; Subhash Kumar, (1991) 1 S.C.R. 5.

42. Virendra Gaur v. State of Haryana, (1994) 6 S.C.R. 78 (India).

citizens to pollution-free air and water.⁴³ Thus, it is obligated to protect the environment.⁴⁴

The Court has repeatedly enforced this right under Article 32, which gives the Court power to issue orders enforcing constitutional rights.⁴⁵ In the 1988 case of *M.C. Mehta v. Union of India*, M.C. Mehta filed a writ petition under Article 32 requesting that the Court order the government and private tanneries to stop polluting the Ganges River.⁴⁶ The Court ruled against the tanneries (*Mehta I*) and the government (*Mehta II*), holding that water pollution is a violation of fundamental rights.⁴⁷ It ordered the tanneries to shut down 191 facilities and pay damages to those harmed by their environmental damage.⁴⁸ Accordingly, “*Mehta I* extended the reach of Article 32 to private industry.”⁴⁹

2. The 1989 Delhi Air Pollution Case: An Example of Judicial Activism

The Court first addressed Delhi’s air pollution issue in 1985 when it was petitioned by M.C. Mehta.⁵⁰ He filed a PIL suit against the government of India on behalf of Delhi citizens who were being poisoned by rising levels of air pollution.⁵¹ He asked that the Court order the government to implement the Air Act of 1981 to help reduce air pollution in the interests of public health.⁵² As a result, the Court has urged the government to implement policies designed to control air pollution.⁵³ In 1986, the Court directed the Delhi administration to file an affidavit specifying the steps they have taken to reduce air pollution.⁵⁴ Concluding that “heavy vehicles” like trucks and buses were the main contributors, the Court *suo motu* issued a series of orders regulating the type of fuel used

43. Kalas, *supra* note 29, at 115 n.85 (citing Charan Lal Sahu v. Union of India, A.I.R. 1990 S.C. 1480 (India)).

44. *See id.*

45. INDIA CONST. pt. IV, art. 32; *see* Rural Litigation and Entitlement, Dehradun v. State of Uttar Pradesh, AIR 1985 SC 652 (*Dehradun Quarrying Case*) (India); M.C. Mehta v. Union of India, A.I.R. 1987 SC 965 (*Shiriam Gas Leak Case*) (India).

46. Kalas, *supra* note 29, at 112 (citing M.C. Mehta v. Union of India, A.I.R. 1988 S.C. 1037; A.I.R. 1988 S.C. 1115 (India)).

47. *Id.*

48. *Id.* at 112.

49. *Id.*

50. *See* Rosencranz & Jackson, *supra* note 29, at 232.

51. *Id.*

52. Narain & Krupnick, *supra* note 16, at 24.

53. Rosencranz & Jackson, *supra* note 29, at 232.

54. *Id.*

for buses.⁵⁵ First, in 1994, the Court ordered India's four largest cities, including Delhi, to phase out lead from all fuel.⁵⁶ In 1996, partially based on the MoEF's opinion in a 1992 policy statement affirming the need to develop clean technologies, such as CNG, the Court ordered that all government vehicles in Delhi be converted to CNG.⁵⁷ And in 1998, the Court *suo motu* ordered the city of Delhi to convert its entire fleet of diesel-powered buses to compressed natural gas (CNG) by March 31, 2001.⁵⁸

Although local agencies tasked with enforcing the decision resisted, arguing that CNG conversion technology was risky and expensive, the Court ordered the Delhi government to implement its order.⁵⁹ The Delhi government ultimately carried out this order.⁶⁰ Any new cars registered after April 1995 have been fitted with catalytic convertors.⁶¹ Delhi set up CNG outlet stations to provide CNG as a clean fuel.⁶² By December 2002, no more buses ran on diesel and Delhi became the first city in the world to have its entire public transportation running on CNG.⁶³

3. Creation of the EPCA and National Green Tribunal

Given that the Court lacks the informational expertise of executive agencies, it recommended to the central government the creation of the Environment Pollution (Prevention and Control) Authority (EPCA) and the National Green Court (NGT).⁶⁴ The MoEF statutorily created the EPCA to serve as an expert authority on environmental issues.⁶⁵ And, in

55. *See id.* at 233.

56. Urvashi Narain & Ruth Greenspan Bell, *Who Changed Delhi's Air?*, RESOURCES FOR FUTURE (2005), <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.693.2293&rep=rep1&type=pdf>.

57. Rosencranz & Jackson, *supra* note 29, at 227, 233.

58. *Id.*

59. *Id.* at 224.

60. *See Landmark Cases*, M.C. MEHTA ENVTL. FOUND., <https://mcmef.org/landmark-cases/> (last visited Mar 20, 2018); Sakshi Dayal, *Another Supreme Court Order 18 Years Ago and Delhi's First Brush with CNG*, INDIAN EXPRESS (May 3, 2016), <http://indianexpress.com/article/cities/delhi/supreme-court-ban-on-diesel-taxis-2781490/>.

61. *Landmark Cases*, *supra* note 60.

62. *Id.*; Dayal, *supra* note 60.

63. *Landmark Cases*, *supra* note 60; Mayank Jain, *Delhi Has Relied on CNG to Control Its Pollution in the Past, but Will It Work This Time?*, SCROLL.IN (May 2, 2016), <https://scroll.in/article/807463/delhi-has-relied-on-cng-to-control-its-pollution-in-the-past-but-will-it-work-this-time>.

64. Gitanjali Nain Gill, *Human Rights and the Environment in India: Access Through Public Interest Litigation*, 14 ENVTL. L. REV. 209, 217 (2012); Magali Drefus, *The Judiciary's Role in Environmental Governance*, 43 ENVTL. POL'Y & L. 171 (2013).

65. Drefus, *supra* note 64.

2010, the NGT was statutorily created to adjudicate cases solely concerning environmental issues, thus expediting the resolution of litigation related to environmental protection.⁶⁶ As such, it has original jurisdiction over civil cases involving environmental issues.⁶⁷ The tribunal may also “review government decisions on projects affecting the environment.”⁶⁸ Since environmental cases involve the interpretation and assessment of scientific data, the bench consists of both judges and subject experts who are familiar with the issues.⁶⁹

As a “quasi-judicial” body, the tribunal may block executive orders and order punitive action.⁷⁰ These orders may only be challenged in the Supreme Court.⁷¹ The tribunal applies the “polluter pays” principle.⁷² For instance, the tribunal can order a polluter who is found liable to pay damages and order “restitution of the environment in the affected areas.”⁷³ The penalty for noncompliance with a NGT order can be imprisonment or a monetary fine of up to ten crores; and continued failure to comply can result in a fine of 25,000 rupees per day.⁷⁴

The central government has taken steps attempting to limit the NGT’s authority.⁷⁵ The MoEF has argued to the Supreme Court that the tribunal, unlike the Court, cannot begin proceedings *suo motu*.⁷⁶ The government has also tried to limit the Supreme Court’s control over the NGT. In 2017, Parliament amended the appointment process for the

66. Praveen Bhargav, *Everything You Need to Know About the National Green Tribunal (NGT)*, CONSERVATION INDIA (May 2, 2011), <http://www.conservationindia.org/resources/ngt>.

67. The National Green Tribunal Act, 2010, No. 19, Acts of Parliament, 2010 (India) § 4(1) [hereinafter The NGT Act].

68. Alexander Barbour, *India’s National Green Tribunal: A Blueprint for Environmental Justice?*, KEEP CALM & TALK L. (June 22, 2016), <http://www.keepcalmtalklaw.co.uk/indias-national-green-tribunal-a-blueprint-for-environmental-justice/>.

69. The NGT Act, *supra* note 67, §§ 4(1), 5(2) (specifying that technical experts are required to have at least fifteen years of experience in environmental or forest-related fields).

70. Chetan Chauhan, *Govt. Tweaks Rules, Reduces Judiciary Control on India’s Environment Watchdog*, HINDUSTAN TIMES (July 4, 2017), <http://www.hindustantimes.com/india-news/govt-tweaks-rules-reduces-judiciary-control-on-india-s-environment-watchdog/story-0QSiMC0j01IHXMvr8U6hjJ.html>.

71. *Id.*

72. Geetanjoy Sahu, *Implications of Indian Supreme Court’s Innovations for Environmental Jurisprudence*, 4 LAW, ENV’T & DEV. J. 10 n.40 (2008) (“The Polluter Pays Principle is a principle in international environmental law where the polluting party pays for the damage done to the natural environment.”).

73. Swapan Kumar Patra & V.V. Krishna, *National Green Tribunal and Environmental Justice in India*, 44 INDIAN J. GEO-MARINE SCI. 448 (2015).

74. The NGT Act, *supra* note 67, § 26(1).

75. *See* Chauhan, *supra* note 70.

76. Patra & Krishna, *supra* note 73, at 451.

NGT.⁷⁷ “The new rules do away with a condition that the NGT can only be headed by a former Supreme Court judge or the chief justice of a high court, and takes away the judiciary’s control on the process to appoint the tribunal’s members.”⁷⁸ Instead, the chairperson will be recommended by a five-member panel, four of whom will be recommended by the MoEF.⁷⁹

4. Recent Activism by the Supreme Court

In recent years, the Supreme Court has continued to be active in the implementation of pollution control measures.⁸⁰ It has continued to focus on decreasing vehicular pollution.⁸¹ In April 2015, in an effort to decrease air pollution, the NGT banned diesel vehicles over ten years old from driving in Delhi-NCR (a region consisting of Delhi, Rajasthan, Haryana, and Uttar Pradesh).⁸² In response, the government appealed to the Supreme Court, arguing that the tribunal did not have jurisdiction to impose this ban; however, the Court upheld the NGT’s decision.⁸³ The Court also ordered all diesel taxis operating in Delhi to convert to CNG by April 30, 2016.⁸⁴ Then, in December 2015, the Court prohibited the registration of luxury cars and SUVs with an engine capacity above 2000cc in Delhi-NCR.⁸⁵ However, in August 2016, upon appeal by Mercedes-Benz India, the Court lifted the eight-month-old ban, instead imposing a tax on manufacturers producing diesel vehicles with engine capacities above 2000cc.⁸⁶

77. See Chauhan, *supra* note 70.

78. *Id.*

79. *Id.*

80. Shreeja Sen, *SC Lifts Ban on Sale of Diesel Cars in Delhi, Imposes 1% Green Cess*, MINT (Aug. 13, 2016), <http://www.livemint.com/Industry/yHP6xg0RFW8hT4OxP5tywN/SC-lifts-diesel-car-registration-ban-in-Delhi-NCR-with-rider.html>.

81. *Id.*

82. *Refusing to Lift Ban, NGT Says Diesel Cars Older than 10 Years ‘Carcinogenic,’* INDIAN EXPRESS (Sept. 15, 2017), <http://indianexpress.com/article/cities/delhi/refusing-to-lift-ban-ngo-says-diesel-cars-older-than-10-years-carcinogenic/>.

83. Barbour, *supra* note 68.

84. Bhadra Sinha, *SC Hits the Brakes, Diesel Cabs Off Delhi-NCR Roads from Today*, HINDUSTAN TIMES (May 1, 2016), <http://www.hindustantimes.com/delhi-news/live-sc-hearing-delhi-diesel-car-pleas-says-delhi-police/story-Z9nUrMO6mUFLhQkTRzLR3H.html>.

85. Sen, *supra* note 80.

86. *Id.*

Moreover, the Court has experimented with a temporary fireworks ban during Diwali.⁸⁷ In 2015, three advocates filed suit on behalf of their children, arguing that Delhi air pollution was violating their constitutional right to life.⁸⁸ The petition asked the Court to ban the millions of firecrackers that are set off to celebrate Diwali as this mass usage causes severe pollution for days afterward.⁸⁹ Although the Court did not grant their request in time for Diwali that year, the Court acted in 2017 by banning the sale of firecrackers for the month of Diwali.⁹⁰

In addition to this temporary measure, the Court has targeted pollution stemming from the states surrounding Delhi. On October 24, 2017, the Court ordered the Delhi-NCR region to ban petcoke and furnace oil, which are cheap but highly polluting industrial fuels that emit sulphur dioxide and nitrogen oxide, which are two compounds that combine to form PM.⁹¹ Although Delhi has banned petcoke and furnace oil since 1996, the surrounding states have continued to use them.⁹² According to the Court, if the state governments failed to implement its order on their own, the ban would automatically come into effect on November 1, 2017. Going even further, the Court “came down heavily” on the central government for failing to set sulphur oxide and nitrogen oxide emissions standards in thirty-four polluting industries.⁹³ The Court ordered the MoEF to do this by December 31, 2017.⁹⁴ In response, industry groups petitioned for a review of the ban because factories fueled by petcoke and furnace oil would have to be shut down.⁹⁵ On November 22, 2017, upon review, the Court upheld its ban.⁹⁶

87. Michael Safi, *India's Supreme Court Bans Diwali Fireworks in Delhi to Tackle Pollution*, GUARDIAN (Oct. 9, 2017), <https://www.theguardian.com/world/2017/oct/09/indias-supreme-court-bans-diwali-fireworks-in-delhi-to-tackle-pollution>.

88. Riley, *supra* note 19.

89. *Id.*

90. Safi, *supra* note 87.

91. Bhadra Sinha, *Supreme Court Bans Pet Coke, Furnace Oil to Clean Up Toxic Air in NCR*, HINDUSTAN TIMES (Oct. 25, 2017), <http://www.hindustantimes.com/delhi-news/sc-bans-pet-coke-furnace-oil-to-clean-up-toxic-air-in-ncr/story-xdJwibam9RQBUIcKmPGgM.html>.

92. *Id.*

93. *Id.*

94. *Id.*

95. Malavika Vyawahare, *Amid Rising Pollution, Supreme Court Upholds Petcoke Ban in Three States*, HINDUSTAN TIMES (Nov. 13, 2017), <http://www.hindustantimes.com/india-news/amid-rising-pollution-supreme-court-upholds-petcoke-ban-in-three-states/story-HJIOMcntcaXdnOJipxlqLO.html>.

96. Suchitra Mohanty, *Supreme Court Upholds Ban on Petcoke, Furnace Oil in Delhi, Neighbouring States*, MINT (Nov. 22, 2017), <http://www.livemint.com/Politics/HJsuz6HXN51ryEbdgRmq8L/Supreme-Court-upholds-ban-on-petcoke-furnace-oil-in-Delhi.html>.

As of 2017, the Supreme Court has been working with central administrative agencies, such as the MoEF and EPCA, to streamline Delhi's emergency air pollution measures.⁹⁷ When Delhi's air pollution reaches emergency levels, the EPCA monitors the situation for forty-eight hours and then orders the city to implement measures; the Delhi government then meets with the Lieutenant Governor to clear the orders; and, finally, the state government creates its own orders, which are then implemented.⁹⁸ In December 2016, the Court approved a graded response action plan (GRAP) that will automatically take effect when air pollution reaches emergency levels in Delhi and adjoining cities.⁹⁹ The GRAP sets out steps to be taken by both central and state authorities at each level of air quality.¹⁰⁰ It was announced by the MoEF in January 2017.¹⁰¹ In November 2017, the EPCA, tasked with implementation, submitted a plan to the Court suggesting that when pollution reaches emergency levels, Delhi ought to temporarily stop all sources of pollution, including banning all diesel vehicles and closing all coal-based power plants and industries.¹⁰²

It is unclear whether the Court's actions have had a lasting impact.¹⁰³ For example, it is not certain that the Delhi Air Pollution case resulted in providing long-term environmental protection.¹⁰⁴ Resources For the Future, a research nonprofit based in Washington, D.C., studied air pollution in Delhi from 1990 to 2005 and found that the CNG conversion of buses has significantly improved air quality.¹⁰⁵ However, the initial gains of the mass conversion of diesel-powered buses to CNG were offset by a rise in the number of private diesel-powered vehicles driven in Delhi.¹⁰⁶ Nonetheless, it seems possible that the recent restrictions on

97. See Joydeep Thakur, *Pollution Crisis: EPCA for District-Level Nodal Officers to Bring Down Response Time*, HINDUSTAN TIMES (Nov. 28, 2017), <http://www.hindustantimes.com/delhi-news/pollution-crisis-epca-for-district-level-nodal-officers-to-bring-down-response-time/story-bzHytWgSKQUI92jp25cRJJ.html>; Mayank Aggarwal, *Delhi Pollution: EPCA Suggests Diesel Vehicle Ban to Control Smog*, MINT (Nov. 13, 2017), <http://www.livemint.com/Politics/KIInJ4dwTSKdVwSy6GEtLK/Delhi-smog-EPCA-suggests-diesel-vehicle-ban-to-control-air.html>.

98. Thakur, *supra* note 97.

99. Aggarwal, *supra* note 97.

100. *Id.*

101. *Id.*

102. *Id.*

103. See generally Narain & Krupnick, *supra* note 16.

104. See generally Rosencranz & Jackson, *supra* note 29.

105. See Narain & Krupnick, *supra* note 16, at 3, 19.

106. *Id.* at 22-23.

private vehicles will counterbalance the pollution caused by this marked rise in the number of vehicles.¹⁰⁷

C. Measures Taken by the Delhi Government

The Delhi government has repeatedly attempted to institute temporary driving restrictions in response to emergency smog levels.¹⁰⁸ In January 2016, Delhi instituted a two-week Odd-Even plan, under which vehicles with odd-numbered registration numbers would be allowed to operate on odd dates and cars with even-numbered plates on even dates.¹⁰⁹ Three months later, when the Delhi High Court directed the central and state governments to create “comprehensive action plans” to decrease the city’s air pollution, Delhi reinstated the two-week Odd-Even plan.¹¹⁰ According to the CPCB, however, the odd-even scheme was ineffective in decreasing vehicular pollution.¹¹¹

Despite this, in November 2017, in response to a sustained period of toxic smog, the Delhi government again planned to launch a five-day Odd-Even scheme, but with exemptions for VIPs, women, and two-wheelers.¹¹² The NGT questioned the rationale behind these exemptions when the Delhi government knew “two-wheelers caused 46 per cent pollution,” and it ultimately ruled against the exemptions.¹¹³ The tribunal further questioned the rationale behind the relaunch itself when reports by both national and local agencies “had found that the levels of PM₁₀ and PM_{2.5} were cumulatively higher when the scheme was implemented twice earlier.”¹¹⁴ The tribunal further noted that while both the Supreme Court and the tribunal have suggested many ways to curb air pollution, the Delhi

107. *See id.*

108. *See What Is Delhi’s New Odd-Even Vehicle Rule All About? Where Did It Come from?*, *supra* note 7.

109. *Id.*

110. *Odd-Even Rule in Delhi: All You Want to Know About AAP Govt Scheme*, FIN. EXPRESS (Apr. 15, 2016), <http://www.financialexpress.com/india-news/odd-even-rule-in-delhi-all-you-want-to-know-about-this-aap-govt-scheme/236507/>.

111. *NGT Stops Delhi Govt from Re-Introducing ‘Odd-Even,’* TRIBUNE (Nov. 10, 2017), <http://www.tribuneindia.com/news/nation/ngt-stops-delhi-govt-from-re-introducing-odd-even/495581.html>.

112. Abhishek Chakraborty, *No Odd-Even Plan for Now, Says AAP Government Amid ‘Alarming’ Pollution in Delhi: Highlights*, NDTV (Nov. 11, 2017), <https://www.ndtv.com/delhi-news/delhi-air-pollution-live-ngt-hearing-on-delhi-governments-odd-even-rule-to-curb-smog-1774106>.

113. *Id.*; *NGT Stops Delhi Govt. from Re-Introducing ‘Odd-Even,’* *supra* note 111.

114. *NGT Stops Delhi Govt from Re-Introducing ‘Odd-Even,’* *supra* note 111.

government repeatedly chose to implement the Odd-Even plan.¹¹⁵ This policy—attempting to decrease air pollution by merely restricting traffic volume within Delhi—likely failed because it did not address the underlying issue: there are a variety of causes for the high pollution levels in Delhi, including pollution from factories, which must be dealt with simultaneously and require a multipronged approach.¹¹⁶

III. CHINA/BEIJING

A. *The Central Government's Pollution Control Measures Policies*

In the past decade, highly visible air pollution has drawn both domestic and international concern about its adverse health effects.¹¹⁷ This has prompted China to introduce several policies and regulations addressing environmental issues.¹¹⁸ Every five years, the central government develops a five-year plan (FYP) articulating its most important developmental targets.¹¹⁹ Implemented by the National Development and Reform Commission of the People's Republic of China (NDRC), a macroeconomic management agency under the executive branch, the eleventh FYP (2006-2011) was the first FYP to lay out a national energy reduction goal, including a binding target for reducing energy consumption by twenty percent.¹²⁰ It was also the first time that environmental indicators were a factor in evaluating the performance of government officials.¹²¹ Building on this momentum, the twelfth FYP (2011-2015) included a binding target to reduce carbon emissions by

115. *Id.*

116. See Sinha, *supra* note 84.

117. See Lim, *supra* note 5; Austin Ramzy, *Conflict in the Air: U.S. Vows to Keep Reporting on Pollution in China*, TIME (June 6, 2012), <http://world.time.com/2012/06/06/conflict-in-the-air-u-s-will-keep-reporting-on-pollution-in-china/> (noting that air pollution became an especially prominent issue after the U.S. Embassy in Beijing began publishing hourly PM_{2.5} readings on social media in 2008 and increased local interest).

118. See Ramzy, *supra* note 117.

119. Ranping Song et al., *Assessing Implementation of China's Climate Policies in the 12th 5-Year Period*, WORLD RESOURCES INST. 5 (Sept. 2015), http://www.wri.org/sites/default/files/15_WP_China_Climate_Policies_final-v2_0.pdf (defining binding targets as “hard targets that the government strives to meet through administrative means”).

120. Lydia McMullen-Laird et al., *Air Pollution Governance as a Driver of Recent Climate Policies in China*, 9 CARBON & CLIMATE L. REV. 244 (2015); Christine Wong & Valerie J. Karplus, *China's War on Air Pollution: Can Existing Governance Structures Support New Ambitions?*, 2017 CHINA Q. 664 (2017); see Song et al., *supra* note 119 (defining binding targets as “hard targets that the government strives to meet through administrative means”).

121. McMullen-Laird et al., *supra* note 120, at 245.

seventeen percent per unit of gross domestic product (GDP) and energy consumption by sixteen percent per unit of GDP.¹²²

After a number of severely polluted days in January 2013, the “airpocalypse”, which incited domestic outcry and international media attention, the government had a renewed focus on air pollution policy.¹²³ The State Council, the executive branch of the People’s Republic of China, illustrated this intention by releasing a series of orders.¹²⁴ Released in October 2012, the twelfth FYP on Air Pollution Prevention and Control in Key Regions (AAPC) set PM_{2.5} reduction targets in thirteen regions, including the Beijing-Tianjin-Hebei area.¹²⁵ Released in 2013, eight months after the 2013 airpocalypse, the State Council’s Action Plan for Air Pollution Prevention and Control (APAP) focused on the reduction of emissions related to coal.¹²⁶ It went further than the twelfth FYP targets, setting tougher PM_{2.5} targets for many Beijing-Tianjin-Hebei cities.¹²⁷ Within a week, the government released a set of rules outlining the mandatory implementation strategies for each province.¹²⁸ The rules zeroed in on Hebei, a nearby province that contributes heavily to Beijing’s air pollution, by setting forth “significantly more stringent” coal consumption targets for Hebei than the other provinces.¹²⁹

The thirteenth FYP (2016-2020) builds upon the previous FYPs and makes environmental protection a priority for the next five years by setting forth twenty-five targets, ten of which are binding environment-related targets.¹³⁰ One binding target is that Chinese cities must meet “good” air quality ratings more than eighty percent of the time by 2020.¹³¹ This means they must score below 100 on China’s AQI of 0-500.¹³² The thirteenth FYP targets major cities and industries by calling for a ten percent decrease in levels of Volatile Organic Compounds (VOCs), which

122. *Id.*

123. *See* Lim, *supra* note 5.

124. *See* Wong & Karplus, *supra* note 120, at 665.

125. *Id.* at 665-66.

126. *Id.* at 666.

127. *Id.*

128. *Id.*

129. *Id.* at 668.

130. Staff of U.S.-China Econ. and Sec. Rev. Comm’n, The 13th Five-Year Plan U.S.-China Economic & Sec. Rev. Comm’n 1, 16 (Feb. 14, 2017) [hereinafter Koleski] (primarily the work of Katherine Koleski).

131. *Id.* at 19.

132. Deborah Seligsohn & Angel Hsu, *How China’s 13th Five-Year Plan Addresses Energy and the Environment*, CHINAFILE (Mar. 10, 2016), <http://www.chinafile.com/reporting-opinion/environment/how-chinas-13th-five-year-plan-addresses-energy-and-environment>.

are emitted from paints, solvents, and all varieties of industrial processes.¹³³ The thirteenth FYP also targets coal combustion and vehicular emissions, which are the largest sources of air pollution.¹³⁴

1. Challenges of Implementation

Implementation of these policies is decentralized. The central government allocates environmental targets for the provinces, which in turn allocate responsibilities to prefectural-level cities, which allocate to cities, and so on down the hierarchy.¹³⁵ It is then up to local governments to create local environmental standards.¹³⁶ Local Environmental Protection Bureaus (EPBs) are ultimately tasked with implementing both national and local standards.¹³⁷ “Although allowing local administrators to tailor their environmental programs to their local needs appears to be advantageous, the approach has practical disadvantages.”¹³⁸

A major obstacle to implementation is that local governments support local industries and fail to hold them accountable.¹³⁹ The central government, “without knowledge of local needs or values, may impose standards that local authorities consider too costly to enforce.”¹⁴⁰ Local governments must balance competing policy objectives: energy efficiency and economic growth.¹⁴¹ Environmental measures typically cause loss of revenue and jobs since polluting factories must be shut down or completely refitted with updated technology.¹⁴² And when local officials

133. *Id.*

134. *Id.*

135. See Wong & Karplus, *supra* note 120, at 670 fig. 1 (illustrating the five levels of government in China); Tai Ming Cheung et al., *Planning for Innovation: Understanding China's Plans for Technological, Energy, Industrial, and Defense Development* 69, U.C. INST. ON GLOBAL CONFLICT & COOPERATION (July 28, 2016), <https://www.uscc.gov/sites/default/files/Research/Planning%20for%20InnovationUnderstanding%20China%27s%20Plans%20for%20Tech%20Energy%20Industrial%20and%20Defense%20Development072816.pdf> (prepared for the U.S.-China Economic and Security Review Commission).

136. Wong & Karplus, *supra* note 120, at 670.

137. Michelle Ker & Kate Logan, *New Environmental Law Targets Local China's Local Officials*, CHINADIALOGUE (Apr. 28 2014), <https://www.chinadialogue.net/article/show/single/en/6939-New-environmental-law-targets-China-s-local-officials>.

138. Caitlin Morray, *An Ill Wind: Air Pollution in the Pearl River Delta*, 19 PAC. RIM L. & POL'Y J. 233 (2010).

139. David Stanway, *China to Launch Environmental Probes in Eight More Provinces*, REUTERS (July 8, 2016), <https://www.reuters.com/article/us-china-environment/china-to-launch-environmental-probes-in-eight-more-provinces-idUSKCN0ZO0K3>.

140. Morray, *supra* note 138.

141. See *id.*; Stanway, *supra* note 139.

142. Stanway, *supra* note 139.

are evaluated on their performances, economic factors play a large part in determining whether they are promoted.¹⁴³ Thus, local governments “may seek to improve economic output by sacrificing environmental standards.”¹⁴⁴ Furthermore, while local EPBs should implement both local and national standards, they answer to their respective local governments, who control funding and key staffing decisions.¹⁴⁵ Directors of local EPBs are appointed by provincial governors and municipal mayors.¹⁴⁶

Another challenge for implementation is the lack of direct oversight by the central government.¹⁴⁷ Due to the government’s hierarchical structure, each level manages only the level immediately beneath it.¹⁴⁸ The central government directly oversees only provincial level governments, including Beijing, which is designated a provincial-level municipality.¹⁴⁹ Consequently, although the central government lays out targets and penalties for provinces, warning that failure to meet environmental targets will affect promotions, it fails to hold accountable the local governments that exist multiple levels down in the hierarchy.¹⁵⁰ It appears to be up to the prefectural level cities to impose a penalty system on local government officials.¹⁵¹ Thus, when the local governments ultimately responsible for overseeing policy implementation are not being held directly accountable by the central government, the entire system becomes rather ineffective.¹⁵²

2. The Central Government’s Emphasis on Enforcement

Since the FYPs serve as guidance and goals for future policies, the thirteenth FYP does not appear to have any binding force.¹⁵³ Most tellingly, it does not expressly set forth any punitive measures for cities that do not meet their eighty percent targets.¹⁵⁴ However, cities meeting

143. Morray, *supra* note 138.

144. *Id.*

145. Ker & Logan, *supra* note 137.

146. Morray, *supra* note 138.

147. Wong & Karplus, *supra* note 120, at 670 fig. 1.

148. *Id.*

149. *Id.*

150. *Id.*

151. *See id.*

152. *See id.*

153. *See Koleski, supra* note 130, at 16.

154. *See id.* at 19.

or exceeding those targets will likely be rewarded in the form of more central government funding for their local governments.¹⁵⁵

Since the FYPs do not contain enforcement provisions, the central government has addressed the lack of enforcement by local governments in other ways.¹⁵⁶ First, the central government has focused on persuading provincial and local officials to seriously enforce its provisions.¹⁵⁷ In 2014, China amended its Environmental Protection Law (EPL).¹⁵⁸ It created a formal system under which local officials are evaluated on their jurisdiction's environmental performance, thus holding them more accountable.¹⁵⁹ Also, in April 2014, the State Council released a set of measures to hold senior provincial officials accountable for meeting FYP targets.¹⁶⁰ Reduction of PM levels would be included in evaluations of senior and mid-level provincial officials and senior officials who did not meet the targets might be summoned by the central government to explain why they failed to do so.¹⁶¹ Second, the central government has focused on monitoring.¹⁶² Under the twelfth FYP, the government focused on deploying air quality monitoring systems.¹⁶³ By the end of 2014, the Chinese government had established more than 1400 monitoring stations reporting real-time, publicly available data on six pollutants, among them PM₁₀ and PM_{2.5}.¹⁶⁴ Third, the central government has recently focused on more direct oversight of local implementation.¹⁶⁵ For instance, in 2016, it increased enforcement of regulations by using emissions monitoring systems and leading inspections in fifteen provinces.¹⁶⁶ Furthermore, in November 2016, inspections by the central government in Hebei resulted

155. See generally Alex L. Wang, *The Search for Sustainable Legitimacy: Environmental Law and Bureaucracy in China*, 37 HARV. ENVTL. L. REV. 381 (2013).

156. See Ker & Logan, *supra* note 137; Wong & Karplus, *supra* note 120, at 670; McMullen-Laird et al., *supra* note 120, at 245; Tyler Liu, *China's Revision to the Environmental Protection Law: Challenges to Public Interest Litigation and Solutions for Increasing Public Participation and Transparency*, 6 GEO. WASH. J. ENERGY & ENVTL. L. 62 (2015-16).

157. See Ker & Logan, *supra* note 137; Wong & Karplus, *supra* note 120, at 670.

158. McMullen-Laird et al., *supra* note 120, at 244; Liu, *supra* note 156, at 65.

159. Ker & Logan, *supra* note 137.

160. Wong & Karplus, *supra* note 120, at 668.

161. *Id.*

162. See Seligsohn & Hsu, *supra* note 132; Song et al., *supra* note 119, at 10.

163. Seligsohn & Hsu, *supra* note 132.

164. Zheng Jinran, *Monitoring Network to Be Further Expanded*, CHINA DAILY (Apr. 7, 2017), http://www.chinadaily.com.cn/china/2017-04/07/content_28827498.htm.

165. See Koleski, *supra* note 130, at 17-18; Zhang Yu, *Hebei Officials Punished for Failing to Curb Pollution*, CHINA DAILY (Nov. 10, 2016), http://www.chinadaily.com.cn/china/2016-11/10/content_27329193.htm.

166. Koleski, *supra* note 130, at 16.

in the punishment of more than 1000 government officials and industry leaders.¹⁶⁷ According to the MEP, while some officials were dismissed, the majority were admonished or received demerits.¹⁶⁸

The central government has also addressed the failure of local polluters to comply.¹⁶⁹ A challenge to enforcement is that the cost for local industries to pollute and pay penalties is often lower than compliance.¹⁷⁰ The 2014 EPL amendments tried to combat this by removing the upper limits on fines for polluters and establishing a system that accrues daily penalties until the violation has been rectified.¹⁷¹ This addresses the problem in the old EPL where maximum fines for violations of environmental law were set too low to be a deterrent.¹⁷² However, even with the removal of a ceiling, according to Ma Jun, director of the China-based nonprofit the Institute of Public and Environmental Affairs, the fines for polluting are “still cheaper than the cost of compliance.”¹⁷³

The central government has also addressed the issue that local governments and industries often protect one another.¹⁷⁴ The central government now protects whistleblowers who report violations.¹⁷⁵ The revised EPL encourages informants to report not only noncompliant polluters, but also local governments who are not carrying out their duty to their superior government branch.¹⁷⁶ In 2014, the local Beijing EPB instituted an incentive policy offering potential reporting awards of RMB 600-5000 for whistleblowers.¹⁷⁷ The EPL also confers upon EPBs the power “to order companies that fail to meet requirements to eliminate or curb their pollution to suspend or shut down operations.”¹⁷⁸ When Chinese

167. Yu, *supra* note 165.

168. Koleski, *supra* note 130, at 18.

169. See Ker & Logan, *supra* note 137.

170. *Id.*

171. *Id.*

172. *Id.*

173. Stanway, *supra* note 139.

174. See Seligsohn & Hsu, *supra* note 132.

175. See *China Begins Enforcing Newly Amended Environmental Protection Law*, JONES DAY 4 (Jan. 2016), http://www.jonesday.com/files/Publication/1d201d08-ddef-4bc9-b017-f04ec8821f0f/Presentation/PublicationAttachment/9bd6ed7d-86fa-4ce9-b12d-f66f150fcacd/China_Begins_Enforcing.pdf.

176. Huan jing bao hu fa (环境保护法) [Law on Environmental Protection] (promulgated by the Standing Comm. Nat'l People's Cong., Apr. 24, 2014, effective Jan. 1, 2015) XINHUA NEWS AGENCY, art. 57 (China).

177. *China Begins Enforcing Newly Amended Environmental Protection Law*, *supra* note 175.

178. Ker & Logan, *supra* note 137.

Premier Li Keqiang delivered the twelfth FYP, he appeared to emphasize the government's focus on targeting the relationship between industry and local governments.¹⁷⁹ He warned that violators of environmental provisions would be "severely punished," but those who "knowingly allow violations" will be "held to account."¹⁸⁰

B. Public Interest Litigation

Alex Wang, a Chinese environmental scholar, has argued that public supervision reforms, such as public participation and PIL, have the greatest potential to improve local government accountability "because they actually create a possibility for third party, independent monitoring and the increased likelihood of sanctions for bad behavior."¹⁸¹ The Standing Committee of the National People's Congress (NPC) created the concept of environmental PIL in 2012. It amended China's Civil Procedure Law to allow "bodies and organizations prescribed by law" to bring lawsuits concerning environmental pollution and other activities harming the public interest.¹⁸² The 2014 EPL empowered nongovernmental organizations (NGOs) to bring environmental PIL suits.¹⁸³ It was buttressed by a detailed judicial interpretation on civil environmental PIL, issued in early 2015 by the Supreme People's Court of the People's Republic of China (SPC).¹⁸⁴ The SPC's interpretation gave original jurisdiction over PIL suits to courts at the intermediate level (Intermediate People's Courts) or above.¹⁸⁵ This helped prevent local

179. See Seligsohn & Hsu, *supra* note 132.

180. *Id.*

181. Wang, *supra* note 155, at 372.

182. Laney Zhang, *China: Notable Environmental Public Interest Lawsuit*, LIBR. CONGRESS (Oct. 17, 2014), <http://loc.gov/law/foreign-news/article/china-notable-environmental-public-interest-lawsuit/>.

183. Huan jing bao hu fa (环境保护法) [Law on Environmental Protection] (promulgated by the Standing Comm. Nat'l People's Cong., Apr. 24, 2014, effective Jan. 1, 2015) XINHUA NEWS AGENCY, art. 58 (China).

184. Susan Finder, *Why the Supreme People's Court Is Harnessing the NGO "Genie,"* SUP. PEOPLE'S CT. MONITOR (Jan. 26, 2015), <https://supremepeoplescourtmonitor.com/2015/01/26/why-the-supreme-peoples-court-is-harnessing-the-ngo-genie/>.

185. Zui gao ren min fa yuan guan yu shen li huan jing min shi gong yi su song an jian shi yong fa lv ruo gan wen ti de gui ding (最高人民法院关于审理环境民事公益诉讼案件适用法律若干问题的解释) [The Sup. People's Ct. Interp. Regarding Certain Issues Related to the Application of the Law in Environmental Civil Public Interest Litigation] June 1, 2015, effective July 1, 2015 art. VI; see Gregory S. Kolton, *Copyright Law and the People's Courts in the People's Republic of China: A Review and Critique of China's Intellectual Property Courts*, 17 U. PA. J. INT'L ECON. L. 415, 426-29 (1996). The People's Courts are demarcated into four hierarchical levels. The first level is the Basic People's Courts, which operate at the county level in provinces, autonomous

protectionism, such as “situations where local governments attempt to influence basic people’s courts’ decisions regarding whether to accept lawsuits against polluters who contribute to the local economy.”¹⁸⁶

However, the revised EPL contains serious limitations.¹⁸⁷ First, NGOs have standing only if (1) they have been registered with a government civil affairs department at or above the city level and (2) they have specialized in environmental protection public interest activities for five years.¹⁸⁸ While this restriction on standing may prevent the courts from being flooded with lawsuits that are not viable, setting a limitation on litigants intending to sue on behalf of the public appears to arbitrarily narrow the pool of potential litigants, thus limiting public participation.¹⁸⁹ Second, the EPL only allows lawsuits against pollution, ecological damage, and other “activities” that harm the public interest.¹⁹⁰ Thus, in contrast to India where PIL advocates can sue the entire government, Chinese public interest litigants are limited to suing polluters who actively pollute and not the government entities who allow the polluting acts to occur.¹⁹¹

regions, cities without districts, and at the district level in Beijing, Tianjing, and Shanghai. They serve solely as lower courts of original jurisdiction. The second level consists of Intermediate People’s Courts that function at the level of prefectures and municipalities, the autonomous region level, the regional level, and at the district level in Beijing, Tianjing, and Shanghai. Third, there are twenty-nine Higher People’s Courts at the provincial level and in Beijing, Tianjing, and Shanghai. Both the Intermediate and Higher People’s Courts operate as courts of original and appellate jurisdiction for the court sitting directly below. Finally, the pinnacle of judicial authority is the Supreme People’s Court, which “may hear cases of first impression which are of national dimension” and has an appellate function when it reviews the decisions of both the Higher People’s Courts and the Special People’s Courts. “In addition to the four levels of regular People’s Courts, which customarily have general jurisdiction, there are Special People’s Courts which have authority over issues affecting the military, railway transportation, forestry, and maritime law.”

186. Karl Bourdeau & Dan Schulson, “*Citizen Suits*” Under China’s Revised Environmental Protection Law: A Watershed Moment in Chinese Environmental Litigation?, BEVERIDGE & DIAMOND, P.C. (Mar. 9, 2016), <http://www.bdlaw.com/news-1863.html>; see *Judicial Independence in the PRC*, CONG.-EXECUTIVE COMMISSION ON CHINA, <https://www.cecc.gov/judicial-independence-in-the-prc> (“Local governments often interfere in judicial decisions in order to protect local industries or litigants, or, in the case of administrative lawsuits, to shield themselves from liability. Local governments are able to exert influence on judges because they control local judicial salaries and court finances and also make judicial appointments.”).

187. See Law on Environmental Protection, art. 58 (China).

188. *Id.*

189. Liu, *supra* note 156, at 65.

190. Law on Environmental Protection, arts. 42, 58 (China).

191. Compare *id.* arts. 58, 59, with *M.C. Mehta v. Union of India*, A.I.R. 1988 S.C. 1037; A.I.R. 1988 S.C. 1115 (India), and *Rosencranz & Jackson*, *supra* note 29, at 232.

To adjudicate environmental claims, China has established over seventy Environmental Courts across the country.¹⁹² They exist as either divisions within the Intermediate People's Courts or as separate tribunals at the level of Basic People's Courts.¹⁹³ Each Environmental Court is subject to rules decided by its Intermediate Level People's Court, and as a result, public interest litigants are subject to different procedural rules in different courts.¹⁹⁴ For example, some courts have established regulations specifying that all environmental NGOs have standing to bring public interest suits while other courts have not.¹⁹⁵ It has been argued that "standardized rulemaking in the form of an amended EPL could help solidify the rules of these specialized courts and cement their status as neutral and fair venues to hear disputes regarding environmental issues."¹⁹⁶

C. *The Beijing Municipal Government's Pollution Control Measures*

Given that Beijing is the capital city where the central government sits, both the central and municipal government attach great importance to reducing air pollution within the city.¹⁹⁷ Unlike other cities, as early as 1998, with direct instructions from the central government, "air pollution control in Beijing became the top priority in environment management in China."¹⁹⁸ For example, during the 2014 Asia-Pacific Economic Cooperation (APEC) summit held in Beijing, the government implemented emergency measures to ensure that Beijing had a blue sky again.¹⁹⁹ It temporarily closed thousands of industrial plants, even though some met emission standards.²⁰⁰ And when air quality only partially improved, the Beijing government blocked access to AQI data from the U.S. Embassy air quality monitor.²⁰¹ Xinmin Zhang of the Chinese

192. Liu, *supra* note 156, at 66.

193. Alex L. Wang & Jie Gao, *Environmental Courts and the Development of Environmental Public Interest Litigation in China*, 3 J. CT. INNOVATION 39 (2010); see Kolton, *supra* note 185, at 426-29.

194. Liu, *supra* note 156, at 66.

195. *Id.*

196. *Id.*

197. See Yana Jin, Henrik Andersson & Shiqiu Zhang, *Air Pollution Control Policies in China: A Retrospective and Prospects*, 13 INT'L J. ENVTL. RES. & PUB. HEALTH 11 (2016).

198. *Id.*

199. Jiangfeng Li, *Pollution Emission Trading: A Possible Solution to China's Enforcement Obstacles in Fighting Against Air Pollution*, 34 UCLA J. ENVTL. L. & POL'Y 66-67 (2016).

200. Jia & Wang, *supra* note 5.

201. Li, *supra* note 199.

Research Academy of Environmental Sciences (CRAES), a nonprofit affiliated with the MEP, notes that these shutdowns resulted in losses of 3.5 billion yuan (approximately \$500 million) for industries in the Beijing-Tianjin-Hebei area.²⁰² The central and municipal governments had to reimburse companies and residents who were banned from burning coal for most of their financial losses.²⁰³

In recent years, several recent initiatives by the Beijing municipal government have targeted the three primary causes of pollution: coal combustion, steel factories, and vehicular emissions.²⁰⁴ In response to the State Council's 2013 APAP, the Beijing municipal government published its own 2013-2017 Clean Air Action Plan detailing how it will reduce air pollution in five years.²⁰⁵ The plan targeted all three primary causes and planned to reduce levels of PM_{2.5} to sixty ug/m³ by 2017.²⁰⁶ In January through March of 2017, the levels of PM_{2.5} rose by 26.7%.²⁰⁷ By March 2017, Beijing shut down all of its coal-fired power plants.²⁰⁸ The local government is building four gas-powered plants to replace them.²⁰⁹ In October 2017, Beijing started shutting down steel factories in the city and its surrounding regions.²¹⁰ To counteract vehicular pollution, the local government has imposed car-control policies, such as using lotteries to control new car ownership and restricting the number of cars on the road on any given day.²¹¹ In 2017, Beijing also phased out at least 374,000 old vehicles with heavy exhaust emissions.²¹² In 2018, increased pressure and oversight from the central government have pushed the city to take further measures, such as shutting down more than 5829 polluting companies

202. Jia & Wang, *supra* note 5.

203. *Id.*

204. See *Beijing Publishes 2013-2017 Clean Air Action Plan*, CHINA COUNCIL FOR INT'L COOPERATION ON ENV'T & DEV. (Oct. 22, 2013), http://www.cciced.net/cciceden/NEWS CENTER/LatestEnvironmentalandDevelopmentNews/201310/t20131022_82587.html

205. *Id.*

206. *Id.*

207. Li Rongde, *Beijing Area Sees Fewer 'Blue-Sky Days' This Year*, CAIXIN (Nov. 17, 2017), <https://www.caixinglobal.com/2017-11-17/beijing-area-sees-fewer-blue-sky-days-this-year-101172743.html>.

208. Mullin, *supra* note 7.

209. *Beijing to Replace Some Coal-Fired Heating Plants*, S. CHINA MORNING POST (Oct. 5, 2013), <https://www.scmp.com/news/china/article/1325239/beijing-replace-some-coal-fired-heating-plants>.

210. *Beijing Starts the Biggest Shutdown of Steel Factories in History*, ECOWATCH (Oct. 31, 2017), <https://www.ecowatch.com/beijing-steel-factories-2504305097.html>.

211. Jia & Wang, *supra* note 5.

212. Zheng Jinran, *Ministry: More Days Polluted in Region*, CHINA DAILY (Oct. 30, 2017), https://www.chinadaily.com.cn/china/2017-10/30/content_33880425.htm.

after they were exposed by environmental inspectors from the MEP.²¹³ Beyond aiming to decrease the primary causes of pollution, Beijing has targeted the surge in pollution during winter months.²¹⁴ Many residential buildings are warmed by government central heating systems that are only switched on between November 15 and March 15.²¹⁵ This causes increased air pollution.²¹⁶ In order to counteract this, the government plans to temporarily ban almost all building construction from November 15 to March 15.²¹⁷ Chinese news outlets have reported that Beijing's Municipal Commission of Housing and Urban-Rural Development plans to closely monitor the restriction and "strictly" punish any violators.²¹⁸

Although the government has taken measures within Beijing, a great deal of the city's pollution comes from the surrounding, less developed cities within Hebei, Shanxi, and Tianjin provinces.²¹⁹ As a result, the initiatives taken by the government within Beijing are only partial solutions that do not directly address its persistent smog.²²⁰ Heavy coal consumption in nearby Hebei "easily overshadows the effects of Beijing's policy as air pollution drifts across the region."²²¹ Further, Beijing's municipal government has reason to not even want Hebei province to reduce its coal usage because although Beijing has closed coal-fired plants within city limits, seventy percent of Beijing's electricity is still imported from coal-fired plants outside the capital.²²² In fact, according to China's National Energy Administration, sixty percent of Beijing's energy consumption still comes from coal.²²³

While industrial and vehicular emissions seem to be the major sources of pollution, some policies enacted by the municipal government

213. *Id.*

214. Chris Baynes, *China Bans Major Beijing Construction Projects in 'War Against Air Pollution,'* INDEPENDENT (Sept. 18, 2017), <http://www.independent.co.uk/news/world/asia/china-beijing-air-pollution-construction-projects-ban-capital-deaths-road-water-systems-a7952321.html>.

215. *Id.*

216. *See id.*

217. *Id.*

218. *Beijing Bans Construction During Heating Season,* XINHUA (Sept. 17, 2017), http://news.xinhuanet.com/english/2017-09/17/c_136615888.htm.

219. *See* Jia & Wang, *supra* note 5.

220. *See* Baynes, *supra* note 214; Jia & Wang, *supra* note 5.

221. Jia & Wang, *supra* note 5.

222. Emily Feng, *Beijing's Green Electricity Credentials Questioned,* FIN. TIMES (Mar. 28, 2017), <https://www.ft.com/content/673ffa02-0faa-11e7-b030-768954394623>.

223. *Id.*

do little to address these sources.²²⁴ For example, in January 2017, the mayor of Beijing announced the potential creation of an environmental policy force that “will patrol the streets, eyes peeled for open-air barbecues, trash burning and dusty roads that violate regulations.”²²⁵ It seems that, like other local governments, Beijing is balancing two competing objectives.²²⁶ On one hand, there is increased public pressure to reduce pollution and the central government has enacted aggressive targets with short timelines.²²⁷ Local officials know that the most direct way to reduce pollution is by targeting industrial and vehicular emissions.²²⁸ On the other hand, officials are aware that heavy industry is the source of many jobs.²²⁹ Thus, measures reducing air pollution “require significant capacity shutdowns within a few years—a move that creates high localized costs in service of accelerating the delivery of air-quality benefits.”²³⁰ As a result, the municipal government “has been reluctant to impose sweeping change for fear of economic repercussions and potential unrest from fired workers.”²³¹

IV. ANALYSIS

Delhi and Beijing have similar backdrops to their respective air pollution crises. In both China and India, economic growth achieved through development of heavy industry has caused the pollution.²³² Further, both nations must maintain a balance between economic growth and protection of the environment.²³³ With the national government

224. See, e.g., Benjamin Haas, *Beijing Creates Anti-Smog Police to Tackle Air Polluters*, GUARDIAN (Jan. 8, 2017), <https://www.theguardian.com/world/2017/jan/09/beijing-creates-anti-smog-police-to-tackle-air-polluters>.

225. *Id.*

226. See Stanway, *supra* note 139.

227. See Lim, *supra* note 5; Wong & Karplus, *supra* note 120, at 675.

228. See Haas, *supra* note 224; Mullin, *supra* note 7; *Beijing Starts the Biggest Shutdown of Steel Factories in History*, *supra* note 210.

229. See Stanway, *supra* note 139; *Beijing Starts the Biggest Shutdown of Steel Factories in History*, *supra* note 210.

230. Wong & Karplus, *supra* note 120, at 679.

231. Haas, *supra* note 224.

232. See Prakash et al., *supra* note 3; Eleanor Albert & Beina Xu, *China's Environmental Crisis*, COUNCIL ON FOREIGN REL. (Jan. 18, 2016), <https://www.cfr.org/backgrounder/chinas-environmental-crisis>; Joseph Kahn & Jim Yardley, *As China Roars, Pollution Reaches Deadly Extremes*, N.Y. TIMES (Aug. 26, 2007), <https://www.nytimes.com/2007/08/26/world/asia/26china.html>.

233. See Kahn & Yardley, *supra* note 232; Morray, *supra* note 138; Stanway, *supra* note 139.

leaving implementation of environmental policies to local governments, the local governments of Beijing and New Delhi face a similar policy dilemma: If they clamp down too hard on polluting industries, they risk damaging economic growth that is still lifting people out of poverty.²³⁴ If they do nothing, they subject their citizens to poisoned air and allow their health to continue deteriorating.²³⁵ Hence, the local governments are seemingly caught at an impasse.²³⁶

Due to the differences in their legal systems, however, China and India have nearly opposite approaches to regulating air pollution.²³⁷ India has a functioning independent judiciary with judges retiring at the age of sixty-five.²³⁸ There is a clear separation of the Court from the executive branch.²³⁹ Conversely, in China, the judiciary is not truly independent.²⁴⁰ Judges on the SPC are elected for five-year terms and can serve no more than two consecutive terms.²⁴¹ The Chinese Constitution allows courts to exercise judicial power “independently” and free from “interference by administrative organs, public organizations[,] or individuals.”²⁴² In practice, however, the judiciary is subject to a variety of controls that limit its capacity for independent decision making.²⁴³ For example, while most cases are decided by a panel of judges, the President of the SPC retains the power to review any decision and overrule it.²⁴⁴ In a January 2017 speech, Zhou Qiang, President of the SPC, called on Chinese courts to resist the

234. Wong & Karplus, *supra* note 120, at 663; Ker & Logan, *supra* note 137; Stanway, *supra* note 139; Prakash et al., *supra* note 3.

235. See Riley, *supra* note 19.

236. See *id.*

237. See *Judicial Independence in the PRC*, *supra* note 186. See generally Rosencranz & Jackson, *supra* note 29; Wong & Karplus, *supra* note 120, at 666.

238. Rosencranz & Jackson, *supra* note 29, at 254 (“Many developing countries look to India as a country where human rights are championed by an independent judiciary.”); *Increase Retirement Age of SC Judges to 67, HC Judges to 65: Parl Panel*, BUS. STANDARD (Mar. 14, 2018), https://www.business-standard.com/article/economy-policy/increase-retirement-age-of-sc-judges-to-67-hc-judges-to-65-parl-panel-118031400847_1.html.

239. See, e.g., Rosencranz & Jackson, *supra* note 29, at 224, 227, 233 (noting that the Supreme Court of India ordered the government of Delhi to convert its entire fleet of diesel-powered buses to CNG by March 31, 2001, even when faced with resistance by local agencies tasked with enforcing the decision).

240. See *Judicial Independence in the PRC*, *supra* note 186.

241. XIANFA arts. 60, 124 (1982) (China); *China’s Judicial System: People’s Courts, Procuratorates, and Public Security*, UNIV. MISS., http://www.olemiss.edu/courses/pol324/chn_judic.htm.

242. XIANFA art. 126 (1982) (China).

243. See, e.g., *Judicial Independence in the PRC*, *supra* note 186.

244. *Id.*

Western concepts of constitutional democracy, separation of powers, and judicial independence.²⁴⁵ As a result, China relies disproportionately on administrative directives and enforcement from the central government to curb pollution whereas India relies almost completely on its Supreme Court.²⁴⁶

With local governments often prioritizing economic results to the detriment of environmental results, and with the judiciary too weak to help enforce the law, China's central government has taken over primary responsibilities in regulating the environment.²⁴⁷ It has declared a war against pollution that focuses on accountability and transparency.²⁴⁸ For instance, local and provincial officials are evaluated and promoted, in part, based on whether they meet pollution reduction targets.²⁴⁹ And recently, the central government has taken over some primary enforcement responsibilities from provincial governments by leading provincial inspections and imposing punitive measures on polluters violating environmental laws.²⁵⁰ In contrast, India's central government has not been exercising its enforcement powers.²⁵¹ For instance, while India's pollution control boards were intended to serve as enforcement agencies, they appear to have little enforcement power as they do not have authority to impose fines, cannot threaten imprisonment for noncompliance, and are reliant on the courts to enforce their orders.²⁵² Further, like the local EPBs in China, India's SPCBs are funded by their respective state governments.²⁵³

245. Zheping Huang, *Xi Jinping Promised Legal Reform in China, but Forget About Judicial Independence*, QUARTZ (Jan. 18, 2017), <https://qz.com/886665/xi-jinping-promised-legal-reform-in-china-but-forget-about-judicial-independence/>; Lucy Hornby, *China's Top Judge Denounces Judicial Independence*, FIN. TIMES (Jan. 17, 2017), <https://www.ft.com/content/60ddd46-dc74-11e6-9d7c-be108f1c1dce>.

246. See generally Rosencranz & Jackson, *supra* note 29; Wong & Karplus, *supra* note 120, at 670.

247. Morray, *supra* note 138; Wong & Karplus, *supra* note 120, at 671; *Judicial Independence in the PRC*, *supra* note 186.

248. *China to 'Declare War' on Pollution, Premier Says*, REUTERS (Mar. 4, 2014), <https://www.reuters.com/article/us-china-parliament-pollution/china-to-declare-war-on-pollution-premier-says-idUSBREA2405W20140305>.

249. Ker & Logan, *supra* note 137; Wong & Karplus, *supra* note 120, at 668.

250. Koleski, *supra* note 130, at 17; Yu, *supra* note 165.

251. See Dam, *supra* note 36, at 599-600.

252. *Id.*

253. *Id.*

The Indian Supreme Court is arguably the most active judiciary in the world on environmental matters.²⁵⁴ While the role of the judiciary is to enforce the rule of law, the Court has been executing statutes and coordinating with administrative agencies to implement policy, thereby essentially replacing the executive branch.²⁵⁵ On one hand, opponents of the Court's amplified role might argue that it oversteps its jurisdiction and makes uninformed decisions by involving itself in enforcement—a role generally belonging to the executive.²⁵⁶ These opponents argue that the Court lacks the informational expertise of the executive.²⁵⁷ Typically, the legislator defines a broad framework, and the executive sets specific standards using its informational expertise.²⁵⁸ It seems that while the Court may lack the informational expertise of the executive, it has taken steps to close this information gap.²⁵⁹ It recommended the creation of the EPCA in 1998 and the NGT in 2010.²⁶⁰ It also relies heavily on reports from administrative agencies like the MoEF.²⁶¹ For instance, in the Delhi Air Pollution Case, the Court directed the MoEF to set up a committee recommending alternative methods of operating vehicles.²⁶² Further, it has been argued that continuous interference has increased India's dependence on the Court for environmental protection, thus restricting the growth of administrative agencies.²⁶³

On the other hand, proponents of the Indian Supreme Court's judicial activism might argue that it has acted in the name of upholding fundamental rights.²⁶⁴ The Court is doing this because Delhi residents are dying (and it has said as much).²⁶⁵ It intervened when it saw violations of

254. See generally Rosencranz & Jackson, *supra* note 29, at 228-37.

255. See Bhargav, *supra* note 66; Rosencranz & Jackson, *supra* note 29, at 249.

256. See Michael G. Faure & A.V. Raja, *Effectiveness of Environmental Public Interest Litigation in India: Determining the Key Variables*, 21 FORDHAM ENVTL. L. REV. 273 (2010).

257. See *id.*

258. *Id.*

259. See Faure & Raja, *supra* note 256, at 273, 275; *EPCA to Focus on Industrial Pollution in NCR*, TIMES INDIA (Mar. 1, 2018), <https://timesofindia.indiatimes.com/city/delhi/epca-to-focus-on-industrial-pollution-in-ncr/articleshow/63118968.cms>.

260. Bhargav, *supra* note 66; Ajay Modi, *EPCA's Rise to Prominence*, BUS. STANDARD (Apr. 1, 2017), https://www.business-standard.com/article/companies/epca-s-rise-to-prominence-117040100980_1.html.

261. Faure & Raja, *supra* note 256, at 275.

262. *Id.*

263. Rosencranz & Jackson, *supra* note 29, at 245.

264. See INDIA CONST. pt. III, art. 21; see Kalas, *supra* note 29, at 108-09; M.C. Mehta v. Kamal Nath, (2000) 6 S.C.C. 213 (India); Subhash Kumar v. State of Bihar, (1991) 1 S.C.R. 5 (India); Virendra Gaur v. State of Haryana, (1994) 6 S.C.R. 78 (India).

265. See Riley, *supra* note 19.

fundamental human rights, which include the right to live in an environment free from pollution.²⁶⁶ And crucially, it has established itself as a main environmental protector because executive branch officials are resistant to implementing changes.²⁶⁷ Its orders compel the executive to fulfill its enforcement duty.²⁶⁸ Thus, it is merely executing existing legislation to provide environmental protection where executive agencies have failed to carry out their duties.²⁶⁹ And finally, it seems that an independent judiciary is in a better position to enforce measures protecting the environment because it is less likely to be swayed by special interest groups that pollute.²⁷⁰ Whereas elected officials may seek to appease polluters who fund their campaigns for reelection, the Indian Supreme Court, whose judges are appointed for virtually their entire lives, is more insulated from political pressure.²⁷¹ Thus, it can set stricter environmental standards that are more beneficial for the public.²⁷² It seems that this creates a result where both the public and the executive benefit: the environment is protected, thus appeasing Indian citizens, and elected officials do not face backlash from special interest groups.²⁷³

Whether or not India's Supreme Court is overstepping, the fact remains that it has been able to play a larger role by creating a fundamental right to an environment fit for life.²⁷⁴ And this was possible due to the Indian Supreme Court's power of judicial review and the existence of certain provisions in the Indian Constitution: the fundamental right to life and the right of the court to issue orders enforcing constitutional rights.²⁷⁵ In contrast, the Chinese Constitution merely gives the SPC the authority to supervise "the administration of justice by the local people's courts."²⁷⁶ It is silent on whether the SPC is entitled to interpret the Constitution.²⁷⁷ It expressly gives the Standing Committee of the NPC the authority to

266. Rosencranz & Jackson, *supra* note 29, at 230; Kalas, *supra* note 29, at 105; M.C. Mehta v. Union of India, A.I.R. 1988 S.C. 1037; A.I.R. 1988 S.C. 1115 (India).

267. Rosencranz & Jackson, *supra* note 29, at 249.

268. See Kalas, *supra* note 29, at 107; Rosencranz & Jackson, *supra* note 29, at 249.

269. Faure & Raja, *supra* note 256, at 260.

270. See *id.* at 259-60; M.C. Mehta, A.I.R. 1988 S.C. 1037.

271. See INDIA CONST. pt. IV, art. 124.

272. See Kalas, *supra* note 29, at 105.

273. Faure & Raja, *supra* note 256, at 260.

274. Virendra Gaur v. State of Haryana, (1994) 6 S.C.R. 78 (India).

275. INDIA CONST. pt. IV, art. 21, 32.

276. XIANFA art. 127 (1982) (China).

277. *Id.*

interpret and supervise the enforcement of the Constitution.²⁷⁸ However, neither the Standing Committee nor the NPC has exercised this power because they have delegated it to the SPC and the Supreme People's Procuratorate.²⁷⁹ Further, even if the SPC had the power of judicial review, neither of the provisions used by the Indian Supreme Court exist in the Chinese Constitution.²⁸⁰ Since there is no right to life (that the SPC could potentially find encompasses the right to a clean environment), the government has no distinct duty to protect that right.²⁸¹ As a result, PIL in China is handicapped by the fact that environmental public interest litigants are limited to suing the polluters themselves; they cannot sue the government when it fails to enforce environmental regulations.²⁸² Due to these differences, although India is a country where fundamental environmental rights are defended by an active judiciary, China does not seem to have the legal framework necessary to support that approach.

278. *Id.* arts. 62, 67; Liu Nanping, *Judicial Review in China: A Comparative Perspective*, 14 REV. SOCIALIST L. 244 (1988).

279. Nanping, *supra* note 278, at 245.

280. *See* INDIA CONST. pt. III, art. 21; *see* Kalas, *supra* note 29, at 108 n.51; M.C. Mehta v. Kamal Nath, (2000) 6 S.C.C. 213 (India); Subhash Kumar v. State of Bihar, (1991) 1 S.C.R. 5 (India).

281. *See generally* XIANFA (1982) (China).

282. *See* Huan jing bao hu fa (环境保护法) [Law on Environmental Protection] (promulgated by the Standing Comm. Nat'l People's Cong., Apr. 24, 2014, effective Jan. 1, 2015) XINHUA NEWS AGENCY, arts. 58-59 (China) (illustrating that the EPL only allows lawsuits against polluting "activities" that harm the public interests).