As you read this issue, remember that words alone do not effect change. Mahatma Gandhi believed that, "We must be the change we want to see in the world." Essentially, it is the responsibility of each citizen to actively do what he and she can to protect our shared environment for the benefit of our collective health. This responsibility falls most heavily on today's youth.

World Information Transfer's Summer Interns have produced the August 2007 Ecology Enquirer with a special emphasis on the health of young people in a changing natural environment.

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Beijing’s “Green” Olympics
By Christopher Martini

China has enjoyed a rapid expansion of its economy since it opened its ports to foreign direct investment almost thirty years ago. Focus on development in China’s urban areas and Special Economic Zones has succeeded in transforming their rice paddies and marsh land into an international metropolis. For some time, the benefits seemed to outweigh the costs, but the residue of industrialization has lead to widespread environmental degradation. Increased oil consumption, and air, water and noise pollution are a direct effect of industrialization. Currently, sixteen of the world’s twenty most populated cities are in China. As the 2008 Summer Olympics in Beijing are approaching, the eyes of the world are turning their gaze towards China and demanding immediate reform. China’s government has accepted the responsibility of cleaning up Beijing in time for the Olympic Games and is willing to take this opportunity to create an environmental reform model for the developing world to follow.

Beijing has committed itself to an ambitious strategy of meeting the World Health Organization’s standards for urban air quality by 2008. The domestic government will start by making a commitment to reduce coal consumption in the capital from 33 million to 15 million metric tons per year, since this is the leading perpetrator of environmental degradation. Other improvements include tougher fuel-quality and emissions standards. China’s legislature has also passed laws awarding tax breaks to construction and transportation companies who meet the new standards, and conversely penalize the environmental offenders by drastic monetary fines. Since January, 2007, new apartment and office buildings must meet new energy efficiency standards, while existing constructions are predicted to contribute $200 million to improving Beijing’s infrastructure. Last year, the State Environmental Protection Agency, China’s government response agency, prohibited four power firms and four highly polluted cities from embarking on any new developmental projects until emission and energy efficiency standards are met.

In the interest of environmental protection and global participation, China has created partnership with governments, corporations and International Organizations. The most active response came from the United States, who created a US-China Joint Working Group to aide Beijing in meeting the World Health Organization’s strict urban air quality standards. Government agencies such as the Environmental Protection Agency, the Federal Transit Administration, and the Departments of Energy, State, Commerce and Agriculture have agreed to actively pursue cooperation in ten major areas. These include: sharing natural-gas technology, hydrogen and fuel-cell technology, clean coal, air quality, water quality, environmentally friendly buildings, solar photovoltaics technology (converting sunlight into electricity), urban transportation, and a Beijing-Chicago Friendship Cities Initiative. Lee Gebert, China’s clerk in the Department of Energy’s Office of International Science and Technology Cooperation says.
“We indeed have a public-private partnership, and we hope to continue to do this work – helping industry deploy clean energy technology for the Olympics and hopefully replicating the technology throughout China.” Also, corporations such as General Motors have agreed to donate zero-emission electric buses for the Olympics. The United Nations Environmental Programme (UNEP) has agreed to be actively involved in the area of public awareness campaigns with the goal of educating Chinese citizens of the environmental burdens involved with pollution and energy efficient ways to combat it.

The Beijing Organizing Committee of the Olympic Games has adopted the encouraging motto: “New Beijing, New Olympics.” China is optimistic that its aggressive program to improve energy production, air, water and transportation quality will be completed before 2008. Through exploiting the Summer Olympics in their favor, Beijing can improve its image while concurrently improving public health, upgrading its infrastructure and continuing to fuel its economic expansion. To the benefit of the international community, the Chinese are focusing more of their wealth of resources and foreign investments into environmental protection while taking leaps into the future.

Meet the Author: I am a Senior International Relations Major at Lehigh University. I am particularly interested in humanitarian affairs, international political economics and environmental protection. My recent internship with World Information Transfer inspired my interest in the environment and the developing world, and my experience at the United Nations has taught me the importance of international diplomacy to achieve world health. Since studying and working abroad in China, I have been interested in their developing environmental policies.

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Opium Leads to an Environment of Inferior Children’s Health
By Matthew Wagner

It is just when the sun peaks over the luminous mountains that encompass east and south Afghanistan, that the average farmer rises himself and his children out of their mud and clay hand-built cottage and begins to cultivate the opium fields. Afghanistan is home to 75% of the world’s heroin, which is obtained from opium poppies. The production of such a vast quantity of opium requires Afghanistan to dedicate much of its dwindling arable land. Afghanistan’s reoccurring droughts have significantly impacted its fertile land, and its recent wars have done further damage. As a result, Afghani children have become the victims of malnourishment,
poverty, and long arduous workdays. This environment debilitates their health, yet paradoxically gives life to their economy.

The French author and statesman André Malraux once said, “Opium teaches one thing, which is that aside from physical suffering, there is nothing real.” Malraux’s philosophy is a perfect reflection of the reality for the average Afghani farmer. The life of an Afghani farmer is one of a constant struggle for food, where one uses opium to supplant the lack of sustenance. The United Nations estimates that half of the Ghor Province’s farmers don’t earn enough to cover basic needs. Therefore, exhortations to plant alternatives seem doomed when a grower can make US $5,200 from an acre of opium but only US $121 from an acre of wheat. As a result, farmers are obligated to grow a crop that has no nutritional value and cannot sustain human life. Consequently, this inclination has led to a reduction of fertile land required to grow life-sustaining staple crops. In affect, the population must rely on imports to support the population.

When the Taliban had power in Afghanistan, they were able to impose strict laws about the production of opium. They declared it illegal and against the teachings of Islam. After the American invasion and the Taliban’s recent decentralization, poppy seed production rose to an all-time high. Ahmed Rehman, a farmer talking about how life was without poppy production under the Taliban regime said, “Life is very bad for me this year. Last year I was able to buy meat and wheat and now this year there is nothing.” Hence, it is a farmer’s obligation to grow poppy seeds to ensure his family’s survival. This situation has reached immense proportions and affects all levels of society.

It is reported that 3 out of every 10 children die before the age of five. The ones that do survive are subject to malnourishment and drug addiction. Opium has also become a way of controlling children. Heroin is said to be the most addictive drug in existence. It can be used as payment to children who work, and also to keep them coming back for more. In short, heroin/opium is used as traps to not only have cheap child labor, but also to keep children uneducated and un-westernized.

One of the most threatening problems from the production of opium is that the Afghani’s indulge in it. Hence, there are a high percentage of heroin and opium addicts in poppy production regions. The Afghan men and women, eager not to lose out on the sole source of income in the camps, dip their fingers in a pot of opium to feed their children before a day of work. “I know this is very dangerous and can have bad health affects on the health of our children,” says a mother, but “opium eating helps us to work more and avoid getting bored.” Therefore, Afghanistan is witnessing their younger generations being influenced by drug addictions and having absolutely no alternative lifestyle, and subsequently no incentive to better their lives.

A growing deforestation movement that is taking place in their only fertile region, the Northern Plains, also plagues Afghanistan. As the trees are cut, the rich topsoil, previously anchored by roots, is blown away on the wind, and agricultural production - already damaged by the tendency of the refugees to migrate to cities – falls further. Furthermore, the outlook on trees
is bleak, since, “after very few years the forests will be all gone. In their place, the newly barren land is seeded with mines and unexploded bombs.” Hence, it cannot only be attributed to deforestation, drought and opium production that is killing the Afghan environment, but the constant warfare that plagues this nation.

The youth and environment of Afghanistan is fragile. The decrease in arable land due to war, drought, and deforestation causes malnourishment, poverty, starvation, and death. The high percentage of opium addiction in the Afghan youth entraps an entire generation. The will and incentive to break free of this addiction are almost non-existent. Although Afghanistan’s future is clouded, no problem goes unnoticed and to this we can say that there is hope.

**Meet the Author:** I am an upcoming senior at Millburn High School in New Jersey. I joined WIT for the purpose of experiencing both the United Nations and learning about what I would like to pursue as a future career. My interest in this topic comes from a desire to help the children of the world.

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**World’s Largest Dumping Ground: China’s Battle against Foreign Waste Imports**
By: Addy Tang

If you were to ask the people of China what their biggest environmental nightmare is, 75 percent of them would say it is the fear that one day the world will be buried under massive waste piles. Indeed, if any one country in this world should have a reasonable fear of overflowing garbage dumps, it will undoubtedly be China. An average of 120 million tons of garbage is being generated by Chinese cities each year, and tons of these urban wastes are constantly being dumped into the cities’ surrounding rural areas. Garbage hills can be seen almost everywhere in the countryside, and only 20 percent of those wastes are being disposed in a safe and environmentally-harmless manner. As if China’s own domestic waste problem is not already contributing enough to its numerous environmental woes, the fact that China is quickly becoming the world’s dumping ground certainly is not making the situation any better. Tons of foreign electronic, plastic and packaging wastes find their way into China’s rural regions each year. According to Jiaquan Wang, senior journalist at Xinhua News Agency in Beijing, “most of this waste, which contains more than 300 kinds of hazardous materials, ends up in small ‘recycling’ shops, where inadequate disassembling technology leads to the release of toxins into the environment, contaminating rivers, polluting the air and soil, and threatening human health.”
Developed countries such as the US, Western Europe and Japan are China’s major waste exporters, dumping wastes mainly into Guangdong, Zhejiang, Jiangsu, Shandong, and Tianjin provinces. Among the foreign exporters, the single largest exporter of plastic and packaging wastes is the United Kingdom. Britain’s Sky News TV first exposed the illegal dumping of British wastes in Lianjiao Village, south of China’s Guangdong province, in an investigation titled, “Are You Poisoning China?” The investigation reports that China exports approximately £16 billion worth of goods to the UK each year, but receives about 1.9 million tons of waste in return, a figure that has increased more than 150 times in only eight years!

Chinese waste importers have little regard for the severe and harmful impacts that may procure on the environment and health of local people. In Lianjiao, the air is often filled with foul garbage smell from the mounds of plastic bags, plastic sandwich cartons, ice cream containers, food wrappers, and other sorts of superfluous packaging materials from some of Britain’s biggest supermarkets. Sifting through the waste piles are local workers hired to dispose of the wastes either by recycling, land filling, or burning. There are even children, some as young as four years old, working to pick up trash with their bare hands.

The majority of the plastic wastes are burned and melted down in incinerators and kilns, causing toxic smoke and fumes to be released into the air. This practice often results in acid rain, which is common to the region of Lianjiao. Chemical byproducts from the burning process are also dumped into nearby rivers along with runoffs from chemicals used to remove food debris from packaging materials. As a result, all types of poisonous chemical effluents end up in people’s water supplies and waterways such as Guandong’s Pearl River, which is already one of the world’s most polluted rivers.

Further environmental degradation results with the release of organic compounds known as Persistent Organic Pollutants (POPs) into the air when plastics are burned. Twelve of the most harmful POPs have been restricted or banned by the 2004 Stockholm Convention on POPs, and burning plastic releases at least five of these twelve POPs into the air. Extremely difficult to break down, POPs can linger in the environment for a long period of time and enter the human body through food, water or respiration, causing poisoning, cancer and even death. The local population at Lianjiao suffers from many health-related illnesses and is at most risk for different skin ailments due to their exposure to POPs and carcinogens found in the contaminated plastic materials. Children with relatively weak immune systems are especially susceptible to fever, coughs, and disfigurations of the skin.
According to the State Environmental Protection Administration (SEPA), Chinese government has already banned unlicensed businesses and individuals from importing any waste into the country that cannot be used as raw material or recycled through harmless methods. Furthermore, many environmentally-harmful waste processing operations have also been suspended. The government claims to strictly abide by the rules of Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal created by UNEP in 1989 for preventing the movement of hazardous waste from developed to developing countries. Nevertheless, the monitor and regulation of these laws at the local level are not effective and tight enough since tons of illegal wastes still find their way into China each year.

The primary reason why foreign wastes continue to flood into China is due to the market’s supply and demand. As the world’s fastest growing country, China is on a quest for any additional resources can fuel its economy, and views foreign waste recycling as an important source of energy and raw materials. Such a demand is then met by developed countries such as the UK, which generate more supplies of garbage than China does. Importing wastes to China not only allows Britain to shift the costs and environmentally harmful effects of waste treatment elsewhere, Britain’s illegal exporters can also gain a profit of £35 per ton of waste dumped in China. Environmentalists agree that waste can be turned into wealth if properly recycled under environmental standards and strict supervision, but the problem in China is that waste recycling rarely follows these preconditions. Controlled by local governments, illegal waste recycling have become a major source of revenue and employment for the local people. Therefore, in order to maintain the economy, local governments will to continue to allow hazardous wastes into China and permit operations of highly polluting recycling workshops. Such actions are further encouraged by loopholes found in obscure laws regarding the definition of recyclable wastes allowed to enter the country and in criminal laws on punishments for waste smuggling.

In order to completely terminate this waste trade, China’s lawmakers and top officials must mend the existing loopholes and take a more active stance in the crackdown of illegal waste imports and dangerous recycling activities. Furthermore, developed countries such as UK, US and Japan should take on the moral responsibilities to help China stop illegal transboundary waste flows, and understand that it is unjust to sacrifice their countries’ environmental conditions for that of China’s. Lastly, the negative costs and externalities of the severe damages done to the environment and health of people by far offset any monetary and economic gains China may have made in this illegal waste trade. Also, studies have shown that while foreign waste imports do provide important additional raw materials, the resources collected account for much less than the amount that can be collected from China’s own domestic wastes. Therefore, it would be in China’s best interest to immediately stop illegal foreign waste imports and focus, instead, on dealing with its own growing domestic waste piles.

Meet the Author: As a rising sophomore, studying International Relations and Economics at Tufts University, I strongly believe that improving environmental conditions and public health is the first and most crucial step toward improving human lives overall. As a WIT intern, I want to help expose and raise awareness of the many critical issues that are currently affecting our environment and health.
Children of Democratic People’s Republic of Korea Suffer from Malnutrition and Related Illnesses
By Alice Min

Many of the 23 million people living in the Democratic People’s Republic of Korea (DPRK), also known as North Korea, suffer from malnutrition and related illnesses due to severe food shortage. Since the mid-1990s, natural disasters, such as floods and droughts, have destroyed crop harvests and ensuing famine has inflicted DPRK. In 2002, conditions were worsened due to an economic adjustment process that triggered large-scale layoffs in factories, steep cuts in pay levels and a rapid escalation in the market prices of staple foods.

As DPRK’s citizens became unable to independently acquire food, many have depended heavily on government-run Public Distribution System (PDS). In 2005, PDS provided 250 grams of cereal to each person per day. This amount of cereal is approximately 40 percent of the internationally recommended minimum calorie intake, and is also critically deficient in protein, fats and micronutrients. In addition, some sources report that the PDS distributes food in ways that reinforce the DPRK government’s political, regional and social biases. In fact, the PDS has failed to provide for DPRK’s most needy citizens in the rural areas. In 2003, Amnesty International reported that 13 million people suffered from malnutrition – representing over 50 percent of DPRK population, and up to three million people died from starvation since 1995.

Children in particular are among the most impacted by the food shortage. According to a 2004 survey conducted jointly by World Food Programme (WFP), UNICEF and the DPRK government, 37 percent of children are chronically malnourished. As early childhood, from birth to eight years of age, forms the foundation for healthy cognitive, emotional and physical growth, it is also a period of heightened vulnerability when inadequate healthcare can lead to compromised development, and even death.d In fact, a recent nutrition assessment by UNICEF reveals that severe malnutrition is a precursor to irreparable physical and psychological
impairment. For instance, about 42 percent of children less than seven years of age are inflicted with stunting, whereas 9 percent suffer from wasting of their body. An estimated 70,000 children are severely wasted, with manifest signs of shocking underweight and lethargy, and require hospitalization for survival.

Malnutrition is not the only problem that the DPRK citizens face. Difficult financial circumstances have forced many households into deteriorated sanitary conditions making them targets of infectious diseases. With limited access to clean water and no national agenda regarding health and sanitation, most citizens drink contaminated water and use unsanitary latrines and unhygienic practices. These factors in turn contribute to high incidence of diarrhoeal diseases, especially among infants and children. In fact, diarrhea, along with acute respiratory infection, is the main cause of death in DPRK children who are under five years of age. According to a survey conducted by UNICEF, about one in five children suffer from diarrhea. While diarrhea is a treatable illness, complication with malnutrition makes it a life-threatening disease, which leads to approximately half of its deaths.

The DPRK has been receiving a constant flow of humanitarian aid since the 1990s. Without such assistance, millions of people’s health would be severely compromised. WFP, in particular, has played a central role in mobilizing and delivering food aid to DPRK, specifically to address the urgent needs of children, pregnant and nursing women. Since 1995, WFP supplied more than four million tons of commodities valued at US $1.7 billion. In a collaborative effort, UNICEF along with WHO, UNFPA and IFRC, has also launched the maternal and child health project aimed to improve the quality of health services for children and mothers. The project strives to provide continual supply of essential medicines to combat life-threatening illnesses, including diarrhea and rehabilitation care for severely malnourished children.

With these international efforts, considerable progress has been made towards meeting the needs of the DPRK population. However, recent security tension following the nuclear issue has frozen some of the aid lines. In addition, one source reports that the WFP has only reached 10% of the funds needed to feed the DPRK citizens this year. In order to avoid costing the health and lives of vulnerable people, UN agencies and NGOs are working ardentely to build national capacity through rehabilitation and development activities. But corruption and biases pervade the national infrastructure, as marked in a U.S. report that approximately 25-30 percent of supplied aid does not go to its intended people. Still today, it is an unfortunate question whether the situation for the DPRK people will ever get better.

Meet the Author: A rising junior at Wellesley College majoring in chemistry, I am interning at World Information Transfer because world health and environmental issues interest me. I wrote this article as I feel deep regret towards the degraded living conditions of many people in North Korea. I hope that my article help raise awareness of the hardships these North Koreans face, and that it will serve as a guide to learn more about North Korea and its people.

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Paying Attention to the Green
By Nazish Rajput

In today’s ever growing consumer base and increased globalization, a lucrative market for green products has developed for many multinational companies. Considering recent reports released on climate change, including the Stern review report released in the United Kingdom earlier this year, many conscious consumers have begun to seek out green products that are readily available and cost effective. Companies themselves, have found that switching to green product design yields both environmentally friendly products and a higher profit margins.

Green design is also known as: design for environment, eco-efficiency, and sustainable product. Green design involves proactively addressing environmental considerations in the earliest stages of product development process, in order to minimize negative environmental impacts throughout and after the product's life cycle. Green product design can encompass material selection, resource use, production requirements and planning for the final disposition (recycling, reuse, or disposal). It is not a stand-alone methodology, but one that must be integrated with a company’s existing product design. This practice is used to maintain a healthy balance between high standards for environmental consideration and the traditional product attributes, such as quality, cost, and functionality. The advantages of green design not only benefit the environment, but also extend to crucial health improvements for individuals living in areas where air and water pollution is a daily hazard. The use of green product design eliminates further use of certain toxins and reduces illnesses that might be induced from prolonged exposure to harmful chemicals.

Currently, China, Brazil, and the European Union face highly available markets for green products. For example, Brazil’s ethanol industry has become a prime example of how an ineffective method of producing an environmentally friendly fuel can be reorganized to make ethanol production. This process has led to more cost efficacy and less negative impact on local surroundings. Although, the ethanol industry has been a staple in the Brazilian market for the past few decades, only until recently was the thought of burning cane fields to harvest a product considered. Originally, the burning of cane was done to clear the dense, serrated leaves of the plant before cutters could gain efficient access to the stalks. In recent years, however, the sugar cane industry has moved from burning to collecting left over leaves and cane. Farmers have found that by selling these leftovers they are able to make a profit and still help improve environmental conditions in cities such as Sao Paulo, where the negative effects of burning the harvest fields have been felt in the past. This transition to green design has established a clear shift in the already expanding ethanol industry of Brazil, to one that now provides benefits for
both producers and consumers. Moreover, the health of individuals in areas of close proximity has improved due to this change.

China, in particular, has seen a jump in the demand for environmentally friendly products and resources. With a booming industrial economy, the substantial increase in trade over the past few years and a rise in family income has provided many individuals with an opportunity to choose a green lifestyle. In China, Hong Kong is currently the hot spot for companies to collaborate on new products and visualize a means of production, making it not expensive but providing many environmental benefits. Recently, the furniture industry in China and in particular Hong Kong has realized an enormous gain. Increases in sales, attributed to a rise in GDP, have provided a means for companies to expand design and establish new and improved product lines. Many companies have begun to use recycled wood as a new resource, to combat the increase in the cutting of new trees and of toxins that pollute surrounding areas. Since using recycled wood saves energy, it has become a green and cost-efficient method to deal with the boost in demand for wood products. This solution’s impact reaches even further, since this method rarely uses chemicals for treatment that pollute the environment. In the end, individuals as well as communities are saved from the outraching effect of toxins caused by improper disposal of chemicals.

Lastly, with a highly informed population, the European Union has been a leader in the enforcement of strict green laws, which have benefited the populations within EU countries. The case of the EU is interesting because the region’s demands have led the change in industrial design. The EU stance on green production along with providing the consumers better environmental education has led the industry to comply with the new production regulations, and the public to making eco-friendly choices. One of the big initiatives that the EU has focused on is the requirement of daily appliances to be more energy efficient. The improvement in the efficiency of the PCs alone has reduced the carbon emission by a large amount over a period of time. Most in the EU believe that a successful way to combat global warming is to treat the causes, which is quite evident in the EU’s stance for green design.

It is interesting to note that many companies have begun to design a lifestyle that they believe fulfill the requirements of living “green”. Concurrently, companies have begun to form these unique products and expand the green market even further. Green products need to be readily available to all individuals, in order to have a full impact on environment and public health. Unfortunately, there are still many governments and companies who have not begun to explore green products, thus underutilizing the benefits of a green community. If implemented properly, this methodology has enormous potential to improve the health of individuals, who are affected daily by the improper disposal of chemicals as well as other toxins. In the end, green products have the ability to change and provide better living situations for many and protect the environment for even more individuals.
Meet the Author: I am a recent graduate of Rutgers University where I majored in political science and economics. My interest in this topic comes from my involvement in WIT’s agenda which is to promote environmental health awareness.

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Autism: The Growing Global Epidemic
By Tikvah Betancourt

Autism, a complex neurobiological disorder, is associated with a group of disorders known as Autism Spectrum Disorder (ASD). Affecting 1 in 150 individuals worldwide, autism is characterized by impairment in social and communication skills, as well as repetitive behaviors. This developmental disorder is depicted as an epidemic, affecting more individuals than diabetes, pediatric cancer, and AIDS combined. Autism is also found to be four times more prevalent in boys than girls. ASD is now diagnosable by the age of one and occurs amongst all racial, ethnic, and social classes.

Studies have linked autism to both genetic and environmental origins. Research is being done to discover nutrient(s) or toxin(s) that could be behind this inhibiting disorder, and scientists are in the process of developing theories of its cause. As noted by the Behavioral Neurotherapy Clinic in Australia, autism could be the result of a genetically susceptible person’s exposure to an environmental catalyst, causing genetic mutations. Theories point towards vaccinations as the cause of Autism. A study completed by Mark Geier and David Geier, "Thimerosal in Childhood Vaccines, Neurodevelopment Disorders and Heart Disease in the United States," shows evidence of a link between neuro-developmental disorders and thimerosal-vaccines containing mercury. This study included data which showed that U.S. infants’ exposure to mercury levels from childhood immunizations can greatly exceed the approved EPA and FDA levels for the ingestion of mercury. The toxicity of mercury as well as the neurodevelopmental disorders linked to it are well known, making it a prime suspect of causes of autism. However, other theories are still being evaluated.

The National Institute of Health supports studies that suggest Autism Spectrum Disorders can be prevented by elimination of prenatal genetic mutation. The key lies in finding
the trigger to these mutations. Over the past 50 years, the nutritional quality of foods has changed due to the increased use of pesticides, and antibiotics in the food chain, as well as additives and preservatives in packaged foods. This increasing human exposure to potential toxins creates evidence that autism may be multifaceted, a nutrigenomic disorder, resulting from the interaction between nutrients and genes.

On June 28, 2007, the UN Dept. of Public Information held a public briefing at the United Nations in New York City, symbolically recognizing the growing severity in the number of cases and the international urgency in addressing autism. The briefing, led by Juan Carlos Brandt, Director of Information Centre, raised the idea of creating an International Autism Day. An international day dedicated to the cause of autism could enable states to create awareness and take an active role in funding research and creating resources for diagnoses and treatment.

Only recently has the global community started educating itself on the issue of autism. Although autism is more prevalent than other chronic childhood diseases, it is proportionately under-funded. Research and awareness, two major components in diagnosing and developing treatments, are hindered by the lack of funding designated by governmental bodies and agencies. While developed countries are actively fundraising to find answers through research, developing countries are lagging behind and struggling to create awareness of this neurobiological disorder.

Developing countries struggle to diagnose, educate, and provide treatments for individuals with this developmental disorder. The Global Autism Project works in Ghana, looking to expand its program and bridge the gap in resources and education. In this region diagnosis are rare and the disorder is misunderstood. According to Molly Ola Pinney, director and founder of the Global Autism Project, local populations of Ghana often believe the symptoms of autism to be signs of demonic-possesion. Pinney emphasizes the need to provide autism education to different populations with divergent cultural beliefs. The Global Autism project often partners with other programs, such as Autism Awareness Care and Training Centre (AACT), to assist in autism education and training workshops. These programs demonstrate ways in which parents can effectively raise their children.

A program working to assist families with autistic children in India is Action for Autism (AFA), a national and non-profit society of India. This organization addresses legal, medical, and educational issues relating to autism in India. Misdagnosis and the insufficiency of special education programs and training centers are problems facing the autistics population in India. Cultural stigma and insufficient knowledge of autism by medical professionals in India often prevent proper diagnosis. Children are often thought of as mentally retarded or suffering from some form of mental illness, which prevents them from receiving treatment for autism. Without a proper diagnosis at an early age, the effects and impact of autism on families can be devastating.

Autism-Europe (A-E), an established international association, works to improve the quality of living for those with autism, as well as their family members. They are currently organizing the eighth International Congress, A World of Possibilities, with the belief that this international event will be vital to improving the lives of people with ASD. A-E believes that these types of actions will give those diagnosed with autism the potential to live their lives to the fullest.
Along with many other chronic illnesses, autism needs to be taken as a priority by Health Organizations and Governments worldwide. Autism knows no boundaries when it comes to race, ethnicity, and social classes; this should encourage the cooperation of the international community to work together in tackling this epidemic.

Meet the Author: As an intern for World Information Transfer, I attended the DPI briefing on Autism, which struck a cord of interest. The ratio of children being diagnosed with autism is startling, and I set out to write this article in order to educate myself and the international community on this growing health issue.

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Fighting Malaria, All Over the Globe
By Will Savage

The public perception of malaria is that it is a disease that mainly affects young African children. However, malaria is actually present in a number of other locations around the world; in fact, approximately 41% of the world’s population lives in an area infected with malaria \(^1\). Fighting this disease appeals to our sense of reason – it can cause a “growth penalty” of up to 1.3% of a country’s total GDP – and to our conscience, as over 75% of cases occur in children, often causing brain damage or death. \(^2\) Given that such a threatening disease affects so much of the world, it is imperative to examine malaria’s spread and possible methods of its containment and treatment.

Malaria is endemic in a belt south of the equator, containing Latin America, Sub-Saharan Africa, and Southeast Asia. As malaria is spread by mosquitoes, the disease is most common in wet areas where mosquitoes thrive. For example, in Latin America, the Amazon Basin and its surrounding areas have the highest incidence of malaria. Rural areas in Southeast Asia tend to have a higher number of malaria cases than nearby drier urban areas. It is also worth noting that as the global climate changes, malaria could spread to areas that have thus far been free of the disease.
The worldwide exposure to malaria, has spurred a large amount of research on methods for preventing and treating the disease. One of the more effective methods is through the use of a chemical containing Dichloro-diphenyl-trichloroethane (DDT), which helps to limit the mosquito population. This method helped eradicate malaria from the American South in the mid-20th century. Although this method is legal, as per an exception in the Stockholm Convention, DDT is an extremely harmful chemical. It is a toxic pollutant in the environment, and a suspected carcinogen. Other solutions must therefore be examined. Three major options are possible: insecticide-treated bed nets, vaccination, and genetically-modified mosquitoes.

Insecticide-treated bed nets are a simple, low cost solution for preventing mosquito bites, subsequently reducing malaria infections. These nets cost only a few dollars, and can easily be obtained from the World Health Organization. Unfortunately, these nets are not a panacea, as mosquitoes can gain resistances to the insecticides over time. Therefore, scientists are hard at work looking for better methods to treat malaria.

Perhaps the most realistic goal is that of a vaccination. A recent donation by the Bill and Melinda Gates Foundation of $108 million has expedited the creation of a vaccine called Mosquirix. This vaccine would use the immune system to disrupt the maturation of the malaria parasite early in its life cycle, preventing the disease from ever coming to fruition. Unfortunately, time and money are still needed for perfecting this method and making it available to those who need it.

Another possible measure, genetic engineering, is still very early in its development, but tests have been promising. Some mosquitoes have shown a genetic trait which makes them resistant to malaria. A proposal suggests breeding these mosquitoes, releasing them into the wild, and spreading the resistant trait throughout the mosquito populations in infected areas. However, it is unclear if the resistant mosquitoes will be more fit for survival than other mosquitoes; this is necessary if the resistant mosquitoes are to spread throughout the mosquito population as a whole.

There are also a number of other treatment methods; however, they hold less promise than the ones discussed above. Drugs are either too ineffective or too rare to have a significant impact on the affected areas. Furthermore, only a small percentage of those infected with Malaria seek professional attention; thus, even if an effective drug did exist to cure the disease at a reasonable price, few would have access to this drug.

Malaria has been a thorn in the side of good health of the global population, especially children, for the last 50,000 years. It has had negative economic implications, and some of the attempts to treat it have been harmful to the environment. However, positive solutions do exist and many others are currently being developed, but we must ensure a sustained dedication of our time and money to solving malaria.

Meet the Author: I am a rising senior at Millburn High School, in Millburn, NJ. I am interested in international relations and politics, and am interning with the World Information Transfer this summer to gain a better understanding of how international relations actually works, and how international policies are formed.
I am interested in malaria because it has such a great impact on the world, despite the vast array of potential solutions.

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Compact Floresent Bulbs: An Ecologically Sound Alternative?
By Barnett Koven

Many consumers of Compact Floresent Bulbs (CFB) are under the impression that CFB are an ecologically sound alternative to incandescent bulbs, the latter generally requiring more power as well as having a shorter life span. However, most consumers are often unaware that CFB contain mercury (Hydargyrum), a toxic metal that has been shown to cause mental retardation, damage to the spinal cord, kidneys and liver.

More specifically inhalation of mercury results in absorption through the lungs, which in turn can lead to tremors, emotional changes, insomnia, neuromuscular changes, headaches, disturbances in sensations, changes in nerve responses, and reduced cognitive function. Higher exposures can result in kidney and respiratory failure, consequently leading to death.

Mercury is an essential ingredient in CFB, as CFB function by using an electric current to excite mercury vapor. As the mercury vapor is excited, it subsequently creates invisible ultra violet light that is absorbed by a white powdered coating known as phosphor, thus resulting in the emission of white light. In contrast, a traditional incandescent bulb uses significantly more electricity, because it takes a vast amount of current to super heat a metal filament to make it white hot, thus creating light.

Intuitively consumers may be inclined to steer away from the use of CFB, knowing that they contain harmful mercury. However, over the life-time of CFB, the summation of mercury emitted during CFB construction and use will still result in less overall emissions. On average, a CFB contains only 4mg of mercury and results in just 2.4mg of mercury emitted from a coal fired power plant over its 5 year life span.
In contrast, an incandescent bulb contains no mercury but results in 10mg of mercury emitted over a 5 year period. Since 54% of electricity in the US is generated via coal fired power plants and as much as 80% of energy in China comes from the burning of coal, mercury emissions are significantly reduced by the use of CFB.

Mercury emissions from coal fired power plants are simply released into the environment and then are leached into the water supply effecting humans and wildlife alike. There is no effective way to capture mercury emissions from coal fired power plants. If incinerated or landfill disposed, the mercury from the CFB will have the same effect. However, because the mercury in CFB is encapsulated within the bulb, the level of mercury present in the environment can be significantly decreased by properly disposing CFB. CFB can be disposed at household hazardous waste collection centers; these facilities are located all around the US. In the absence of such a facility, the user can seal a used CFB inside two plastic zipper bags and dispose of it in the trash. Unfortunately, it is likely that the mercury will be released into the environment during this method of disposal, despite the use of plastic bags.

Aside from mercury emissions, CFB are environmentally, and in turn economically, superior to incandescent bulbs, as they last up to 10 times longer resulting in less waste. This mitigates their higher price. Also, CFB generate significantly less heat, thus reducing electricity demands for cooling. CFB also require 50-80% less electricity over their life span compared to incandescent bulbs, resulting in significantly reduced energy costs. One study showed that replacing one incandescent bulb with a CFB resulted in a US $45 savings over its life span.

As a result of the aforementioned health hazards, people may fear the effects of having bulbs containing mercury in their houses. However, this fear is negligible when compared to traditional incandescent bulbs. A CFB contains just a miniscule amount of mercury, enough to fill the space of a tip of a ball point pen; whereas a typical mercury thermometer contains far more mercury than a CFB. Furthermore, in order to succumb to the aforementioned health effects, one must be exposed to extremely high concentrations of mercury for numerous hours or be exposed to relatively large dose for an extended period of time. In fact, a study by the US EPA noted that as much as 27mg/m3 of mercury was required to kill part of a population of rats who were enclosed in a dispersion chamber for a period of 2 hours.

Realizing that CFB are both environmentally friendly and economically beneficial to the consumer, as well as the fact that they do not pose a health risk, consumers should continue to use CFB. However, consumers using CFB should help to increase their environmental benefit by properly disposing of spent CFB.

Meet the Author: I am an upcoming senior at Millburn High School in Millburn, New Jersey. I am interested in energy conservation and emissions reduction. As a loyal CFB user, I was dismayed to learn of their mercury content and thus was motivated to research the implications of mercury in CFB.
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Tobacco: The Method Behind the Leaves
By Hillary Krieger

The harmful effects of smoking are well known throughout the world. Along with lung cancer and emphysema, smoking has also been shown to cause birth defects and asthma in those exposed to first and second-hand smoke. What is less known about smoking however, are the toxic effects of the growing of tobacco by farmers and agricultural laborers. In order to successfully cultivate this lucrative plant, large amounts of fertilizer and chemicals are necessary. The harmful chemicals also pose a great risk to the environment when they leach into the soil and water table and are subsequently ingested by both humans and wildlife.

The tobacco plant (Nicotiana) is very sensitive to agricultural diseases and insects which attack the fragile leaves. In order to stave off insect infestation of the tobacco plants, farmers must use large amounts of fertilizer and toxic chemicals during cultivation. Often, these materials leach into the soil, affecting other plants in the area that are used for human consumption. The fertilizers also seep into groundwater affecting hundreds of inhabitants’ water supply in the surrounding area. One of the most common fertilizers used on tobacco plants, Aldicarb. This is an extremely toxic chemical, since less than one-thousandth of one ounce is lethal for a human by direct ingestion. As a result of the frequent treatments the farmers must administer to the tobacco plants, Aldicarb is absorbed by the leaves and traces are found in the cigarettes that are smoked.

The harmful effects of Aldicarb are well known and extensively documented. In human cells, Aldicarb causes genetic damage and has also been found to suppress the immune system in fetuses. Laboratory studies have also shown that Aldicarb is lethal to animals, causing chronic damage to the nervous system. However, despite the severe toxicity of this chemical, it remains legal in the United States where it is the most widely used treatment for tobacco plants. Traces of Aldicarb have been found in the groundwater of 27 states in the US affecting millions of people. Thirteen countries worldwide have banned Aldicarb due to its harmful toxic effects both on humans and wildlife.

In addition to Aldicarb, methyl-bromide is used to fumigate the soil prior to planting of the tobacco plants. Methyl-bromide is an ozone depleting chemical which also leaches into the soil and groundwater proving harmful to humans as well as the environment. The EPA is currently working to phase out methyl-bromide in the United States; however it remains in use in developing countries as a cheap fertilizer.
The extreme dosages of these pesticides and chemicals most severely affect those who come in contact with these harmful substances. In poor tobacco exporting countries, such as Malawi, India, Brazil and China, the laborers are often destitute and desperate for work of any kind, often overlooking the negative consequences. The workers are often subject to “Green Tobacco Sickness”, an affliction which affects those who frequently touch wet tobacco leaves. The naturally occurring nicotine found in tobacco penetrates the skin and results in dizziness, nausea and fluctuations in blood pressure and heart rates. As many of these tobacco workers already have a compromised immune system due to poor nutrition, the Green Tobacco Sickness can place these people out of work for weeks leaving their families struggling for another source of income. In addition to Green Tobacco Sickness, the laborers also suffer from inhalation and contact with the extremely toxic chemicals mentioned above used to treat the tobacco plants during cultivation.

In recent years, tobacco cultivation in the United States has decreased dramatically, statistically showing a 75% decline between 1954 and 1992. This decrease can be attributed to a decrease in smokers as well as an increase in cigarette taxes. It is noted that cigarette manufacturers in the US have looked to developing nations for tobacco importation to decrease their own costs of production. Therefore, the United States is the largest importer of foreign grown tobacco, accounting for one-third of the tobacco sold in this country. In addition to the cheap labor available in many of these developing countries, there are also fewer regulations restricting the use of pesticides which allows the farmers to use more chemicals for growing tobacco.

The contractors who later buy the dried tobacco from the farmers often sell them seeds, fertilizer, pesticides and equipment necessary to grow a large crop of tobacco. Additionally, they provide leaflets which advise to apply 16 applications of pesticide in a three month period to insure the healthy growth of the crop. They fail to identify the harmful results that this excessive use of pesticides will have on the farmers, surrounding wildlife, groundwater and soil for years due to the intensity of these applications.

These actions have not only affected the farmers and agricultural laborers who are involved in the growth of tobacco, but the surrounding environment as well. As a result of the demanding market for tobacco, it is lucrative for many of the farmers to expand their growth abilities by clearing nearby land and investing in the growth of larger crops. In countries like Brazil, this has led to the deforestation of countless acres in the Amazon rainforest which is one factor contributing to the rising temperatures worldwide.

It is evident that smoking harms not only the individual who chooses to smoke, but a myriad of others who are involved in the growing of tobacco. The farmers and poverty stricken agricultural laborers suffer from severe health issues as a direct result of contact with tobacco leaves and the chemicals used to grow tobacco. The ecosystems around the tobacco fields are disrupted through the continuous applications of toxic chemicals which seep into the soil and the water. The surrounding human populations are also affected through the leaking of these chemicals. Smoking tobacco is not a personal action. It is one that is contingent upon all of the individuals and ecosystems who rely on a healthy environment for sustenance. Cutting tobacco production is one small step that can have significant consequences on millions of people worldwide.
Meet the Author: I am a rising senior studying political science and history at Stern College, Yeshiva University. Interning at WIT has opened my eyes to the relevance of environmental and health issues on the broader scale of the international forum. I chose this topic because it illustrates the harmful effects of supporting the tobacco industry from the perspective of the grassroots manufacturers rather than the consumer.

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Lead Poisoning Among Children: A Continuing Health Concern
By Maria DeRiggi

There is a common misconception that the aggressive removal of lead (Pb) from household paint, gasoline and pipes in the United States from the 1970s on has solved the health threats of lead poisoning. Unfortunately, this is not the case. Lead poisoning remains a hidden environmental health threat affecting children, predominately those living in urban environments and tending to be of low socio-economic class and minority groups.

According to the National Health and Nutrition Examination Survey (NHANES), Pb poisoning has been reduced in the US by 80 percent, down to a current level of 2.2 percent in children under the age of five. The turnaround in national health statistics related to Pb poisoning seems to suggest an efficient and uniform response to the threat of lead poisoning and its significant reduction as an environmental health risk. Yet, in contrast to the large national reduction of Pb poisoning, roughly 15 percent of urban children still exhibit blood Pb levels above what is deemed “safe.” High levels of Pb in children’s bloodstreams can have many deleterious effects including damage to the brain and nervous system, behavioral and learning problems, headaches, chronic hearing problems, and slowed growth and development.

Many urban areas still show high Pb poisoning rates in children under age six, the most vulnerable age for Pb toxicity. Alarming, twenty-nine percent of the 0.5 to 5 year-old population in New Orleans, Louisiana exhibit unsafe levels of Pb in their bloodstream. Extremely toxic, lead can still be found in large quantities in paint, dust, dirt, drinking water, food, and tableware. Pb can also be found in varnish, pigment inks, hair dyes, anti-fouling paints, waterproofing materials, insecticides, solder, gasoline in some countries, pipes, plumbing fixtures and cosmetics.

Although federal legislation outlawed the use of leaded paint in residential buildings in 1978, the legacy of preceding use of this type of paint remains, especially as the paint chips and peels in old houses. The Environmental Protection Agency estimates that there are still 64 million privately owned homes in the United States containing lead-based paint, 12 million of which are occupied by families with children under the age of seven. This is dangerous because once Pb is introduced into the surface environment it remains and accumulates over time, becoming available for body intake through small particles. In fact, all 300 million metric tons of lead ever mined persist in the natural environment, largely in soil and dust.
Children suffer the ill effects of lead at a greater rate than adults do because their highest potential for exposure occurs when they are most physiologically susceptible. One of the reasons for the high rate of exposure is the hand-to-mouth behavioral pattern in children, which leads to ingestion of contaminants in dust or dirt. The exposure also comes at a time when children’s bodies are still growing and building vital organs, skeletal and neural structures. Lead is particularly toxic to their developing nervous systems; additionally, children’s bodies are less equipped to sequester circulatory lead in the bones. Therefore, a higher percentage of the total amount of lead in the body exerts toxic effects on the internal organs. For fetuses, the risk is even greater; they have no anatomical or metabolic barriers to lead intake. Persistent elevated Pb concentration in children can lead to a variety of severe and permanent mental, behavioral, and physiological problems.

The chart below is an example from Indiana representing the average Pb concentrations in surface soil as a function of distance from the roadway, contrasting an urban and rural road and demonstrating the strikingly higher concentration of Pb on the urban road, even as the distance from the roadway increases:

![Graph showing Pb concentrations](image)

According to the most recent NHANES report, 8 percent of impoverished children suffer from lead poisoning, compared to 1 percent of children from high-income families. Among all children, 11.2 percent of African-American children are poisoned compared with 2.3 percent of white children. The NHANES report also indicated that among all low-income children, 28.4 percent of African-American children have Pb blood levels above the Center for Disease Control’s level of concern, compared with only 9.8 percent of white children.

Impoverished, minority families tend to live in some of the nation’s oldest and most dilapidated homes, which the Department of Housing and Urban Development has determined to be the largest source for lead exposure today. Furthermore, there is a significantly high
concentration of lead in soils near inner city dwellings due to lead-based paint, with 65 percent of these homes being occupied by African Americans. Poor economic conditions also beget poor nutrition; the lack of dietary elements such as calcium and iron, cause the body's absorption of lead to increase. Additional factors affecting children in this socioeconomic class often include inadequate pediatric health care, poor home maintenance with a high percentage of rental housing, a significant proportion of urban housing with high dust and dirt exposure.

The regulations enforced on the use of lead have been very successful in lowering the amount of Pb put into the environment and have resulted in positive human health benefits. Unfortunately, the efforts made to eliminate the threat of Pb poisoning have not been uniform; the legacy of Pb deposition remains, and as a result over 400,000 children in the United States alone between the ages of one and five are still poisoned by Pb. The perception that lead poisoning in children is a problem-solved needs to be changed in order to successfully tackle this issue. The control of lead-based products as well as education and outreach to the most vulnerable and affected communities about childhood lead poisoning is required. Furthermore, federal funding to abate low-income homes is critical. Reducing exposure will require a movement combining efforts from disparate groups including property owners, tenants, parents, teachers and state and local agencies, as well as resurfacing the issue of Pb poisoning as a threat to children’s environmental health.

Meet the Author: I am a recent graduate of Brown University and an intern at World Information Transfer. I am very interested in the environment and health issues, especially those affecting children. I found it very interesting to learn that lead poisoning remains an issue affecting many American children.

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Obesity and the Environment
By Vikash Khanna

The global obesity epidemic (or “globesity,” as some people call it) is prevalent among all ethnic groups and across all socioeconomic strata. As shown in the chart below, the percentages of those with obesity are significant in several countries. Many factors have caused the rapid spread of this epidemic, most notably: the easy access to high-fat foods in local supermarkets, the massive portion sizes offered in restaurants, and the endless cascade of television and billboard advertisements. What many do not realize, however, is that the spatial environment around us—more specifically, the dynamics of human-nature interactions—is also a major factor. In various parts of the world, obesity can be reflected by our increasingly-imbalanced relationship with outdoor spaces and natural resources.
The expansion of modern, westernized diets and food preferences into more traditional corners of the globe is a prime example of this. In India’s metropolitan centers, for example, families are consuming less produce and more meat, even though this population has always been immersed in a vegetarian culture. In fact, even though the world’s population has skyrocketed over the last half century, per-capita meat consumption has more than doubled in that timeframe. This trend has effects not only on people’s waistlines but also in the environment, since meat production involves disproportionate land use. Farm animals require, on average four times more land utilization than crops, in order to produce a given number of calories. In tropical regions, deforestation is another damaging environmental effect of increased meat consumption. In Central America, for example, 40 percent of all rain forests have been destroyed over the last 40 years in order to graze cattle and produce beef burgers for the export market.

In both the developed and developing worlds, increasing obesity rates can be reflected by the demographic phenomenon of urban sprawl, which involves populations flocking into suburbs that contain less densely packed neighborhoods. Green spaces, public parks, and outdoor recreational facilities are abundant in these areas; however, physical activity is at a minimal because homes, stores and buildings are spread out beyond comfortable walking distances. Virtually every suburbanite family in the developed world is equipped with an automobile, thus making travel by foot obsolete. Even in regions such as sub-Saharan Africa, which have been traditionally associated with malnutrition, urban sprawl has led to less exercise and greater dependence on immediate modes of travel. Just think: a community’s relative obesity problem can be approximated by population density, and by taking note of pedestrian and biking traffic.
While combating obesity is a dual process involving both behavior modification of individuals and cooperation from food companies, it is also necessary to stress the importance of environment. These patterns in diet and housing are directly linked with weight gain as well as an increasingly-imbalanced relationship with the environment.

Meet the Author: I am a rising junior at Cornell University. I chose this topic because I do scientific research on weight management, and find this topic to be very interesting.

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Endometriosis: Threatening the Youth Population
By Brianna Gillespie

It has long been thought that endometriosis, a disease affecting women’s reproductive organs, did not affect the youth population. Today, doctors understand just how wrong that myth is. Of the 5.5 million women in North America who suffer from the disease, two thirds of them began showing signs of endometriosis before they turned twenty years old. In fact, most women who live with this chronic condition began developing endometriosis only three to four years after menarche, a woman’s first period. Most doctors believed that the pain endometriosis-sufferers endured was nothing more than girls overreacting to normal menstruation pain. Researchers estimate that over 89 million women suffer from endometriosis worldwide.

Endometriosis causes pieces of the uterine lining to dislodge and travel to different parts of the body. The most common symptom for a woman suffering from endometriosis is severe pain in the abdomen, which worsens during menstruation. In most cases, this dislodged tissue causes cysts to form, especially on the ovaries. Cysts only increase discomfort. Furthermore, endometriosis affects fertility and leaves women at a higher chance of cancer. It is estimated that approximately 20-30% of ‘endo’ sufferers experience great difficulty becoming pregnant. Some doctors believe that 50% of infertile women have suffered complications with endometriosis.

Gynecologists now are highlighting the dangers of non-diagnosis. If endometriosis is left untreated, women face a laundry-list of complications; infertility, loss of an ovary or other organ, and obstructions in the abdomen. Approximately 65-80% of untreated cases become more serious. Diagnosis is important, but even more important is early-diagnosis. If caught at an early stage, there are treatments that can help control endometriosis.

The most common treatment is some form of hormone treatment, usually a birth control pill regimen. In addition, doctors prescribe painkillers to control pain. Many doctors also recommend reducing the amount of gluten, a derivative of wheat products, in ones diet. Surgery
is required to remove cysts and buildup in more serious cases. If surgery is not enough to control chronic cases, medically-induced menopause is the answer.

Doctors do not know the cause of endometriosis. Some studies believe that there may be a genetic link. Other studies focus on the environment, blaming certain pollutants that are known to cause both genetic mutation and affect fertility. Many of PCBs, including dioxin were used in fertilizers and nerve agents. Dioxin and PCBs are associated with many other chronic reproductive diseases, and inherently linked to endometriosis. Dioxin, as well are other PCBs, are banned thanks to work done by NGOs and the United Nations. Yet dioxins still manage to enter the food chain as a by-product of industrialization. Dioxin accumulates heavily in fatty tissue, and has a half-life of 8 years. Affected meat is then consumed, exposing the human population.

Exposure to dioxin in high doses is deadly. Dioxin exposure leaves the environment affected for years. The highest readings of dioxin exposure on US soil were readings taken in the immediate aftermath of the collapse of the New York City World Trade Towers. These reading were 6 times higher than that of any previous dioxin exposure reading done in the United States. Dioxin readings in 2007 still indicate high levels of dioxin and other PCBs. Doctors are left wondering whether this exposure will cause a higher concentration of endometriosis sufferers in New York and New Jersey. Already some cases of endometriosis seen in the affected area are much more severe, and are being seen at earlier ages. It is too early to directly correlate directly the two incidences, but doctors are beginning to examine their relationship.

The plight of endometriosis sufferers illustrates the need around the world for access to reproductive health services. The affect of environmental toxins on the youth population further encourages us to understand their relationship to reproductive diseases. While a chronic condition, endometriosis can be controlled. It is important for girls to seek help if they experience very painful cramping and back pain during menstruation, bloating, severe fatigue, and painful bowel movement. As for environmental causes of endometriosis, much work is being done by the civil society community, yet not enough by governments. More research is required on the link between dioxin and endometriosis before any real progress can be made toward fighting this chronic condition.

Meet the Author: I am a Rutgers University student working towards a double major in Political Science and Middle Eastern Studies with a minor in French. As both a family member of an “endo” sufferer, and as one myself, I was shocked at just how little is known about endometriosis and how many girls suffer from it.

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Defending the Jungle: The Pachamama Alliance and the Amazon Rainforest
By Divai Brown

It is a most pristine place. Its nearly one billion acres spanning across five countries, is home to the largest population of animal and plant life in the world. Proudly harboring the resources for more than 125 medications currently used to treat various infections and illnesses, one fifth of the world’s fresh water supply and trees producing 20% of the global oxygen supply, its disappearance is occurring at such an alarming rate that it will have completely vanished from the face of the earth within the next 40 years. Due to excessive logging and careless land use, nearly one and a half acres are lost every second, and 137 plants, animal and insect species are lost daily. The Amazon Rainforest has become an environmental and ecological nucleus for millions of people, animals and plant life with its benefits reaching far beyond its multi-national acreage. One organization, founded by those who know the delicate composition of the Amazon Rainforest best, is diligently working to see that this most precious resource remains such a nucleus. The Pachamama Alliance is a US based non profit organization arising out of the Amazon itself. Co-founded by the Achuar Indians of southern Ecuador, the Pachamama Alliance is using education awareness to protect and restore the Amazon Rainforest.

A small nation of 3,500 citizens, the Achuar tribe inhabits over two million acres of the Amazon Rainforest through out southern Ecuador. Using the Achuar’s extensive knowledge of the rainforest developed through centuries of study and cohabitation, the Pachamama Alliance has instituted a series of critical areas for protecting the Rainforest: developing sustainable economic enterprises based on the renewable resources of the land; capturing and recording traditional Achuar knowledge and supporting the empowerment and revitalization of traditional indigenous education and healing practices; strengthening the Achuar’s ability to defend their lands against outside encroachment, including demarcation, mapping, legal work to secure clear title to land; and supporting initiatives that strengthen their governing federation and its leadership. The Pachamama Alliance, is employing a variety of methods to promote the aforementioned initiatives, most notably working with international
youth and the United Nations Environmental Programme (UNEP) to increase awareness about the deterioration of the Amazon Rainforest.

In 2000, the Pachamama Alliance, and UNEP wrote and published a 96 page children’s book detailing the destruction of the Amazon Rainforest and other international environmental landmarks designed specifically to educate elementary and junior high school children. Created as a special publication of the UNEP Global Environmental Outlook, Pachamama: Our Earth, Our Future, is a collection of poems and artwork designed by children from all around the world, showcasing their various perspectives on the Amazon Rainforest’s deteriorating landscape, as well as other environmental issues plaguing international societies. The book includes a teacher’s guide as well as a “how to” for youth who seek to reach the political leaders of their nations to address and combat environmental issues. The creation of the book includes the combined outlooks of over 10,000 students in more than 44 countries, and created a solid foundation for the Pachamama Alliance to successfully incorporate the world’s youth into finding a solution to an ever growing environmental problem.

The Pachamama Alliance has been instrumental in combating the deforestation of the Amazon Rainforest. Its initial and continued work with the Achuar Indians of Ecuador, as well as its developed initiatives with UNEP and the international youth community, have fueled a groundswell movement of support and dedication to saving the Amazon Rainforest. The continued perseverance of the Pachamama Alliance to the conservation of the Amazon Rainforest is a cornerstone of its survival, ensuring the rainforest’s existence for generations yet to come.

Meet the Author: As a rising second year law student at Texas Southern University, I am interning at the World Information Transfer to gain exposure to how international policy and the creation of laws work together to be implemented in various nations across the world. I chose to explore the Pachamama Alliance and its work with international youth to highlight how the indigenous tribes of the Amazon are implementing a global effort to save the rainforest.

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