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The Emerging Constitutional Challenge of Climate Change: India in Perspective

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ARTICLES

THE EMERGING CONSTITUTIONAL CHALLENGE OF CLIMATE CHANGE: INDIA IN PERSPECTIVE

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Persuading polluters to pay for the damage they cause elsewhere, in the interest of helping those worst affected, will be a major challenge in coming decades. Burden sharing is a very complex issue, and frankly I don't see much sign of it happening yet.

--Rajendra Pachauri, Chairman IPCC¹

I. INTRODUCTION

A major breakthrough in negotiations was achieved in Bali when the United States agreed to rejoin negotiations to establish an international regime to address climate change concerns post-Kyoto.² Despite U.S. re-engagement, the future of the negotiations and an effective global climate regime depend on the ability of developed nations such as the United States and rapidly developing economies such as China and India to agree on emissions reduction targets and binding mitigation obligations, and for developed countries to pro-

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1. Laurie Goering, *Warming to the Challenge of Climate Change*, Chicago Tribune, Apr.29, 2007, <http://inel.wordpress.com/2007/04/29/rajendra-pachauris-3-points-on-climate-change/>.

2. Juliet Eilperin, *Bali Forum Backs Climate 'Road Map,' U.S. Accedes on Aid Pledges, Wins Fight to Drop Specific Targets for Emissions Cuts*, Wash. Post, Dec. 16, 2007, at A01.

vide adequate financial and technological aid.³ While such mitigation based on emission rights is an important point of negotiation, it nevertheless undercuts the equally important question of violation of constitutional rights, which are implicated in the case of developing countries such as India.

India is a constitutional democracy whose growing GDP and emissions make it an important player in global mitigation instruments and strategies. However, the protection of constitutional rights of Indians, threatened by the absence of an effective international climate treaty, is not adequately discussed. In particular, the rights of Indians whose head count support the Indian government's equitable claim to emit green house gases (GHGs) based on a per capita calculation are at stake, but there is no remedy in sight as focus remains on emission rights-based mitigation strategies.

This article argues that climate change presents a serious challenge to constitutional rights of Indians; rights that can only be taken away by the State and by proper legal procedure. Further, as foreign states are involved and as international and other remedies against these states are limited, safeguarding constitutional rights presents substantial challenges that cannot be addressed even through the Indian judiciary's epistolary jurisprudence. Through this analysis, the article aims to demonstrate a less examined issue in international climate regime discussions—that at stake is a fundamental legal, social and political document of modern societies.

The first part of the article provides an overview of the global climate change regime, including a brief scientific background. The second part discusses India's status and position with respect to climate change, including mitigation strategies and adaptation challenges. The third part examines the potential constitutional challenges that could arise due to climate change. The fourth and the fifth parts discuss the scope for judicial action and their limits, followed by concluding remarks.

3. See generally Andrew C. Revkin, *As China Goes, So Does Global Warming*, N.Y. Times, Dec. 16, 2007, <http://www.nytimes.com/2007/12/16/weekinreview/16revkin.html>.

II. CLIMATE CHANGE—BRIEF BACKGROUND OF SCIENCE, ECONOMICS AND LAW

The scientific proposition that certain human activities increase the concentration of greenhouse gases (GHGs)⁴ present in the atmosphere and accelerate the rise in global temperature levels, consequently launching unpredictable and catastrophic changes in climate patterns, was first put forth in the 19th century.⁵ Concrete scientific efforts to understand weather as phenomena influenced by complex and continuous interaction between natural events and anthropogenic actions began towards the latter half of the 20th century.⁶ Several scientific research activities have been undertaken by government-funded institutions,⁷ independent research centers,⁸ and other initiatives, notably, the Intergovernmental Panel on Climate Change (IPCC), which was established in 1988 jointly by the World Meteorological Organization (WMO) and the United Nations Environ-

4. The main GHGs are: carbon dioxide, methane, nitrous oxide, CFC-12, HCFC-22, perfluoro methane, and sulfur hexafluoride; of these, only the first three exist naturally in the atmosphere. Prior to industrialization, their concentrations in parts per million (or billion) by volume (ppmv/ppbv) was 278 ppmv, 700 ppbv, and 275 ppbv, respectively. These have increased by 30%, 240%, and 15% respectively since 1994 due to human activities. However, of the three, CO₂ has the highest potential for global warming in the short and the long terms. See Mark Maslin, *Global Warming, A Very Short Introduction*, tbl.1, 16-17 (OUP Oxford 2004).

5. Tim Flannery, *The Weather Makers* 36-43 (Text 2005). See also Daniel Bodansky, *The History of the Global Climate Change Regime, International Relations and Global Climate Change* 23 (Urs Luterbacher and Detlef F. Sprinz eds., MIT Press 2001).

6. Bodansky *supra* note 5 at 153-65. See also Maslin, *supra* note 4, at 23-25.

7. For instance, the United Kingdom meteorological office has established the Hadley Center on Climate Prediction and Research to study the effects of climate change and advise the government, corporations, and international organizations. See <http://www.metoffice.gov.uk/research/hadleycentre/>; the US Environmental Protection Administration has set up a Climate Change Science Program, see <http://www.epa.gov/climatechange/policy/ccsp.html>, and the Goddard Space Flight Center of National Aeronautics and Space Administration (NASA) has special ongoing programs on climate change and global warming; in fact, a compilation of links to key climate change programs in the United States and abroad is provided by NASA, at http://globalchange.nasa.gov/Resources/pointers/glob_warm.html.

8. In the United States, for instance, the Pew Center has established an extensive climate research program. See Pew Center, <http://www.pewclimate.org/>.

ment Program (UNEP)⁹ to build a global scientific database to aid global scale action.

After nearly a half-century of controversial and contentious discussions, most scientific bodies, including IPCC, which is the closest representation of a global position on the issue, agree that anthropogenic emissions of greenhouse gases have been accelerating average global temperature increases since the beginning of the industrial era. In fact, dire consequences are predicted, unless the acceleration is limited to a two degree Celsius increase by the end of the century, as compared with 1990 levels.¹⁰ IPCC has concluded that there is a very high likelihood that failure to achieve the two degree Celsius limit will result in a climate “tipping point,” unleashing irreversible non-linear, exponential, long-term impacts and feedback effects.¹¹

The intensity of the catastrophes in such an event would vary regionally; areas such as sub-Saharan Africa and small-island countries will possibly be most affected by increased droughts, hurricanes, and rising sea levels.¹² Even though some scientists challenge these findings,¹³ most scientists now agree that there is sufficient basis to justify, in fact catalyze, global emissions reductions.

Translating scientific recommendations into action, however, is perceived as a threat to the evolving socio-economic stability of human civilization. Much like stable climatic conditions, hydrocarbon-based economic growth has contributed to human settlement and

9. See IPCC, <http://www.ipcc.ch/about/index.htm>.

10. See Pew Center on Global Climate Change, *Understanding and Responding to Climate Change*, available at http://www.pewclimate.org/docUploads/Climate101-FULL_121406_065519.pdf; see also Intergovernmental Panel on Climate Change, Fourth Assessment Report, *Climate Change 2007: Synthesis Report, Summary for Policy Makers* (IPCC Synthesis Report 2007), available at http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_spm.pdf.

11. Until the report was published several possible linear forcing scenarios were predicted. See Maslin, *supra* note 4, fig. 5, at 18-21 (the non-linear result is also explained as the equivalent of pushing a car over the edge, and once at the edge, even a small shove would be sufficient to get the car rolling non-stop till it slows down on its own when it finds a new stable ground).

12. IPCC Synthesis Report 2007, *supra* note 10.

13. See, e.g., Richard Lindzen, Editorial, *Climate of Fear, Global-warming Alarmists Intimidate Dissenting Scientists into Silence*, Wall St. J., Opinion Journal, Apr. 12, 2006, <http://www.opinionjournal.com/extra/?id=110008220> (arguing that minority scientists' findings, even though well-substantiated, are muted by majority views). See also Toni Johnson, *Alternative Views on Climate Change*, Council on Foreign Relations, Sept. 28, 2007, http://www.cfr.org/publication/14318/alternative_views_on_climate_change.html.

progress in many parts of the world;¹⁴ free trade has launched new opportunities for several more countries to become industrialized and progress economically.¹⁵ In fact, during the early stages of scientific research, noted economists from several countries concluded that global action on climate change was not economically feasible, desirable, or even necessary.¹⁶

However, this economic viewpoint is changing. Notably, the Stern Review Report¹⁷ on the economics of climate change concluded that the cost of inaction would be higher than the cost of mitigating climate change. According to the Review, measures to reduce climate change would cost only about 1% of the gross domestic product (GDP) of the global economy, whereas climate change would reduce global GDP by 20%. Although the Review has been criticized for several reasons—that its estimate of the costs of climate change is very low and that its overall conclusions are erroneous¹⁸—the Report has nevertheless swung the debate in the direction of the economic *benefits* of investing in green house gas reduction, via carbon taxes and emissions trading.¹⁹

14. See Flannery, *supra* note 5, at 69-79. See generally Daniel Yergin, *The Prize: The Epic Quest for Oil, Money and Power* (Free Press 1991).

15. See generally Jeffrey Sachs, *The End of Poverty* 18 (Penguin Press 2005); see also Thomas L. Friedman, *The Lexus and the Olive Tree* (Anchor 2000).

16. See, e.g. (R1.2), *The Copenhagen Consensus* (2004), <http://www.copenhagenconsensus.com/>. (A panel comprising economists, including some Nobel laureates—Jagdish Bhagwati (Columbia University), Robert Fogel (University of Chicago, Nobel laureate), Bruno Frey (University of Zurich), Justin Yifu Lin (Peking University, Nobel laureate), Thomas Schelling (University of Maryland), Vernon Smith (George Mason, Nobel laureate), and Nancy Stokey (University of Chicago)—concluded that any investment in climate change via the Kyoto Protocol or carbon taxes was a bad investment/project. Similarly, a House of Lords Special Committee on Economic Affairs published a report, *The Economics of Climate Change*, expressing skepticism about basing economic decisions on IPCC's scientific findings). See Nigel Lawson, *Against Kyoto*, *Prospect Magazine*, November 2005 at 116 available at http://www.prospect-magazine.co.uk/article_details.php?id=7117.

17. *Stern Review on the Economics of Climate Change*, available at http://www.hm-treasury.gov.uk/independent_reviews/stern_review_economics_climate_change/sternreview_index.cfm.

18. See, e.g. *The Stern Review: A Dual Critique*, *World Economics*, Vol. 7, No. 4, Dec. 2006, available at <http://www.world-economics-journal.com>. See also *Expert Reaction to Stern Review*, BBC News, Oct. 30, 2006, <http://news.bbc.co.uk/go/pr/fr/-/1/hi/business/609812.htm>.

19. In fact, Sir Nicholas Stern appeared before the two US Senate Committees—Environment and Energy—to present his findings, and urged law-makers to

Giving effect to the imperative scientific recommendation through law and policy is equally, if not more, contentious. A global legal regime to address climate change was established in 1992 at the Rio Conference, when several UN Members signed the United Nations Framework Convention on Climate Change (UNFCCC).²⁰ The agreement set out the basic structure for establishing legal obligations among countries to reduce greenhouse gases; detailed obligations were set out in the Kyoto Protocol, which was opened for signature in 1997.²¹

The Kyoto Protocol allocated emissions quotas to all countries, keeping 1990 as the baseline year, and required nations that had historically contributed to the problem to undertake binding obligations to reduce emissions within a fixed time period.²² The Protocol also provided several economic based incentives for reducing emissions, notably provisions for emissions trading, joint implementation, and clean development mechanisms.

Emissions trading, or carbon trading, facilitated the sale, and purchase, of carbon credits among countries, based on their Kyoto allocations; joint implementation allowed countries to collaboratively invest in projects that would reduce emissions and generate carbon credits; clean development mechanisms allowed developed countries to invest in emission-reducing technologies, particularly in developing countries, in return for carbon credits.²³

launch a carbon tax or emissions system. While both industries (for instance CEO of Pacific Gas & Electrical) and some Senators responded positively, few believed that response was imminent. See J.R. Pegg, *U.S. Lawmakers Hear Stern Warnings on Climate Change*, Environment News Wire, Feb. 2007, <http://www.ens-newswire.com/feb2007/2007-02-14-10.asp>.

20. UN Framework Convention on Climate Change (UNFCCC), 31 I.L.M. 849 (1992) (entered into force May 21, 1994).

21. Kyoto Protocol Status of Ratification, May 11, 2007, <http://unfccc.de>; Kyoto Protocol to the United Nations Framework Convention on Climate Change, Dec. 10, 1997, 37 I.L.M. 22 (1998) (entered into force Feb. 15, 2005).

22. See Anita M. Halvorssen, *Common, But Differentiated Commitments in the Future Climate Change Regime—Amending the Kyoto Protocol to Include Annex C and The Annex C Mitigation Fund*, 18 Colo. J. Int'l Envtl. L. & Pol'y 247 (2007). The reasons for differentiating between developed and developing countries on grounds of economic differences and historic contributions to the build up of greenhouse gases in the atmosphere is specifically recognized and acknowledged in the Preamble to UNFCCC, UNFCCC, see www.unfccc.ch.

23. Article 17 of the Kyoto Protocol provides for parties to trade in emissions to meet their obligations or benefit economically from their excess emission credits; Article 6 provides for Annex I countries to undertake joint efforts to reduce

However, the Kyoto Protocol provoked several negative reactions, notably, from the United States, which withdrew completely from the Protocol,²⁴ and also from the nongovernmental sector and from economists.²⁵ Newly industrializing nations such as Brazil, China, and India balked at the U.S. government's position that these countries should also undertake mandatory obligations given their growing rate of emissions. As a result of the controversy, the Protocol and its mechanisms did not come into effect until 2005, nearly a decade after its being open for signature and six years before its expiration.²⁶

Countries that ratified the Protocol, including the European Union (EU) and Japan, have established carbon-trading mechanisms.²⁷ In fact, Japan recently received its carbon offsets.²⁸ Further, even within non-ratifying countries, emissions reduction policies are being developed. For example, U.S. states have independently taken initiatives to reduce carbon emissions through internal trading mechanisms, and other regulations,²⁹ even the Senate is poised to

emissions; Article 12 allows Annex I countries with obligations to reduce emissions to invest in projects in developing countries, so that they can get credits for reducing emission levels. Kyoto Protocol, *supra* note 21, available at <http://unfccc.int/resource/docs/convkp/kpeng.html>. See also Farhana Yamin and Joanna Depledge, *The International Climate Change Regime, A Guide to Rules, Institutions and Procedures*, 74-136 (2004).

24. The Byrd-Hagel Resolution passed by the U.S. Senate unanimously, 95-0, expressly advised the Clinton Administration not to accept binding obligations under the Kyoto Protocol unless developing countries did the same. Byrd-Hagel Resolution, S. Res. 98, 105th Cong. 1997. See also Letter to Members of the Senate on the Kyoto Protocol on Climate Change, 37 Weekly Comp. Pres. Doc. 444 (Mar. 13, 2001) (for a statement by President Bush rejecting the Kyoto Protocol).

25. See, e.g., Richard N. Cooper, *Toward A Real Global Warming Treaty*, Foreign Affairs, March/April 1998.

26. See Daniel Wallis, *Russia Ratifies Kyoto*, Planet Ark, Nov. 19, 2004, <http://www.planetark.com/> (announcing that the Kyoto Protocol would become effective from February 2005 with Russia's signature adding the requisite ratification requirement).

27. See EU Emissions Trading Scheme (EU ETS), <http://ec.europa.eu/environment/climat/emission.htm>. See also Marjan Peeters and Kurt Deketelaere, *EU Climate Change Policy* (Marjan Peeters and Kurt Deketelaere eds., Edward Elgar 2006).

28. *Japan Becomes First Nation to Receive Carbon Offsets*, Daily News, Nov. 19, 2007, http://www.energysavingtrust.org.uk/resources/daily_news/japan_becomes_first_nation_to_receive_carbon_offsets.

29. See generally Michael Gerrard, *Global Climate Change and US Law* (Michael Gerrard ed., American Bar Association 2007).

introduce significant legislations.³⁰ Developing countries such as India and China have also adopted policies to reduce emissions from certain sectors and promote renewable energy.³¹ Also, Australia, which had refused to ratify the Protocol unless China and India accepted binding obligations, declared that it would ratify the Kyoto accord, at the thirteenth meeting of the Conference of Parties held in Bali in December 2007.³²

Currently, of the major emitters, China, India and the United States are the only countries that have refused to accept binding emissions under the Kyoto Protocol.³³ An effective post-Kyoto regime, therefore, depends directly on the position taken by these countries in the negotiations launched at Bali.³⁴

III. CLIMATE CHANGE—INDIA IN PERSPECTIVE

Currently, India is ranked as one of the top five emitters of greenhouse gas emissions,³⁵ but as a developing country whose industrial process began in the later half of the 20th century it does not bear historical responsibility for carbon dioxide reduction targets.³⁶

30. See generally Victor B. Flatt, *Taking the Legislative Temperature: Which Federal Climate Change Legislative Proposal is "Best"?*, 102 NW. U. L. Rev. 123 (2007), available at <http://www.law.northwestern.edu/lawreview/colloquy/2007/32/LRColl2007n32Flatt.pdf>; for more information on Senate's new CAFE standards see Christian Edstrom, *Will That Be Skim in Your CAFE?*, N.Y. TIMES, Dec. 13, 2007, <http://wheels.blogs.nytimes.com/2007/12/13/will-that-be-skim-in-your-cafe/>; see also Edward Luce & Bernard Simon, *Carmakers Battle Tougher Rules*, FIN. TIMES, July 26, 2007, http://www.ft.com/cms/s/0/cb97e0d8-3bbf-11dc-8002-0000779fd2ac,s01=1.html?nclick_check=1.

31. *Infra* 9-17.

32. See Rod McGuirk, *Australia Signs Up to Ratifying Kyoto*, Wash. Post, Dec. 3, 2007, <http://www.washingtonpost.com/wp-dyn/content/article/2007/12/03/AR2007120300135.html>.

33. *Id.*

34. For an analysis of the various conflicting interests of negotiating an appropriate global agreement, see Cass R. Sunstein, *Of Montreal and Kyoto: A Tale of Two Protocols*, 31 Harv. Envtl. L. Rev. 1 (2007).

35. See Development Data Group of the Development Economics Vice Presidency and the Environment Department of the World Bank, *The Little Green Data Book* (International Bank for Reconstruction and Development, 2007) (2001), available at <http://siteresources.worldbank.org/INTDATASTA/64199955-1178226923002/21322619/LGDB2007.pdf>.

36. *Infra* note 49.

Moreover, despite having a 4.23% share of the global emissions,³⁷ which excludes the 10% global emissions share from land use shifts such as deforestation,³⁸ the sub-continent's overall position on the issue is less troubling than that of other emitters, particularly China and the United States.

According to a recent Climate Change Performance Index, India's energy-related emissions are much lower than that of China or United States, which contributed 18.80% and 21.44%, respectively in 2007.³⁹ Further, India's global share⁴⁰ remains relatively low despite the fact that its share of the global population is 17.02%,⁴¹ and its share of the global GDP is close to that of Japan at 6.16%, in effect the fourth largest economy among the top emitters.⁴² In fact, India a high ranking of five for its climate performance in 2007; this figure is closer to that of Germany and United Kingdom that are undertaking critical measures to address the problem, and much higher than that of most other top emitters including Canada, China, Italy,

37. Jan Burck et al., Climate Change Performance Index 2008 (CCPI), German Watch (2008), tbl.5, <http://www.germanwatch.org/klima/ccpi2008.pdf> (the percentage of emissions is based on emissions from energy, transport (including air), residential, and industry sectors).

38. Brazil and Indonesia are the other two major contributors to emissions from land-use shifts, such as deforestation. *Id.* at fig.1. However, in the COP 13 meeting held in Bali, developing countries including India and Brazil agreed to discuss emissions from deforestation as part of treaty negotiations to replace Kyoto. See, *Summary of the Thirteenth Conference of Parties to the UN Framework Convention on Climate Change and Third Meeting of Parties to the Kyoto Protocol, 3-15 December 2007*, 12 Earth Negotiations Bull. 354, Dec. 18, 2007, available at <http://www.iisd.ca/download/pdf/enb12354e.pdf>.

39. See CCPI, *supra* note 37. Also, between 1990 and 2004, China's CO2 emissions in metric tons increased from 2,398.9 to 5,007.1, the United States from 4818.3 to 6045.8, and India from 681.7 to 1342.1. United Nations Development Program (UNDP) Human Development Index, *Statistics of the Human Development Report, 2007/2008 Human Development Index Rankings (UNDP HDI)*, available at <http://hdr.undp.org/en/statistics/>.

40. According to UNDP Human Development Index, between 1990 and 2004, India's global share increased from 3 to 4.6%; China's from 10.6 to 17.3%; but the global share of United States went down from 21.2 to 20.9 %. UNDP HDI, *supra* note 39.

41. China and United States' global population share is 20.39% and 4.61%, respectively, *id.*

42. United States' global GDP share is 20.13%; China's 14.75%; and Japan's 6.36%, *id.*

Japan, Republic of Korea, The Russian Federation, and the United States were ranked in the high 40s and 50s.⁴³

India also leads the chart of top emitters that are demonstrating positive emissions trends.⁴⁴ India's growth has not been accompanied by high escalation of emissions despite its increasing dependence on coal.⁴⁵ In comparison, economic growth in China has been accompanied by a 3% per capita increase in emissions.⁴⁶ As such, India outpaces China with respect to emission levels, trends in emission increases, and overall climate change performance; India is ranked among the top ten nations performing well, as opposed to China, which is ranked in the 40s and 50s. The only area where China leads is on climate policy; it is ranked seventh.⁴⁷

However, India is not far behind with a rank of fourteen, and is also fourth in the upward curve of countries that are adopting sound climate policy.⁴⁸ In 2002, India acceded to the Kyoto Protocol, although neither the Protocol nor UNFCCC obligate the Government of India to reduce its GHG emissions.⁴⁹ Nevertheless, the administration is undertaking several voluntary measures that will slow down GHG emission increases. These measures include promotion of renewable energy⁵⁰ and investments in clean development technolo-

43. *Id.* at tbl.3.

44. Russia follows close behind, with Canada, China and United States trailing at the bottom. CCPI, *supra* note 37 at fig.5.

45. CCPI predicts that China and India will jointly rack up a 72% demand for the period 2004-2030, *id.*

46. *Id.* However, both countries remain below their quota or target limits under Kyoto. According to UNDP's Human Development Index, between 1990 and 2004, India's per capita emissions increased from .8 to 1.2 %; China's from 2.1 to 3.8%. Incidentally, the U.S. per capita emission increased from 19.3 to 20.6% and Canada's from 15 to 20%.

47. In fact, the Chinese Government is committed to adopting several climate positive policies. CCPI, *supra* note 37.

48. Germany, China, and the United Kingdom hold the top three positions. *Id.* at fig.7.

49. Under Article 2(a)-(b) of the UNFCCC, only developed countries and other Annex I countries are required to stabilize emissions by adopting appropriate national policies and regularly submit progress reports. *See* UNFCCC, *supra* note 20, art. II. Further, under Article 3 of the Kyoto Protocol, Annex I countries are required to reduce their GHG emissions to at least 5% below 1990 levels between 2008-2012, and have been assigned specific emission quotas under Annexes A and B, *see* Kyoto Protocol, *supra* note 21 at art. III.

50. The Ministry of New and Renewable Energy, which began as a Department of Non-Conventional Energy Sources within the Ministry of Energy in the 1970s was recast as a new ministry in 2006. It is exploring alternatives such as

gies.⁵¹ The Government has also adopted energy regulations⁵² and established new ministries or administrative agencies.⁵³ It has also set up special committees, including one headed by IPCC Chairperson, Rajendra Pachauri and other prominent government and non-government representatives, to consider additional venues for action.⁵⁴

Yet, despite the positive trends, India's climate scenario is not entirely encouraging. Within the country, competing policies and interests present significant challenges to ongoing mitigation efforts. Demand for energy and carbon intensive materials to sustain development activities has risen exponentially. Notably, there is increasing demand for electricity for hi-tech industries and for modern

solar, wind, hydropower and biogas substitutes. See Ministry of Renewable Energy, Annual Report (2005-2006), available at http://mnes.nic.in/annual-report/2005_2006_English/index.htm. See also Administrative Circular Notification, No. 24/1/1993-Admn.II, Government of India, October 20, 2006.

51. According to Article 12 of the Kyoto Protocol, "[t]he purpose of the clean development mechanism shall be to assist Parties not included in Annex I in achieving sustainable development and in contributing to the ultimate objective of the Convention, and to assist Parties included in Annex I in achieving compliance with their quantified emission limitation and reduction commitments under Article 3." Kyoto Protocol, *supra* note 21 at art. XII. This means Annex I and non-Annex I countries facilitate projects that would support low-emission development, which would reduce potential increases in emissions in the non-Annex I country and which would count towards the Annex I country's emissions reduction. In effect, contributing to the prevention of increased emissions in one country would be treated as an effort towards stabilization of GHGs to 1990 levels. A list of CDM projects underway in India is available, see CDM India, <http://cdmindia.nic.in>.

52. See The Energy Conservation Act, 1991, No. 52, §1 Acts of Parliament, (2001) (when the Energy Conservation Act (ECA) was passed in 2001 to promote efficient use of energy), available at <http://www.bee-india.nic.in/EC%20Act/Extraordinary.htm>.

53. The Bureau of Energy Efficiency (BEE) was created under ECA and is comprised of ministers of Central and State energy-related agencies. BEE is working with key industries including cement, aluminum, paper and pulp, to establish voluntary energy-efficient practices. It is also drafting standards for energy labeling, building codes, certification programs, among other initiatives. See generally, Bureau of Energy Efficiency, *Engagement of Retainer Consultant for National Energy Conservation Awards 2008 (NECA - 2008)* programme of BEE, p. 7, .§ 1.1, 1.2, 2.3, 4.3, available at http://www.bee-india.nic.in/sidelinks/Announcement/eca08/EOI_NECA08_RetainerConsultant.pdf.

54. Divya Gandhi, *Committee on Climate Change Set Up*, The Hindu, May 11, 2007, <http://www.thehindu.com/2007/05/11/stories/2007051102381300.htm>.

amenities such as air conditioners and cars;⁵⁵ for materials to build infrastructure for the spiraling land and air traffic; and for cement for commercial and residential construction.⁵⁶ These energy requirements have driven the Government to exploit domestic coal reserves, and have increased its dependence on petroleum resources⁵⁷, despite growing emphasis on weaning away from traditional fuel.⁵⁸ Further, the administration's focus on encouraging internal and foreign direct investments to jumpstart some of the above mentioned projects, particularly infrastructure building—power plants construction, marine ports, telecommunications and real estate⁵⁹—threaten to undermine

55. Indian car manufacturer, the Tata Group, is poised to introduce the first line of low-priced cars, which has raised concerns about the impact on CO2 emissions, and other pollution. See Jo Johnson, *Green Activists concerned over People's Car*, Fin. Times, Jan. 9, 2008, <http://www.ft.com/cms/s/0/fc11648e-be3f-11dc-8bc9-0000779fd2ac.html>.

56. See P.R. Shukla, et al., *Development and Climate: An Assessment of India*, Indian Institute of Management, Ahmedabad, May 2003 (on file with author. For explaining the growing demand for electricity in Asia, notably in India and China, and their reliance on coal, see also, Steven Ferrey, *Why Electricity Matters, Developing Nations Matter, and Asia Matters Most of All*, 15 N.Y.U. Envtl. L. J. 113 (2007); India's Initial National Communications to the United Nations Framework Convention on Climate Change, (hereinafter Natcom 2004) (Ministry of Environment and Forests, Government of India 2004). See generally Daniel Yergin, Dennis Eklof & Jefferson Edmond, *Fueling Asia's Recovery*, 77 Foreign Aff. 34 (1998) (discussing Asia's future fuel needs, for transport and market growth, in the context of energy security).

57. See Steven Ferrey, *Why Electricity Matters, Developing Nations Matter, and Asia Matters Most of All*, 15 N.Y.U. Envtl. L. J. 113 (2007), explaining the growing demand for electricity in Asia, notably India and China, and their reliance on coal. See also Natcom 2004, *supra* note 56. See generally Daniel Yergin, Dennis Eklof & Jefferson Edmond, *Fueling Asia's Recovery*, 77 Foreign Aff. 34 (1998) (discussing Asia's future fuel needs, for transport and market growth, in the context of energy security).

58. The Ministry of New and Renewable Energy estimates that only 5-6% of energy will be produced through renewable resources. See Ministry of Renewable Energy, Annual Report (2005-2006), *supra* note 50. See also Administrative Circular Notification, No. 24/1/1993-Admn.II, Government of India, October 20, 2006. See also David Sandalow, *Freedom from Oil* (McGraw Hill 2008), for a discussion on the problems of reliance on traditional oil.

59. The Indian Electricity Act of 2003 gives incentives such as a fixed return on investment of 16%, removal of licensing requirements to operate and maintain power-generation stations, participation in distribution and transmission with license from a newly created Central Electricity Regulatory Commission (CERC), provision for selling power directly without government intervention, and the creation of a separate Appellate Tribunal for Electricity. The Government is also drafting an Open Skies Policy and an Airport Economic Regulatory Authority to ex-

environmental impact assessment legislation,⁶⁰ which is being used in other jurisdictions such as the United States to measure climate change impacts of a project, even if with limited success.⁶¹ This is especially worrisome if one considers the U.S. Department of Energy's prediction that at the current growth rate India's CO₂ emissions could increase between 72 and 225% by 2025,⁶² which, regardless of the fact that at 5% its global contribution will be lower

pand modern construction of airports. See Mark J. Riedy and Andrews Kurth, *Project Finance India 2007—Overcoming Hurdles to Growth: Current Trends and Innovative Transactional Structures in India*, 1587 Practicing Law Institute 143 (2007). See also Nandan Nelivigi, Doug Peel, & Christopher Krishnamoorthy, *Infrastructure Project Finance in India: Recent Developments*, 1587 Practicing Law Institute 133(2007).

60. For instance, the Govindrajan Committee specifically recommended the removal of hurdles to infrastructure development, especially EIA. See *Government of India, Report on Reforming Investment Approval & Implementation Procedures, Part-I* (Investment approval procedures-Government and Public Sector Projects) (2002), <http://dipp.nic.in/implrepo/implrepo1.pdf>. See also Ritu Paliwal, *EIA Practice in India and its Evaluation using SWOT Analysis*, 26 Environmental Impact Assessment Review 492, 492-510 (July 2006).

61. For example, in the United States, litigation seeking application of NEPA to assess impacts of major federal actions on climate change have been increased, especially in 2007, although with partial success. In *Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin.*, 508 F.3d 508 (9th Cir. 2007), the Circuit court held that National Highway Traffic Safety Administration's rule setting CAFE standards for light trucks was flawed because it had not prepared an environmental impact statement considering the effects of greenhouse gases. However, many district courts have dismissed claims that an EIS should consider climate impacts. See, e.g., *Audubon Naturalist Soc'y of the Cent. Atl. States, Inc. v. Dep't of Transp.*, 524 F. Supp. 2d 642 (D. Md. 2007); *N. Slope Boroughs v. Minerals Mgmt. Serv.*, No. 3:07-cv-0045-RRB, slip op. (D. Alaska Apr 12, 2007); *Border Power Plant Working Group v. Dep't of Energy*, 467 F. Supp 2d 1040 (S.D. Cal. 2006), in which the US District Court of Southern California held that the government was not required under NEPA to conduct impact assessment to measure increase in carbon dioxide emissions by taking into account emissions from plants in Mexico before constructing utility plants. However, the State Environmental Policy Act (SEPA) has been enlisted by many States to assess climate impacts. See Dustin T. Till, *Assessing Climate Change—Trends under State Environmental Policy Acts and the National Environmental Policy Act*, *Envntl. Impact Assessment Comm. Newsl* (ABA, Sec. of Env't, Energy, & Resources, Chicago, IL.), Nov. 2007, at 2-6.

62. See Kevin Baumert et al., *Navigating the Numbers: Greenhouse Gas Data and International Climate Policy Part XII* (World Resources Inst. 2005).

than that of China, Europe and United States,⁶³ would threaten the goal of curbing temperature increases at two degrees Celsius.

In short, increase in trade and commerce is driving up India's GDP and its emissions. Therefore, given its steady economic growth⁶⁴ the Government of India is under international pressure to accept binding obligations post-Kyoto, much like Annex I nations.⁶⁵ Thus, the Government faces the uphill challenge of designing and maintaining policies that balance economic growth and climate change mitigation. It has responded by focusing on alternative energy options, even though they can neither fuel its current developmental demands, nor adequately minimize the country's impact on climate change.

Much more alarming, however, are the potential effects of climate change within the sub-continent. The Intergovernmental Panel on Climate Change (IPCC)⁶⁶ predicts that glacial melts in the Himalayan region alone will increase flooding, trigger avalanches and landslides, and cause extinction of species and ecosystems.⁶⁷ As such,

63. See U.S. Energy Info. Admin., Int'l Energy Outlook, 9 (2006), available at http://www.eia.doe.gov/oiaf/ieo/pdf/ieoreftab_10.pdf. (Europe and United States are predicted to have a global share of 23.3, 16.3, and 18.6 percent, respectively).

64. India's GDP has grown steadily by about 8% in the last few years. See Reserve Bank of India Press Release, *RBI Increases Cash Reserve Ratio*, (2007), http://www.rbi.org.in/scripts/BS_ViewBulletin.aspx?Id=8333.

65. In legal terms, India would have to accept emissions reduction obligations within a fixed period of time, like other Annex I Parties as explained in Article 2, Kyoto. United Nations Framework Convention on Climate Change, *supra* note 49.

66. The Intergovernmental Panel on Climate Change, comprising scientific experts from a select number of countries, was established in 1988 by the Executive Council of the World Meteorological Organization (WMO), with support from UNEP, to identify "uncertainties and gaps in "present knowledge" about climate change and its potential impacts; gather information "to evaluate policy implications" and "response strategies;" "review...national/international policies" regarding GHGs; and carry out "scientific and environmental assessments regarding GHG emissions and transfer them for relevant governmental and intergovernmental agencies. These functions are divided among three Working Groups—available scientific information on climate change, environmental and socio-economic impacts of climate change, and formulation of response strategies, which have published regular reports since 1990. See Intergovernmental Panel of Climate Change (IPCC), *16 Years of Scientific Assessment in Support of the Climate Convention*, at 2, (Dec. 2004), available at <http://www.ipcc.ch/pdf/10th-anniversary/anniversary-brochure.pdf>.

67. Climate Change 2007 Impacts, Adaptability and Vulnerability, IPCC, *Working Group II Contribution to the Intergovernmental Panel on Climate Change Fourth Assessment Report, Summary for Policy Makers* (2007), available at <http://www.ipcc.ch/pdf/assessment-report/ar4/wg2/ar4-wg2-spm.pdf>. See also

Himalayan glaciers, including the Gangotri, which is a source of the perennial and holy river Ganga, have receded by thirty meters, endangering water supply in the dry season.⁶⁸ Other changes in hydrological cycles are also expected to cause extreme drought or flood conditions;⁶⁹ shorten crop duration periods to the detriment of agricultural yields,⁷⁰ threaten biological diversity,⁷¹ increase risk of ma-

Andrew C. Revkin, *Poor Nations to Bear the Brunt as World Warms*, N. Y. Times, April 1, 2007, available at <http://www.nytimes.com/2007/04/01/science/earth/01climate.html>. As described in the section on the Asia scenario, "Glacier melt in the Himalayas is projected to increase flooding, and rock avalanches from destabilized slopes, and to affect water resources within the next two decades to three decades. This will be followed by decreased river flows as the glaciers recede. Freshwater availability in Central, South, East and Southeast Asia, particularly in large river basins, is projected to decrease due to climate change which, along with population growth and increasing demand arising from higher standards of living could adversely affect more than a billion people by the 2050s. Coastal areas, especially heavily-populated mega-delta regions in South, East and Southeast Asia, will be at greater risk due to increased flooding from the sea and, in some mega-deltas, flooding from the rivers. Climate change is projected to impinge on sustainable development of most developing countries of Asia, as it compounds the pressures on natural resources and the environment associated with urbanization, industrialization, and economic development. It is projected that crop yields could increase up to 20% in East and Southeast Asia while they could decrease up to 30% in Central and South Asia by the mid-21st century. Taken together and considering the influence of rapid population growth and urbanization, the risk of hunger is projected to remain very high in several developing countries. Endemic morbidity and mortality due to diarrhoeal disease primarily associated with floods and droughts is expected to rise in East, South and Southeast Asia due to projected changes in the hydrological cycle associated with global warming. Increases in coastal water temperature would exacerbate the abundance and/or toxicity of cholera in South Asia." *Id.*

68. Emily Wax, *A Sacred River Endangered by Global Warming*, Wash. Post, June 17, 2007, at A14, available at <http://www.washingtonpost.com/wp-dyn/content/article/2007/06/16/AR2007061600461.html>.

69. See A.K. Gosain, Sandhya Rao, & Debajit Basuray, *Climate Change Impact Assessment on Hydrology of Indian River Basins*, 90 No. 3 Current Science 346, 346-53 (2006). The studies cover the Krishna and the Mahanadi river basins, but as the authors point out, India comprises of thirteen major river basins and much more works needs to be done to determine the impact of climate change on all of them.

70. Jayant Sathaye, P.R. Shukla, & N.H. Ravindranath, *Climate change, sustainable development and India: Global and national concerns*, 90 No. 3 Current Science, 314, 314-25 (2006).

71. N.H. Ravindranath, N.V. Joshi, R. Sukumar & A. Saxena, *Impact of Climate Change on Forests in India*, 90 No. 3 Current Science 354, 354-61 (2006).

larial outbreaks by creating conditions favorable to disease carrying vectors;⁷² and increase cyclones in coastal regions.⁷³

As such, India's record on managing weather-related calamities is rather dismal. According to a Climate Risk Index, which rates countries' weather risk record that is not attributed to climate change,⁷⁴ India was ranked ninth among the ten most affected countries for the period 1995-2004; during this same period, the Human Development Index (HDI) ranked India 127th in the world.⁷⁵ In fact, India was ranked first for long term deaths in the same period; even though this was not the case in 2006, the country remained in the list of top ten countries prone to weather related calamities.⁷⁶

The only area that India did not top the HDI list was for GDP losses, which was noted to be generally higher in developed countries, primarily because of insurance and similar costs, which most affected people in developing countries, including India, cannot afford.⁷⁷ However, according to another study, India is predicted to suffer the highest GDP loss from climate change, more than Africa, if there is a 2.5 degree Celsius increase in global temperature and climate change.⁷⁸

An early indication of the implications of such losses is already becoming evident in some parts of the country. In 2007 an Indian farmer was reportedly forced to abandon his ancestral agricultural

72. Sumana Bhattacharya, C. Sharma, R.C. Dhiman & A.P. Mitra, *Climate change and Malaria in India*, 90 No. 3 *Current Science* 369, 369-75 (2006). See also *Health Ministry Warns of Spurt in Diseases*, *The Indian Express*, May 16, 2007.

73. A.S. Unnikrishnan, K. Rupa Kumar, Sharon E. Fernandes, G.S. Michael & S.K. Patwardhan, *Sea level changes along the Indian Coast: Observations and Projections*, 90 No. 3 *Current Science* 362, 362-68 (2006). (The authors predict that the intensity and number of cyclone activities will rise in the Bay of Bengal and the Arabian Sea between 2041 and 2060).

74. Sven Anemüller, Stephan Monreal, & Christoph Bals, German Watch, *Global Climate Risk Index 2006, Weather Related Loss Events and their Impacts on countries in 2004 and in Long Term Comparison*, <http://www.germanwatch.org/klak/cr06.pdf>. The ranking is based on four factors—death tolls, deaths per 100,000 inhabitants (which in the case of India is balanced against the population), amount of overall losses in USD, and overall losses in relation to GDP.

75. *Id.*

76. *Id.*

77. *Id.*

78. See William Nordhaus & Joseph Boyer, *Warming the World: Economic Models of Global Warming*, 91 (MIT Press 2000).

land, which was part of one of two islands submerged in the Sunderbans region due rise to a rise in sea level.⁷⁹ Another farmer faces a similar threat.⁸⁰ Absent compensation and support from the Government, the former moved to urban areas in search of alternative livelihood, whereas the latter stayed on despite the risk of future flooding and limited access to food.⁸¹ Both incidents, which have been attributed to climate change related sea level rise, portend the fate of nearly 65% of India's population that is dependent on agriculture, forestry and fisheries for a living.⁸²

In balance, even though India's current climate change performance is encouraging, future increases in emission levels remains a critical concern, and its adaptation challenges are intimidating. Further, despite India's climate mitigation policies, its adaptation policies remain inadequate and yet the Government's attention is focused on maintaining its emission rights, supported by financial and technological capacities.⁸³

IV. THE IMPLICATIONS UNDER THE CONSTITUTION OF INDIA: CLIMATE CHANGE IN PERSPECTIVE

The Constitution of India was adopted in 1950, three years after India's Independence; the Constitutional Drafting Committee considered several models, notably that of United Kingdom and the

79. Roger Harrabin, *How Climate Change Hits India's Poor*, (BBC News television broadcast Feb.1, 2007).

80. Sujoy Dhar, *Environment-India: Rising Seas Threaten Bengal's Deltaic People*, Inter Press Service News Agency, June 4, 2007, <http://ipsnews.net/news.asp?idnews=38035>.

81. *Id.*; Harrabin, *supra* note 79.

82. See Gov't of India Ministry of Env't & Forests, India's Initial Nat'l Commc'ns to the U. N. Framework Convention on Climate Change (2004), <http://unfccc.int/resource/docs/natc/indnc1.pdf>.

83. See generally Thomas Fuller & Andrew C. Revkin, *Climate Deal Seems Close, But Elusive*, N.Y Times, Dec. 15, 2007, available at <http://www.nytimes.com/2007/12/15/world/15climate.html?scp=10&sq=india%2C+balli+and+climate+change>. See also *Summary of the Thirteenth Conference of Parties to the UN Framework Convention on Climate Change and Third Meeting of Parties to the Kyoto Protocol*, 3-15, December 2007, Earth Negotiations Bulletin, Vol. 12, No. 354 (Int'l Inst. for Sustainable Energy, Winnipeg, Manitoba, Canada) available at <http://www.iisd.ca/download/pdf/enb12354e.pdf>. India and other developing countries made the finally accepted proposal that mitigation action should be nationally appropriate based on technological and financial capacity.

United States, in determining the structure of governance and power distribution among the Union Government (also referred to as Central government) and State Governments.⁸⁴ However, one of the most salient features, fundamental rights, was incorporated in Part III of the Constitution.

The rights conferred under Part III are based on similar provisions in other jurisdictions—the Bill of Rights in England and the United States, and the Declaration of the Rights of Man in France.⁸⁵ Constitutional drafters were also influenced by the Universal Declaration of Human Rights (UDHR) adopted in 1948.⁸⁶ The final document recognized six fundamental rights—to equality,⁸⁷ against exploitation,⁸⁸ to freedom of religion,⁸⁹ education and cultural rights,⁹⁰ constitutional remedies,⁹¹ and right to freedom (of speech and expression, of peaceful assembly without arms, to association, of movement, of residence, of profession or trade).⁹²

The rights were not only conferred because of the worldwide civil liberties movement and rights movement of that period, but also in response to deeply disturbing inequalities and social distortions within the Indian society. For example, caste-based discrimination left many groups without sufficient social, economic, and political rights;⁹³ speech and freedom had been curbed by the British administration in India, fearing civil unrest,⁹⁴ and numerous discriminatory

84. *See generally* Durga Das Basu, *Introduction to the Constitution of India* (19th Ed, S. Asia Books 2007).

85. *Id.*

86. Universal Declaration on Human Rights, G.A. Res. 217A, at 71, U.N. GAOR, 3d Sess., 1st plen. Mtg., U.N. Doc. A/810 (Dec. 12, 1948), *available at* <http://www.un.org/Overview/rights.html>.

87. India Const. art. § 14.

88. *Id.* at art. 23-24. (Articles 23 and 24 prohibit trafficking human beings for the purpose of slavery, prostitution, and child labor).

89. *Id.* at art. 25-28. (Articles 25 to 28 confer Indian citizens the right to freedom of religion, pursuant to the countries' adherence to secularism).

90. *Id.* at art. 29-30. (Articles 29 and 30 protect cultural rights of minorities, including their language and religious practices).

91. This right is protected by Article 32, which allows citizens to file writ petitions in case their fundamental rights are denied. *Id.* at art. 32.

92. *Id.* at art. 29-22. (Articles 19 through 22 confer a series of freedoms; notably, Article 21 grants the right to freedom of life and personal liberty).

93. *See generally* John McLeod, *The History of India* (Greenwood 2002). *See also* Government of India, "Indian History," *Know India* (2005), http://india.gov.in/knowindia/ancient_history.php.

94. McLeod *supra* note 93.

cultural practices prevailed.⁹⁵ In an effort to reject such practices, the Government of India not only passed legislation abolishing such violating norms and practices, but also rejected the basis for such practices through the fundamental rights provision.⁹⁶

While the Constitution guarantees Indians fundamental rights, they are not necessarily unlimited. Fundamental rights are subject to constitutional amendments; in fact, the right to property which was originally included as a fundamental right was removed from Part III and reconstituted as a general constitutional right under Article 300-A.⁹⁷ Further, in cases of emergency, the Government has the authority to suspend these rights, including the right to judicial review, but the power is subject to reasonable substantive and procedural safeguards.⁹⁸

To date, the Government of India has defended numerous fundamental rights petitions.⁹⁹ Moreover, the translation of the fundamental rights into practice remains an ongoing process even though the Indian legislation has enacted several statutes on numerous issues that are directly linked to fundamental rights. As discussed later, innovative interpretation of substantive and procedural aspects of the Constitution have become critical and indispensable for many Indians to realize their basic constitutional rights, be it better economic and living conditions or sound environmental safeguards.¹⁰⁰

Climate change is an issue where mitigation legislation passed by the Government addresses certain rights of the Indian community, say, access to energy to promote personal liberty, but does not necessarily protect all fundamental rights. Catastrophic events that may be unraveled by climate change will not only have severe economic

95. For example, social norms such as preventing widows from remarrying were prevalent in several parts of the country. *Id.*

96. The practice of birth-based caste discrimination practice of untouchability, for instance, was abolished by the Untouchability Offences Act of 1955. Untouchability (Offences) Act, Acts of Parliament No. 22 (1955). In addition, Article 17 specifically included such abolition with the Fundamental Rights chapter. India Const. art. 17. *See generally* H.M. Seervai, *Constitutional Law of India: A Critical Commentary*, (N.M. Tripathi 4th ed., 1993) (1967).

97. The Constitution (Forty-fourth Amendment) Act, Acts of Parliament No. 88 (1978), <http://indiacode.nic.in/coiweb/amend/amend44.htm>. (By virtue of the amendment, certain feudal type land ownership systems have been abolished). *See also Infra* note 197.

98. *Infra* note 101.

99. Basu, *supra* note 84.

100. *Infra* note 127.

repercussions, but also implicate constitutional rights of citizens. The rights that will be affected are either fundamental rights under the Indian Constitution, notably the Article 21 right to life, or rights that the Supreme Court of India has held to be an integral part of Article 21,¹⁰¹ including rights to livelihood,¹⁰² health,¹⁰³ and basic necessities.¹⁰⁴ Violation of fundamental rights is unconstitutional, if abridged by the State¹⁰⁵ without following “procedure established by law.”¹⁰⁶ In the context of climate change, since there is no procedure of law by which citizens can be denied these rights—contravention of the rights constitutes a constitutional violation.

This emerging constitutional challenge is theoretically problematic, because fundamental rights bind only the Republic of India¹⁰⁷ and not foreign states. But, at this point many industrialized nations that are responsible for the dangerous levels of GHG accumulations are foreign states, as affirmed in the Kyoto Protocol.¹⁰⁸ Even if one considers a scenario whereby India’s emission increases add to the problem by 2030, at present, that estimate shows that the country’s global share will be much lower than that of China, Europe or the United States, for instance.¹⁰⁹ Thus, even if some portion of liability could be attributed to the Indian Government, much of the responsibility would lie with foreign States. There is no precedent of citizens of India claiming redress from foreign nations for violating their constitutional rights.

At the most, affected citizens could pursue statutory remedies in certain jurisdictions. For instance, the U.S. Alien Torts Claim Statute

101. Article 21 states, “[n]o person shall be deprived of his life or personal liberty except according to procedure established by law.” India Const. art. 21.

102. See *Hoskot v. State of Maharashtra*, A.I.R. 1978 S.C. 1548.

103. See *Bandhua Mukti Morcha v. India*, A.I.R. 1984 S.C. 802.

104. See *Olga Tellis v. Bombay Municipal Corporation*, A.I.R. 1985 S.C. 180.

105. Article 12 defines the Indian State to include, “the Government and Parliament of India and the Government and the Legislature of each of the States and all local or other authorities within the territory of India or under the control of the Government of India.” India Const. art. 12.

106. Under Article 21 read with Article 12(2), judicial review of governmental action may be sought if a domestic law (defined under Article 13(3) to include orders, notifications, by-laws, rules, etc.) contravenes the right to life and personal liberty without complying with appropriate legal procedure. See generally, S.P. Sathé, *Judicial Activism: The Indian Experience*, 6 Wash. U. J. L. & Pol’y 29, 38 (2001) (explaining the judicial review under the Indian Constitution).

107. India Const., *supra* note 105.

108. UNFCCC, *supra* note 49.

109. CCPI, *supra* note 39.

provides for foreign nationals to bring a torts action against U.S. government and citizens for violation of international law, or “law of nations.”¹¹⁰ However, claimants must prove violation of international law¹¹¹ and not of their own domestic law, not even the Constitution. Thus, in this case Indian citizens would have to demonstrate that the U.S. government violated international law in causing climate change in India,¹¹² a claim that presents a range of evidentiary and jurisprudential problems which most of the affected Indians will find insurmountable.

As the discussion on climate change indicates, even the IPCC is not yet entirely certain about the extent of temperature increases that are natural as against that caused by anthropogenic emissions, and the US has already made such an argument in a petition filed against it before the UN Economic Scientific and Cultural Organization (UNESCO).¹¹³ Even if such distinction were possible, the burden obviously lies with several States; if not the newly industrialized countries such as China, Brazil or Indonesia, then certainly Australia, Canada, some European countries such as United Kingdom and Germany, Japan and the United States, all of which have historically

110. 28 U.S.C. §1350.

111. *Id.*

112. For a discussion of the Alien Torts Claims Act (ACTA), its scope and limits, see Anthony D’Amato, *The Alien Tort Statute and the Founding of the Constitution*, 82 Am. J. Int’l L. 62 (1988); William S. Dodge, *The Historical Origins of the Alien Tort Statute: A Response to the “Originalists,”* 19 Hastings Int’l & Comp. L. Rev. 221 (1996); Donald J. Kochan, *No Longer Little Known But Now a Door Ajar: An Overview of the Evolving and Dangerous Role of the Alien Tort Statute in Human Rights and International Law Jurisprudence*, 8 Chap. L. Rev. 103 (2005). For a detailed analysis of the potential production of environmental claims under the Act, see Russell Unger, *Brandishing the Precautionary Principle Through the Alien Tort Claims Act*, 9 N.Y.U. Env’t L. J. 638 (2001).

113. In February 2006, the International Environmental Law Project at Lewis & Clark School filed a petition before the UN World Heritage Committee of the United Nations Educational, Scientific, and Cultural Organization (UNESCO), to list the Waterton Glacier in Montana (shared with Canada) as a world heritage site in danger from climate change, and require the United States to take steps to prevent its destruction by curbing greenhouse gas emissions. In response to the petition, the United States argued that the glacier melting due to temperature increases were also due to natural causes. For a discussion of the petition and the U.S. response, see Bradford C. Mank, *Civil Remedies*, Global Climate Change and U.S. Law 223-24, 253 (Michael Gerrard ed. 2007).

contributed to the problem.¹¹⁴ The acceptance of binding emissions reduction targets by some nations does not necessarily exempt them from liability at this point, because most of the major historic emitters have not met their reduction targets.¹¹⁵ Thus, apportioning liability would prove extremely difficult.

As such, despite a recent increase in ATCA claims in the human rights arena,¹¹⁶ the response of U.S. district and appellate courts to environmental suits has been tepid.¹¹⁷ Further, the exercise of judicial power in determining what constitutes international law, including customary law remains contentious,¹¹⁸ and invoking liability under a treaty that the United States has specifically rejected seems highly improbable.¹¹⁹ Also, if other human rights claims such as that of the Inuit Circumpolar Conference before the Inter-American Human Rights Commission are considered, the time taken for such dispute resolution processes to be complete is discouraging.¹²⁰ At a

114. UNFCCC, Key GHG Data: *Greenhouse Gas (GHG) Emissions Data for 1990-2003* (submitted to the UNFCCC) at 16-17 (Nov. 2, 2005), available at http://unfccc.int/resource/docs/publications/key_ghg.pdf.

115. *Id.*

116. For a list of all ATCA claims brought to date, see USA Engage, *The Alien Tort Provision: Correcting the Abuse of an Early Federalist Statute*, http://www.usaengage.org/legislative/index.php?option=com_content&task=view&id=220&Itemid=81 (last visited 2003).

117. For a discussion of recent ATCA environmental based claims and their outcomes, see Bradford C. Mank, *Civil Remedies, Global Climate Change and U.S. Law* (Michael Gerrard, ed. 2007).

118. In the United States, the debate with respect to ACTA has turned to the issue of the extent of judicial powers over foreign policy and its implications for the separation of powers, particularly in light of recent human rights litigation that has been brought before U.S. courts. For a discussion on the debate on both sides, see Harold Hongju Koh, *Is International Law Really State Law?* 111 *Harv. L. Rev.* 1824 (1998); Curtis A. Bradley & Jack L. Goldsmith, *Customary International Law As Federal Common Law: A Critique of the Modern Position*, 110 *Harv. L. Rev.* 815; Donald J. Kochan, *Constitutional Structure as a Limitation on the Scope of the Law of Nations in the Alien Torts Claim Act*, 31 *Cornell L. J.* 153 (1998).

119. A brief opinion note in fact argued for U.S. withdrawal from Kyoto to avoid potential ACTA claims. See Christopher Horner and Iain Murray, *Why the United States Should Remove its Signature from the Kyoto Protocol*, CEI Monthly Planet, September 29, 2004, <http://www.globalwarming.org/node/738>.

120. In December 2005, the chair of the Inuit Circumpolar Conference (ICC), Sheila Watt-Cloutier brought an action claiming that the United States had violated the human rights of her people's right to livelihood and way of life, by causing climate change and the resultant melting of the ice in the Arctic region, based on a 2004 Arctic Climate Impact Assessment prepared jointly by over 300 scientists, with the participation of 15 countries and six indigenous groups. ICC also

more theoretical level, issues of inter and intra generational justice may crop up; for instance, Posner and Sunstein in a recent paper present the question, why should future Americans pay for the future sufferings of future Indians, for the actions of past Americans?¹²¹

Under these circumstances, judicial review under the Indian Constitution appears to be an important, perhaps the best, venue for citizens to claim protection against and redress for violation of their constitutional rights by acts foreign entities or states.

V. BUT, CAN THE INDIAN JUDICIARY INTERVENE?

The Indian judiciary is well placed to address constitutional challenges arising from climate change, primarily because of the public interest litigation or epistolary jurisprudence that it has developed to protect fundamental rights of Indians. The Indian Supreme Court has provided some broad and innovative interpretation of laws in response to practical problems such as costs of litigation and other resource constraints that made the judiciary, particularly higher courts located in major cities, inaccessible to thousands of Indians.

Firstly, the Court has waived “ripeness” requirements for bringing an action, on the ground that in a country where most people are unaware of their rights violations should be addressed *before* the actual violation occurs.¹²² Thus, the presence of a substantial threat of climate-related violations should be sufficient to invoke the Courts’ writ jurisdiction under Article 32.¹²³

claimed violation also of UNFCCC and sought as relief, US ratification of Kyoto and establishment of adaptation relief. The Commission has yet to admit the petition. See Mank, *supra* note 13 at 221-223; Hari M. Osofsky, *The Inuit Petition as a Bridge? Beyond Dialectics of Climate Change and Indigenous People’s Rights*, 31 Am. Indian L. Rev. 675 (2006-2007).

121. See Eric A. Posner & Cass R. Sunstein, *Climate Change Justice*, John M. Olin Law & Economics Working Paper No. 354 (2d Series); Public Law and Legal Theory Working Paper No. 177, available at http://ssrn.com/abstract_id=1008958.

122. See *Nath v. Comm’r of Income Tax*, A.I.R. 1959 S.C. 149 (holding that waiver of fundamental rights could not be upheld in a country where many people were ill-informed about their rights); see also Sathe, *supra* note 106, at 67.

123. Article 32 (1) states: [t]he right to move the Supreme Court by appropriate proceedings for the enforcement of the rights conferred by this Part is guaranteed. Article 32 provides for writ petitions such as mandamus and habeas corpus. India Const. art. 32(1).

Secondly, the Court has the authority to determine whether an injury has occurred,¹²⁴ without relying on statutory enactments.¹²⁵ Further, petitioners need not satisfy the other two standing requirements under U.S. law, causation and redressability (remedy).¹²⁶

Thirdly, the Court can provide broad remedies, by issuing a writ of mandamus not only ordering the government to perform non-discretionary functions, or enjoining it from performing a statutorily prohibited action, but also requiring it to perform *discretionary* functions.¹²⁷ Moreover, the Court can issue “continuing mandamus,”¹²⁸ obligating the government to take specific actions and report progress on a regular basis,¹²⁹ as it has in the past.¹³⁰

124. The Court has held that it has the authority to “decide whether proper procedure was prescribed by the legislature and followed by the executive” under Article 21. Sathe, *supra* note 106, at 67.

125. This position differs from the U.S. Standing requirement, where injury-in-fact is determined on the basis of statutory provisions. In fact, in the recent climate-related case, *Massachusetts v. E.P.A.*, 127 S. Ct. 1438 (2007), the U.S. Supreme Court held that injury-in-fact involved a substantive test based on statutory rights and not on judicial determination of actual injury; see also *Access to Courts After Massachusetts v. EPA: Who Has Been Left Standing?* 37 *Env'tl L. Rep.* 10692 (September 2007) (discussing briefly the development of standing jurisprudence in the United States, leading up to the Supreme Court’s recent decision regarding the power of EPA to regulate carbon dioxide emissions).

126. See *Lujan v. Defender’s of Wildlife*, 504 U.S. 555 (1992) (explaining each of the tests). Although the Indian judiciary followed a three prong test similar to the United States law, it relaxed these requirements in *S.P. Gupta v. President of India*, A.I.R. 1982 S.C. 149, in which the executive arbitrarily transferred judges for their opinions, threatening the independence of the judiciary. The Court lowered standing requirements, but also held that the fundamental right to freedom of speech and expression enshrined in Art. 19(1) of the Constitution included the right to information. Further, the Court ruled that the Government was required to consult with the Chief Justice and other judges before appointing judges, even though the final decision remained with the executive. See also Sathe *supra* note 106, at 70, 96, 102.

127. Sathe, *supra* note 106, at 23.

128. *Id.* at 82.

129. Sathe, *supra* note 106 (discussing the orders issued by the Court to the Central Bureau of Investigation in *Vineet Narain v. Union of India*, A.I.R. 1996 S.C. 3386, and *Union of India v. Sushil Kumar Modi*, A.I.R. 1997 S.C. 314).

130. For instance in *Kishen v. State of Orissa*, A.I.R. 1989 S.C. 677, the Court ordered the Government to prevent death by poverty and starvation. Similarly, in the *Azad Riksha Pullers* case, A.I.R. 1981 S.C. 14, the Court ordered the Punjab National Bank to give loans to auto riksha pullers, following a government order that only owners of rikshas could legally ply the vehicles. Instead of striking down the Government order, the Court arrangements for the majority of auto riksha wallahs, who did not own a vehicle, to acquire rikshas.

Due to the above rulings, the Indian judiciary is considered to be one of the most powerful courts in the world. In fact, in comparison US courts are far more restrained by the separation of powers doctrine enshrined in the Constitution.¹³¹ Further, in the case of environmental issues, representative suits may generally be brought against State agencies within the scope of a given statute.¹³²

Fourthly, any person with “sufficient interest”¹³³ in helping poor and vulnerable sections of the population can seek judicial review on behalf of victims of fundamental rights violations.¹³⁴ In the alternative, the Court can assume *suo motto* jurisdiction by treating letters or newspaper reports as writ petitions.¹³⁵

In addition to the procedural flexibilities, the Court’s substantive interpretation of fundamental rights, based on non-binding constitutional law provisions,¹³⁶ on foreign decisions and international law

131. Sathe, *supra* note 106.

132. See generally *Access to Courts After Massachusetts v. EPA: Who Has Been Left Standing?* 37 *Env’tl L. Rep.* 10692 (September 2007).

133. As a result, non-governmental organizations and public interest lawyers have filed many writ petitions on behalf of those affected, which the Court had balanced by allowing only genuine petitions and not mala fide actions. Sathe, *supra* note 106, 81.

134. See *Morcha v. India*, A.I.R. 1984 S.C. 802. The Court observed that judicial review proceedings to enforce fundamental rights were not limited to any person or proceedings under Article 32(1) of the Constitution. The Court has taken such a broad approach to ensure that rights of Indians who are not in a position to claim fundamental rights protection enjoy full constitutional protection. Judges in the Supreme Court, notably Justice P.N. Bhagawati, view public interest litigation as a means for poor, under-informed, and underprivileged Indians to access expensive judicial systems, and the judiciary must therefore open up access through flexible rules. See P.N. Bhagawati, *Judicial Activism and Public Interest Litigation*, 23 *Colum. J. Transnat’l L.* 561 (1985). See also Jeremy Cooper, *Poverty and Constitutional Justice*, 44 *Mercer L. Rev.* 611 (1993).

135. See *Batra v. Delhi Admin.*, A.I.R. 1978 S.C. 1675, in which the Court treated a letter from a prisoner complaining about prison conditions as a writ petition seeking to enforce fundamental rights; see also *P.U.D.R. v. India* A.I.R. 1982 S.C. 1473.

136. Directive principles contained in Part IV of Constitution set out non-binding goals, such as free legal aid, gender non-discrimination, compulsory education, and provision for livelihood, for the Government to implement. Article 37 states: “[t]he provisions contained in this Part shall not be enforceable by any court, but the principles therein laid down are nevertheless fundamental in the governance of the country and it shall be the duty of the State to apply these principles in making laws.” See also *Andhra Pradesh Pollution Control Bd. v. Nayuda* 2 S.C.C. 718 (1999); *Mehta v. Union of India*, 2 S.C.C. 256 (1992); *Pandey v. West Bengal*, A.I.R. 1987 S.C. 1109.

and principles,¹³⁷ also provide adequate room for a constitution claim. Over the years the Court has read into fundamental rights provisions, a range of ancillary rights—livelihood,¹³⁸ health,¹³⁹ basic necessities,¹⁴⁰ travel abroad¹⁴¹ and privacy.¹⁴²

The possibility of successfully proceeding with a climate change claim also appears favorable in light of the Court's invocation of epistolary jurisdiction to address several environmental concerns, including protecting the Taj Mahal from coal and coke pollution,¹⁴³ cleaning up the Ganga;¹⁴⁴ relocating hazardous industries in Delhi;¹⁴⁵ curbing vehicular pollution,¹⁴⁶ requiring compulsory environmental education,¹⁴⁷ and re-directing an illegally diverted

137. See *Indian Council for Enviro-Legal Action*, 5 S.C.C. 212 (1996) (holding that the polluter pays principle was law of the land); *Vellore Citizen's Welfare Forum v. Union of India*, 5 S.C.C. 647 (1996) (holding the precautionary principle was part of India's environmental laws); *Mehta v. Nath*, *infra* note 148 (using the Roman law doctrine of public trust, as applied by the Supreme Court of California in *Nat'l Audubon Soc'y v. Superior Court*, 33 Cal. 3d 419 (1983)). Also, for a study of trends in the Indian judiciary's use of international and foreign decisions, see, Adam M. Smith, *Making Itself at Home Understanding Foreign Law in Domestic Jurisprudence: The Indian Case*, 24 Berkeley J. Int'l L. 218, 240 (2006) (providing statistics demonstrating that the Supreme Court's reliance on foreign law, not just British law, has declined since 1990s, even though it relied heavily on Privy Council decisions in the 1950s).

138. See *Hoskot v. State of Maharstra*, A.I.R. 1978 S.C. 1533.

139. See *Morcha v. India*, A.I.R. 1984 S.C. 802.

140. See *Tellis v. Bombay Mun. Corp.*, A.I.R. 1985 S.C. 180.

141. See *Singh v. Asst. Passport Officer*, A.I.R. 1967 S.C. 1836; *Gandhi v. Union of India*, A.I.R. 1978 S.C. 597 (arguing that the Government violated petitioners Art. 21 right to personal liberty by impounding her passport).

142. See *Singh v. State of U.P.*, A.I.R. 1963 S.C. 1295 (holding that personal liberty implied the right to privacy); see also Sathe, *supra* note 106, at 51-57, for a detailed discussion on the interpretation of Article 21 by the Supreme Court.

143. *Mehta v. Union of India*, 2 SCC 353 (1997).

144. *Mehta v. Union of India*, 6 S.C.C. 63 (1998).

145. *Mehta v. Union of India*, A.I.R. 1996 5 S.C.C. 281. The Court ordered the closure and relocation of more than 1300 major polluting hazardous industries from Delhi to sites in neighboring states. See *Mehta v. Union of India* 6 S.C.C. 63 (1998).

146. *Mehta v. Union of India*, 6 S.C.C. 12 (1999); *Mehta v. Union of India*, 4 S.C.C. 359 (2002). In both cases, the Court ordered the Government to implement Euro I and II standards for reducing automobile pollution. Further, in a far reaching case, the Court ordered that all public buses be run on compressed natural gas to reduce pollution.

147. *Mehta v. Union of India*, A.I.R. 1988 S.C. 103; *Mehta v. Union of India* 6 S.C.C. 63 (1998).

river,¹⁴⁸ among others.¹⁴⁹ The Court has also proven adept in catalyzing executive action on several issues.¹⁵⁰

Thus, theoretically the Indian judiciary has the capacity to address potential climate change related violations of fundamental rights.

VI. LIMITS OF JUDICIAL INTERVENTION

Although the Court could assume jurisdiction to address the problem of potential violation of fundamental rights because of climate change, it will not be able to provide adequate remedies within the current framework of its jurisprudence, since the Court has no jurisdiction over foreign States under the Indian Constitution. An Article 32 judicial review is available only in the case of violation of fundamental rights by Indian governments.¹⁵¹ Thus, at this juncture the Court can at the most direct the Government's international negotiations. In such an event, the Court will be intervening with the Government's exercise of foreign affairs powers.

148. See *Mehta v. Nath*, A.I.R. 2000 6 S.C.C. 213 (Mehta challenged the diversion of the river Beas by a Hotel, in which close relatives of Kamal Nath, the Minister of Environment and Forests, held shares. The Court held that disturbing the "basic environment," such as air and water, constituted a violation of the right to life, which encompassed preservation of ecological balance. Incidentally, Kamal Nath is now the Minister of Trade, representing India in the UK- led coalition GLOBE, to address the problem of global warming and climate change). See G8 + 8 Climate Change Dialogue, Brussels Legislators Forum, GLOBE International, www.globeinternational.org.

149. An overview of all the cases brought by M.C. Mehta regarding environmental protection at the M.C. Mehta Environmental Foundation, available at <http://www.mcmef.org/landmark.htm>.

150. See *Mehta v. Union of India* 6 S.C.C. 63 (1998) (a Delhi Pollution Case, in which the Court set up a Committee to advise it on the implications of shifting from traditional fuel to compressed natural gas (CNG) for public buses, and ordered all related government agencies to coordinate with each other, and monitored the implementation by requiring periodic requirements). See also *Thirmulpad v. Union of India*, 5 S.C.C. 57 (2006), the Court issued a series of orders regarding the management of national forests.

151. Article 12 states: "In this Part, unless the context otherwise requires, 'the State' includes the Government and Parliament of India and the Government and the Legislature of each of the States and all local or other authorities within the territory of India or under the control of Government of India." India Const. art. 12. "In this Part" refers to the section on Fundamental Rights. India Const. art. 32.

The Constitution vests foreign affairs powers exclusively with the Central government.¹⁵² It grants the Parliament, which is the legislative branch,¹⁵³ the power to enact laws regarding foreign affairs,¹⁵⁴ including conclusion of legal arrangements.¹⁵⁵ However, in practice, the Executive¹⁵⁶ enters into and implements treaties and international obligations,¹⁵⁷ and the Parliament has the power to enact executing domestic legislation.¹⁵⁸ No provision of the Indian Constitu-

152. The subject matters with respect to which the State and Central government have jurisdiction are listed in the Seventh Schedule. List I sets out areas for the Central Government, List II, the States, and List III for both the State and Central governments, even though the Central government has preemptory powers in case of overlap or conflict. The Central government also has residuary powers regarding subject matters that are not covered in Lists II and III. *See* India Const. art. 246, 254.

153. The Parliament is composed of the President and two Houses—the Council of States and House of People. *See* India Const. art. 79.

154. However, because the President heads the Executive branch and is also part of the Legislature, the division of powers under the Indian Constitution is considered a mix of both the British and the U.S. systems. *See* Thomas M. Franck & Arun K. Thiruvengadam, *International Law and Constitution-Making*, 2 Chinese J. Int'l. L. 468, 483 (2003).

155. List I, Item 10 lists foreign affairs as, “all matters which bring the union into relation with any foreign country.” India Const. Sched. 7 List 1. A series of foreign affairs- related powers are listed in List I—e.g., preventive detention with respect to foreign affairs (Item 9); treaty-making and implementation (Item 14); “foreign jurisdiction” (Item 16); and foreign exchange and foreign loans (Items 36, 37). *Id.*

156. The executive branch is headed by the President. The President is advised by a Council of Ministers, headed by the Prime Minister. *See* India Const. art. 74.

157. A similar practice has been observed in the United States. *See* G. Edward White, *The Transformation of the Constitutional Regime of Foreign Relations*, 85 Va. L. Rev. 1, 4-5 (1999) (arguing against exclusive Federal Executive authority to pursue foreign affairs).

158. *See* Franck & Thiruvengadam, *supra* note 154, at 483-84. According to the authors, the Indian practice bears the mark of British practice. They note that by reading Article 73, 246, 253 and Entry 14 of List I, Schedule VII that “the executive power of the Union government is co-extensive with the legislative power in the matter of entering into, and implementation of, treaties.” *Id.* The Indian position on foreign affairs powers resembles that of the United States to the extent that the Congress, the legislative and executive branches both have some powers related to foreign affairs, which they could exercise in cooperation, or not. However, the extent of power of each branch remains subject to discussion. Also controversial is the extent of foreign policy powers relegated by States (which in India is not a concern since States are not vested with foreign affairs powers under Lists II or III of the Seventh Schedule to the Indian Constitution). *See* White, *supra* note 157 (for a discussion on the evolution of foreign affairs jurisprudence in the United States).

tion explicitly grants the judiciary the authority to review matters related to foreign affairs. In fact, the judiciary is specifically excluded from adjudicating international disputes,¹⁵⁹ except for advising the President upon request.¹⁶⁰

In fact, in *Novartis v. Union of India*, the High Court of Chennai (appellate court) held that it did not have the jurisdiction to decide whether the Indian Patent Act, 1970 complied with the Agreement on Trade Related Intellectual Property Agreement (TRIPs).¹⁶¹ Based on an early U.S. Supreme Court decision, the Court decided that where Governments had entered into an international agreement that contained a dispute settlement clause, they were bound by such a contract and not to domestic court jurisdiction. In another instance, the Court had also held that it does not have the authority to compel the Government to enact national laws executing its international law obligations, and that where such laws are absent rights created under the corresponding treaty cannot be enforced by the courts.¹⁶²

Yet, as argued by scholars the Indian Supreme Court has placed checks on the executive treaty-making power in the past.¹⁶³ For in-

159. Article 363, which reads as follows: Bar to interference by courts in disputes arising out of certain treaties, agreements, etc.—(1) Notwithstanding anything in this Constitution but subject to the provisions of article 143, neither the Supreme Court nor any other court shall have jurisdiction in any dispute arising out of any provision of a treaty, agreement, covenant, engagement, *sanad* or other similar instrument which was entered into or executed before the commencement of this Constitution by any Ruler of an Indian State and to which the Government of the Dominion of India or any of its predecessor Governments was a party and which has or has been continued in operation after such commencement, or in any dispute in respect of any right accruing under or any liability or obligation arising out of any of the provisions of this Constitution relating to any such treaty, agreement, covenant, engagement, *sanad* or similar instrument. India Const. art. 363. The limitation on the jurisdiction is also reiterated in the provision to Article 131, which provides for original jurisdiction of the Supreme Court. India Const. art. 131.

160. Article 143 reads as follows: Power of President to consult Supreme Court.—(1) If at any time it appears to the President that a question of law or fact has arisen, or it is likely to arise, which is of such a nature and of such public importance that it is expedient to obtain the opinion of the Supreme Court upon it, he may refer the question to that Court for consideration and the Court may, after such hearing as it thinks fit, report to the President its opinion thereon. India Const. art. 143.

161. W.P. Nos. 24759 and 24760, June 8, 2007.

162. See *Verghese v. Bank of Cochin*, 2 S.C.C. 360 (1980).

163. See Franck and Thiruvengadam, *International Law and Constitution-Making*, 2 Chinese J. Int'l. L. 468, 483 (2003).

stance, in *Madhav Rao Scindia v. Union of India*,¹⁶⁴ the Court held that the government does not have the authority to use its foreign affairs provision to unilaterally withdraw recognition of royalty status to former princes.¹⁶⁵ Thus, unlike in the United States,¹⁶⁶ the judiciary has not consistently held that foreign affairs are a prerogative of the Executive branch subject only to limited intervention from the legislative branch. As discussed earlier, it has in fact relied on international instruments such as UDHR¹⁶⁷ to give effect to fundamental rights.¹⁶⁸

Further, the Supreme Court's reasoning in developing epistolary jurisdiction supports an argument in favor of judicial intervention in foreign affairs. The judiciary interpreted *locus standi* liberally, because the Court believed that the promises of a constitutional democracy were beyond the reach of many Indians due to financial and cultural constraints.¹⁶⁹ Judges who pioneered public interest litigation reasoned that in a society where oppression and poverty were

164. A.I.R. 1971 S.C. 530.

165. See Burt Neuborne, *The Supreme Court of India*, 1 Int'l J. Const. L. 476, 487-92 (2003).

166. In the United States, foreign matters are generally excluded from judicial review under the political question doctrine. However, recent cases *United States v. Alvarez-Machain*, 504 U.S. 655 (1992) and *Hamdi v. Rumsfeld*, 542 U.S. 507 (2004), and the position of noted scholars in favor of judicial intervention constant bring the question back for reconsideration. For an overview of the U.S. position, see, Thomas Franck, *Political Questions/Judicial Answers: Does the Rule of Law Apply to Foreign Affairs?* (1992); see also Anne-Marie Slaughter Burley, *Are Foreign Affairs Different?* Book Review, 106 Harv. L. Rev. 1980 (1993) (reviewing the implications for Thomas Franck's argument against the political question doctrine limitation on judicial review); see also Jide Nzelibe, *The Uniqueness of Foreign Affairs*, 89 Iowa L. Rev. 941 (2004) (for an overview of the various issues related to foreign affairs powers of the judiciary and the need for a more reasoned approach that would allow the judiciary to address foreign affairs).

167. See *Keshavananda Bharati*; A.I.R. 1973 S.C. 537 (the Supreme Court held, that to the extent possible, the Constitution of India should take into consideration and give effect to the United Nations Charter and UDHR). See also *Jabalpur v. Shukla* A.I.R. 1976 S.C. 1207 (minority opinion); *Hasia v. Mujib* A.I.R. 1981 S.C. 487; *Vishaka v. State of Rajasthan* A.I.R. 1997 S.C. 2304.

168. See P.N. Bhagawati, *Judicial Activism and Public Interest Litigation*, 23 Colum. J. Transnat'l L. 561 (1985).

169. See also Ashutosh Varshney, *Democracy vs. Growth in India*, Foreign Affairs, 93 (2007) (discussing current challenges to democracy in India).

cultural norms, most people would not have the knowledge or the means to claim their constitutional rights.¹⁷⁰

None of these conditions have changed, despite India's economic growth. India remains home to some of the poorest people in the world. According to the 2005 United Nations Human Development Index (HDI), India was ranked 128 among all countries;¹⁷¹ despite a GDP that was higher than that of Tajikistan (3530 v. 1370), India was ranked relatively lower in the HDI (0.68 v. 0.62).¹⁷² Reportedly, the subcontinent also contains some of the most polluted and hazardous sites on the planet.¹⁷³ Administrative systems remain corrupt¹⁷⁴ and access to courts remains abysmal, expensive and slow.¹⁷⁵ In other words, a large percentage of Indians remain vulnerable to climate change-related violations of their fundamental rights, without redress. Thus, the Indian judiciary would be justified in exercising its jurisdiction to intervene in foreign affairs, to safeguard climate change related violations within Article 32.

170. *See id.*; *see also* Maureen B. Callahan, *Cultural Relativism and the Interpretation of Constitutional Texts*, 30 Willamette L. Rev. 609 (1994) (arguing drafters of the Indian Constitution sought to transform the society).

171. According to the 2007/2008 UNDP Human Poverty Index, India is ranked 62nd among the 108 developing countries; poverty is not merely measured in terms of people living below \$1 a day, but also in terms of the percentage of people without, say, drinking water, which is currently at 14%. United Nations Development Index 2005, *United Nations Development Reports, Human Poverty in India: Focusing on the Most Deprived in Multiple Dimensions of Poverty*, http://hdrstats.undp.org/countries/country_fact_sheets/cty_fs_IND.html.

172. *Id.*

173. Fiona Harvey, *Planets Most Polluted Sites Unveiled*, Financial Times, Sept. 13, 2007, at 4. India, with China and Russia, was reported to contain most contaminated sites, including toxic mining sites.

174. *See generally* Pratap Bhanu Mehta, *The Burden of Democracy* (2003); *see also*, Toral Patel, *Corrupt Practices in India: No Payoff*, 20 Loy. L.A. Int'l & Comp. L. J. 389, 398, 1998; *But see Report on the Transparency International Global Corruption Barometer*, Transparency International, Dec. 7, 2006. (noting, however, some improvements).; Wolfgang Schurer, *A Geopolitical and Geo-Economic Overview: On the Rise of China and India as Two Asian Giants*, 29-SUM Fletcher F. World Aff. 145, 158 (2005) (noting that despite problems of administrative corruption the "new cabinet in New Delhi has an impeccable anti-corruption record and that India is well on its way to building both domestic and international trust in its legal and regulatory climate.").

175. *See* Ashish S. Prasad & Violeta I. Balan, *Strategies for U.S. Companies to Mitigate Legal Risks from Doing Business in India*, Corp. L. & Prac. Course Handbook Series, PLI Order No. 11926, Feb.-Mar. 2007.

However, short of directing the Government international climate negotiations and policies, there is little that the Indian judiciary can do by way of shielding fundamental rights from climate change violations, without risking its legitimacy.¹⁷⁶ If and when the violations actually occur, the Court could order the Government to pursue international adjudication, but as current evidence suggests, international adjudication has limited utility.¹⁷⁷ International principles, under which remedy could be claimed, such as the duty to prevent trans-boundary pollution, even though interpreted as customary international law in the Trail Smelter Arbitration,¹⁷⁸ are not complied with by States.¹⁷⁹

Indeed, a domestic legislation prohibiting certain actions and consequences may be the best response, if one considers the decision in *Pakootas v. Teck Cominco Metals Ltd.*,¹⁸⁰ (*Pakootas*). In *Pakootas*, the Court held that smelter industries that released hazardous waste into the Washington River, with proper permits from Canadian environmental authorities, were liable under a U.S. law on hazardous waste.¹⁸¹ The Court held that even though the waste was released on

176. As such there are criticisms that the judiciary has ignored the separation of powers doctrine. See Armin Rosencranz & Michael Jackson, *The Delhi Pollution Case: The Supreme Court of India and the Limits of Judicial Power*, 28 Colum. J. Envtl. L. 223 (2003) (arguing that although intervention to abate Delhi's pollution was timely, the Court undermined the development of administrative capacity to address environmental matters by usurping executive functions). See also Peter Waldman, *Jurist's Prudence India's Supreme Court Makes Rule of Law A Way of Governing: Splintered Political System Leaves Judges to Battle Corruption and Pollution*, Wall St. J., May 6, 1996.

177. See generally CESARE P. ROMANO, *THE PEACEFUL SETTLEMENT OF INTERNATIONAL ENVIRONMENTAL DISPUTES* 39-41 (Kluwer Law Intl 2000).

178. See Convention for Settlement of Difficulties Arising from Operation of Smelter at Trail, U.S.-Ca., Apr. 15, 1935, B.C. U.S. Treaty Series No. 893, available at <http://www.lfip.org/laws666/trailsm.htm>.

179. Daniel Bodansky, *Customary (And Not So Customary) International Environmental Law*, 3 Ind. J. Global Legal Stud. 105, 116 (1995).

180. *Pakootas v. Teck Coinco Metals, Ltd.*, 452 F.3d 1066 (C.A.9 (Wash.) 2006). The Supreme Court recently rejected a review petition upon the recommendation of the Solicitor General on the grounds that the issue was moot since the EPA had withdrawn the order, making the Appellate Court decision moot, and that in any case, the matter was appropriately decided taking into account the facts of the case and scope of the law. See *Teck Cominco Metals Ltd. v. Pakootas*, 128 S.Ct. 858 (2008). The Solicitor General's brief is available at <http://www.usdoj.gov/osg/briefs/2007/2pet/6invt/2006-1188.pet.ami.inv.pdf>.

181. Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. § 9603.

the Canadian side the companies responsible for the pollution were liable to clean up the waste in the United States, since the effects were felt within the U.S. It also held that the U.S. Environmental Protection Agency had a non-discretionary duty to enforce CERCLA against the companies.¹⁸²

In effect, the U.S. Court extended the scope of a national legislation to a foreign entity, for acts committed outside of the United States on the ground that the effects were felt in the United States. In arriving at the conclusion, the Court rejected the companies' argument that they were not responsible for the flow of the river, which essentially carried the waste from Canadian soil, and noted that Washington taxpayers ought not to bear the economic burden for external actions.¹⁸³

While the case reflects a long history of cross-border pollution involving Canada and United States, including failed diplomatic interventions to adequately address the problem,¹⁸⁴ the rationale for the judgment nevertheless provides an important lesson. It demonstrates that domestic legislation can be the most accessible safeguard against individual rights violations, as opposed to international remedies. Hence, the Indian Court could draw on *Pakootas* and order the Indian government to pass legislation on climate change that hold persons or States responsible for climate change liable to redress constitutional rights violations, and compensate those who consequently suffer economic losses.

However, such legislation can be diplomatically undesirable. Moreover, the Government has traditionally been reluctant to enact any legislation that could curb development, or been unsuccessful in litigating on behalf of those affected, as demonstrated by two critical cases discussed below.

182. *Supra* note 180.

183. For an analysis of the history of smelter waste-related disputes between the U.S. and Canada and the Ninth Circuit decision, *see*, Michael J. Robinson-Dorn, *The Trial Smelter: Is What's Past Prologue? EPA Blazes a New Trial for CERCLA*, 14 N.Y.U. Env'tl. L.J. 233 (2006).

184. *See generally* Transboundary Harm in International Law (Rebecca M. Bratspies & Russell A. Miller eds. 2006).

The Bhopal gas leak incident¹⁸⁵ illustrates the inability of the government and the legal system to adequately deliver justice to citizens. Following the gas leak, the Indian Government passed the Bhopal Act¹⁸⁶ to consolidate the thousands of civil suits brought before Indian and U.S. courts and to represent the interest of its citizens against a foreign entity, based on the *parens patriae* doctrine.¹⁸⁷ The Act not only allowed the Government to act on behalf of its citizens, but also provided mechanisms for distribution of compensation among victims.

However, the litigation remained contentious because the Government brought an action before the District Court of New York instead of its own courts, on the ground that a foreign entity was involved and that its own courts lacked the capacity to redress the matter.¹⁸⁸ However, the New York court dismissed the claim for *forum non conveniens* reasons.¹⁸⁹ Eventually, the case was brought before the Madhya Pradesh High Court, based on the Indian rule of absolute liability.¹⁹⁰ But, after much bargaining on both sides, the Indian government settled the matter in 1989 with the Union Carbide Company agreeing to pay the government \$465 million, of which the Indian subsidiary paid \$45 million.

The settlement not only led to criticisms about the government bargaining away the rights and claims of thousands of victims, but

185. On December 3, 1984, at a pesticide plant of Union Carbide India Limited located in Bhopal, Madhya Pradesh, a tank holding 43 tons of toxic methyl isocyanate (MIC) was released due to an allegedly accidental mixture with water. The gas killed about 2,100 people instantly and injured 200,000. Considered one of the world's worst industrial disasters, the accident was magnified by the absence of proper medical and other response to curb and reverse the damage, as well as by inadequate safety standards in the first place. The harm suffered by most victims remains uncompensated to date. *Infra* note 187.

186. The Bhopal Gas Leak Disaster (Processing of Claims) Act of 1985, available at http://www.commonlii.org/in/legis/num_act/bgldoca1985390.

187. For an overview of Bhopal, the role of the Government, and the aftermath, see, Tim Covell, *The Bhopal Disaster Litigation: Its Not Over Yet*, 16 N.C.J. Int'l L. & Com. Reg. 279 (1991).

188. The Union Carbide Company held nearly half the shares in the company, *id.*

189. *In re Union Carbide Corp. Gas Plant Disaster*, 634 F. Supp. 842 (S.D.N.Y. 1986); *aff'd* in 809 F.2d 195 (2d Cir. 1987).

190. Based on the strict liability rule, under the absolute liability rule any multinational enterprise carrying on hazardous activities is liable for damage resulting from such activity, and cannot claim any of the exceptions available under the original rule. See *Mehta v. Union of India* (Oleum Gas Leak case), A.I.R. 1987 S.C. 1086. For a discussion of the settlement process, see, Covell, *supra* note 187.

also the actual distribution of compensation, especially since a large portion of the victims and their families have not received any to this day.¹⁹¹

Similarly, *Narmada Bachao Andolan v. Union of India and Others*,¹⁹² involving the damming of the Narmada River, popularly known as the Sardar Sarovar or the Narmada Dam projects,¹⁹³ showcases the inadequacy of legal protection for Indians affected by natural resource abuses. Most people displaced by rising water levels remain without adequate compensation, primarily because the issue of land-related displacement, which is governed by the British-era

191. A chronology of the case and its present status has been posted by Union Carbide Company at <http://www.bhopal.com/chrono.htm>. See also, *World "failed" Bhopal Gas Victims*, Nov. 29, 2004, http://news.bbc.co.uk/2/hi/south_asia/4050739.stm.

192. *Andolan v. Union of India*, A.I.R. 1994 S.C. 319 (representatives of people who stood to be displaced by the dam construction; several villages were set identified for flooding, brought a public interest litigation arguing violation of fundamental rights because of the project).

193. The Sardar Sarovar project began in 1946, prior to Independence, but ran into problems with respect to rights of riparian states, the height of the dam, costs, and power distribution. The Narmada Water Dispute Tribunal was established to resolve the issues, which reviewed environmental, social and economic impact statements before granting a Final Award, specifically requiring the Government to allocate alternative lands to people whose lands would be submerged, one year before carrying out the submergence, even though no specifications were made with respect to place of rehabilitation. The State of Gujarat as the main beneficiary was required to take on much of the burden. The World Bank entered into a loan arrangement in 1985 with the Indian government to fund large portions of the dam, which accelerated the project. However, the rehabilitation process lagged behind critically, especially since many of the displaced either did not own the land they depended on, or did not possess the proper land transfer papers. As villages flooded, large communities were left without remedy. The apathy of the situation commanded international attention, resulting finally in the World Bank establishing an independent fact finding committee, which concluded that the environmental and social impacts of the dam far exceeded the benefits. In light of the report and internal and international pressure, the Bank withdrew from the Project in 1993. The Government of India, however, sought to continue. The issue is far from settled as documentation regarding those affected continues to present increasing evidence of a severely botched effort to balance environmental, social, and economic concerns. In fact, the protests surrounding the Narmada Dam project resulted in the creation of a World Commission on Dams, which reported that large dams were unviable development solutions. See Komala Ramachandra, *Sardar Sarovar: An Experience Retained?*, 19 Harv. Hum. Rts. J. 275 (2006). See also <http://narmada.org>.

Land Acquisition Act, 1894,¹⁹⁴ confers on the government the right to take private property in public interest, by paying “adequate” compensation calculated according the legislation.¹⁹⁵ In fact, once a government determines that a parcel has to be acquired for public purpose; one can only appeal the amount of compensation.¹⁹⁶

Moreover, given the complex caste system and the remnants of a near feudal-like land ownership system in India, especially in rural areas, many farmers either lease or simply work on the land, and may not be entitled to compensation.¹⁹⁷ Rehabilitation programs are plagued by administrative gaps and delays, as State governments fail to fully and timely comply with awards given by the Narmada Tribunal and judicial intervention is limited.¹⁹⁸

Both Bhopal and Narmada are but two well-known instances of administrative failures and judicial inefficacy to prevent, protect against and adequately redress constitutional violations of thousands of Indians. Rights violations occur routinely in India,¹⁹⁹ and there is no indication at this point that such violations will be prevented or compensated when climate change-related catastrophes unravel, especially if the incidents in the Sunderbans are any indication.²⁰⁰

194. A copy of the legislation is available at <http://punjablaws.gov.pk/laws/12.html>.

195. For a discussion of the problems with the land acquisition law in India and takings jurisprudence, see generally Pooja Mehta, *Internally-Displaced Persons and the Sardar Sarovar Project: A Case for Rehabilitative Reform in Rural India*, 20 Am. U. Int'l. L. Rev. 613 (2005). See also S. Parasuraman, *The Development Dilemma: Displacement in India*, 40-41, 58 (1992).

196. Land Acquisition Act, §§ 4-12 (1984).

197. See generally Gary Jeffrey Jacobsohn, *The Permeability of Constitutional Borders*, 82 Tex. L. Rev. 1763,1767 (2004) (referring to India as an “essentially feudal society”). Property rights were initially part of fundamental rights, but have since then been repealed. Yet, the zamindari system that was recognized by the British government in India perpetuated a feudal approach to land ownership. Amendments in several states to redistribute the land by abolishing this system through a series of constitutional amendments have led to constitutional challenges based on the amount of compensation, which is now generally not subject to challenge. For a discussion of the key cases that shaped the constitutional jurisprudence of property in India, see, Neuborne, *supra* note 165, at 490. See also Thomas Allen, *Commonwealth Constitutions and Right not to be Deprived of Property*, 42 Int'l & Comp. L.Q. 523 (1993) (discussing the challenges that judiciaries face in interpreting property rights and the role the influence of property jurisprudence among Commonwealth countries, including India).

198. Pooja Mehta, *supra* note 195.

199. Neuborne, *supra* note 165.

200. *Supra* notes 79, 80.

More importantly, the Indian judiciary, which has earned the title of Supreme Court for Indians,²⁰¹ may be facing the limits of its capacity to deliver justice.

VII. CONCLUDING REMARKS

As the fifth largest emitter of carbon dioxide, India's participation and engagement is critical to the future of an effective international climate regime, particularly when one considers the potential effects that a rapidly growing hydrocarbon economy of a billion plus people can have on the global emissions, and hence the climate. This is a legitimate concern and one that requires attention; and indeed, the Indian government has been responsive and is presently ahead in the curve of mitigation trends. However, India's efforts to mitigate climate change, or for that matter taking an international position challenging industrialized countries to reduce emissions, cannot ensure that fundamental rights of millions of Indians will be protected if there is a two or more degrees Celsius increase in global temperature.

This emerging constitutional challenge in the case of climate change illustrates that the focus on limiting international obligations to reduce emissions could potentially undermine a foundational document of not only nations' legal system, but its entire form of governance; the fine balance between the rights of people and the constraints over government powers.²⁰² Moreover, in India, the judiciary assumed great powers and provided broad interpretations and remedies to fill an important void in governance—the inability of a substantial number of Indians to fully participate in constitutional government and exercise their rights. In other words, courts added certain “welfare rights” that could not be delivered by a pure “social-citizenship rights” conception of the Constitution.²⁰³

201. Upendra Baxi, *Constitutionalism as a Site of State Formative Practices*, 21 *Cardozo L. Rev.* 1183, 1205 (2000).

202. See generally Henry W. Andersen, *The Constitution An Expanding Charter of Government*, 18 *B.U. L. Rev.* 491 (1938).

203. See Frank I. Michelman, *Democracy-Based Resistance to a Constitutional Right of Social Citizenship: A Comment on Forbath*, 69 *Fordham L. Rev.* 1893 (2000-2001) (discussing the need for judicial interpretation of Constitution to ensure protection of welfare rights, as opposed to social-citizenship, whereby processes of democratic governance would address welfare concerns as well).

But, when these rights can no longer be effectively preserved even by expansive judicial review because of events beyond the control of Courts the efficacy of constitutional governance, in particular fundamental rights, is imperiled. The challenge for India is therefore not merely that of preserving their right to emit carbon dioxide or develop, or even that of mitigating climate change, but of preserving their constitutional government. And, this concern should also be reflected in treaty negotiations following Bali.