THE PENNSYLVANIA STATE UNIVERSITY
SCHREYER HONORS COLLEGE

DEPARTMENT OF POLITICAL SCIENCE

THE EFFECT OF INTERGOVERNMENTAL ORGANIZATIONS ON THE ENVIRONMENTAL POLICY OF THE PEOPLE'S REPUBLIC OF CHINA

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Spring 2010

A thesis
submitted in partial fulfillment
of the requirements
for a baccalaureate degree
in International Politics
with honors in Political Science

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ABSTRACT

Using the United Nations System as a main case study, this thesis seeks to address and understand two things: 1.) the impact that intergovernmental organizations (IGOs) have on the environmental policy of the People's Republic of China; and 2.) what the most successful UN strategies for interacting with China are. The Introduction explains the relevance and urgency of China's environmental problems. Chapter One defines and explains the environmental problems of China in depth, demonstrating that China's environmental issues are in fact international issues, and showing how IGOs are in a unique position to intercede on behalf of other nations in regards to China's global environmental problems. Chapter Two explains the interactions between the UN System and China in regards to China's environment and the success or failure of each interaction. The analysis in Chapter Three presents findings on what kind of impact the UN has had in China, and specifically what the best UN strategies for obtaining China's cooperation are- i.e. using a non-binding, non-restrictive, mixed carrots/sticks approach in which China's needs as a developing nation are taken into account. The thesis notes that gaining China's compliance in UN agreements is not necessarily equivalent to constructive environmental change, and offers suggestions as to how to best get the PRC to make needed environmental transformations.

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ACKNOWLEDGEMENTS

-To my advisors, to my parents, for our tomorrow.

Only after the last tree has been cut down;
Only after the last fish has been caught;
Only after the last river has been poisoned;
Only then will you realize that money cannot be eaten.
-Cree Indian Prophesy

Introduction

What Effect Have Intergovernmental Organizations (IGOs) Had on the Environmental Policy of People's Republic of China?

One of the most relevant and pressing issues today is the global environmental crisis. It is a matter so controversial that its very existence is heavily contested. When the scientific realities of the situation are examined, however, it is apparent that man is having an effect on the natural environment. The environmental issue has not gone unnoticed by the international community, and treatises such as the United Nation's Kyoto Protocol have attempted to lessen the negative externalities of man. In recent years, intergovernmental organizations have focused heavily on environmental concerns in the People's Republic of China (PRC), one of largest emerging power players in the world. Whether or not IGOs, and in particular the United Nations System, have had any impact on China's environmental dealings, and how IGOs should best go about interaction with China in order to make the desired impact on China's environmental policy are the questions that this research seeks to address.

China has seen two decades of exponential economic expansion. By 1996, roughly $100 billion in foreign assets were held by China, mainly in U.S. currency (Fallows 149). Today, China has collected well over a trillion dollars in foreign reserves, making China's reserves the largest in the world (149). This unprecedented growth took the globe's attention by force, particularly that of the United States, which had never before been so indebted to one country (70% of China's holdings are in the dollar) (150). This economic expansion has been accompanied by equally as attention-grabbing

environmental damage. In its 11th Five-Year Plan for Environmental Protection, the Chinese government defended its admittedly grim environmental situation: "Environmental problems at different stages of [the] industrialization process of developed countries over the past several hundred years [are now] concentrated in China" (190). While some players in the world stage agree with China's argument that China's time for development is now and that it deserves its chance to develop, most note that China's environmental accumulating environmental damage must be accounted for.

China has seen this fiscal expansion in great part due to its ability to produce goods quickly and cheaply. Simple economic theory dictates that manufacturers in the global economy that produce goods at a low price will most likely acquire the most business. Chinese factories have been able to produce goods at prices the West is unable to replicate. By importing raw materials to produce and export cheap finished goods, China has absorbed much ecological damage and has earned the nicknames "the workshop of the world" and "the world's factory." The low price of the goods, however, is not reflective of their cost. The 2007 World Bank report, "Cost of Pollution in China," states that China's economic growth rate would be cut considerably if "'overdrafts'" on resources were accounted for reasonably (197). For the past twenty years, China has reported annual economic growth rates of nine to ten percent, but if the World Bank's estimates on the loss incurred by China's environmental costs (between 2.9 and 5.8 percent) were subtracted, this would reduce China's seemingly unstoppable growth levels to the same as static European levels (197-198).

In addition to the staggering loss in economic growth rates, the environmental cost has also taken a toll on human health. The same World Bank report, the findings of

which the Chinese government accepted, included calculations on lost "'life-years'" because of air pollution, increased hospitalization rates to do lung problems, and childhood deaths from dysentery due to drinking bad water (198). The only number which the government requested to not be released was later leaked: that 750,000 Chinese people die prematurely each year from pollution (198). The government is not in denial about the situation, as many in the West might assume. Officials are aware of the present circumstance and are making strides, albeit small ones, toward improvement. The 11th Five-Year Plan states it well: "'the environmental situation is still grave in China, though with some positive development'" (190).

The small strides China is making on its own may not be enough to actively stop its very real environmental problems, problems which are in actuality not limited to China's borders alone. China's growth and correlating pollution have become international issues. Since China holds the largest number of foreign reserves on the globe, its policies affect all other nations, and the natural environment which Chinese manufacturing practices pollute is a common good shared by all countries- the atmosphere. A 2008 NASA article demonstrated that pollutant aerosols from China are transported across the Pacific Ocean by rapid airstreams from East Asia (Cook-Anderson). Satellite data confirmed that 10 billion pounds of pollutant aerosol reached North America from China annually between 2002 and 2005 (Cook-Anderson). NASA Associate Scientist Hongbin Yu explained the findings: "Looking at four years of data from 2002 to 2005, we estimated the amount of pollution arriving in North America to be equivalent to about 15 percent of local emissions of the U.S. and Canada" (Cook-Anderson). This supplementary pollution adds difficulty to a United States that is trying

to regulate and closely monitor its own levels of pollutants (Cook-Anderson). Below in an image from NASA's Sea-viewing Wide Field-of-view Sensor (SeaWiFS) taken on October 22, 2004, pollutant aerosols from China flow across the East China Sea past the Korean Peninsula and northeastward toward Japan before crossing the Pacific Ocean ("Particle Pollution"). As this image demonstrates, a number of states have been actively involved in China's environmental crisis regardless of their consent.

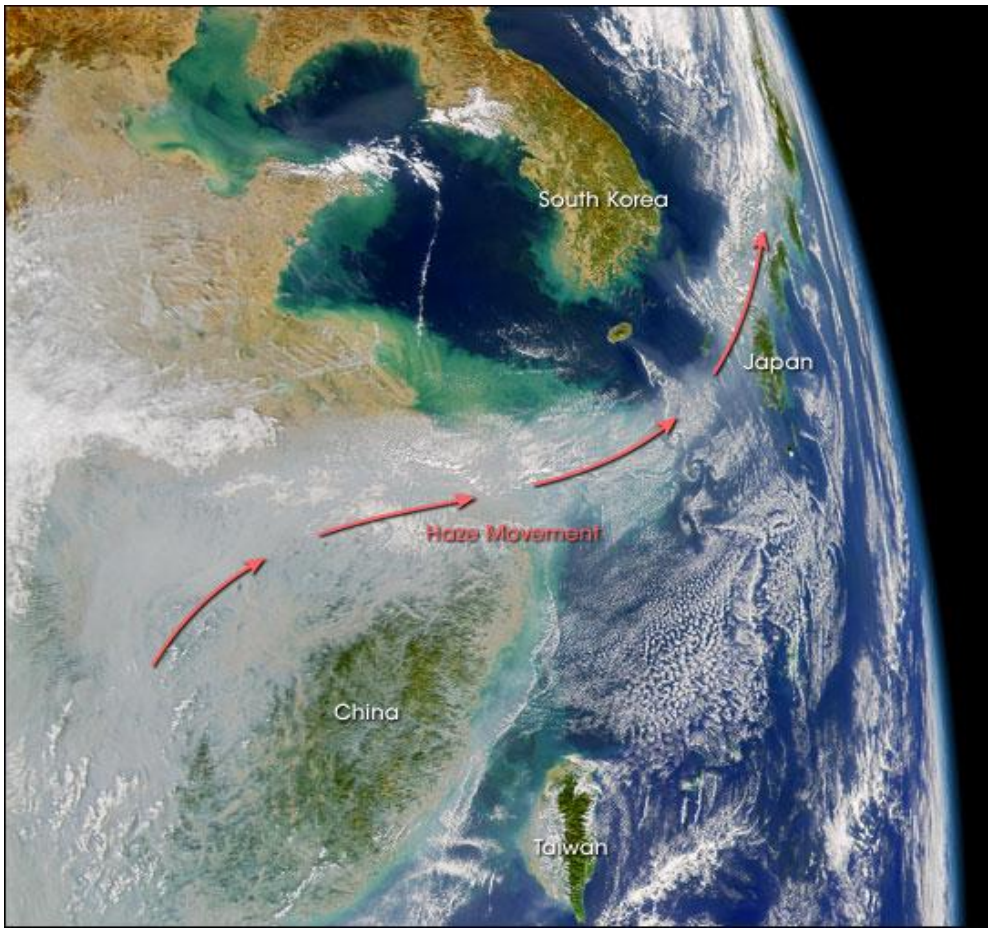

Figure i-1. NASA Earth Observatory Image demonstrating the flow of pollutant aerosols from China ("Particle Pollution").

As a cross-border issue with financial and ethical ramifications, the international community has a vested interest in China's environmental policy, and intergovernmental organizations have attempted to work to improve China's environmental situation. IGOs play a unique role in the world stage, and the amount of actual power, or ability to exert influence, they have is an issue of debate today. According to Harvard Law School, "The term intergovernmental organization (IGO) refers to an entity created by treaty, involving two or more nations, to work in good faith, on issues of common interest" ("Intergovernmental Organizations"). The United Nations is in a particularly useful position, as it was created by a treaty, and can make legally binding rulings for its member states, including the People's Republic of China, to follow. Using the United Nations System as a case study, I will examine the role that IGOs play in this international issue. By studying the interaction between this IGO and China regarding China's environmental policy, the most successful strategies for interacting with China can be unveiled.

As China's leaders may not be fully willing or able to solve the international environmental crisis developing within itself with needed urgency, it is crucial to understand the role that intergovernmental organizations can have in regulating China's environment, or even if they have the ability to make real change happen. If nations are unwilling to fully commit to solving such problems and IGOs are unable to control them, then what solution can be reached? In the future as clean air and water resources become increasingly rare, the international situation may devolve out of control without proper international regulation. Already today, water disputes between nations that share transboundary sources have lead to conflict, particularly in the Middle East and Africa.

As can be witnessed in the map of China below, the PRC shares many of its increasingly polluted water resources with neighboring countries, and the potential for international conflict in this realm exists. Water resources are only one example of how the global environmental crisis can affect people in China and beyond for generations to come. Now is the necessary time to examine the best ways to solve the crisis, and examining the role of IGOs in this process is crucial.

Figure i-2. Map of China and the Surrounding Area ("Map of China").

As a final introductory note, China is an extremely interesting and complex case that has a tendency to be simplified by outsiders. The challenge of studying China lies in its internal variations- variations which are truly enormous based on the size of China

alone (Fallows xv). Considering the drastic alternations in China's topography and its multiple internal cleavages- generational, educational, rural verses urban, etc. - are necessary to keep in mind while examining China's current environmental status (xv). Various parts of China are at different stages of the industrial process, and therefore have varying levels of environmental problems. The older and younger generations have different perspectives on environmental issues. Local levels of environmental law enforcement can be difficult to track, and the laws themselves can vary from region to regions.

Before the interaction between the United Nations System and China can be analyzed, it is first necessary to understand what China's environmental problem entails. The following section seeks to give an understanding of how China came to its current state, and what exactly that state is.

Chapter One

The Problem: within China and Beyond

A 2005 article in *Nature* summarized the growing environmental issues facing China: "air pollution, biodiversity losses, cropland losses, depleted fisheries, desertification, disappearing wetlands, grassland degradation, and increasing frequency and scale of human-induced natural disasters, to invasive species, overgrazing, interrupted river flow, salinization, soil erosion, trash accumulation, and water pollution and shortages" (Diamond and Liu). The obvious question then becomes how China came to find itself in such a state, one unparalleled internationally by controversy and the amount of criticism it receives. This chapter seeks to investigate what exactly the current environmental situation is in China and how China came to occupy its role under the environmental floodlight.

Deforestation and the Great Leap Forward

Deforestation is not a new problem in China; in fact, it is China's original environmental issue. The mere 14% of China's land that is covered in forests has long been targeted for logging, hunting, and conversion to farm fields and human settlements ("The Increasing Costs"). Several thousand years ago, there was large scale deforestation in China (Diamond and Liu). In 1949, more deforestation was brought about by the post-

World War II and Chinese Civil War peace, as the Chinese economy shifted back to the home front and development occurred (Diamond and Liu). The year 1958 saw Mao Zedong, the Chairman of the People's Republic of China, start China on a path he believed would vault China into the forefront of the world economy: the Great Leap Forward ("The Increasing Costs").

Mao initially designed the Great Leap to allow China to '"[overtake] Great Britain in industrial production within 15 years"" ("The Increasing Costs"). Mao radically revised the timeline for catching up to Britain just one year after making his original statement –then stating that what was to be originally accomplished in 15 years had to be done in just one more year (Harms). Scholar on China Dali Yang, Faculty Director of the University of Chicago Center in Beijing, noted that frequent expedited changes to the timeline of the Great Leap Forward were common and were '"fantasy incarnate'" (Harms).

Mao was determined to make China a global industrial power, and in order to accomplish his goal, he pushed for the construction of steel plants across the country and relied heavily on China's large labor pool (Harms). Huge increases in the number of factories in China accompanied the early years of the Great Leap, bringing equally exponential amounts of deforestation, with land being used to build factories and wood being used as fuel for steel production ("The Increasing Costs"). Mao's aggressive campaign gave no attention to reforestation ("The Increasing Costs"). In addition to the widespread deforestation brought about by the Great Leap Forward, widespread hunger ravaged the county, as rural Chinese society was expected to keep pace with the dream by producing enough food to both feed the country and produce food for exports (Harms).

Much Chinese land was stripped of nutrients and eroded during this time, aiding to environmental problems and human costs. The collectivized agricultural system of the Communist Revolution lead to drying up of grain supplies by 1959, and scholars estimate that approximately 16.5 to 40 million died of starvation during the Great Leap (Harms). The 'fantasy incarnate' of the accelerated timeline of the Great Leap Forward left China starving for economic reform.

Economic Reform

By 1978, two years after the death of Mao Zedong, Chinese leaders were searching for a solution to more serious economic problems created by Mao's successor as Central Communist Party (CCP) Chairman, Hua Guofeng (Shirk 35). During his brief reign (1976-1978), Hua tried to promote high-speed industrial growth via a combination of Maoist campaign-style mass mobilization and foreign investment to develop China's oil reserves (35). Hua's reform, like that of his predecessor, encouraged industrialization without thought of environmental costs, and deforestation, pollution and the wasteful use of resources went unchecked. Hua's "Great Leap Onward" fell apart in 1978 when oil reserve estimates were revised downwards (Shirk 35). Chinese leaders, having made the decision to open the door to technology imports, suddenly realized they had little besides oil to export for actual currency, and panic about China's lacking international status set in (35).

Deng Xiaoping, a CCP leader who had twice been purged for his right-wing politics under Mao Zedong, took advantage of the economic crisis to re-emerge, discredit

his pardoner and the incumbent, Hua Guofeng, and assume leadership of the CCP (Shirk 35). Under Deng Xiaoping, reform known as *gaige kaifang* was initiated (Gamble). In addition to increasing trade with the outside world, Deng aimed to modernize China on four fronts: agriculturally, industrially, scientifically and militarily (Gamble). Deng began China on a course toward market-style growth, rapid industrialization, and urbanization (Kahn and Yardley). This reform "lifted hundreds of millions of Chinese out of poverty," according to the "Choking on Growth" series of The New York Times (Kahn and Yardley). A World Bank report mirrored The Times' sentiment, detailing that the institution of *gaige kaifang* lowered the percentage of Chinese living in poverty from fifty-three percent to eight percent ("Fighting Poverty"). In 2001, 400 million fewer people were living in extreme poverty than twenty years earlier ("Fighting Poverty").

While Deng's policies certainly improved the living standards of millions of Chinese, it has also come at a dramatic and often uncalculated cost to China. In the years since Deng's reform, heavy industry migrated from Europe, the United States, and Japan to China, making China "the workshop of the world" ("China's Environment"). In this role, China imports raw resources, produces goods cheaply, and then exports these finished products, incurring the environmental costs of other nations' production within its own borders ("China's Environment").

Not only does the complete production cycle for goods sold in other countries happen inside China, but China's economy also mostly relies on outdated, inefficient, or polluted technologies, worsening the negative effects of this cycle (Diamond and Liu). Recent treaties have pushed China to develop clean development mechanisms, or CDMs, but also put no mandate on China to do so.

The rapid industrial growth that China has seen since *gaige kaifang* has affected its environment in four main ways: degradation of air quality, pollution and overuse of water, loss of biodiversity, and deforestation and soil erosion. However, damages incurred by the "world's workshop" are not limited to China alone; China's expansive territory and standing as the most populous country guarantee environmental impacts on the rest of the world, most notably in the form of exports to the atmosphere (Diamond and Liu).

Air Pollution

Air pollution is a huge problem facing China: ninety-nine percent of China's metropolitan population of 560 million (2007 estimate) breathes air considered unsafe by the European Union (Kahn and Yardley). China relies on coal, the least clean source of energy, for two-thirds of its energy needs (Kahn and Yardley). Coal, when burned, emits sulfur dioxide, which is known to cause respiratory and cardiovascular diseases in addition to acid rain (Kahn and Yardley). During the 1990s, acid rain fell on one forth of China's cities for more than 60% of rainy days per year, and now a quarter of all China is affected by acid rain, making it one of the most severely impacted countries in the world (Diamond and Liu). China's use of coal as its major energy source has led China to become the leading producer of sulfur dioxide in the world (Kahn and Yardley). In 2006 alone, China burned the energy equivalent of 2.7 billion tons of coal (Kahn and Yardley). To put this into perspective, in 2000, the Development Research Council, a part of China's State Council, set out to gauge how much energy China would need over the

following 20 years (Kahn and Yardley). The 2.7 billion tons used in 2006 accounts for seventy-five percent of what experts said would be the maximum needed in 2020 (Kahn and Yardley).

Figure 1-1. A Village Store in front of a Coal Mine in Shenmu, Shaanxi Province (Kahn and Yardley).

Increased cars ownership, heavy traffic, and low-grade gasoline have also made automobiles the number one contributor to air pollution in Chinese cities (Kahn and Yardley). With China's shift to a heavy-industry economy, the number of cars on the road skyrocketed (Kahn and Yardley). A February 2009 report by the National Bureau of Statics of China found that the total number of cars for civilian use in 2008 stood at 24.38 million- up by a whopping 24.5 percent from the previous year ("Statistical Communiqué"). The effects of the growing number of vehicles in China have been partially mitigated by tougher auto-emissions standards and the production of more efficient vehicles.

Particulate matter, which includes concentrations of dust, dirt, and aerosol less than 10 microns in diameter (known as PM 10), is another major pollutant contributing to China's unhealthy air quality. The amount of particulate matter is measured in micrograms per cubic meter of air. According to the European Union, any reading higher than 40 micrograms is unsafe. Beijing's average particulate matter reading in 2006 was 141, according to the Chinese National Bureau of Statistics (Kahn and Yardley).

Bejing has been working to improve this 2006 estimate. As part of its agreement to host the 2008 Olympics, the Chinese government promised to bring up the air quality to the standards of previous Olympic venues (Fallows 192). Holding the Olympics in Beijing brought the world's attention to its questionable air quality. Since the Olympics, Beijing has continued to work to keep its skies clean ("After Olympics"). The Beijing Environment Protection Bureau reported that from January 1, 2009 to June 9, 2009, an air quality of Grade II or better (Grade II is good, Grade I is best) was recorded on 81 percent of the days ("After Olympics"). In June 2009, Beijing residents were experiencing the best air quality since 2000 ("After Olympics").

In March 2010, however, record-setting air pollution rates were detected in Beijing during Northern China's spring sandstorms, showing how difficult steady progress can be to maintain. As the mixture of sand, dust, and pollutants blasted the capital, Beijing's air-quality index reached Grade V, the highest level. Residents were instructed by the government to stay indoors or cover their mouths to avoid breathing in the particles. The pollution was particularly dangerous for people with existing health problems, but also caused chest pain and respiratory problems in otherwise healthy individuals (Bodeen).

Other major air pollutants such as ozone, a main component of smog, and smaller particulate matter, PM 2.5, are not extensively monitored. Medical professionals assert that PM 2.5, which is emitted when gasoline is burned, leads to more chronic diseases of the lung and heart than the more extensively watched PM 10 (Kahn and Yardley).

As the atmosphere is a common good shared by all nations, aerial particles created in China affect the regional and global atmosphere. Pollutant aerosols have the ability to blow to Korea, Japan, and the Pacific Islands, and across the Pacific Ocean to North America within one week (Diamond and Liu). In March, Taiwan, Hong Kong, and South Korea announced record levels of pollution after the strong winds spread the spring sandstorm pollution from China- and reduced effects were noted all the way in the United States (Bodeen). China's air pollution is estimated to be responsible for about half of the pollution detected today in Hong Kong- which primarily blows in from the factories in the neighboring mainland province of Guangdong, where many of China's exports are manufactured and where liners move cargo through one of the world's busiest shipping lanes (Wassener). Additionally, the PRC produces and consumes more ozone-depleting gasses than any other nation in the world. Greenhouse gas (GHG) emissions are the culprits of global climate change (Diamond and Liu).

Water Pollution

Combating water pollution and scarcity is possibly even a greater challenge for China. Per capita, China has only one-fifth water as much as the United States. Almost all of the flow of China's Yellow River is used by industry and agriculture before it reaches

the Bohai Sea. Farmers in the dry north, where approximately half of China's population resides, once used shovels to dig water wells. Now, resources have been so depleted that many wells must extend more than half a mile before they reach water. Despite the dwindling resources, a culture of conservation has not taken over; according to the World Bank, China uses four to ten more times more water per unit of production than the average in industrial nations (Kahn and Yardley).

The remaining water resources have been extensively polluted, and the lack of access to safe drinking water is a real concern for China; almost 500 million people are without access to safe drinking water (Kahn and Yardley). According to the State Environmental Protection Administration, fifty percent of China's rivers are severely polluted ("China's Environment"). In China, industrial plants and farms dump waste into surface water with few ramifications (Kahn and Yardley). Dumping continues to the Pacific Ocean, killing much aquatic wildlife in its path.

Figure 1-2. A polluted river in the town of Zhugao, Sichuan Province (Ansfield and Bradsher).

Loss/ Changes in Biodiversity

In addition to damage offshore, pollution has impacted the rich biodiversity within China. And the biodiversity in China is indeed rich: the variety of terrain and habitats within China are unparalleled anywhere- the highest and lowest points in the world are located within China, while containing glaciers, coral reefs, deserts, and tropical rainforests ("WWF China"). The number of species in China is higher than all of North America or Europe, and equal to one-eighth of all species on earth ("WWF China"). Over the course of the past two hundred years, industrialization, economic development and population pressure have combined to result in the loss of biological diversity and vanishing species ("WWF China"). Upwards of 20% of China's species, including the giant panda, are endangered, and many, such as Chinese alligators, are at risk of total extinction (Diamond and Liu).

The opposite effect has also occurred: the number of both terrestrial and aquatic species brought into China intentionally or unintentionally through international trade has risen. This, however, is not necessarily a positive situation, as invasive species introduced into a new environment often become pests and weeds. This has been the case with many of the new species introduced into China, costing Chinese agriculture, aquaculture, forestry, and livestock production billions (US$14.5 billion in the year 2000 alone) (Diamond and Liu).

China also exports invasive species. Chestnut blight, 'Dutch' elm disease, and Asian long-horned beetle, the most well-known pests of North American trees, came from China. The grass carp of China is established in 45 American states, competing with

local fish populations and altering the plant, plankton, and invertebrate communities surrounding it. Like the biodiversity imported into China, these Chinese exports cost other nations billions (Diamond and Liu).

Damage to the Land

China's First National Pollution Census revealed that agricultural practices play a major role in damaging the country's environment (Tremblay). The census found that water and land pollution were closely related- agricultural practices accounted for 43 percent of the water pollution in China, mostly through the use of fertilizers (Tremblay). Chinese agricultural practices have also been found to damage China's land in the forms of soil erosion, salinisation, nutrient loss, and soil compaction (Favis-Mortlock).

Soil erosion, or the loss of soil at roughly the same rate as it is regenerated, is a natural process that has been happening for millions of years (Favis-Mortlock). However, over usage of land for grazing and farming and the implementation of intensive agriculture technologies have lead to accelerated soil erosion, or the loss of soil at a much faster rate that it can regenerate (Favis-Mortlock). Cultivation practices leave the land vulnerable and expose the soil, so that during times of erosive rain or high winds, soil may be detached and carried away (Favis-Mortlock). In one of the highest figures for any country in the world, soil erosion affects nearly 20% of China's land area (Diamond and Liu). The Loess Plateau, located on the middle stretch of the Yellow River, has experienced especially devastating amounts of erosion, with about 70% of its soil currently eroded (Diamond and Liu).

In addition to the actual loss of soil, over-farming of land strips soil of its natural nutrients, creating a vicious cycle: as crop yields become less bountiful due to nutritionally stripped soil, the land must be worked harder, and the use of more technologies and artificial fertilizers much be implemented. Using long-term fertilizers and pesticides only worsens the effects of the cycle, as they are drained into China's water resources, polluting them, and additionally cause declines in soil-renewing earthworms (Diamond and Liu).

There are a multitude of other environmental problems that impact China's land. Salinization, or the accumulation of salt which sterilizes soil, plagues nine percent of China's lands, mainly due to poorly designed and managed irrigation systems (Diamond and Liu). Overgrazing and agricultural land reclamation have resulted in the desertification of more than a quarter of the PRC (Diamond and Liu). The usage of heavy farming equipment compacts soil, reducing the pore space between soil particles ("Section I"). Soil compaction causes soil to have a reduced rate of both water infiltration and drainage ("Section I"). These environmental effects on the land reduce China's ability to produce food, a component as vital to life as the air and water that also are pollutant-laden.

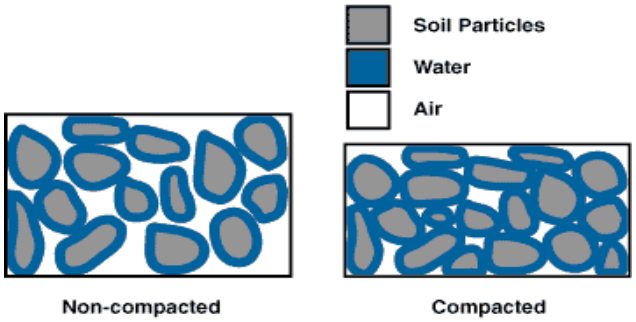

Figure 1-3. Non-compacted versus Compacted Soil ("Section I").

The Human Cost

In China, the toll that environmental destruction has taken on human health remains a delicate issue, and the Chinese government is very cautious about the statistics released on the topic. The reasoning behind this is that the research results are sobering. Pollution-induced cancer has become the leading cause of death in China (Kahn and Yardley). Outdoor air pollution causes approximately 400,000 premature deaths per year, while indoor pollution caused the untimely deaths of an additional 300,000 Chinese people (Kahn and Yardley). One's risk of acquiring a respiratory disease is increased with the outdoor concentration of total suspended particles (Diamond and Liu). China's March sand storms were particularly damaging to people with existing health problems, hospitalizing many elderly people; yet, otherwise healthy individuals reported chest pain and respiratory problems from storm exposure (Bodeen). Low infant weight and increased infant mortality can be the result of even short-term exposure to air pollution (Diamond and Liu). Due to these health challenges, the cost of health care in China has skyrocketed recently (Kahn and Yardley). China's spending on public health increased by 80% from 1996 to 2001, or more than 13% per year, in part to deal with environmental health issues (Diamond and Liu).

Ironically, the very mines used to excavate the coal that leads to much of China's air pollution are also notoriously unsafe themselves. Nearly 5,000 people died in China's mines in 2006 alone (Kahn and Yardley).

The Economic Cost

In addition to the health results linked to polluted environments, pollution can cause economic damage. Damage from pollution reduces a nation's ability to produce in the long-term. Research has also shown that environmental issues play an important role in businesses' ability to attract and retain top employees. Due to the seriousness of these issues, China is committing 1.5 percent of projected GDP on environmental protection. With public-private partnership projects added, China will spend over three percent of its GDP on environmental protection. It is estimated that China is earmarking more than $450 billion for environmental protection and clean-up in the five years from 2011 to 2015—more than twice what was spent during previous five-year periods (Wassener).

What It Means

Despite being cautious as to what environmental statistics are released to the public, the Chinese leadership is very aware of environmental problems, and recognizes that change is necessary (Kahn and Yardley). In February, as a small step in terms of transparency, the Chinese government unveiled its most comprehensive survey ever of Chinese pollution, revealing that water pollution in 2007 was doubly as worse as was listed in official figures (Ansfield and Bradsher). This openness about China's environmental problems has been slowly in the making. In the equivalent of a State of the Union address in 2007, Premier Wen Jiabao made 48 references to "environment," "pollution" or "environmental protection." (Kahn and Yardley). At a November 2008 Asia-Pacific Economic Cooperation meeting, President Hu Jintao stated that "China will

work with the rest of the international community to meet the challenges together and seek inclusive, sustainable and balanced economic growth" (Greenwood). This year, China is developing its 12th Five-Year Plan for Environmental Protection with an international "clear-eyed recognition of the link between the economy, green development, and inclusive growth" (Greenwood).

The shifting of Chinese leaders to an international focus in terms of the environment does not come as a surprise- the world has focused on China in its dialogue on environmental issues. China naturally attracts global attention in its roles as the largest foreign reserves holder and the most populous country in the world. Compounding this with sizable and daunting environmental troubles makes China a red-hot international topic. Because China's ecological problems do cause repercussions far outside of the PRC, China's environmental policies have been debated and scrutinized on a universal level.

In fact, mostly all of China's environmental problems can be seen as international issues, and therefore are justifiably a concern for the world stage and intergovernmental players. Air and water are ultimately shared by all nations, and leaders argue that any country taking more than their share from the commons should be reprimanded. China has been shown to pollute the atmosphere, and air pollution from China has been traced as far as the United States. Biodiversity is exported from China through international trade, causing expensive losses in agriculture and aquaculture to importer nations. Also, damage incurred to China's land impedes the ability of Chinese farmers to produce food for an ever-growing nation. As the nation grows and its land fertility decreases, feeding

China can become an issue for the rest of the world. China's vast environmental challenges are also a huge problem for the rest of the globe.

An examination of the current environmental situation in China finds that like the 11th Five-Year Plan states, "'the environmental situation is still grave in China, though with some positive development'" (Fallows 190). And surely, positive development is happening at home. China is attempting to lead the clean-energy industry through billions of dollars of subsidies, protective tariffs, tax breaks, and direct funding ("Clean Tech"). In fact, China has succeeded in outpacing the competition, including the United States, in a number of renewable technologies ("Clean Tech"). According to China's National Action Plan on Climate Change, China already derives about 10 percent of its energy from renewable resources and plans to increase that figure to 16 percent by the year 2020 ("Clean Tech"). The PRC is home to the world's largest solar industry, hosting around 100 solar companies, which accounts for half of the world's total ("Clean Tech"). China also possesses the largest hydropower project in the planet- the Three Gorges Dam ("Clean Tech"). In addition, China's clean-coal technology has drawn foreign customers, and China is a top market for wind turbines ("Clean Tech"). According to U.S. Energy Secretary Steven Chu, China spends $9 billion a month on clean energy ("Clean Tech").

While there are definite signs of progress, they are unable to compete with the levels of damage incurred. The international stage has roared for much tighter restrictions on China's environmental policy. China's leaders argue- truthfully- that today's developed nations, such as the US and Japan, were able to develop unfettered by such restrictions. The difference, however, is that today's stakes are much higher. As stated in

The New York Times, “China is more like a teenage smoker with emphysema” (Kahn and Yardley).

Because this is an international issue with important ramifications, intergovernmental organizations are seemingly in the perfect position to act as mediator between China and the rest of the world in regards to China’s environmental policy. The following sections will examine how the blanket United Nations System has interacted with China in regards to its environmental policy, what strategies they have employed in dealing with China, and if they were successful in these attempts.

Chapter Two

China and the United Nations

Intergovernmental organizations formed by treaties are both subject to international law and also have the ability to enter into enforceable agreements among themselves or with states ("Intergovernmental Organizations"). The United Nations, the single largest intergovernmental organization in the world, was formed by treaty in 1945 for the purposes of: "maintaining international peace and security, developing relations among nations, working to solve international issues, promoting human rights, and being a central place for harmonizing the actions of nations" ("Intergovernmental Organizations"). The United Nations has the ability to make rules and exercise power within its 192 member states- including its member state of China ("Intergovernmental Organizations"). The People's Republic of China was accepted for membership in the United Nations on October 25, 1971 ("30 Ways").

The United Nations System encompasses the six principal organs of the United Nations as established by the UN Charter -the Trusteeship Council, the Security Council, the General Assembly, the Economic and Social Council, the International Court of Justice, and the Secretariat- as well as a much larger family of 15 agencies and several other programs and bodies ("Structure and Organization"). The UN family has had a large hand in dealing with China's environment.

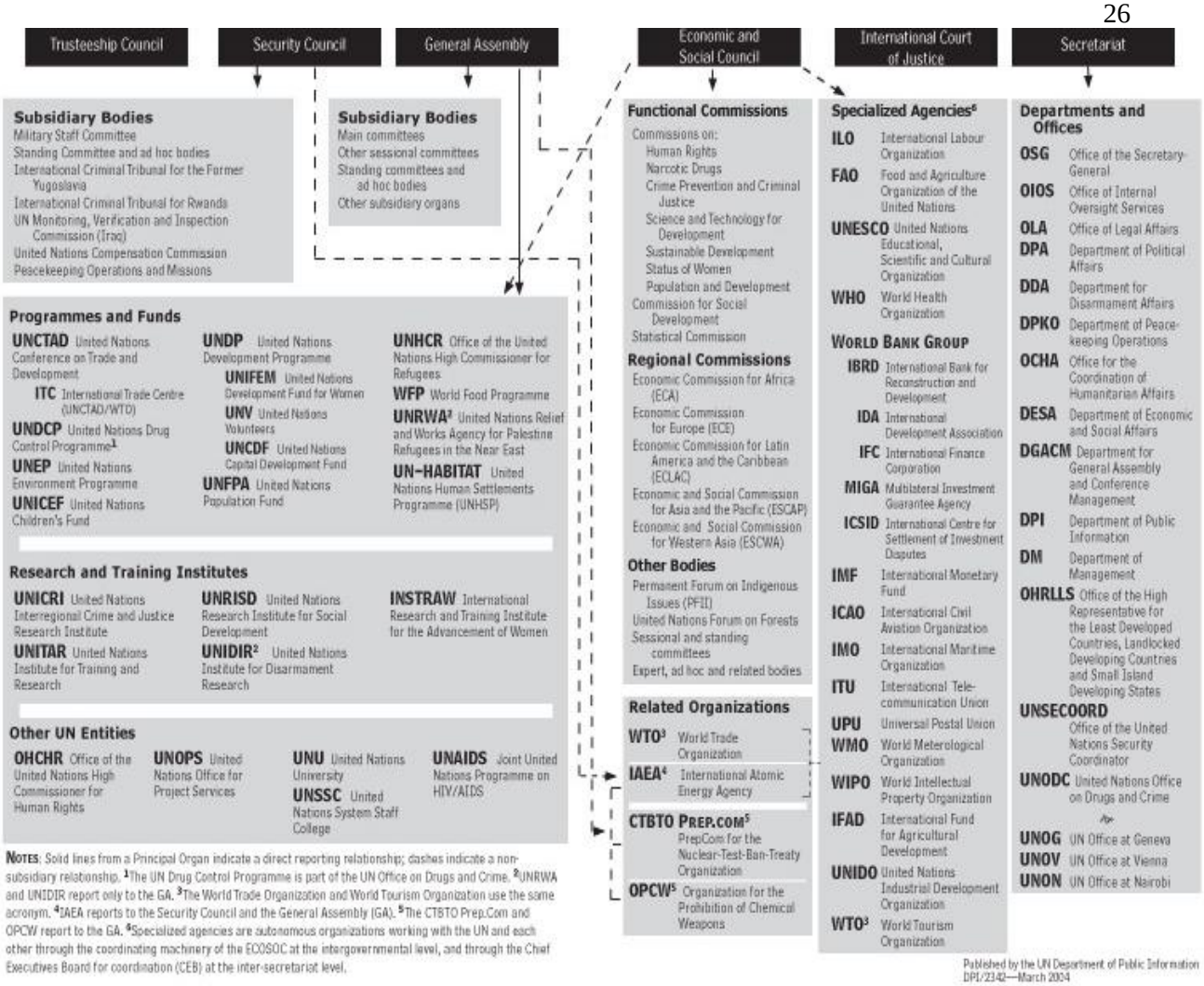

Figure 2-1. United Nations System Organization Chart ("UN System").

In 2009, the UN System celebrated the anniversary of its work in China by praising the rapid economic growth and improved standard of living for the Chinese people, while diplomatically raising the challenges of "rising inequality between regions and communities and concerns around environmental sustainability" ("30 Ways"). In "The 30 Ways the United Nations in China Makes a Difference," UN Resident Coordinator Khalid Malik listed among the main goals of the UN in China: "protecting the environment, addressing climate change, promoting sustainable urban development, and providing safe drinking water" ("30 Ways").

China's environment is a top UN priority, and according to the UN, China faces three types of environmental risks: "1) those associated with pre-industrialized worlds of subsistence agriculture, where lack of drinking water and poor sanitation cause illness; 2) industrialization and contamination of air, soil and water and food; and 3) a rapid race to the 'post–industrial' world of the service sector, with its associated 'new' epidemics of obesity and hypertension" ("Environment and Health").

While the United Nations is focused on the environmental problems in China and is dedicated to working with China to find solutions, the UN is constantly made aware of China's unique position as a developing nation, and is careful about just how much pressure is applied to China; the UN walks a thin line between supporting China's economic growth by providing carrots (rewards) for good behavior and between pushing for environmental stability with the leveraging of international pressure and use of sticks (punishments/ threats) for deviant behavior. For instance, the United Nations writes and publishes assessments on China that may reveal negative findings, such as the 2007 World Bank Report "Cost of Pollution in China" or the impact and eco-vulnerability assessments on Chinese environmental laws currently underway. However, even in objective assessments, the UN papers use very delicate language so as to safeguard their access to and relationship with the Chinese. The following quote from a 2009 UN Occasional Paper demonstrates this strategy in action, as it begins with praise- displacing blame from the Chinese government- before revealing the critical state of China's environment, and then ending again with praise:

> The past three decades have seen China undergo a dramatic transformation from a poor rural based economy to a manufacturing giant. This has been achieved through the development of its resources, industrial growth and rapid urbanization. However, despite some strong environmental protection policies, China's rapid growth has not always been accompanied by a commensurate level of environmental safeguards on the ground. There are increasing indications that some of the environmental impacts of China's

> growth, industrialization and urbanization are having an impact on the health of China's population... The Government of China is not only aware of these challenges but is also taking action on a number of fronts ("Environment and Health").

Reports such as this one are only one way in which the UN interacts with China; the United Nations interacts with China in regards to its environmental policy in a number of ways: 1.) by conducting national and local reports and offering recommendations for action and policy; 2.) by providing monetary and intellectual support for sustainable development in China and for health-related projects; 3.) by conducting campaigns within China; and 4.) most directly, through international environmental summits, conferences, and treaties. Some of the UN's strategies for interaction with the PRC overlap one another, often in a combination. Clearly it is hoped these projects will benefit the entire international community by encouraging Chinese cooperation with international agreements when the public good of the environment is on the line.

Reports and Recommendations

The United Nations prepares a variety of reports in regards to China's environmental issues through bodies and agencies, and often consequently recommends action for the PRC. The United Nations Environmental Programme, the main environmental arm of the UN, publishes a number of reports about the environment in China and beyond, including the Global Environmental Outlook. The forth *Global Environmental Outlook: environment for development (GEO-4) assessment* is "a comprehensive and authoritative UN report on environment, development and human well-being, providing incisive analysis and information for decision making" ("Global"). GEO-4 reported on China's circular economy and its coordinating environmental damage, suggesting plans of action for Chinese leaders ("Global").

Other UN bodies publish environmental reports on the PRC from different angles. The World Health Organization operates within the United Nations system as the global health contingency of the UN, and is responsible for "providing leadership on global health matters, shaping the health research agenda, setting norms and standards, articulating evidence-based policy options, providing technical support to countries and monitoring and assessing health trends" ("About WHO"). The World Health Organization recognizes a link between environmental and health issues, and prepares reports on current issues in China, attempting to shape its policy is such a regard. Through the WHO, the UN recommends numerous areas for Chinese improvement, including defragmenting health and environmental policy, writing more effective legislation, creating adequate mechanisms for interdepartmental cooperation, increasing the involvement of health authorities in environmental management, assessing the impact of major environmental developments, and increasing local environmental staffing ("Environment and Health").

Support

The UN contributes to China in support of its growing green industry, to protect biodiversity, and to manage hazardous waste ("30 Ways"). The UN provides both funding and knowledge rewards ranging from helping local governments plan for future developments in the Himalayan regions and southeastern coastal regions of China to training influential businessmen in new environmental technologies ("Environment and Health"). The UN assists with legal reform, technology transfer, and capacity-building to support China's compliance on multi-lateral agreements ("30 Ways").

Monetarily, the UN has given the People's Republic of China billions of dollars in loans and grants to aid in sustainable development and projects through its fiscal contingencies. The World Bank Group, one of the most well known international development organizations, operates under the auspices of the UN while having its own independent mandate ("Intergovernmental Organizations"). From the beginning of the World Bank's involvement in China in 1980 to the end of the 2009 fiscal year (June 30, 2009), the World Bank had spent about $46 billion in China for 309 projects, making China's portfolio one of the Bank's largest. Environmental objectives are present in approximately 75 percent of Bank supported activities, and, according to the WBG's brief on China, "a strong environment focus runs across sectors with environment-related projects in energy, urban wastewater, water supply and sanitation, and rural development" ("Country Brief").

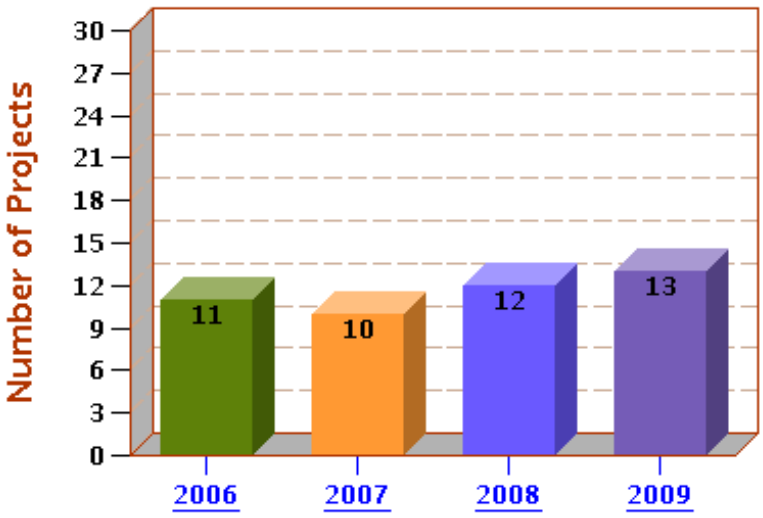

Figure 2-2. Number of World Bank Group Projects in China, 2006-2009 ("Country Brief").

Some China-specific UN educational projects (rewards) seem to have been done in order to encourage the PRC to engage and cooperate with the UN and international community in later

world-wide agreements. The UN has assisted China in assessing consequences of rapid urbanization for the country and providing new models. China's population is increasingly urban, with about 20 million people moving into cities annually. UN projects such as the Shenzhen Environmental Outlook were produced for the Shenzhen Municipal Government to assist the local leadership in addressing environmental issues at the policy level and in advancing its sustainable development agenda. The UN has also helped in regards to China's water quality, for instance, by developing and sharing a methodology for rapid assessment of drinking water quality. This has helped water suppliers and users to test water quality and prevent water-borne diseases. A UN Water Safety Plan has been developed in some cities and several rural areas in cooperation with the government in order to ensure optimum risk control of the entire water supply system ("30 Ways").

Campaigns

The UN finances a number of environmental campaigns in China. For the rapid drinking water quality assessment produced by the UN, UN urban planning experts on health and hygiene issues worked on campaigns across the country ("30 Ways").

The UN conducts a multitude of formal campaigns in China. Within the PRC, the United Nations Environmental Programme is currently conducting the Climate Neutral Network Campaign and the Plant for a Planet: Billion Tree Campaign. Rizhao, a city on the southern tip of Shandong Peninsula, along with URBN Hotels and Tongji University, have signed onto the Climate Neutral Network campaign, the objective of which being "to facilitate information exchange and networking on achieving a transition to a low-emissions and eventually climate

neutral society" (Steiner). The international Billion Tree Campaign, launched by the UN in November 2006, has been pushed in China as in elsewhere. The milestone of Plant for a Planet was reached in September 2009 with the news that the Chinese Government has planted 2.6 billion trees as part of the campaign, bringing the total to 7.3 billion trees planted in 167 countries ("UN's Billion Tree").

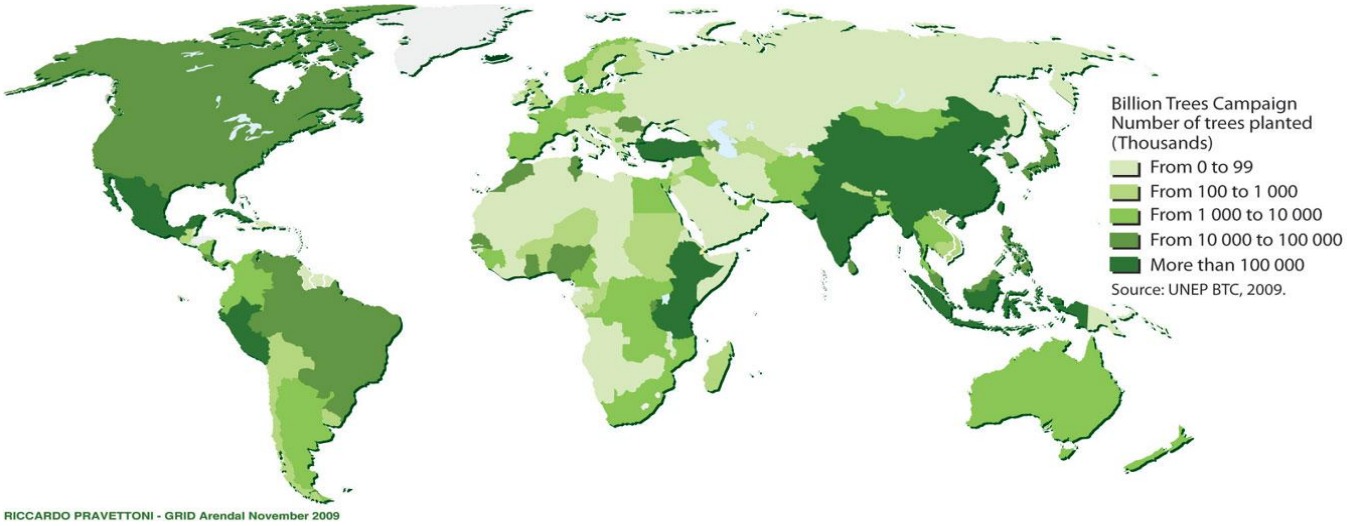

Figure 2-3. Number of Trees Planted in the Billion Trees Campaign ("Billion Trees").

Conferences, Committees, and Agreements

The United Nations has made the most direct impact on China's environmental policy through a series of conferences, treaties and agreements, beginning with the United Nations Conference on the Human Environment in Stockholm, Sweden, in 1972. The Fridtjof Nansen Institute, an independent foundation which conducts research on international environmental politics, found in its 2003 report *The Significance of the UN Global Conferences on China's Domestic Environmental Policy-making* that UN global environmental conferences were crucial for China's domestic environmental development from 1972 to 2002. The study suggests that international environmental conferences have hastened the development of China's

environmental policy substantially- that Stockholm in 1972 was an agenda setter for China's domestic environmental policy and that the Earth Summit in 1992 was the turning point in China's domestic environmental policy (Heggelund).

China's environmental agenda has been changed by its involvement in UN negotiations, and the following sections examine the impact on China's environment made by international conferences and the agreements reached at them.

The Stockholm Conference

In 1968, Sweden posed the fundamental question of the environment to the UN General Assembly. Sverker Åström, Permanent Representative to the United Nations for Sweden, proposed a universal action-oriented UN conference be set to "increase awareness and to identify environmental problems which needed international cooperation." Despite strong arguments from Western European opponents that the environment was best dealt with in one of the sectorial agencies, the first global environmental conference of its kind, the landmark United Nations Conference on the Human Environment, was set for 1972 in Stockholm. The conference model as established by Stockholm has continued to today (Engfeldt).

The People's Republic almost did not attend UNCHE; in the early 1970s, the belief existed in China that there was no need to participate in a global environmental conference, because socialist nations did not suffer from the environmental ills of capitalism. However, the efforts of the farsighted Premier Zhou Enlai overcame the common resistance of taking part in the Stockholm Conference, and a Chinese delegation was present in Stockholm (Ferris and Hongjun).

Stockholm was not only the initial UN environmental conference, but it was also the first major international event that the People's Republic of China attended as a UN member. The uncertainty and lack of precedence in the situation led to prolonged and difficult negotiations between a protective China and the other member states. Chinese delegates almost formally opposed agreeing to any conference outcome on the issue of China's increasing population. All decisions were ultimately taken by consensus, and the Declaration of the United Nations Conference on the Human Environment, which contained beliefs about the environment and development, and the Action Plan, containing recommendations for international action, were adopted. The Declaration and the Action Plan have laid the groundwork for successive international environmental law. The United Nations Environment Programme (UNEP) was formed soon after the conference to act as an enforcing body of the Action Plan. UNEP is the authority of the United Nations System on global and regional environmental issues (Engfeld).

Principle 21 of the Declaration has also been particularly important for all member states of the UN, including China, in regards to their environmental policy. Principle 21states that member countries are in charge of making sure that their domestic activities do not cause environmental damage in other states (Engfeldt):

> States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction ("Declaration").

The Stockholm Conference was an important and altering path for international environmental issues, particularly as an inaugural meeting for the PRC. Not only did the conference force the world's attention to environmental issues, but also drew the global interest to a China cautious to action. China only complied with negotiations out of a consensus due to

the concern that its needs as a developing nation would be overlooked in favor of heightened environmental standards.

The Earth Summit

The United Nations Conference on Environment and Development (UNCED, or the Earth Summit) was held in June of 1992 in Rio de Janeiro, Brazil to mark the twentieth anniversary of the Stockholm Conference. Delegates from the PRC attended the conference, the goals of which were to set definite standards and emission limits to be met. The milestone Earth Summit saw the adoption of three documents and two conventions by participating member states. One of these conventions was the Convention on Biological Diversity Treaty. By 1993, enough nations, including China, had ratified the treaty for it to become a binding legal document (every nation except Andorra, the Holy See, and the United States). At a meeting in 2002, the participants adopted a strategic plan that set 2010 as the date for achieving the reduction in biodiversity losses. The 193 nations participating in the treaty had agreed to "achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional, and national level as a contribution to poverty alleviation and to the benefits of all life on Earth." In January 2010, the treaty Secretariat conducted a preliminary review of the results and announced that "all the indications are the 2010 target has not been met." Although the official document assessing the 2010 global outlook for biodiversity will not be released until May, conservationists predict worsening losses. According to the Deputy Coordinator of the Species Program at the International Union for Conservation of Nature in Gland, Switzerland,

"It's not looking good." Although China did sign this agreement, its demonstrated huge losses in biodiversity have demonstrated a non-compliance with the agreement ("Losing Life's Variety").

Figure 2-4. Children Presenting their Environmental Concerns at UNCED (Engfeldt).

The most influential result of UNCED, however, was the adoption of the United Nations Framework Convention on Climate Change. The UNFCCC is an environmental treaty whose aim is to limit greenhouse gas concentrations to a level that does not interfere with the global climate system. The treaty is in part based off of the contentious principle discussed heavily at the Earth Summit of 'common but differentiated responsibility.' Under this principle, states' responsibilities are directly correlated to their level of development- i.e. that all states have a responsibly to protect the environment, but developed nations should lead the charge. The inclusion of this principle made China more likely to sign onto UNFCCC, as Chinese leaders felt that their delicate economic position as a developing nation was being safeguarded ("What Is").

Member states have been meeting yearly since the inception of UNFCCC in 1994 in Conferences of the Parties (COP) to assess progress in handling climate change. As originally framed, UNFCCC did not include mandatory or enforceable limits on greenhouse gas (GHG) emissions for any nation, developing or developed alike. Rather, the treaty provided for updates, or "protocols," to set mandatory and legally binding limits. The Kyoto Protocol, adopted at the

third Conference of Parties (COP 3), is the most famous amendment to the United Nations Framework Convention on Climate Change ("What Is").

The Kyoto Protocol to the Convention on Climate Change

Through harsh negotiations, the Kyoto Protocol was passed by the UN as an amendment to UNFCCC on December 11, 1997 at the COP-3. While the UNFCCC encouraged members to cut their greenhouse gas emissions, the Kyoto Protocol *required* them to legally do so. Under the principle of 'common but differentiated responsibility' set forth in the UNFCCC, Kyoto established binding targets for developed countries to reduce GHG emissions, while setting no specific obligations to cut emissions for the developing world ("Kyoto Protocol").

China ratified the Kyoto Protocol as it was widely expected to do on August 30, 2002 at the World Summit on Sustainable Development (WSSD) in Johannesburg, South Africa. The actual Johannesburg Summit brought little to the table in terms of outcomes, particularly on behalf of a hesitancy from the G-77 (the Group of 77 is a coalition of developing states, including China, in the UN) to commit to a binding plan of global action. Instead, the PRC ratified Kyoto at Johannesburg with the knowledge that it would be exempt from obligatory limits on emissions unlike the 'Annex 1' or industrialized nations, and would instead would be encouraged to set up emission-reducing projects and clean development mechanisms (CDMs). As then-Premier Zhu Rongji announced to the WSSD congregation:"China has ... completed the domestic procedure for the approval of the Kyoto Protocol with a view to taking an active part in multilateral environmental co-operation" ("China Ratifies").

The Kyoto Protocol went into effect in 2005. In response to Kyoto, China has set up a national co-ordination body and an examining committee for the clean development mechanism, has taken part in international environmental dialogue, and has carried out national environmental campaigns for public awareness (Chuan and Jing). Despite this progress, according to *New Scientist*, China's emissions as of 2008 had vastly swamped the reductions made in GHG emissions by all other nations under Kyoto (Brahic). Even the minimum estimates of China's emissions from the inception of Kyoto in 2005 to 2010 are five times greater than the 115.90 million metric tons in reductions which the US Energy Information Agency estimated that the signatories of the Kyoto protocol achieved during the same time (Brahic). Despite China's compliance with the treaty, emissions have skyrocketed, as the UN had set no binding limits for the PRC. The first commitment period of the Kyoto Protocol ends in 2012, by which time a new international framework needs to have been accepted and ratified that enforces stringent emission reductions as indicated by the Intergovernmental Panel on Climate Change ("Kyoto Protocol"). Many had hoped that the 2009 United Nations Climate Change Conference/ COP 15 held in Copenhagen would generate this treaty, getting all member states, developed and developing, on board. By all accounts, however, Copenhagen failed to do so.

The Failure of Copenhagen

The United Nations Framework Convention on Climate Change (UNFCCC) had been meeting for two years in preparation of the December 2009 United Nations Climate Change Conference in Copenhagen, Denmark. Despite this, UNFCCC failed to produce a treaty at the convention. One of the main reasons why a treaty was not reached was due to non-cooperation

by China and its coalition. The BASIC coalition (Brazil, South Africa, India, and China) stood firmly on the position that the UN should not mandate them to cut greenhouse gas emissions. The members of BASIC argued that such a United Nations-imposed emission restriction would infringe on their sovereignty and repress their economic development. The BASIC coalition argued, however, that even stronger restrictions should continue to be placed on rich or developed nations, including the United States, reiterating the 'common but differentiated responsibilities' principle. Other member states argued back that all share the same responsibility and that this principle has been used simply as an excuse, leading to fruitless negiotations (Hawkins).

The BASIC collation did not bend. The four countries decided that, if necessary, they would leave Copenhagen negotiations together. As Jairam Ramesh, India's Minster of State for Environment and Forests, stated: "We will not exit in isolation. We will co-ordinate our exit if any of our non-negotiable terms is violated. Our entry and exit will be collective" (Steven). China initiated the coalition, signing a memorandum of understanding with India in October 2009 in which the two countries agreed to work closely together at Copenhagen. Chinese leaders then invited Brazil and South Africa to join at a meeting in Beijing a week before the Summit. (Steven). In addition to organizing and leading BASIC, China helped to get its African ally Sudan elected to head the G-77 in a strategy session the day before the next climate change meeting began on April 9, 2010 in Bonn, Germany (Hawkins).

The original goal of Copenhagen was to produce a legally binding treaty aimed at curbing carbon emissions. Instead, because of the dissent expressed by BASIC and others, only a non-binding political compromise with no enforceable obligations, no emission targets, and no treaty deadline, the Copenhagen Accord, was created. Although the Accord "'recognized'" that

temperatures needed to not rise more than two degrees Celsius worldwide, it set no emissions targets to help realize that end- a major disappointment and a negative sign that compliance can be reached on the ticking clock of a Kyoto update ("Key Stories").

Figure 2-5. Head of the U.N. Climate Change Secretariat, Yvo de Boer, during a News Conference at the December 2009 Copenhagen Summit ("Key Stories").

According to *Petroleum Economist*, "The UN has salvaged scraps of progress from the wreck of Copenhagen" ("Dawn of the Gas Economy"). Indeed, 55 of its 194 member countries, including the PRC, committed to meet voluntary national carbon emission targets by 2020. Despite China's resistance to the creation of a binding treaty, China did join major environmental players such as India, the US, and the EU in this voluntary commitment ("Dawn of the Gas Economy").

Cancún 2010

Later this year, the UN will host another climate-change conference in Cancun, Mexico (COP-16). Yvo de Boer, UNFCCC Executive Secretary, noted that learning from the mistakes of Copenhagen will lead to a better Cancun: "The UN Climate Change Conference in Cancún must do what Copenhagen did not achieve: It must finalize a functioning architecture for implementation that launches global climate action, across the board, especially in developing nations" ("Press Release"). As all parties fight for desired outcome, de Boer's words make it clear that tolerance for the use of the 'common but differentiated responsibility' principle by developing nations will not be high. It is expected that at this conference international leaders will point to Mexico City's improvement in environmental practices (such as the institution of stricter auto emissions controls) and positive results as a model for other rapidly-urbanizing countries like China (O'Connor). According to Miguel Naranjo of the UN Environmental Program, recent research indicates that a number of cities in China have increasingly higher levels of the most serious pollutants, while Mexico City has cut most of its pollutant levels by more than half. Narajo believes China's cities are facing some of the same problems of Mexico City, which the UN had labeled the world's most toxic city in only 1992. "They are growing faster than their capacity to adjust. They face a big challenge not to repeat the mistakes of Mexico" (O'Connor). It appears being negatively compared with other countries is one of the main "sticks" utilized against China by the application of international criticism and pressure.

The United Nations interacts with China in regards to the PRC's environmental policy heavily on a number of fronts. The actual effectiveness of these interactions with China will be examined in following section.

Chapter Three

Analysis

China's leaders do actively recognize that change must take place in regards to China's environment, and are willing to cooperate internationally as long as cooperation does not come at a cost to national development. Non-binding and non-restrictive environmental interaction is more positively received by the PRC than binding interaction, as the former type of interaction is unable to hinder China's economic growth. For instance, China's government accepts reports prepared on its environment from UN agencies, and often even commissions them, even though they are used as both carrots and sticks on behalf of the UN. Some reports prepared on China by the United Nations System, including the 2007 World Bank "Cost of Pollution in China," can reveal damaging information about the country, acting as a negative reinforcement or a "stick." The same reports, however, work to guide national leaders in the most feasible and economic courses of action, and are therefore also rewards or "carrots." China responds positively to UN support in terms of other knowledge and monetary rewards, as these incentives help China work to fix environmental problems with minimal international pressure. Such support is given for a number of reasons, but significantly in the hope that China will later cooperate in international environmental agreements. Additionally, the United Nations System conducts environmental campaigns through the United Nations Environment Programme and other UN agencies to increase awareness of environmental and correlating health problems. Since China is not legally bound to meeting campaign targets, the likeness of China's cooperation is heightened. China or

parts of China, however, do not always sign onto all UN campaigns as such initiatives can also function as a stick; campaigns increase citizen knowledge, leading to heightened domestic pressure from citizens on the Chinese government for resolution of environmental issues.

The United Nations holds the most power to impact China's environmental policy through treaties. PRC leaders seem to welcome the opportunity to comply with non-binding UN environmental agreements to demonstrate cooperation; state heads are eager to demonstrate that China is not isolationist or backward, and have been more open about their country's environmental problems than ever before. In 2002, China ratified Kyoto, a legally binding treaty that contained no binding limits or targets for developing nations like China, and China has been working to change its policies in order to make small environmental improvements on behalf of its involvement in the treaty. When any kind of binding restrictions are brought to the table, however, China seems to instantly withdraw cooperation. In the case of the Climate Change Conference in Copenhagen in December, China, anticipating international pressure to sign onto binding GHG emission limits, went so far as to preemptively form a coalition with other non-compliant states (BASIC) before the summit began. When the PRC goes into environmental talks unsure of what to expect, as it did in 1972 Stockholm, or on the defense, as in 2009 Copenhagen, little to nothing is accomplished in terms of solving the global environmental crisis.

Figure 3-1 below summarizes the UN's interactions with China, how the UN approaches the interaction, China's reaction to the UN, and the overall environmental outcome of the interaction. Figure 3-2 then presents the overall successes of each type of approach:

Table 3-1. UN System Interaction with China: Review

Type of Interaction	**UN Approach (carrots/ sticks)**	**China's Reaction (compliance)**	**Outcome for Environment (positive/negative)**
Reports	carrots/sticks (give praise/ reveal negative information)	+/- (usually accepts the reports and recommendations, occasionally acts on them)	positive (results in increased knowledge and some beneficial changes)
Support	carrots (give funds and knowledge to China in the hopes that China will be agreeable to international will in the future)	+ (China accepts money and knowledge, using it to improve its environmental condition)	positive (results in development of environmental and health projects)
Campaigns	carrots/sticks (helpful to China, but also put domestic pressure on China to change)	+/- (China or parts of China do not choose to accept all campaigns)	positive (result in a bettered environmental state, increased health and knowledge)
Stockholm-1972	sticks (international pressure from consensus)	- (China did not want to agree to an outcome)	positive (resulted in an important Declaration, Action Plan, and the inception of the UNEP)

Earth Summit-1992	carrots/sticks (combination of international pressure and the inception of the 'common but differentiated responsibility' principle)	+ (China complied with the negotiations)	positive (adoption of UNFCCC)
Johannesburg-2002	sticks (pressure)	- (China was unwilling to commit to definite targets)	negative (no treaty created)
Kyoto-1997/2002	carrots (no binding restrictions for developing countries)	+ (China ratified Kyoto in 2002)	positive/negative (Kyoto entered into effect, but it's actual effectiveness has been nullified by China's unchecked emissions)
Copenhagen-2009	sticks (pressure, lowered tolerance for 'common but differentiated responsibility')	+/- (China stated that it was dedicated to finding a solution, but formed the BASIC coalition and was unwilling to set binding targets)	negative (no treaty produced)

Figure 3-2. Outcomes of Each UN Approach (Carrots, Sticks, and Mixed Carrots/Sticks)

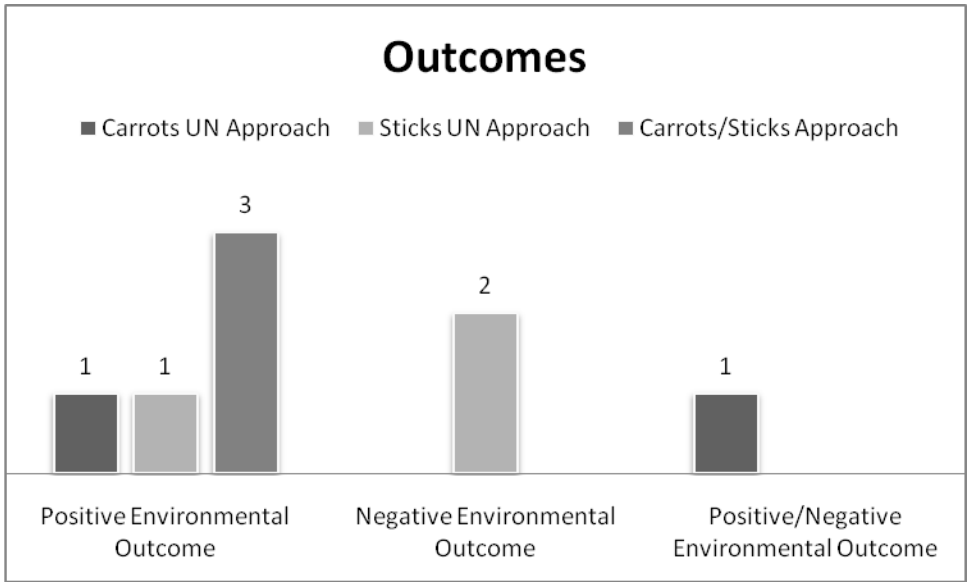

Figure 3-1 and Figure 3-2 demonstrate the effectiveness of each UN strategy. Despite the fact that there was a relatively small sample size of interactions, a mixed carrots/sticks approach of balancing rewards with punishment was shown to produce the most successful results. The combinded carrots/sticks method resulted in a positive outcome each time employed, with three positive outcomes total and zero negative or positive/negaitve outcomes. A carrots-only approach had a 50% success rate, with one positive outcome and one positive/negative outcome. A sticks-only UN approach was the least successful, with two negative outcomes and one positive outcome.

China does want to work to solve international environmental issues, but research has demonstrated that the PRC will absolutely not compromise its delicate developing status in order to do so. It is only when China enters into negations assured that the UN will protect its fragile position that China is comfortable signing agreements. Taking this into consideration, it is clear that the United Nations is most successful in securing China's compliance when using a mixed

carrots/ sticks approach and when publically acknowledging China's developing status, giving the PRC leeway in international treaties (i.e. Kyoto).

It is vital to note, however, that this approach on behalf of the UN is not necessarily the most effective or aggressive way to solve the serious international environmental issues of the PRC; China's compliance with UN agreements is not equivalent to constructive environmental change. China signed and ratified Kyoto, for example, and despite the fact that China has made some positive development, China has also completely undone all other nations' GHG emission reductions with its own emissions. Kyoto demonstrates that China's compliance with the UN is essentially worthless in the absence of legally binding and aggressive targets. Because China can still "crawl by" on how it has been environmentally operating, China is in no real hurry to stand up and fix its environmental problems. China knows it needs to eventually stand on its own and it does want to learn to "walk," i.e. correct its environmental damage, but has no interest in having an overbearing parent (the UN) rapidly force it onto its feet.

The difficulty in interacting with China for the UN lies in the fact that the United Nations has the power to create legally binding treaties, but China does not have to sign them. Additionally, applying political pressure to China is a difficult venture for the UN. When not enough pressure is applied to China in negotiations, China will not make environmental changes quickly enough (Kyoto). When too much pressure is applied, China is willing to completely withdraw from any negotiations (Copenhagen).

Applying precise political pressure, however, may be the key to having the most environmental impact on China's environmental policy. For the UN to have the greatest possible effect on China's environment, the developed nations need to first stand together on the issue, committing to binding emission reductions and other targets. China depends on the support of

other nations, especially developed nations, to maintain its economic position in the international economy. Defying international will reflects poorly on a nation's standing, and if an overwhelming consensus existed on the issue, China would almost be necessitated to acquiesce. It will be difficult for the PRC to be fully affected by international pressure until giants like the United States sign onto international environmental agreements such as Kyoto; since the developed US has been non-committal on international environmental issues, the world stage cannot fully pressure or punish the developing China. China has defaulted to the 'common but differentiated responsibility' principle throughout its history in the UN System, stating that developed nations should lead the charge on the environmental issue. Without American compliance, China will surely continue to argue that if developed nations do not sign binding treaties, why should China even feel any pressure to do so?

Summary of Results

An analysis of the research demonstrates that the United Nations System has had an impact on China's environment, and that the UN is most successful in environmental interactions with China when using a mixed carrots/ sticks approach— that is, when the UN balances rewards and punishments, it achieves the most environmentally positive outcome in China. The UN has made an impact on China's environment through a number of strategies, but most predominantly through environmental conferences/ summits. China is more likely to comply with international environmental agreements when they are non-restrictive and when the UN takes China's developing status into account in negations. It is important to realize that China's compliance in UN agreements is not synonymous with positive environmental change. For instance, the PRC

ratified the Kyoto Protocol, but China's GHG emissions have overwhelmed all positive change achieved by the Protocol. A solidarity among developed nations about environmental protection (including the currently non-committal US) and political pressure applied by these states may result in China signing onto binding environmental treaties in the future.

Conclusion

Looking Ahead

The eleventh session of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG-KP 11)/ the ninth session of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention (AWG-LCA 9) met in Bonn, Germany from April 9-11, 2010 for UN Climate Change talks in preparation of the sixteenth Conference of Parties (COP-16) later this year in Cancún ("Bonn"). Bonn was the first meeting of member states since the chaos of Copenhagen last winter, and the mood in Bonn was much the same as in the December conference. Yvo de Boer, outgoing UNFCCC head, said that talks about climate change continued to be deadlocked and that voluntary pledges made by member countries to cut GHG emissions after Copenhagen so far had fallen short of what is "needed to avoid catastrophic global warming" (Vidal). De Boer also said that the increasing divisiveness of member states leaves little hope of reaching a final, needed update to Kyoto by Cancún in November (Vidal). A binding international environmental treaty has not been seen since Kyoto in 1997, and some in the international community are beginning to question if a new agreement will ever be reached. The talks in Bonn demonstrated that there will be an increased difficulty in finding environmental compromise between the developing and the developed in the future.

The failure of recent international environmental negotiations calls into question the true power, or the ability to exert influence, of the United Nations. The United

Nations System is by far the largest and most influential IGO of its kind worldwide, and has huge monetary and intellectual resources at its disposal, giving the UN System definitive power. Because the United Nations was formed by a treaty, it also has the ability to form legally binding treaties of its own – another powerful ability. States, however, do not have to sign such treaties, and this takes effectiveness away from UN proceedings.

Despite doubts as to its agency, the UN System has undoubtedly shaped China's environmental policy and positively impacted China's environmental problems, which have been shown to in fact be international issues. The UN will continue to be more successful in China as the PRC feels more internal pressure from its own people to sign onto environmental agreements (UN reports, campaigns, and support grow knowledge of environmental issues by Chinese people). Additionally, if the United States were to sign international environmental treaties and stand with the industrialized bloc, enough political pressure might be able to be applied to coerce China into cooperation with binding treaties. Until that point, however, China will quote 'common but differentiated responsibility,' and will only continue to cooperate with non-binding and non-restrictive agreements.

An article by Reuters released during the Bonn Climate Change talks suggests that states are becoming too concerned with the process of agreeing on a new global climate change treaty, and that "less focus on a new treaty might resolve a tangle of disputes over the legal framework and drive concrete action" (Doyle and Wynn). Becoming ensnared in the legal aspects of formulating such an agreement indeed takes away from mobilization and the actual issue (Doyle and Wynn). Much has been

accomplished by the UN System in improving the PRC's environment apart from treaties and with China's complete cooperation. Securing China's cooperation in international dealings through a binding treaty would obviously be beneficial for future negotiations, but as stated previously, China's cooperation in international agreements does not necessarily equal positive environmental change. Instances such as the UN's development of a rapid water quality test in China work to solve the issues at hand without political arguments. Indeed, the weighty issue of protecting the natural world for generations to come is what is vitally at stake, and any UN interactions that concretely work towards this end in China are beneficial.

The science behind the situation does not lie: China's environment is being degraded at a rate too rapid to be mitigated. This issue is a human one, as over 700,000 Chinese die prematurely from air pollution each year alone. The air breathed in major Chinese cities is exponentially worse than levels considered safe by the European Union, causing respiratory and other health problems in both ailing and fit people. China's water resources are majorly polluted, and clean water is becoming increasingly rare. The land of China is overworked and damaged. China's rich and splendid biodiversity is dwindling. Indeed, China's environmental problems often spread beyond its borders due to their magnitude. As China is the "workshop of the world," many industrialized nations have had a hand in contributing to China's current environmental state. Solving China's growing environmental problems becomes the responsibility of all nations, and the United Nations as a representative of all its 192 member states is in an ideal position to enact change.

References

“30 Ways the United Nations in China Makes a Difference.” Office of the United Nations Resident Coordinator in China. 2009. <http://www.un.org.cn/public/resource/4c77763d55297ee35badca55060a2c09.pdf>

"After Olympics, China Still Worried About Clean Air for Beijing." *Opposing Views, Inc.* National Resources Defence Council, 19 June 2009. Web. 3 Jan. 2010. <http://www.opposingviews.com/i/after-olympics-china-still-worried-about-clean-air-for-beijing>.

Ansfield, Jonathan, and Keith Bradsher. "China Report Shows More Pollution in Waterways." *The New York Times*. The New York Times Company, 9 Feb. 2010. Web. 9 Mar. 2010.

"Billion Trees Campaign." *UNEP*. N.p., 2009. Web. 2 Apr. 2010. <http://www.unep.org/Billiontreecampaign/images/Unepforestmap1.jpg>.

Bodeen, Christopher. “China’s Standstorms Roll in with Harzardous Cocktail of Dust, Grime, Pollutants.” The Seattle Times. March 23, 2010.

"Bonn Climate Change Talks - April 2010." *UNFCCC*. The United Nations, Apr. 2010. Web. 12 Apr. 2010. <http://unfccc.int/meetings/intersessional/bonn_10/items/5533.php>.

Brahic, Catherine. "China Emissions to Swamp Kyoto Reductions by 2010." *New Scientist*. Reed Business Information Ltd., 11 Mar. 2008. Web. 4 Apr. 2010. <http://www.newscientist.com/article/dn13447-china-emissions-to-swamp-kyoto-

reductions-by-2010.html>.

“China's Environment Degraded to Dangerous Point: Official.” Commondreams.org. 13 Nov. 2006. 18 Mar. 2010. <http://www.commondreams.org/headlines06/1113-04.htm>.

"China Ratifies Global Warming Treaty." *CNN.com/World*. Cable News Network LP, LLLP, 4 Sept. 2002. Web. 3 Apr. 2010. <http://archives.cnn.com/2002/WORLD/africa/09/03/kyoto.china.glb/ index.html>.

Chuan, Qin, and Fu Jing. "Kyoto Treaty Takes Effect to Tackle Climate." *China Daily*. N.p., 17 Feb. 2005. Web. 13 Mar. 2010. <http://www.chinadaily.com.cn/english/doc/2005-02/17/content_416947.htm>.

“Clean Tech: Let Battle Commence.” Petroleum Economist. March 1, 2010.

Cook-Anderson, Gretchen. "NASA Satellite Measures Pollution From East Asia to North America." *National Aeronautics and Space Administration*. N.p., 17 Mar. 2008. Web. 20 Jan. 2010. <http://www.nasa.gov/topics/earth/features/pollution_measure.html>.

"Country Brief." *The World Bank*. The World Bank Group, 2 Feb. 2009. Web. 11 Jan. 2010. <http://go.worldbank.org/5UOVPS6LY0>.

“Dawn of the Gas Economy.” Petroleum Economist. March 1, 2010.

Diamond, Jared, and Jianguo Liu. "China's Environment in a Globalizing World." *Nature International Weekly Journal of Science*. Nature Publishing Group, 29 June 2005. Web. 3 Feb. 2010. <http://www.nature.com/nature/journal/v435/n7046/full/4351179a.html>.

"Declaration of the United Nations Conference on the Human Environment." *United*

Nations Environment Programme. The United Nations, 16 June 1972. Web. 12 Mar. 2010.<http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=97&ArticleID=1503>.

Doyle, Alister and Gerald Wynn. "Analysis- Giving up Climate Treaty May Unblock UN Deal." *Thomas Reuters Foundation*. N.p., 10 Apr. 2010. Web. 13 Apr. 2010. <http://www.alertnet.org/thenews/newsdesk/LDE6390AF.htm>.

Engfeldt, Lars-Göran. "The Road from Stockholm to Johannesburg ." *UN Chronicle*. The United Nations, n.d. Web. 1 Apr. 2010. <http://www.un.org/Pubs/chronicle/2002/issue3/0302p14_essay.html>.

"Environment and Health in the People's Republic of China." Office of the United Nations Resident Coordinator in China, 2009.

Fallows, James M. Postcards from Tomorrow Square: Reports from China. New York: Vintage Books, 2008. Print.

Favis-Mortlock, Dave. "What is Soil Erosion?" *Soil Erosion Site*. N.p., 12 Feb. 2008. Web. 2 Mar. 2010. <http://soilerosion.net/>.

Ferris, Richard J, Jr., and Hongjun Zhang. "The Challenges of Reforming an Environmental Legal Culture: Assessing the Status Quo and Looking at Post-WTO Admission Challenges for the People's Republic of China ." *Georgetown International Environmental Law Review*. 1 Apr. 2002.

"Fighting Poverty: Findings and Lessons from China's Success." The World Bank. 2008. 04 February 2010. < http://go. worldbank. org/QXOQI9MP30>.

Gamble, Jos. Shanghai in Transition: Changing Perspectives and Social Contours of a Chinese Metropolis. New York and London: Routledge, 2002.

"Global Environmental Outlook." *United Nations Environment Programme*. N.p., n.d. Web. 2 Apr. 2010. <http://www.unep.org/geo/geo4/media/>.

Greenwood, C. Lawrence, Jr. "Rebalancing Economic, Environmental, and Social Performance during China's 12th Five-Year Plan." International Seminar on the Direction and Policy Orientation of the 12th Five-Year Plan. Beijing. 19 Jan. 2010. *Asian Development Bank*. Web. 5 Mar. 2010. <http://www.adb.org/Documents/Speeches/2010/ms2010005.asp>.

Harms, William. "China's Great Leap Forward." *The University of Chicago Chronicle*. N.p., 14 Mar. 1996. Web. 3 Mar. 2010. <http://chronicle.uchicago.edu/960314/china.shtml>.

Hawkins, William. "Global Warming is Back: More Talks and More Potential Trouble Restart on Friday." The Washington Times. April 6, 2010.

Heggelund, Gørild M. "The Significance of the UN Global Conferences on China's Domestic Environmental Policy-making." *Fridtjof Nansen Institute*. N.p., Nov. 2003. Web. 3 Apr. 2010. <http://www.fni.no/publ/china.html>.

"The Increasing Costs of Development: Threat's to China's Biodiversity." University of Michigan, n.d. Web. 2 Mar. 2010. <http://sitemaker.umich.edu/section002group9/home>.

"Intergovernmental Organizations (IGOs)." *Harvard Law School*. The President and Fellows of Harvard College, 2010. Web. 29 Jan. 2010. <http://www.law.harvard.edu/current/careers/opia/planning/career-exploration/interngovernmental-organizations.html>.

Kahn, Joseph, and Jim Yardley. "As China Roars, Pollution Reaches Deadly Extremes."

Choking on Growth: Part 1. The New York Times, 26 Aug. 2007. Web. 4 Mar. 2010. <http://www.nytimes.com/ 2007/08/26/world/asia/26china.html?_r=1>.

"Key Stories 2009: Copenhagen Discord ." *Allianz Knowledge Partnersite*. Ed. James Tulloch. N.p., 31 Dec. 2009. Web. 1 Apr. 2010. <http://knowledge.allianz.com/en/globalissues/microfinance/top_climate_stories/key_stories_2009_copenhagen_climate_summit.html>.

"Kyoto Protocol." *UNFCCC*. N.p., n.d. Web. 13 Mar. 2010. <http://unfccc.int/kyoto_protocol/items/2830.php>.

“Losing Life’s Variety: 2010 is the Deadline Set for Reversing Declines in Biodiversity but Little has been Accomplished.” Science News. April 1, 2010.

"Map of China." Map. *Caravan Travel Service*. Wordpress, 2008. Web. 29 Jan. 2010. <http://caravantravel.cn/map-of-china.html>.

Marchetti, Silvia. Yunjia, Wang. “FAO Expert Praises China’s Afforestation Process.” Xinhua News. March 4, 2010.

O’Connor, Anne-Marie. “With Emissions Policies, Mexico City’s Toxic Skies Begin to Clear: Energy, Transportation Investments Seen as Model Urban Strategy.” April 1, 2010.

"Particle Pollution in Eastern China ." *NASA Earth Observatory*. National Aeronautics and Space Administration. , 22 Oct. 2004. Web. 23 Jan. 2010. <http://earthobservatory.nasa.gov/NaturalHazards/view.php?id=13921>.

"Press Release: Climate Change Negotiators Agree on Intensified UNFCCC Negotiating Schedule for 2010." *UNFCCC*. The United Nations, 11 Apr. 2010. Web. 13 Apr. 2010. <http://unfccc.int/files/press/news_room/press_releases_and_advisories/

application/ pdf/101104_pr_awg_april.pdf>.

"Section I: Soil Compaction- Causese and Consequences." *Soil Compaction: Causes, Effects, and Control*. University of Minnesota Extension, n.d. Web. 2 Mar. 2010. <http://www.extension.umn.edu/distribution/cropsystems/components/3115s01.html#section1>.

Shirk, Susan L. *The Political Logic of Economic Reform in China*. Berkeley: University of Califorinia Press, 1993. Print.

"Statistical Communiqué of the People's Republic of China on the 2008 National Economic and Social Development." National Bureau of Statistics of China. N.p., 26 Feb. 2009. Web. 4 Jan. 2010. <http://www.stats.gov.cn/enGliSH/newsandcomingevents/t20090226_402540784.htm>.

Steiner, Achim. "Welcome to Climate Neutral Network." *Climate Neutral Network*. United Nations Environment Programme, n.d. Web. 12 Mar. 2010. <http://www.unep.org/climateneutral/Welcometotheclimateneutralnetwork/tabid/118/Default.aspx>.

Steven, David. "A Guide to the BASIC Coalition – Climate after Copenhagen ." *Global Dashboard*. N.p., 2 Feb. 2010. Web. 17 Mar. 2010. <http://www.globaldashboard.org/2010/02/02/basic-climat/>.

"Structure and Organization." *The United Nations*. N.p., n.d. Web. 2 Mar. 2010. <http://www.un.org/en/aboutun/structure/index.shtml#Others>.

Tremblay, Jean-Francois. "Unsubstainable Agricultural Practices Attract Attention." Chemical & Engineering News. March 30, 2010.

"UN's Billion Tree Campaign Hits its Seven Billion Goal Target." *United Nations*

Environment Programme . N.p., 21 Sept. 2009. Web. 2 Feb. 2010. <http://new.unep.org/Documents.Multilingual/Default.Print.asp?DocumentID=596&ArticleID=6319&l=en&t=long>.

"UN System Organization Chart." *Ministry of Foreign Affairs*. Government of the Republic of Slovenia, 2009. Web. 4 Mar. 2010. <http://www.mzz.gov.si/en/foreign_policy/united_nations_un/>.

Vidal, John. "Climate Change Talks Yield Small Chance of Global Treaty." *Guardian.co.uk*. Guardian News and Media Limited, 11 Apr. 2010. Web. 12 Apr. 2010. <http://www.guardian.co.uk/environment/2010/apr/11/climate-change-talks-deal-treaty>.

Wassener, Bettina. "Air Quality in Hong Kong Seen as a Possible Liability." The New York Times. March 31, 2010.

"What Is the UNFCCC & the COP?" *Climate Leaders*. The British High Comission-India, n.d. Web. 3 Feb. 2010. <http://www.climate-leaders.org/climate-change-resources/india-at-cop-15/unfccc-cop>.

"WWF China." *World Wildlife Fund for Nature*. N.p., n.d. Web. 3 Mar. 2010. <http://www.wwfchina.org/english/loca.php?loca=87>.

Academic Vita

Bridget C. O'Malley

Education:

The Pennsylvania State University, University Park, PA, Fall 2006- Spring 2010
The Schreyer Honors College
Bachelor of Arts in International Politics, Minor in German- Anticipated May 2010

Professional Experience:

Teacher, Teach For America Summer Institute, Philadelphia, Pennsylvania, Summer 2010
-Responsible for developing and implementing curriculum in a five-week summer school.
-Attend six research based courses including: Instructional Planning and Delivery, Elementary Literacy, Classroom Management and Culture, Teaching as Leadership, and Learning Theory.
-Collaborate with a team of veteran and new teachers to determine strategies for increasing student achievement.

Resident Assistant, Office of Residence Life, Pennsylvania State University, Fall 2008-Spring 2010
-Supervised 56 undergraduate students in a traditional style residence hall setting.
-Had several on-call shifts each semester and enforced policies to maintain a safe and comfortable living environment for the 506 residents of the building.
-Planned and executed multiple educational programs on social justice and safety issues within the residence halls to enhance the residents' experience.
-Assisted students with concerns and managed crisis situations.

Intern, United States Senator Arlen Specter's Northeast Office; Scranton, PA, Summer 2007
-Represented the Senator at various meetings, activities, and university functions.
-Addressed constituent concerns via written correspondence, personal meetings, and over the telephone.
-Accompanied the Senator to a town hall meeting in Wayne County, PA and handled press packets for the event.

Extracurricular Experience:

The Blue and White Society, The Student-Alumni Association, Fall 2006- Spring 2010
-President 2009- 2010/ Secretary 2008-2009
-Was responsible for planning and supervising all aspects of the largest organization at Penn State with 8000 members
-Ran numerous alumni-student networking events, service programs, and school pride events.

Penn State Mock Trial Association, Fall 2006- Spring 2010
-Captained multiple Mock Trial teams, ranging from the intramural to intercollegiate level.
-Competed in invitational tournaments at the University of Pennsylvania, Columbia University, Syracuse University, Lafayette University, and New York University.
-Received a "Best Witness" award at Lafayette University's 2007 Invitational Tournament and an "All-Regional Witness" award at the 2009 AMTA Regional Tournament in Syracuse, NY.

Honors:

-Phi Beta Kappa
-Omicron Delta Kappa National Leadership Honor Society
-National Residence Hall Honorary
-President's Freshman Award for Academic Achievement at Penn State
-Melvin and Mary Bradley Honors Scholarship in the College of the Liberal Arts
-The Jonathan and Joan Brown Schochor Scholarship for Academic Excellence