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如果我们不改变方向，总会走到我们要去的地方

China and the future of International Environmental Law

Nadir Dalal

## **Introduction**

Given a long enough timeframe, unnoticed yet major changes can occur to even the most familiar of things – children grow up, and parents grow old. The same is true for the environment, and its degradation. However, compared to human development, these changes are not only preventable, but also reversible. The consequences of remaining on the current path of inaction are steep. If left unchecked, environmental degradation, such as severe air pollution, may ultimately kill millions. By then, it may be too late to change, with no way to start over.

Environmentalism, or the movement to control pollution and improve the environment, has existed in some form for centuries.<sup>1</sup> In response to the concerns and demands of their people, governments around the world have established a multitude of agencies and laws tasked with protecting or preserving the environment. Despite these efforts, man-made pollution has continued to rise with serious consequences around the world. Not only are pollution levels steadily increasing, but environmental disasters, and “once in a century” storms have begun to occur on a nearly annual basis. The time has come for a focused global approach. The world shares one environment, and it is time that the international community affirms its responsibility to protect it. China, despite its current environmental state, is in an ideal position to lead this effort.

Few countries in the world face the level of environmental degradation seen in modern day China. Even basic necessities have become scarce; one third of China lacks access to clean

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<sup>1</sup> Merriam-Webster Dictionary, Environmentalism, *available at* <http://www.merriam-webster.com/dictionary/environmentalism>; *See also* Deuteronomy 23:12-13 (proper disposal of sewage).

drinking water and air tests for dangerous particulate matter regularly report at well above hazardous levels.<sup>2</sup> However, while facing crippling levels of pollution at home, China stands in a unique position to lead the push for greater environmental controls around the world. Such a move would not only help address domestic environmental concerns, but may also help improve domestic stability, as well as satisfy a multitude of additional pressing government concerns. One of the newest doctrines of international law, the Responsibility to Protect (R2P), may help serve as a springboard from which the Chinese government may lead other nations to improve environmental protection.<sup>3</sup> A Chinese initiative to create an entirely new international environmental body is also within the realm of possibility.

Rather than addressing the issue of pollution as a whole, this paper will focus on air pollution. Clean and breathable air is a necessary component for human life; however, clean and breathable air is also becoming increasingly rare. Nowhere is this more apparent than in modern day China. Despite this, China is still in a unique position to promote for, and gain from, the creation of a new global environmental regime. This paper will address the key issues of this argument in four main sections. Section one will delve into the current state of China's domestic and international environmental situation, and reasons why China is, or should be, concerned. Section two will broadly address the dangers of air pollution and fine particulate matter. Section three will focus on China's domestic and international efforts to address air pollution. Section four will highlight R2P, including its creation, purposes, rules, and the possibility of expansion or modification to address environmental issues. Section five will outline how Chinese-led

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<sup>2</sup> See Carin Zissis & Jayshree Bajoria, *China's Environmental Crisis*, COUNCIL ON FOREIGN RELATIONS, Aug. 4, 2008, <http://www.cfr.org/china/chinas-environmental-crisis/p12608>; Twitter, <https://twitter.com/BeijingAir> (last visited Mar. 15, 2013).

<sup>3</sup> R2P creates a responsibility to states to act to prevent or remedy specific humanitarian crises. Its major groundbreaking feature is that under certain circumstances it may be used to justify actions against unwilling sovereign states. See generally The Secretary-General, *Report of the Secretary-General on Implementing the responsibility to protect, delivered to the Security Council and the General Assembly*, U.N. Doc. A/63/677 (Jan. 12, 2009) [hereinafter SG Report] (outlining the core principles, uses, and rationale behind R2P).

international environmental regulation should be structured, and how it may be implemented.

Section six will address how and why China is in an idea position to spearhead the creation of a new system, and how such a system would benefit China.

## **Section 1: The Current State of China's Environmental Concerns**

As accumulating negative effects from pollution continue to manifest in increasingly alarming ways, the Chinese government and its people must face the consequences and concerns that will arise from a continuation of the status quo. These consequences and concerns exist in both domestic and international settings.

### **Domestic**

Domestically, the impacts of pollution can be seen in a multitude of ways, including the loss of land to erosion and desertification, the declining health of the Chinese population, lack of clean water, hazardous air, economic loss, and ever increasing levels of unrest and displays of protest.<sup>4</sup> In its rapid rise to its current position of economic and industrial might, China's overall environmental integrity has borne the brunt of the associated costs. In an effort to feed and sustain its ever-growing population, poor farming, forestry, and sustainability practices have resulted in rapid desertification of the Chinese mainland. Because of these practices, China is estimated to lose almost one million square kilometers of farmable land by 2030, with losses estimated from current rates of desertification at 4.5 billion RMB.<sup>5</sup> Resultant dust storms have markedly increased in frequency and size, with individual storms circumscribing the planet, and

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<sup>4</sup> See Douglas Almond, et al., *Winter Heating or Clean Air? Unintended Impacts of China's Huai River Policy*, 99 AM. ECON. REV. 184, 184-185 (2009) (free unlimited coal fired heating in northern China leading to dramatically increased harmful particles in the air); Jonathan Watts, *China's Coal Addiction*, FOREIGN POL'Y, Dec. 2, 2010, at 2, available at [http://www.foreignpolicy.com/articles/2010/12/02/china\\_s\\_addiction\\_to\\_coal](http://www.foreignpolicy.com/articles/2010/12/02/china_s_addiction_to_coal) ("Barely 1 percent of the urban population breathes air considered healthy by the World Health Organization..."); See generally Zissis, *supra* note 2 (broad outline of the current state of China's environment, damage, responses, and future outlook).

<sup>5</sup> Food and Agricultural Organization of the United Nations [FAO], *Overview of land desertification issues and activities in the people's republic of China*, <http://www.fao.org/docrep/W7539E/w7539e03.htm> (last visited Mar. 12, 2013).

being visible from space.<sup>6</sup> Meanwhile, the loss of farmable land adds to the large migration of Chinese workers from rural to urban areas; adding further strain to already fragile environments.<sup>7</sup> Over half of the Chinese population, more than 672 million people, now resides in urban environments.<sup>8</sup> Although an increased concentration of citizens in the heavily industrialized urban areas provides a large supply of willing and able workers, the strain these migrant workers add to local environments is tremendous.<sup>9</sup> Currently, at least 120 million Chinese workers migrate internally within China for work.<sup>10</sup> It may become necessary for the Chinese government to control this behavior for the benefit of all Chinese people in the near future.

Air pollution in particular has had a measurable impact on the health and lives of the Chinese people. Lost lives and illnesses caused by harmful air pollution directly impacts China's national Gross Domestic Product (GDP). In 2010, an estimated 1.2 million prematurely Chinese deaths were linked to air pollution.<sup>11</sup> In addition, a 2011 report states that pollution related illness and disease has cost China nearly 5 billion working days and almost \$300 billion in lost economic activity.<sup>12</sup> In total, the cost of air pollution in China calculates to approximately 13% of China's overall GDP; more than the total of all of the government revenue, including annual

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<sup>6</sup> See Juli S. Kim & Jennifer L. Turner, *China's Filthiest Export*, Foreign Policy In Focus, Jan. 16, 2007, [http://www.fpif.org/articles/chinas\\_filthiest\\_export](http://www.fpif.org/articles/chinas_filthiest_export) (citing rapid increase in frequency of major dust storms); NATIONAL RESEARCH COUNCIL OF THE NATIONAL ACADEMY OF SCIENCES, *GLOBAL SOURCES OF LOCAL POLLUTION* 60, 62 (National Academies Press 2009), available at <http://www.nap.edu/catalog/12743.html> (discussing the tracking of large Chinese dust storms around the globe from space).

<sup>7</sup> See Elizabeth Economy, *China's Environmental Challenge*, 104 CURRENT HIST. 278, 278-280 (2005).

<sup>8</sup> World Bank, *World Development Indicators 2013*, at 54, 59, 63 (2013), available at <http://wdi.worldbank.org/table/3.12> (observing data under China shows that 51% of the total population is currently living in urban settings).

<sup>9</sup> See Economy, *Challenge*, *supra* note 7, at 278-280.

<sup>10</sup> INTERNATIONAL ORGANIZATION FOR MIGRATION, INTERNAL MIGRATION AND DEVELOPMENT: A GLOBAL PERSPECTIVE 10 (International Organization for Migration 2005), available at [http://www.prb.org/Source/mrs\\_19\\_2005.pdf](http://www.prb.org/Source/mrs_19_2005.pdf) ("Close to 120 million people were estimated to migrate internally in China in 2001...").

<sup>11</sup> See Edward Wong, *Early Deaths Linked to China's Air Pollution Totaled 1.2 Million in 2010, Data Shows*, N.Y. TIMES, A9, April 2, 2012, available at [http://www.nytimes.com/2013/04/02/world/asia/air-pollution-linked-to-1-2-million-deaths-in-china.html?\\_r=0](http://www.nytimes.com/2013/04/02/world/asia/air-pollution-linked-to-1-2-million-deaths-in-china.html?_r=0).

<sup>12</sup> Yanzhong Huang, *The Sick Man of Asia*, FOREIGN AFF., at 127-129 (2011), available at [www.viet-studies.info/kinhte/FA\\_SickManOfAsia.pdf](http://www.viet-studies.info/kinhte/FA_SickManOfAsia.pdf).

taxes, or 1.5 times the projected annual growth in GDP for 2012-13.<sup>13</sup>

The public has not failed to notice the current environmental state and has taken steps to express its displeasure. Perhaps of greatest concern to the People's Republic of China (PRC) has been the increase of public protest and demands by the population to address issues related to pollution control.<sup>14</sup> From 2005 to 2010, the officially recognized number of environmental protests rose from 51,000 to 90,000.<sup>15</sup> Although protests clearly display the displeasure of a growing segment of the population, the PRC should be careful not to view these numbers as the *entirety* of the Chinese population that is upset. The protests of today could in fact be the result of an already long simmering anger and concern with the state of environmental protection and regulation in modern day China.<sup>16</sup> While each instance alone would normally be a matter of concern for any government, the combination of these factors create a situation that cannot be ignored. However, China's environmental problems do not stop at its borders. The impacts of pollution in China are have created international problems for China as well.

## **International**

Seeing the economic and political value of positive international regard, China has placed

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<sup>13</sup> *Id.* (adding that Chinese government paid health care costs are estimated to increase by 50% between 2000 and 2025); World Bank, *supra* note 8, at 68, 77, available at <http://wdi.worldbank.org/table/4.12>; *But see* Alex L. Wang, *China's Environmental Tipping Point*, in *China in and Beyond the Headlines* 112, 116 (Timothy B Weston & Lionel M. Jensen eds., 2012), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2130452](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2130452) (stating that total GDP costs for air and water pollution only amount to 5.8% of GDP).

<sup>14</sup> As a communist country, and especially one that rose to power in large part due to public uprisings, the PRC places great emphasis on maintenance of public opinion and firm control over public discourse and access to information. Those who disturb the peace risk being arrested or punished in some way or another.

<sup>15</sup> Elizabeth Economy, *The Great Leap Backward?*, FOREIGN AFFS., Sept. 7, 2007, <http://yaleglobal.yale.edu/content/great-leap-backward> (reporting 51,000 protests in 2005); Christina Larson, *The New Epicenter of China's Discontent*, FOREIGN POL'Y, Aug. 23, 2011, available at [http://www.foreignpolicy.com/articles/2011/08/23/the\\_new\\_epicenter\\_of\\_china\\_s\\_discontent](http://www.foreignpolicy.com/articles/2011/08/23/the_new_epicenter_of_china_s_discontent) (reporting 90,000 protests in 2010).

<sup>16</sup> *See* Kristen Day, *China's Environment And The Challenge Of Sustainable Development* 42-44 (M.E. Sharpe 2005). Tables 2.6 and 2.7 display results from two nationwide surveys conducted in China in 1995 and 1998, *id.* at 44. Adult respondents ranked environmental protection 6<sup>th</sup> overall out of 10 national concerns in 1995, and 5<sup>th</sup> overall in 1998 on a chart that also included public order, education, and economic development, *id.* at 44. However, among youth responders in 1998, environmental protection was ranked 1<sup>st</sup>, *id.* at 44.

great emphasis on its reputation and image abroad as a responsible player on the international stage and has gone to great lengths to protect and promote such an image.<sup>17</sup> In part of its efforts to become a larger player in the international scene, China has become more involved in international markets and has expanded imports and exports of goods and services accordingly.

Part of this process involves opening its borders to more foreign investment, companies and employees. Domestic protests have led to both stricter requirements for investment and the occasional canceling of valuable contracts.<sup>18</sup> Additionally, to foreigners used to certain environmental standards, the current state of China's air and water pollution border on being unacceptable.<sup>19</sup> Exacerbating these concerns, the same hazardous chemicals and process that damage China domestically have found their way into many of the products that China exports.<sup>20</sup> Loss of business due to pollution is an especially sensitive issue for the PRC, as it has staked much of its legitimacy in China's economic success. In perhaps a sign of just how important environmental concerns have become, in 2011 Chinese officials set a goal of intentionally lowering GDP growth in an effort to curb rising levels of air pollution.<sup>21</sup> Despite these efforts however, China's air pollution continues to rise, stressing the importance for a more aggressive

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<sup>17</sup> See Xia Liping, *China: A Responsible Great Power*, 10 J. CONTEMP. CHINA 17, 18, 20 (2001) China strives for a peaceful international environment, in part because it would be beneficial to its economic and social development, *id.* at 18. In pursuit of this, China has joined various international groups and stresses the importance of multilateral security and cooperation, *id.* at 20; Shaun Breslin, *China's Emerging Global Role: Dissatisfied Responsible Great Power*, 30 POL. 52, 53 (2010) ("China's leaders are keen to project an image of responsibility and trustworthiness; of a 'responsible great power' that is a force for global peace, stability and growth. This is not simply a desire to be liked. China's leaders understand that the world is watching them closely – and that many of those watching are concerned.").

<sup>18</sup> See Sophie Beach, *See Industrial Projects to Require Risk Assessments to Stem Protests*, CHINA DIGITAL TIMES, Nov. 13, 2012, <http://chinadigitaltimes.net/2012/11/industrial-projects-to-require-risk-assessments-to-stem-protests/>.

<sup>19</sup> See Kim, *supra* note 6, at 3-4 (loss of foreign investment and hard for companies to hire foreign workers).

<sup>20</sup> See Jack Phillips, *Mercury-Tainted Milk Products Recalled by Chinese Dairy Firm*, THE EPOCH TIMES, June 16, 2012, available at <http://www.theepochtimes.com/n2/china-news/mercury-tainted-milk-products-recalled-by-chinese-dairy-firm-252657.html>; Nadya Ivanova, *Toxic Water: Across Much of China, Huge Harvests Irrigated with Industrial and Agricultural Runoff*, CIRCLE OF BLUE, Jan. 18, 2013, available at <http://www.circleofblue.org/waternews/2013/world/toxic-water-across-much-of-china-huge-harvests-irrigated-with-industrial-and-agricultural-runoff/>.

<sup>21</sup> See Jonathan Watts, *China to Slow GDP Growth in Bid to Curb Emissions*, THE GUARDIAN, Feb. 28, 2011, at p23, available at <http://www.guardian.co.uk/environment/2011/feb/28/china-gdp-emissions>.

and far-reaching solution.

China's international concerns are further exacerbated by the very nature of environmental pollution. Pollution follows no laws, regulations or borders and while it can travel freely and diffuse over staggeringly wide areas, modern technology has reached a point where the sources of pollution are clearly discernable.<sup>22</sup> In addition to being readily traced to the source, pollution also tends to be extremely hard to reverse, with few quick or inexpensive fixes.<sup>23</sup> Already known for having the world's largest population and some of the fastest economic and industrial growth ever seen, in 2007 China also became known as the world's foremost emitter of greenhouse gases.<sup>24</sup> Titles like these do not bode well for China, even if large portions of these emissions are the direct result of high international demand for Chinese exports.<sup>25</sup> As the push for a global solution to air pollution grows strong, being readily identified as a major source of long term, world-wide effecting environmental damage and pollution is a position that China should seek to avoid.<sup>26</sup>

## **Section 2: The Dangers of Air Pollution and Fine Particulate Matter**

Clean and breathable air is a necessary component for human life. According the US Environmental Protection Agency (EPA), every person on the planet breathes in approximately 3000 gallons of air per day.<sup>27</sup> When this air is polluted, those pollutants are able to enter the body, with a myriad of possible effects from the benign to deadly cancers, brain and nerve

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<sup>22</sup> See NASA, *New Map Offers a Global View of Health-Sapping Air Pollution*, Sept. 22, 2010, <http://www.nasa.gov/topics/earth/features/health-sapping.html> (noting that areas of the highest concentrations are present over China).

<sup>23</sup> See South Coast Air Quality Management District, *Fifty Years of Progress Toward Clean Air*, May 1997, <http://www.aqmd.gov/news1/Archives/History/marchcov.html>. (explaining how Los Angeles has been attempting to curb its smog and air pollution for *decades*, yet still has some of the highest levels in the US).

<sup>24</sup> See Wang, *supra* note 13, at 112 (noting that most of these emissions come from China's heavy reliance on coal for energy).

<sup>25</sup> See *id.* at 116 (up to a third of China's greenhouse gas emissions due to exports demand); Kim, *supra* note 6 (noting demand in US partially to blame for Chinese emissions increases).

<sup>26</sup> See *supra* text accompanying note 17.

<sup>27</sup> EPA, *Why Should You Be Concerned About Air Pollution?*, [http://www.epa.gov/airquality/peg\\_caa/concern.html](http://www.epa.gov/airquality/peg_caa/concern.html) (3000 gallons is approximately equal to 400 sq feet or a 20'x20' sized room) (last visited Mar. 18, 2013).



damage, birth defects, and more.<sup>28</sup> The risks of developing such health problems are even higher in the over 400 million Chinese elderly and youth; approximately 27% of the Chinese population.<sup>29</sup>

Much of the danger is due to the presence of fine particulate matter (PM) in the air. PM is categorized by size, as measured in micrometers. The larger sized PM<sub>10</sub> originate from dirt, smoke, dust, mold, or pollen found in the air.<sup>30</sup> The smaller, and far more deadly, PM<sub>2.5</sub> is typically composed of either toxic organic compounds or heavy metals, both of which are byproducts of industrial exhaust.<sup>31</sup> Both sized particles are small enough to be able to penetrate indoor living spaces and enter the lungs; however, smaller sized particles are able to penetrate further.<sup>32</sup> Studies have directly linked high exposure to PM with early death and a variety of diseases, including increased risk of heart disease.<sup>33</sup> To track and report the quantity of these fine particles in the air, the EPA has created the Air Quality Index (AQI), a color-coded system that reports air quality on a scale from good to hazardous.<sup>34</sup> The AQI system is not only used within the US, but has become the measurement system used by the US Embassy in Beijing and US consulates in Shanghai and Guangzhou.

In a move that has greatly upset some Chinese officials, for several years the PM<sub>2.5</sub> data

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<sup>28</sup> *Id.*

<sup>29</sup> World Bank, *supra* note 8, at 47, available at <http://wdi.worldbank.org/table/2.1> (19% ages 0-14, 8% ages 65+); See Wang, *supra* note 24, at 117 (“Pollutants from coal-fired power plants in China have been show to have neurobehavioral effects on the development of children.”).

<sup>30</sup> Jin-Feng Wang et al., *Estimation of Citywide Air Pollution in Beijing*, 8 PLOS ONE 1, 1 (2013).

<sup>31</sup> *Id.*

<sup>32</sup> *Id.*

<sup>33</sup> See Kristen A. Miller et al., *Long-Term Exposure to Air Pollution and Incidence of Cardiovascular Events in Women*, 356 NEW ENG. J. MED. 447, 447 (2007). This study measured the increased risk of heart attack and heart disease in post-menopausal women in the US due to exposure to PM. The study shows that for every 10 micrograms of PM in the air there is a 24% increased risk of heart attack, and 76% increased risk of death by cardiovascular disease, *id* at 447. When combined with data from Wang et al. on average air pollution in Beijing, *supra* note 28, the results are an approximate 175% higher risk of heart attack, and 556% higher risk of death by cardiovascular disease. See also EPA, *PM2.5 National Ambient Air Quality Standards*, [http://www.epa.gov/ttn/naaqs/pm/pm25\\_index.html](http://www.epa.gov/ttn/naaqs/pm/pm25_index.html) (last visited Apr. 16, 2013).

<sup>34</sup> See AIRnow, *Air Quality Index: A Guide to Air Quality and Your Health*, <http://www.airnow.gov/index.cfm?action=aqibasics.aqi#good> (last visited Apr. 18, 2013).

has been posted to a Twitter account and updated hourly.<sup>35</sup> These postings gained international attention in late 2010 when measurements taken in at the Embassy in Beijing registered higher than the maximum amount of 500 allowed by the AQI chart; thereby, triggering a programming ‘Easter Egg’ that reported the air as “crazy bad.”<sup>36</sup> Having reached the maximum AQI index score of 500 or more calculates to twenty times the guideline average recommended by the World Health Organization (WHO).<sup>37</sup> More recently, air quality in China has only gotten worse with measurements of PM<sub>2.5</sub> reaching a staggering 993 in Beijing on January 12, 2013.<sup>38</sup> The Chinese government has responded in several ways. First, PRC officials have publicly asked foreign countries to cease publicizing air quality information, citing potential violation of several international treaties and domestic laws.<sup>39</sup> Second, the PRC has begun to publish its own air quality data, initially to mixed review but now roughly on par with those published by the US Embassy and consulates.<sup>40</sup> Third, the Chinese Communist Party (CCP) notes that it is still a developing nation and should thereby be granted some level of leeway and not necessarily be

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<sup>35</sup> See Twitter, *supra* note 2.

<sup>36</sup> Jonathan Watts, *Twitter Gaffe: US Embassy Announces ‘Crazy Bad’ Beijing Air Pollution*, GUARDIAN.CO.UK, Nov. 19, 2010, <http://www.guardian.co.uk/environment/blog/2010/nov/19/crazy-bad-beijing-air-pollution>. The posting was quickly changed to “beyond index.” “Easter Egg” refers to inside jokes or hidden features that are embedded in programs, games, or other forms of media by programmers and directors.

<sup>37</sup> See WHO, *Air Quality and Health*, Sept. 2011, <http://www.who.int/mediacentre/factsheets/fs313/en/index.html> (2.5PM 24-hour mean of 25 is the guideline value).

<sup>38</sup> See *Beijing Orders Official Cars Off Roads to Curb Pollution*, BLOOMBERG NEWS, Jan. 13, 2013,

<http://www.businessweek.com/news/2013-01-13/beijing-orders-official-cars-off-roads-to-curb-pollution>.

<sup>39</sup> Keith Bradsher, *China Asks Other Nations Not to Release Its Air Data*, N.Y. TIMES, June 6, 2012, pg. A4, available at [http://www.nytimes.com/2012/06/06/world/asia/china-asks-embassies-to-stop-measuring-air-pollution.html?\\_r=0](http://www.nytimes.com/2012/06/06/world/asia/china-asks-embassies-to-stop-measuring-air-pollution.html?_r=0).

<sup>40</sup> See Ministry of Environmental Protection The People’s Republic of China, *Action Plan on Environment and Health (2007-2015)*, Jan. 8, 2008, available at [http://english.mep.gov.cn/News\\_service/media\\_news/200801/t20080108\\_116052.htm](http://english.mep.gov.cn/News_service/media_news/200801/t20080108_116052.htm). Originally, air pollution monitoring was laid out in a 2008 report and scheduled to occur by 2015. Also, the Chinese system initially differed significantly from the US system in that it avoided reporting on PM. This was then changed to reporting PM<sub>10</sub>, a significantly larger sized category of PM and therefore less dangerous. Public pressure again forced a change and the Chinese government AQI is now largely similar to the US AQI reports and includes PM<sub>2.5</sub> at a category. Remaining differences include a larger number of recording stations by the Chinese government and daily averaged reports rather than hourly updates. However, this is not necessarily misinformation on the part of the government, as the US numbers/warnings assume 24-hour exposure at the reported levels – despite the fact that the numbers almost always change significantly throughout the day. Neither system is wrong and each has its positive and negative consequences.

compared to fully developed nations like the US or its standards.<sup>41</sup> This trend of increasing air pollution levels is expected to continue as developing countries such as China are expected to increase their consumption and combustion of wood and fossil fuels as they grow economically.<sup>42</sup> However, as mentioned earlier, pollution created in China does not necessarily stay within China's borders.

Studies have shown that significant amounts of air pollution originating in Asia, and containing PM, frequently travels across the Pacific Ocean onto the western portions of the US.<sup>43</sup> A study using satellite imaging and tracking technology estimates that 10 billion pounds of aerosol pollutants reach US shores each year.<sup>44</sup> Another report tracked a single dust cloud from China as it made its way around the entire planet.<sup>45</sup> However, it is not only China's pollution that crosses borders. In the northern hemisphere, global air currents tend to blow from the west to the east,<sup>46</sup> and it is via these currents that pollution from Asia readily reaches the US west coast. These currents also carry air pollution from the US east coast to Europe, and from Europe back to Asia in a non-stop cyclical process.<sup>47</sup> Finally, despite a large number of high quality studies and reports, professionals in the field of environmental sciences acknowledge that studies are generally underfunded and that, as more resources are allocated, the quality and accuracy of data will increase.<sup>48</sup> This acknowledgement, however, should not mean that these studies and results be taken any less seriously, if anything, given the fact that the world has only one atmosphere

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<sup>41</sup> See Bradsher, *supra* note 37. The request is bolstered by WHO air quality guidelines that contain slightly higher 'interim-target levels' that are designed in part to accommodate the goals and hardships faced by developing states. While low 2.5PM numbers are better, it is harder for developing states to reach these numbers as easily as fully developed states.

<sup>42</sup> See National Research Council, *supra* note 6, at 78.

<sup>43</sup> See National Research Council, *supra* note 6, at 60 (noting that pollution from Asia could account for upwards of 50% in overall PM variation in local Western United States reports between low and high pollution years).

<sup>44</sup> See NASA, *NASA Satellite Measures Pollution From East Asia to North America*, Mar. 17, 2008, available at [http://www.nasa.gov/topics/earth/features/pollution\\_measure\\_prt.htm](http://www.nasa.gov/topics/earth/features/pollution_measure_prt.htm).

<sup>45</sup> See National Research Council, *supra* note 6, at 60 (citing *Uno et al.*, 2009).

<sup>46</sup> See National Research Council, *supra* note 6, at 15.

<sup>47</sup> See National Research Council, *supra* note 6, at 15-17.

<sup>48</sup> See National Research Council, *supra* note 6, at 176-177.

and one interconnected environment, it would behoove the international community to plan and prepare aggressively and proactively.<sup>49</sup>

### **China's Efforts to Address Pollution**

Despite some of the worst rates of air pollution in the world, the PRC has not been idle in its efforts to address air pollution. In addition to constitutional articles and domestic atmospheric pollution laws, China is also an active member in several multilateral and bi-lateral international efforts to address environmental pollution as outlined below. Although these efforts are clearly not enough, they still indicate an awareness of the issues, and political will to arrive at a solution. Lessons from China's domestic and international efforts may also help guide the creation of a more robust, global approach to air pollution.

### **Domestic Chinese Efforts**

China has instituted numerous domestic legislation, official plans, and goals, aimed at preserving the environment or combating pollution. Relevant efforts to combat or protect against atmospheric degradation are enshrined in constitutional articles, targeted atmospheric pollution legislation, and political acts such as speeches, 5-Year Plans, and government branch actions.

The Constitution of the People's Republic of China (the Constitution) possesses supreme legal authority, with all Chinese people, parties and organizations tasked with ensuring its full implementation.<sup>50</sup> Regarding the environment in general, the Constitution establishes the State's responsibility to protect and improve upon the environment and ecology, while also

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<sup>49</sup> See James Cameron & Juli Abouchar, *The Precautionary Principle: A Fundamental Principle of Law and Policy for the Protection of the Global Environment*, 14 B.C. INT'L & COMP. L. REV. 1, 1 (1991), available at <http://lawdigitalcommons.bc.edu/cgi/viewcontent.cgi?article=1335&context=iclr>. The Precautionary Principle is a doctrine of international law that encourages, and perhaps obliges, the proactive consideration of environmental damage before the implementation of a given policy, *id.* The principle is flexible and does not require definitive proof that damage will occur in order to preclude the execution of a given action, *id.*

<sup>50</sup> The National People's Congress of the People's Republic of China, *The Constitution of the People's Republic of China*, Mar. 14, 2004, at Preamble [hereinafter Chinese Constitution], available at [http://www.npc.gov.cn/englishnpc/Constitution/2007-11/15/content\\_1372962.htm](http://www.npc.gov.cn/englishnpc/Constitution/2007-11/15/content_1372962.htm).

implementing controls on pollution.<sup>51</sup> The Constitution further establishes the State's responsibility to implement various medical and health services for the purposes of protecting and improving the health and fitness of the Chinese citizenry.<sup>52</sup>

However, evoking Constitutional rights and protections for environmental concerns have largely been unheard of, until several years ago. Placing pressure on the government, participants and observers of increasingly popular mass protests have cited the constitutional rights of citizens to criticize and assemble, as well as State responsibilities to protect the environment and health of the people.<sup>53</sup> A popular protest against a chemical plant in Xiamen, China in 2007 is considered a prime example of this behavior.<sup>54</sup> Tactics such as massive organized 'strolls' have developed as a means for protesters to both exercise their constitutional rights to gather, while simultaneously skirting government controls on public demonstrations.<sup>55</sup> These protests have had a marked impact on China's image and business interests, in turn spurring government efforts to reform the approval process for certain industrial projects.<sup>56</sup>

Targeted legislation efforts have also laid out clear rules and regulation regarding environmental protection and efforts to combat pollution. The Law of the People's Republic of China on the Prevention and Control of Atmospheric Pollution (CAP), is one such piece of

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<sup>51</sup> Chinese Constitution, *supra* note 48, at art. 26, available at [http://www.npc.gov.cn/englishnpc/Constitution/2007-11/15/content\\_1372963.htm](http://www.npc.gov.cn/englishnpc/Constitution/2007-11/15/content_1372963.htm); See also Darcey J. Goelz, *China's Environmental Problems: Is a Specialized Court the Solution?*, 18 PAC. RIM. L. & POL'Y J. 155, 165 (2009). The Chinese Constitution was amended in 1978 to include environmental protection. Historically, environmental protection was not the responsibility of every day citizens, but of the Emperor and his officials. Although constitutional rights exist, they are not enforceable unless additional statutes expressly direct the courts to do so, *id.* at 165.

<sup>52</sup> Chinese Constitution, *supra* note 48, at art. 21, available at [http://www.npc.gov.cn/englishnpc/Constitution/2007-11/15/content\\_1372963.htm](http://www.npc.gov.cn/englishnpc/Constitution/2007-11/15/content_1372963.htm).

<sup>53</sup> See Keith Hand, *Resolving Constitutional Disputes in Contemporary China*, 7 U. PA. E. ASIA. L. REV. 51, 102-105 (2011).

<sup>54</sup> See *id.* at 104. The author cites to case compilations in Chinese that I am unable to read. For more information please see the author's footnote 231, which in part cites the source: Zhongguo Xianfa Shili Yanjiu (San)

<sup>55</sup> See Wang, *supra* note 13, at 125; Linjun Fan, *Taking a Stroll – The Chinese Way of Demonstration*, CHINA DIGITAL TIMES, May 11, 2008, <http://chinadigitaltimes.net/2008/05/liu-xiaoyuan-taking-a-stroll-the-chinese-way-of-demonstration/> (original post from Beijing lawyer Liu Xiaoyuan which has since been deleted).

<sup>56</sup> See Beach, *supra* note 18. <http://chinadigitaltimes.net/2012/11/industrial-projects-to-require-risk-assessments-to-stem-protests/>.

legislation, and lays out a series of rules aimed at achieving the goals of environmental improvement and protection, preserving human health, and sustainable development of both the economy and ecology.<sup>57</sup> The CAP seeks to accomplish these goals by establishing rights and responsibilities, support and incentives, structure, and penalties for non-compliance. Under the CAP, all parties including individuals, local governments, and the State are responsible for environmental protection, and possess the right to report violations.<sup>58</sup> Rewards are given to those companies and regions that successfully reduce pollution, with the State also providing support for scientific and technological research, as well as low-tech methods and dissemination of information.<sup>59</sup> Structure comes from clear timetables to phase out obsolete or high polluting technology and methods, targeting specific areas and cities, few exceptions, and establishing inspection methods that specifically include maintaining company secrets.<sup>60</sup> Consequences for violations include a fee system, with any revenue re-invested to anti-pollution efforts, and penalties that may include forced shutdowns and the possibility for criminal liability.<sup>61</sup>

Despite becoming effective in 2000, it is clear from the current state of China's air quality that either the CAP is not being aggressively enforced, or that pollution in China has reached a tipping point that requires more forceful efforts.<sup>62</sup> Possible reasons for the lack of enforcement include a lack of clarity in environmental laws, the strong influence of local governments, and a general lack of environmental law expertise.<sup>63</sup> Although the CAP includes

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<sup>57</sup> Ministry of Environmental Protection The People's Republic of China, *Law of the People's Republic of China on the Prevention and Control of Atmospheric Pollution*, Apr. 29, 2000, at art. 1 [hereinafter CAP] available at [http://english.gov.cn/laws/2005-09/07/content\\_29877.htm](http://english.gov.cn/laws/2005-09/07/content_29877.htm).

<sup>58</sup> *Id.* at art. 2-5.

<sup>59</sup> *Id.* at art. 8-10.

<sup>60</sup> *Id.* at art. 7, 19, 21, 63.

<sup>61</sup> *Id.* at art. 46, 49, 56, 65.

<sup>62</sup> See Goelz, *supra* note 51, at 166 (citing Chinese lawyers who think that "barely ten percent of China's environmental laws and regulations are actually enforced.").

<sup>63</sup> *Id.* at 169-172. The author cites examples of how many judges and courts in China are unaware of key components of Chinese environmental law, such as shifting the burden of proof on the defendant. Unfamiliar with

specificity in regards to certain timetables and levels of fines, other areas of the CAP remain vague. For example, while granting a right to report pollution violators, there is no clear information of how or to whom such reports may be submitted. According to some scholars, Chinese environmental laws often suffer from being highly aspirational, while lacking in clarity, force, and specificity, which leads to confusion and lack of enforcement.<sup>64</sup> Local governments influence the effectiveness of laws due to their control over local environmental protection bureau (EPB) budgets, and appointment of EPB directors.<sup>65</sup> The CAP provides useful insight into what a comprehensive air pollution prevention scheme may cover.

As mentioned earlier, mass protests associated with environmental concerns have increased at an estimated 29% per year since 1996, with an estimated 90,000 protests occurring in 2010, and 180,000 in 2011.<sup>66</sup> Similarly, 300,000 environmentally related petitions were filed between 2006 and 2010.<sup>67</sup> As a result, leading politicians, including the newly appointed President Xi Jinping and Premier Li Keqiang, have gone on record to lament the current state of China's environment and to promise Party action.<sup>68</sup> Not satisfied with only domestic efforts, China has become an active participant in several important bi-lateral and multilateral efforts to

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the laws and procedures themselves, poor plaintiffs typically aren't aware of the possibility of shifting the burden of proof and therefore are unable to exercise their claims as strongly as they might otherwise be able to, *id.* at 172.

<sup>64</sup> See Stefanie Beyer, *Environmental Law and Policy in the People's Republic of China*, 5 CHINESE J. INT'L L. 185, 205-208 (2006). Dr. Beyer notes the frequent use of 'should' (*ying/yinggai*) rather than 'shall' (*bixu*) or 'must' (*dei*) as a major common weakening factor in Chinese environmental laws, *id.* at 205; Richard J. Ferris & Hongjun Zhang, *Reaching Out to the Rule of Law: China's Continuing Efforts to Develop an Effective Environmental Law Regime*, 11 WM. & MARY BILL RTS. J. 570, 594-60 (2003).

<sup>65</sup> See Ferris, *supra* note 62, at 595.

<sup>66</sup> See Larson, *supra* note 15; Feng Jie, *Officials Struggling to Respond to China's Year of Environmental Protests*, CHINA DIALOGUE, June 12, 2012, <http://www.chinadialogue.net/article/show/single/en/5438-Officials-strug>; John Kennedy, *Environmental Protests in China on Dramatic Rise, Experts Say*, S. CHINA MORNING POST, Oct. 29 2012, available at <http://www.scmp.com/news/china/article/1072407/environmental-protests-china-rise-expert-says>.

<sup>67</sup> See Jie, *supra* note 64.

<sup>68</sup> See William Wan, *China's New President Promises 'Great Renaissance'*, WASHINGTON POST, Mar. 17, 2013, [http://www.washingtonpost.com/world/asia\\_pacific/chinas-new-president-promises-great-renaissance/2013/03/17/ccd53fb2-8ef3-11e2-9cfd-36d6c9b5d7ad\\_story.html](http://www.washingtonpost.com/world/asia_pacific/chinas-new-president-promises-great-renaissance/2013/03/17/ccd53fb2-8ef3-11e2-9cfd-36d6c9b5d7ad_story.html); Peng Tian, *China's Next Leader Looks to Sooth Environmental Angst*, ROYAL SOC'Y CHEMISTRY, Jan. 4, 2013, <http://www.rsc.org/chemistryworld/2013/01/china-president-xi-jinping-environment-protests-pollution>.

combat climate change and environmental degradation.

### **Bi-Lateral and Multilateral Efforts**

One of the permanent five (P5) members on the UN Security Council (UNSC), China is a key member of the UN Framework Convention on Climate Change (FCCC).<sup>69</sup> The FCCC is the body responsible for creating many of the largest international environmental treaties, including the Kyoto Protocol, and organizing conferences like the Rio+20 Conference on Sustainable Development.<sup>70</sup> For the purposes of this article, China's membership to two major multilateral and bi-lateral agreements, the Asia-Europe Meeting (ASEM) and the EPA-China Environmental Law Initiative (EPA), are perhaps even more important. Both show great potential for the future of an international effort to address the issue of air pollution.

China is one of 49 members of the ASEM, an organization that meets bi-annually on various issues important to the regions of Asia and Europe.<sup>71</sup> At the seventh ASEM meeting held in Beijing in 2008, the organization issued the Beijing Declaration on Sustainable Development (the Declaration). Noting the importance of preserving the environment for the future of all mankind, the Declaration stresses cooperation and advancement in pursuit of environmental protection efforts.<sup>72</sup> Key factors in this process include the use of incentives, high tech innovation, and realizing the importance in differentiating the means and responsibilities of developing versus fully developed states. ASEM members agreed that fully developed states hold the responsibility to lead the international community by sharing technology and best

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<sup>69</sup> United Nations Framework Convention on Climate Change [UNFCCC], *Status of Ratification of the Convention*, [http://unfccc.int/essential\\_background/convention/status\\_of\\_ratification/items/2631.php](http://unfccc.int/essential_background/convention/status_of_ratification/items/2631.php).

<sup>70</sup> See generally, United Nations Framework Convention on Climate Change, available at <http://unfccc.int/2860.php> (for broad overview of the UNFCCC).

<sup>71</sup> See generally, ASEM Info Board, available at <http://www.aseminfoboard.org/about-asem-menu.html> (for broad overview of ASEM).

<sup>72</sup> See ASEM, *Beijing Declaration on Sustainable Development*, Oct 2008, <http://www.aseminfoboard.org/2011-12-22-05-56-13/download-doc.html?id=1940>. Not a passive or token member, China also pushed for the creation of an Eco-City Network – an organized network of major cities around the world dedicated to reducing environmental impacts and sharing expertise, experiences, and best practices.



practices, while also holding developing states responsible for mitigation wherever possible.

China has also partaken in bi-lateral agreements, notably a recent arrangement with the EPA. Since the venture began in 2007, China has worked closely with US partners and experts to learn how to best address the environmental problems it faces. This arrangement shows China's commitment to develop and promote a strong environmental legal regime of its own.

Despite these efforts as well as China's considerable efforts to establish domestic, international, multilateral systems to address the issue of environmental protection, it is increasingly clear that current efforts are falling short. However, the issue of environmental protection is not China's problem alone, the entire international community will share in bearing the costs and burdens of inaction as environmental catastrophes occur with ever increasing frequency. The international community faced a similar situation during the 1990s and early 2000s, a period marked by humanitarian crises that required strong, decisive, and global responses. The ultimate response was the rapid creation of a new international doctrine: The Responsibility to Protect.

#### **Section Four: The Responsibility to Protect**

The Responsibility to Protect (R2P) was created to prevent the reoccurrence of the lack of international action during major humanitarian crisis such as those in Bosnia-Herzegovina, Rwanda, and Kosovo.<sup>73</sup> Although the concept initially received strong resistance from states in the global South, resistance to the idea was largely eliminated by the work of the International Commission on Intervention and State Sovereignty (ICISS).<sup>74</sup> In 2001, the ICISS formally

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<sup>73</sup> See generally SAMANTHA POWER, *A PROBLEM FROM HELL: AMERICA AND THE AGE OF GENOCIDE*, 247-443, Harper Perennial 2002. (A Pulitzer prize winning book that outlines America's, and the international community's, lack of action in the face of events that were later determined to include acts of genocide.)

<sup>74</sup> See Gareth Evans, *The Responsibility to Protect in Environmental Emergencies*, 103 AM. SOC'Y INT'L L. 17, 28 (2009). The majority of developing states and former colonies are located in the southern hemisphere, while almost all of highly developed states and major military powers are located in the northern hemisphere. Small states, developing states, and in particular former colonies were cautions of R2P and its strong promotion by major

introduced the concept of R2P to the international community as an answer to past inaction.

Facing one of the largest hurdles to international agreement to authorize international intervention, broaching sovereignty, the ICISS re-framed the issue by changing references from a “right to intervene” to “a responsibility to protect.” In doing so, the drafters not only hoped to ease fears of sovereign infringement, but to also place the focus for efforts onto the victims rather than outside actors. While generally broad in its recommendations, the ICISS report focused on key elements including prevention, reaction, and rebuilding. These foci would allow a doctrine to address an issue either preemptively, mid-process, or post-conflict as necessary. Additional elements of the report took bold steps towards rectifying UN Security Council inaction, including suggestions to reincarnate the Uniting for Peace methods used during the Cold War.<sup>75</sup> Despite broaching sensitive issues such as sovereignty and ways to work around the UNSC, the ICISS report was widely accepted and promoted during the run up to the 2005 World Summit.<sup>76</sup>

Formally discussed at the 2005 World Summit in New York City, the central premise of R2P was established in the official World Summit Outcome Declaration (WSOD).<sup>77</sup> Within months, the UN General Assembly voted to adopt the content of the WSOD.<sup>78</sup> This was soon mirrored by the UNSC, making specific references to the key R2P paragraphs of the WSOD.<sup>79</sup>

It was during this process of adoption, starting at the World Summit Meeting, that the

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northern powers. For good reason, they had fears that a system that would allow the infringement of state sovereignty could easily become a means to exercise imperialistic ambitions.

<sup>75</sup> For more information on Uniting for Peace *see generally*, CHRISTIAN TOMUSCHAT, UNITING FOR PEACE, United Nations Audiovisual Library of International Law 2008, *available at* [http://untreaty.un.org/cod/avl/pdf/ha/ufp/ufp\\_e.pdf](http://untreaty.un.org/cod/avl/pdf/ha/ufp/ufp_e.pdf).

<sup>76</sup> SARAH TEITT, CHINA AND THE RESPONSIBILITY TO PROTECT 8 (Asia-Pacific Center for the Responsibility to Protect 2008). Pre-international intervention in Libya, China had a history of support for R2P at the UN. First, it participated in the unanimous adoption of the 2005 World Summit Outcome document at the General Assembly, *id.* at 8. Second, China declined to prevent the passage of UNSC Res. 1974, the first authorization for foreign military intervention against an unwilling sovereign state, *id.* at 8.

<sup>77</sup> G.A. Res. 60/1, ¶¶ 138 – 140, U.N. Doc. A/RES/60/1 (Oct. 24, 2005).

<sup>78</sup> *Id.*

<sup>79</sup> S.C. Res. 1674, ¶ 4, U.N. Doc. S/RES/1674 (Apr. 28, 2006).

original text, purposes, and rules of R2P were narrowed from those set forth by the ICISS. By 2009, when UN Secretary General Ban-Ki Moon released his report on the status of R2P, the doctrine was only to be used for instances of the specific crimes of genocide, war crimes, ethnic cleansing, and crimes against humanity.<sup>80</sup> Furthermore, R2P was only to be used for specific instances and issues related to acts by a sovereign state within its own territory.

## **Rules and Use**

The Secretary General's 2009 report reiterated and further clarified the processes through which R2P is initiated. The report breaks the doctrine into three main pillars, each representing a different level of responsibility and duty.<sup>81</sup> Pillar one establishes the responsibility of states to protect their own populations from the four specific crimes of genocide, war crimes, ethnic cleansing, and crimes against humanity.<sup>82</sup> Placing this responsibility upon a state not only served to re-affirm aspects of state sovereignty, but also modified the concept to add a positive duty that had previously not existed. Pillar two expanded this responsibility to include the international community, placing upon all states the responsibility to assist others in fulfilling the obligations of pillar one.<sup>83</sup> Combining the responsibilities of the individual state and the international community, it was hoped that pillar two would serve as a strong preventative force. Pillar three addresses the instance where a state is unable or unwilling to protect its people, and circumstances demand quick and meaningful action.<sup>84</sup> Allowing for the full range of UN responses, this pillar includes UNSC authorized actions such as referral to the International Criminal Court (ICC), sanctions, and the use of force.<sup>85</sup>

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<sup>80</sup> SG Report, *supra* note 3, ¶ 10(b).

<sup>81</sup> SG Report, *supra* note 3, ¶¶ 11-66 (outlining the three pillars, then discussing each in detail).

<sup>82</sup> SG Report, *supra* note 3, ¶ 11(a).

<sup>83</sup> SG Report, *supra* note 3, ¶ 11(b).

<sup>84</sup> SG Report, *supra* note 3, ¶ 11(c).

<sup>85</sup> SG Report, *supra* note 3, ¶¶ 11(c), 54, 57.

If mankind were to lose access to plentiful supplies of clean air and water, the possibility of major humanitarian crises on a scale not yet seen would become more likely. Created for the express purposes of addressing mass humanitarian crises, and equipped with all of the tools and means of the UN, could R2P be the ideal means to also address global environmental protection?

### **Can R2P Apply to Environmental Protection?**

The question of whether or not R2P should or could be expanded to cover environmental issues is one that has been hotly debated by both legal experts and even world leaders.<sup>86</sup> This debate largely arose after Cyclone Nargis devastated large portions of Myanmar in May 2008, resulting in over 140,000 deaths in addition to massive housing, food, and sanitation crises.<sup>87</sup> The disaster was compounded by the fact that initially the Myanmar government, a military junta, was actively denying access to international humanitarian aid workers and relief supplies. This rejection of assistance was met by several strong comments that R2P clearly authorized international intervention, regardless of the desires of the Myanmar government.<sup>88</sup> However, after having been officially accepted by the international community in 2005, by 2008 many supporters of R2P had seemingly become unclear as to the scope of the doctrine, which resulted in general confusion and a rising desire for clarity on the status of R2P.<sup>89</sup> In an effort to both provide clarity and definitively define and protect the new doctrine, UN SG Ban-Ki Moon issued a report in 2009 that not only clarified the structure, scope, and rules of R2P, but also bluntly stated that R2P did not apply to issues such as climate change or environmental disaster, as to do

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<sup>86</sup> See generally Evans, *supra* note 74; Edward C. Luck, *Environmental Emergencies and the Responsibility to Protect: A Bridge Too Far*, 103 AM. SOC'Y INT'L L. 32 (2009); Linda A. Malone, *Green Helmets: Eco-Intervention in the Twenty-First Century*, 103 AM. SOC'Y INT'L L. 19 (2009); *To Protect Sovereignty, or to Protect Lives?*, ECONOMIST, May 15, 2008, available at <http://www.economist.com/node/11376531>.

<sup>87</sup> U.N. Dev. Program [UNDP], *Charting a New Course: ASEAN & UN Partnership*, p. 13 (2010).

<sup>88</sup> See Seth Mydans, *Myanmar Faces Pressure to Allow Major Aid Effort*, N.Y. TIMES, May 8, 2008, available at [www.nytimes.com/2008/05/08/world/asia/08myanmar.html](http://www.nytimes.com/2008/05/08/world/asia/08myanmar.html); Louis Charbonneau, *China, Indonesia Reject France's Myanmar Push*, REUTERS, May 8, 2008, available at [www.reuters.com/article/2008/05/08/idUSN08518240](http://www.reuters.com/article/2008/05/08/idUSN08518240).

<sup>89</sup> See Luck, *supra* note 86, at 33-34 (describing how states had essentially forgotten what they had supported several years earlier, and how they needed more details to support the SG's definition of R2P).

so would undermine the hard won 2005 World Summit consensus.<sup>90</sup>

Several months after the release of this report, the issue of R2P applicability to environmental issues was also addressed at the Annual Meeting of the American Society of International Law. During this meeting, several international law and R2P experts laid out thorough reasons why R2P should not be expanded to cover environmental issues.<sup>91</sup> Arguments given included that R2P was too new of a doctrine, the difficulty in triggering R2P under its current specific requirements for certain crimes, and that an expansion of R2P would only serve in weakening the current doctrine.<sup>92</sup> Further analysis supports these points and the overall contention that R2P should not simply be expanded in scope. This paper agrees with these arguments, especially in light of the current state of R2P, to be discussed below.

There is no doubt that R2P is still a very young international norm, having been conceptualized a little over a decade ago, formally adopted and defined shortly thereafter, yet only fully implemented very recently.<sup>93</sup> While the rationale behind this argument made in 2009 was that the international community must first be able to acclimate to the existence of such responsibility, the rationale today, albeit similar, is more nuanced. The use of forced option under R2P was exercised for the first, and only, time in Libya in 2011.<sup>94</sup> However, despite similar if not worse circumstances in Syria, R2P has yet to be used again.<sup>95</sup> Additionally,

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<sup>90</sup> See SG Report, *supra* note 3, ¶ 10(b) (“To try to extend it to cover other calamities [to] climate change or the response to natural disasters, would undermine the 2005 consensus and stretch the concept beyond recognition or operational utility.”) The 2005 World Summit Outcome document was adopted by consensus, meaning there was no voting required because all states agreed unanimously.

<sup>91</sup> See generally Evans, *supra* note 74; Luck, *supra* note 86; Malone *supra* note 86.

<sup>92</sup> See, Evans, *supra* note 74, at 29, 32; Luck, *supra* note 86, at 38; Malone, *supra* note 86, at 26-27.

<sup>93</sup> Although the UN has authorized military intervention before, the use of R2P in Libya in 2011 was the first time that the UN had ever authorized international military intervention within an unwilling sovereign state. This use is what is meant by ‘fully implemented’ throughout this paper.

<sup>94</sup> S.C. Res. 1974, *supra* note 78, ¶ 4 (authorizing the use of ‘all means necessary’).

<sup>95</sup> See MEGAN PRICE ET AL., PRELIMINARY STATISTICAL ANALYSIS OF DOCUMENTATION OF KILLINGS IN THE SYRIAN ARAB REPUBLIC 1 (The Benetech Human Rights Program 2013), available at <http://www.ohchr.org/Documents/Countries/SY/PreliminaryStatAnalysisKillingsInSyria.pdf> (“[T]he seven databases collected here identified 59,648 unique killings.”); See also Ashley Fantz, *Syria Death Toll Probably at*

countries that had formerly long supported R2P throughout its creation and use have seemingly ceased supporting the doctrine as readily as before.<sup>96</sup> The purpose of R2Ps use in Libya was to save civilian lives from brutal attacks by the Libyan military; however, within days the authority R2P granted to intervene was twisted to a purpose far from its origin – regime change.<sup>97</sup> Given the current lack of action in Syria, despite a death toll at 70,000 and rising, it is clear that the international community is still struggling to come to terms with the limits and bounds of R2P intervention.<sup>98</sup>

In contrast to a lack of clarity as to its limits and bounds, the doctrine of R2P very clearly only applies to instances of genocide, war crimes, ethnic cleansing, and crimes against humanity that have either occurred or are strongly suspected of occurring soon.<sup>99</sup> Given these restrictions, while it is possible for R2P to still trigger in the event of an environmental disaster, it is exceptionally unlikely. An environmental disaster alone is insufficient to trigger R2P; the situation must somehow also be connected to a humanitarian crisis or act of massive violence.<sup>100</sup> Furthermore, for international intervention to happen, the state within which the event has occurred must be either unable or unwilling to protect its own population. Because these major

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70,000, *U.N. Human Rights Official Says*, CNN, Feb. 12, 2013, <http://www.cnn.com/2013/02/12/world/meast/syria-death-toll>.

<sup>96</sup> U.N. SCOR, 66<sup>th</sup> Sess., 6627<sup>th</sup> mtg. at 3-5, U.N. Doc. S/PV.6627 (Oct. 4, 2011), available at [http://www.un.org/ga/search/view\\_doc.asp?symbol=S/PV.6627](http://www.un.org/ga/search/view_doc.asp?symbol=S/PV.6627). China and Russia vetoed a measure to condemn government actions in Syria, noting the importance of the principle of non-intervention in domestic affairs, and respect for sovereignty and territorial integrity. These votes were cast despite the requests for intervention by regional groups including the Arab League, which had previously swayed China and Russia to *not* veto action in Libya.

<sup>97</sup> See U.N. SCOR, 66<sup>th</sup> Sess., 6498<sup>th</sup> mtg. at 8, 10, S/Pv.6498 (Mar. 17, 2011). Prior to the passage of UNSC Res. 1973, China and the Russian Federation asked questions on the specifics of the proposed no-fly zone, rules of engagement, and limits on the use of force, all of which were left unanswered by the other UNSC members. China also stressed the importance of requests by regional groups for intervention. The Russian Federation explicitly states concerns that the consequences of excessive use of force in Libya will harm the future ability to maintain peace and security throughout the Middle East. By extension, this can also mean harming the future ability to maintain peace and security via R2P.

<sup>98</sup> See *supra* note 94 and accompanying text.

<sup>99</sup> See *supra* note 79 and accompanying text.

<sup>100</sup> Malone, *supra* note 85, at 19 (example of a dam breaking and somehow causing massive crisis downstream, etc.).

hurdles and coincidences make it unlikely for R2P to be triggered even for a singular environmental disaster, it is even more unlikely for R2P to be triggered for more general environmental protection or conservation efforts.

Finally, R2P is a targeted and specific doctrine, and to expand its scope could undermine its effectiveness. When politicians and scholars conceptualized R2P, the world desperately needed a solution to mass atrocities and other events that shocked the world. Not only for moral and ethical reasons, but also because a lack of a response by the international community, in particular the UN, would be a clear sign of its inability to address major world events and would raise questions as to its legitimacy and purpose.<sup>101</sup> In the anarchic international system, where there is no overarching power, organizations such as the UN survive in large part because of the legitimacy that they hold in the eyes of the world.<sup>102</sup> An inability to deal with such negative world events directly puts any such legitimacy into question. As a result, R2P is a key doctrine for the future of the international legal system. Given the combination of its importance to the international system and its specific purpose of addressing instances of mass violence, to expand its scope would unnecessarily place the doctrine at risk.

If R2P inherently does not apply to environmental issues, and if experts and countries agree that its scope should not be expanded, then how may the international community address the ever more apparent need for a solution to massive environmental degradation?

### **Section Five: Creation and Implementation of Environmental R2P**

Arguments that the original doctrine of R2P cannot, and should not, be manipulated to

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<sup>101</sup> INTERNATIONAL COMMISSION ON INTERVENTION AND STATE SOVEREIGNTY [ICISS], THE RESPONSIBILITY TO PROTECT, ¶ 6.36-6.4 (2001), available at <http://responsibilitytoprotect.org/ICISS%20Report.pdf> (cautioning the consequences of inaction during times of humanitarian crises).

<sup>102</sup> See generally Michael N. Barnett & Martha Finnemore, *The Politics, Power, and Pathologies of International Organizations*, 53 INT'L ORGANIZATIONS 699 (1999) (outlining the importance of legitimacy for international organizations in the international system).

cover issues related to the environment, does not mean that the doctrine has no value towards a solution. The fact that R2P exists, and the speed with which it was created and adopted, speaks to the ability of the international community to respond to the ever-changing needs of the modern world and ability to address crises. It also speaks to the international community's willingness and acceptance of a new era of sovereign responsibility, and a desire and acknowledgement of the need to work collaboratively.<sup>103</sup> While Environmental R2P (E-R2P) would share the same name as traditional R2P and serve the same purpose of protecting citizens, it would be fundamentally different. Additionally, while E-R2P would not address issues as headline grabbing as those covered by traditional R2P, the need and importance of such a solution is far greater, with far higher consequences if a solution is not reached.

### **Structure and Function**

E-R2P could become a reality if given a specific purpose, detailed limits, and a clear control system, while at the same time building off of successful features of traditional R2P, such as international responsibility and incentives to cooperate. However, any new doctrine would also need to overcome the two major obstacles of state sovereignty and negative fallout from the uses of traditional R2P.

Utilizing lessons learned from R2P, an initial specific purpose, for instance air pollution, would provide the narrow focus that the international community usually demands, that could eventually be expanded upon.<sup>104</sup> Explicit limits to what is possible under E-R2P would also lend strength in an area where traditional R2P is seen as weak. Such limits should include clear rules on the non-use of military force, or *unsolicited* sovereign infringement, as these points are now issues of strong contention after intervention in Libya.

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<sup>103</sup> See *supra* note 90 (adoption by *consensus*).

<sup>104</sup> See Luck, *supra* note 86, at 36.



Although the possibility of the use of force serves as a possible source of leverage for traditional R2P, it has also become one of its greatest handicaps. Other international systems have managed to operate smoothly, and with wide agreement and policy-making abilities, without resorting to use of force. The World Trade Organization (WTO), and its history and record of reducing international tariffs and damaging trade practices, is an excellent example of such a system. Although the WTO does not involve itself in issues of massive human suffering, neither should E-R2P. Although E-R2P would certainly be used to address many serious and current environmental issues, its ultimate purpose is to be a proactive and preventative system. A reactive E-R2P would not only be less effective, it would likely be too little, too late.

Not restricted to merely learning lessons from or building off of traditional R2P, E-R2P would also benefit from existing conditions and unique qualities and strengths that further set it apart. Existing conditions that E-R2P would benefit from include already high global awareness and concern for environmental issues, as well as existing bi-lateral and multilateral initiatives to promote environmental protection and sustainability. China is not the only country to have experienced severe pollution-related changes, and public support for such initiatives, would be high around the globe, even in traditionally climate protocol adverse countries like the US.<sup>105</sup> This bodes well for a system like E-R2P that would rely on global participation, in addition to the required support of all major industrialized regions.<sup>106</sup>

Unique characteristics that would set E-R2P apart from traditional R2P could include being based on objective criteria, having a singular focus, incentives for all states, and the

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<sup>105</sup> See Watts, *Twitter Gaffe*, *supra* note 36. See also Associated Press, *France Heat Wave Death Toll set at 14,802*, USA TODAY, Sept. 25, 2003, [http://usatoday30.usatoday.com/weather/news/2003-09-25-france-heat\\_x.htm](http://usatoday30.usatoday.com/weather/news/2003-09-25-france-heat_x.htm) (nearly 15,000 died in France during 2003 heat wave); Tim McDonnell, *Climate Change Could Mean 7 Times as Many Hurricane Katrinas*, WIRED, Mar. 18, 2013, <http://www.wired.com/wiredscience/2013/03/climate-change-more-katrinass/> (Climate change could lead to seven times greater likelihood of hurricanes.)

<sup>106</sup> See *supra* note 46-47 and accompanying text (global air pollution from one industrialized region lands in another, and so on, from Asia, to the US, to Europe, and back to Asia).

inherently self-serving qualities of environmental protection. Being based on objective criteria would place E-R2P into a different category of law and policy than traditional R2P. One of the biggest weaknesses and criticisms of R2P has been the vague criteria for its coverage and purpose.<sup>107</sup> Unlike traditional R2P, there are little to no moral or ethical associations attached to targeted environmental protection. Cleaner, fresher, and safer air is measurable and non-subjective. Furthermore, whether or not the policy is working will be readily apparent after a period of time, unlike systems like traditional R2P, where there is no way to truly measure whether or not the system is accomplishing its goals. Having measurable results could also pave the way for the potential expansion of E-R2P to regulate other forms of pollution, but it should first start with a narrow focus. Given a variety of factors including, but not limited to, its fast and constant global movement, shared nature, and visibility in the public conscience, air pollution makes an ideal initial target.<sup>108</sup>

Instead of relying on deterrence, E-R2P should instead provide incentives for all state parties, both developed and developing. Not only would all states benefit from improved air quality, but trade and technological benefits would also add incentives to cooperate. Since the 2008 financial crisis, developed states are increasingly dependent on the markets of still developing states to resuscitate the global market, while developing states rely on the technological expertise and innovation of developed states.<sup>109</sup> Although developed states are rightfully wary of transfers of new technology, international agreements such as the WTO Trade-Related Aspects of Intellectual Property Rights (TRIPS) have gone a long way to addressing

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<sup>107</sup> Although R2P is triggered only for four specific crimes, the international community is often times unable to agree upon when a situation has reached a level to qualify. For example, ethnic cleansing is a defined crime, but especially in while casualties remain fairly low (less than hundreds) there is oftentimes disagreement as to whether or not ethnic cleansing is actually occurring.

<sup>108</sup> See *supra* note 44-47, 105 and accompanying text.

<sup>109</sup> United Nations Development Program, *Human Development Report 2013: The Rise of the South, Human Progress in a Diverse World*, p. 119.

such concerns.<sup>110</sup> The top three developing states, including China, are also projected to account for 40% of all economic output by 2050, up from 10% in 1950. These figures speak to the economic necessity of developed states to work together with these rising powers.<sup>111</sup> In fact, China is *already* the world's second largest economy, largest exporter, and largest manufacturer.<sup>112</sup> Given its high state membership, a true collaboration or mixing of interests between E-R2P and the WTO could hold real promise for strengthening an international environmental regime, while at the same time helping to provide a measure of protection and incentives to cooperate for all parties.

## **Implementation**

A clear system of implementation and control would be a key factor in the success of any aggressive international efforts to address air pollution. Unlike traditional R2P, under which any state can operate as it sees fit short of the unauthorized use of force, a clear centralized control system would help eliminate unilateral responses and ensure a greater degree of equal treatment and trust. Although systems such as the UN and UNSC already exist, a stronger option would be the creation of a new and independent international environmental control and regulation organization.<sup>113</sup> The International Atomic Energy Association (IAEA) is a strong example of an independent, yet UN affiliated, International Organization (IO) with a proven ability to influence

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<sup>110</sup> KEITH E. MASKUS, TAKING THE MEDICINE, WITH *ANGST: AN ECONOMIST'S VIEW OF THE TRIPS AGREEMENT*, 41 (Institute for International Economics 2000) (arguing that stronger intellectual property rules increases access to technology for developing states, which is a necessary component for global economic growth, therefore benefitting all parties).

<sup>111</sup> See United Nations Development Program, *Human Development Report 2013: The Rise of the South, Human Progress in a Diverse World*, p. 13.

<sup>112</sup> World Bank, *China 2030 Building a Modern, Harmonious, and Creative Society*, at 5 (2013), available at <http://www.worldbank.org/content/dam/Worldbank/document/China-2030-complete.pdf>.

<sup>113</sup> Each option would have its strengths and weaknesses. UNSC control would make it easier to obtain the support of the P5, however risks inaction if agreement cannot be reached. UNSC control could be justified under the clear threat that environmental degradation has to world peace and security. Similarly, a newly created body could also be justified and supported under the need to be independent and reactive. Given that the world shares but one atmosphere, it would make sense to have an independent and non-state affiliated body.

member state behavior.<sup>114</sup> Enmeshing E-R2P into the core purposes, rules, and functions of an IO will help bolster the acceptance of the doctrine and ensure its continued strength and success.

IOs play critical roles in the international system and are ideal bodies for the dissemination of information and harnessing of international support.<sup>115</sup> This process, called *strategic information transmission*, allows for two major benefits: 1) Allowing states to signal benign intentions; 2) Easy dissemination of information directly to the citizenry of other states due to their credibility and objectivity.<sup>116</sup> The first factor is pertinent especially for China given its serious concern with being seen as a peaceful and responsible international partner.<sup>117</sup> The second factor is important because informed populations place pressure on their governments to cooperate with IOs on missions they agree with.<sup>118</sup> This also allows states to ‘bend to the will’ of their constituencies, rather than avoid cooperation due to purely political or ideological considerations.<sup>119</sup>

Despite these benefits, IOs are often criticized as being weak due to the non-binding nature of their recommendations and actions; however, this is a misleading issue. Despite the non-binding nature of international legal commitments, over time states move towards

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<sup>114</sup> TREVOR FINDLAY, UNLEASHING THE NUCLEAR WATCHDOG: STRENGTHENING AND REFORM OF THE IAEA, 46-49 (Center for International Governance Innovation 2012) (highlighting the IAEA’s role in treaty implementation, and how states like the US require other states to follow IAEA recommendations as a prerequisite for the transfer of nuclear material)

<sup>115</sup> See Alexander Thompson, *Coercion Through IOs: The Security Council and the Logic of Information Transmission*, 60 INT’L ORG. 1, 27 (2006).

<sup>116</sup> *Id.* at 3

<sup>117</sup> See *supra* note 17 and accompanying text.

<sup>118</sup> See Robert D. Putnam, *Diplomacy and Domestic Politics: The Logic of Two-Level Games*, 42 Int’l Org. 427, 433-435 (1988). A well regarded theory of international diplomacy, this effect is due to so called *two-level games*, *id.* In international affairs, leaders (level 1) must always be concerned with international pressures, *id.* at 431-432. However, domestic constituencies (level 2) also exert pressure upon their leaders, *id.* This in turn influences the possible actions that leaders may pursue, *id.* Leaders often submit to pressure from their constituents due to political considerations such as gains or consequences in subsequent elections, *id.* at 432.

<sup>119</sup> *Id.*

compliance, even if compliance is completely voluntary.<sup>120</sup> This is due to the importance states place on being seen as legitimate and credible, and the reputational costs associated with violations.<sup>121</sup> Compliance is especially strong if other states within the region have accepted and adhered to similar agreement.<sup>122</sup> This would bode well for E-R2P, if even a few states in every region adhere to its principles. The effect would likely be bolstered if powerful states such as China, soon followed by others within Asia-Pacific Region or perhaps the US, were to take the lead in agreeing to such measures.

Another benefit of operating E-R2P via an IO would be the ability to link issues, such as economics and the environment.<sup>123</sup> Issue linkage is the process of combining multiple issues together into a single unit.<sup>124</sup> This process helps to remove entrenched opposition to contentious ideas and programs, such as environmental reform, by adding new considerations into old debates.<sup>125</sup> For example, linking E-R2P compliance with WTO trade incentives would allow decision makers to consider the positions of business and economic interests *plus* pro-environmental reform groups against groups that would otherwise be too politically powerful. Given the traditional difficulty in garnering international support for new environmental regimes, this may be a method of breaking traditional stalemates. In addition, issue linkage strengthens the reputational consequences of violations, and thereby strengthens self compliance with international legal commitments.<sup>126</sup>

All together, combining the best traits of traditional R2P with the unique qualities of E-

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<sup>120</sup> See Beth A. Simmons, *International Law and State Behavior: Commitment and Compliance in International Monetary Affairs*, 94 Am. Pol. Sci. Rev. 819, 819, 832 (2000).

<sup>121</sup> *Id.* at 819.

<sup>122</sup> *Id.* at 832.

<sup>123</sup> See *supra* notes 109-112 and accompanying text.

<sup>124</sup> Christina L. Davis, *International Institutions and Issue Linkage: Building Support for Agricultural Trade Liberalization*, 98 Am. Pol. Sci. Rev. 153, 153.

<sup>125</sup> *Id.*

<sup>126</sup> *Id.* at 157.

R2P, learning and enshrining the result within an IO will provide the best means of implementing new aggressive international environmental reform. This process can be bolstered through linkages with economic IO bodies and by the leadership of strong, influential states such as China. As mentioned earlier, China, despite its own environmental difficulties, is in an ideal position to support and advocate for such a system. Advocating for E-R2P would have substantial benefits for the Chinese government and its people.

### **Section Six: China & E-R2P**

Both the Chinese people and the Chinese government would benefit greatly from a system such as E-R2P. Such benefits include increased government legitimacy and reputational gains, political stability, and substantial economic growth. Although implementation may not be simple, the corresponding gains may be enormous and outweigh the costs associated with successful implementation.

### **Political and Reputational Benefits**

With the increasing number of environmentally related protests occurring in China, coupled with the record breaking levels of hazardous air pollution, it is clear that the general populace in China is not content with the current state of affairs, and desires cleaner air.<sup>127</sup> Addressing these desires will greatly aid the Chinese government both domestically and internationally.

One of the few remaining communists or authoritarian governments in the world today, the CCP places great emphasis on not only remaining in power, but on addressing and mitigating potential threats to that power. In the early years of the PRC, the legitimacy of the Party came from its claim of being an advocate for the masses. Decades later, under Deng Xiaoping and until recently, much of the Party's legitimacy has come from being the steward of China's economic

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<sup>127</sup> See *supra* notes 12, 23 and accompanying text.

rise and the consequential rise in the average income and standard of living in China. As a result, political leaders in China have historically prioritized economic growth over scientific or societal pressures, and in the process reduced the percentage of poor from 60.2% in 1990 to 13.1% by 2008.<sup>128</sup> However, regardless of the country or government, as GDP and standards of living rise, people begin to demand more from their government, especially when it comes to clean and healthy living conditions and environments.<sup>129</sup> As the number and intensity of environmental protests continue to sharply rise in China, wise Chinese leaders should begin to see that the status quo of political behavior will not continue to satisfy the public much longer.

The problems of social unrest only complicate the fact that China's rapid GDP growth has slowed considerably in the last year, as the economic legitimacy upon which it has rested begins to dwindle, it becomes harder to justify inaction on environmental concerns. By adopting and promoting a system such as E-R2P, the PRC could possibly find a new source of legitimacy, one based on securing the future health and prosperity of not only its own citizens but people around the world for generations to come. Not only can this address domestic pressures to act on environmental degradation, but it also helps reform China's international image, as well as provide a stable source of legitimacy for foreseeable future.<sup>130</sup>

Actively seeking to improve its position in the international community, China is also politically capable implement swift and sweeping changes, possesses the ability to bridge the divide between developing and developed states, and would likely have the broad support of regional and international groups to do so. One of the great driving forces of China's desire for

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<sup>128</sup> See UNDP, *supra* note 109, at 13.

<sup>129</sup> Judith M. Dean, *Does Trade Liberalization Harm the Environment? A New Test*, 35 THE CANADIAN JOURNAL OF ECONOMICS 819, 840-841(2001) (stating that data shows that increased trade will have an initial impact on increased emissions, however as incomes rise so do demands for improved conditions and therefore improved environmental conditions).

<sup>130</sup> See *supra* note 23 and accompanying text (given the levels of pollution, occurring in dozens of cities across China, a battle to fix China's air quality will be a decades long process).

greater international standing is the product of China's grand ancient history combined with its great fall to European imperialism, also known as China's National Humiliation.<sup>131</sup> This period, during which large parts of China were under the direct control of foreigners, is seen as a blot on China's past, and a motivation to rise and claim China's rightful place as a major world power.<sup>132</sup> In achieving this goal, China has become increasingly active in international organizations and asserting its position in arenas like the UNSC. Although China often sees international organizations as sources of foreign power, by spearheading efforts to create E-R2P, China has the opportunity to help create a new regime that it is not only comfortable with, but one that it can shape the rules and future behavior of.<sup>133</sup>

Creating a system like E-R2P will require China to change as well; however, China's current government structure and top-down leadership will allow it to adapt to any necessary changes with greater speed and flexibility than more democratic countries. This is due to a lack of being held accountable to the public to the same degree democratic nations are. Because China is a single party state, there are fewer risks to behavior.<sup>134</sup>

China is not new to trying radical approaches to solving new problems. Between 1979 and 1989, over 40% of China's new economic regulations were regarded as experimental in nature.<sup>135</sup> The successes of many of those programs have led to the current economic powerhouse that China represents.

## **Economic and Growth Benefits**

As mentioned earlier, China is the world leader in exports and manufacturing.<sup>136</sup> In

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<sup>131</sup> JOHN GRAVER, *FOREIGN RELATIONS OF THE PEOPLE'S REPUBLIC OF CHINA*, 54 (Pearson 1992).

<sup>132</sup> *Id.*

<sup>133</sup> Thomas J. Christensen, *Chinese Realpolitik*, *FOREIGN AFF.*, Oct 1996, at 38.

<sup>134</sup> *See* Putnam, *supra* note 118, at 427-460.

<sup>135</sup> *See* UNDP, *supra* note 109, at 74.

<sup>136</sup> *See supra* note 112 and accompanying text.



addition, China has also become a world leader in wind-driven turbine production, small hydroelectricity generation, and solar panel manufacturing.<sup>137</sup> This provides China not only with the means to promote global environmental awareness and reform, but also the financial incentive. Green business can be the vehicle by which China can afford to implement and promote a new system like E-R2P. The World Bank notes that increased business, research and design, and fully utilizing China's human potential will all be keys for the future of China's growth.<sup>138</sup> By creating and advocating E-R2P, China can meet all of these requirements. Increased business from green industries and manufacturing centers will increase employment, incentivize investment into improved technologies, and fully utilize the intellectual potential that comes from being the most populous country in the world. Maximizing China's massive manufacturing capabilities may also serve to make green energy sources a more economically feasible solution globally as well, as prices decrease due to refinement of techniques and economies of scale. By tying domestic economic gains to E-R2P, the CCP could also readily increase the chances of successful implementation within its decentralized system of government.<sup>139</sup>

While the long-term economic benefits are readily apparent, improvements of this scale will be expensive; however, this, too, plays into China's unique position. Traditionally powerful nations around the world are currently suffering from severe economic hardships or fragile economic states, making it unlikely that they will be able to spearhead an effort like E-R2P. The same cannot be said for China, and investment in environmental reform efforts will likely save it

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<sup>137</sup> See World Bank, *China 2030*, *supra* note 112, at 40.

<sup>138</sup> *Id.* at 18-22.

<sup>139</sup> See *supra* note 64 and accompanying text (barriers to effective environmental regulation due to local government interference).

money in the future as well.<sup>140</sup> Recent information on America's improved air quality shows that by 2020 the US will save nearly \$2 trillion per year, with improvements that have only cost \$65 billion.<sup>141</sup> By taking action now, China is likely to see similar if not more dramatic savings. Efforts to curb environmental degradation would also have real economic benefits, allowing China to cut into the current 13% of GDP that it currently loses in lost productivity, healthcare, and business.<sup>142</sup> Finally, green energy can serve as an alternative source to China's massive energy needs and may hold the key to China's future growth.<sup>143</sup>

Further, China is ideally situated to bridge the divide between developing and developed states. China is a rising economic powerhouse with a GDP currently 75% as large as the US, the current world leader.<sup>144</sup> Similarly, China leads the world in carbon emissions, contributing 7.7 million metric tons in 2010.<sup>145</sup> These measurements lead many to believe it should be categorized as a developed state. However, China also has the world's largest population, which results in a per capita GDP that is only a sixth as high as the US, and per capita emissions of only 5.8 tons, compared to the US with 17.3 per capita.<sup>146</sup> The World Bank categorizes China as an upper-middle income country.<sup>147</sup> Countries with medium income or below are considered developing, which puts China right at the edge between developed and developing.<sup>148</sup> A third measure, the United Nations Development Program's (UNDP) Human Development Index (HDI) is a measurement that combines the three dimensions of health and life expectancy,

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<sup>140</sup> Les Christie, *America's Air is Getting Cleaner – and Less Costly*, CNNMONEY, Apr. 24, 2013, [http://money.cnn.com/2013/04/24/real\\_estate/cleaner-air/](http://money.cnn.com/2013/04/24/real_estate/cleaner-air/).

<sup>141</sup> *Id.*

<sup>142</sup> See *supra* notes 11-13 and accompanying text.

<sup>143</sup> See World Bank, *China 2030*, *supra* note 112, at 13.

<sup>144</sup> See World Bank, *supra* note 8, at 76, available at <http://wdi.worldbank.org/table/4.10>.

<sup>145</sup> See World Bank, *supra* note 8, at 54, available at <http://wdi.worldbank.org/table/3.8>.

<sup>146</sup> *Id.* at 54, 58.

<sup>147</sup> World Bank, *China Data*, available at <http://data.worldbank.org/country/china>.

<sup>148</sup> TATYANA P. SOUBBOTINA & KATHERINE A. SHERAM, BEYOND ECONOMIC GROWTH 11-16, (World Bank 2000), available at [http://www.worldbank.org/depweb/beyond/beyondco/beg\\_02.pdf](http://www.worldbank.org/depweb/beyond/beyondco/beg_02.pdf).

knowledge and education, and a decent standard of living. On this index, China ranks 101 out of 193, yet again placing it firmly in the middle.<sup>149</sup> However, understanding the needs of low HDI states, while aspiring to join the ranks of the high, can again play into the hands of China. At the current rate of improvement, China *will* become a fully developed state and will attain a high HDI in time, facts that speak to the need for swift action and for a window of opportunity for Chinese leadership in this area that may be limited.

Finally, China would know that it would have the support of multiple regional and international organizations in pursuing an international environmental regime like E-R2P. China places high value on international cooperative efforts at the national, regional, and global level.<sup>150</sup> For example, requests for intervention by the Arab League is credited as the definitive reason why China did not block the use of R2P in Libya.<sup>151</sup> However, E-R2P would not have the military and forced intervention aspects of traditional R2P, which would allow China to reconcile its deep desire for the protection of national sovereignty, while also addressing the universal need for a large-scale global approach to environmental protection. China would not be alone in these efforts, with the large numbers of state run environmental agencies as well as bi-lateral and multilateral efforts to address climate change, supporting a claim that all states understand the importance of environmental protection. China is in a position, economically, environmentally, and politically to lead the push for the creation of a new international doctrine on environmental protection.

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<sup>149</sup> See UNDP, *supra* note 109, at 145.

<sup>150</sup> See Teitt, *supra* note 76, at 6. Also addressed in this article is the fact that although China does block issues due to sovereignty concerns, it oftentimes still works behind the scenes or bi-laterally to help resolve conflicts or bring parties together for peaceful negotiation.

<sup>151</sup> See Sari Bernstein, *The Responsibility to Protect After Libya: Humanitarian Prevention as Customary International Law*, 38 BROOK. J. INT'L L. 305, 338; Maysa Bydoon, *The Responsibility to Protect (RtoP) and Libya*, 30 EUR. J. SOC. SCI. 377, 381 (2012).

## **Conclusion**

China is currently dealing with arguably the worst air pollution in its known and world history. The cost of combating this pollution is high, with substantial impacts on the lives of its people, the stability of its government and its reputation. If something is not done soon, rampant pollution may cost China its very future.

Despite the dire situation, by leading the charge for aggressive environmental reform, China is in a position to take substantial steps towards saving itself and with it the rest of the world. In doing so, the CCP not only stands to reap the rewards economically, but also politically, socially, and internationally. The template for this reform already exists in R2P, a doctrine that although flawed, holds the promise of coordinated international action. R2P represents a shift in global thinking to a world with sovereign responsibilities and not only sovereign rights. Learning from the mistakes of the past, a system built around the concept of E-R2P has the potential to implement long lasting and necessary environmental reform.

E-R2P must be inclusive, non-threatening, and incentivizing. This can be accomplished through incorporating E-R2P into the creation of a new IO; an independent international body capable of bringing about the critical changes and commitments that have thus far evaded the international community. To be successful, this new system will need the initial backing of a strong state, one that is capable and willing to take up this challenge. If the world does not change course, it will end up where it is headed. China has within itself the power to change its future, and in doing so, perhaps save everyone's.