HoMMUNC XXXII

October 28th, 2017

32nd Annual

Horace Mann Model United Nations Conference

UNEP

United Nations Environmental Programme

Joanne Wang
Chair

Connor Morris
Moderator

HoMMUNC XXXII

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Letter from the Secretariat

Dear Delegates,

It is our pleasure to welcome you to Horace Mann's 32nd Annual Model United Nations Conference, HoMMUNC XXXII! Since 1985, HoMMUNC has brought together future world leaders in a day full of intellect, discourse, and compromise. The conference engages academically minded high school and middle school students to contemplate and discuss imperative global concerns. We are honored to have inherited the responsibility of organizing this conference for all of you, the over 1000 delegates that will attend HoMMUNC this year. We hope you are excited as we are for the conference to begin!

We encourage you to deeply explore your topics and arrive at HoMMUNC prepared to engage in the discourse of your committees and truly involve yourself in the negotiation process, regardless of your age or experience in Model UN. Each committee is comprised of a wide-ranging group of delegates and will address a pressing global issue. We challenge you to delve deep into your topics and think innovatively. Take this opportunity to learn as much as you can, create the best solutions possible, and lead your committee to a world-changing resolution.

Model United Nations has played a tremendous role in our lives over the past three years, and we are thrilled to share this activity with all of you. It has been our pleasure preparing HoMMUNC XXXII along with our dedicated junior and senior staff over the past six months. We hope you have an enriching and enjoyable experience at the conference.

Sincerely,
Jenna Freidus, Valerie Maier, and Evan Megibow
Secretaries-General

Letter From the Chair

Dearest Delegates,

It is my pleasure to welcome you to the United Nations Environmental Programme of HoMMUNC XXXII. I, Joanne Wang, will serve as the chair of this committee alongside my moderator Connor Morris. I am currently a senior at the Horace Mann School and have participated in Model United Nations since middle school. In fact, my first MUN experience was as an eighth grader at HoMMUNC XXVIII. Since then, I have been transformed from a quiet student to an active participant in all my courses and an outgoing, outspoken person.

Aside from MUN, I am most likely slaving away for my school's science publication, Spectrum, constantly editing articles and designing the magazine layout as the Editor-in-Chief. Every Thursday night, you can find me hunched over a computer in the Student Publications room, editing even more articles for the school's weekly newspaper, The Record. As the Arts Editor, this content contrasts greatly with Spectrum's scientific splendor. When I am procrastinating my mountainous amounts of work, I am probably falling down the Youtube-video-rabbit hole or binge-watching a new show. My current favorite is Rick and Morty.

I look forward to HoMMUNC XXXII and the impassioned debates that will surely happen in committee. I strongly recommend researching beyond the background guide, as each of you should represent your particular country's stance on the topic: the impact of environmental degradations on human health. This issue is rapidly becoming more alarming, especially with the recent climate report, the expanding rift in Antarctica's fourth-largest ice shelf, and the current political climate in general. I hope that you will not only gain more experience and a love for MUN from this year's conference but also become more knowledgeable of one of the world's greatest threats.

If you have any questions concerning the topic or the conference itself, email me at joanne.wang@hommunc.org.

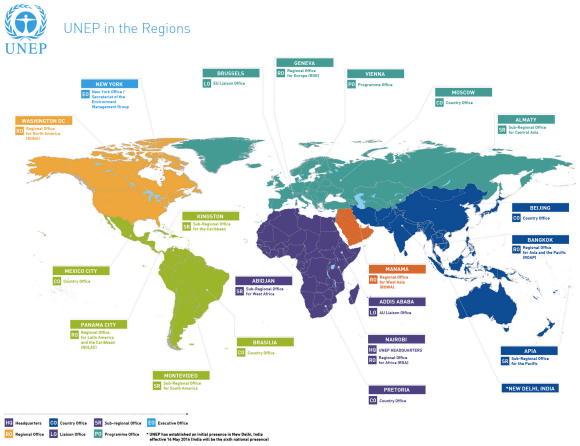
Best of luck researching,

Joanne Wang
joanne.wang@hommunc.org
Chair, UNEP

Committee Background and Procedure

When issues of global sustainability and environment became apparent, the United Nations responded in the 1972 UN Conference on the Human Environment in Stockholm by creating the United Nations Environmental Programme (UNEP) to promote global cooperation towards sustainable development. UNEP addresses a broad scope of environmental issues such as atmosphere and climate change, natural disasters and conflicts, marine and terrestrial ecosystem management, environmental governance, chemicals and waste, international scientific research, and creating and carrying out the global agendas and sustainable development goals.[1] UNEP is responsible for organizing many landmark international conventions on sustainability, environment, and climate change. In 1987, UNEP issued the Montreal Protocol on Substances that Deplete the Ozone Layer, one of the first notable actions against the causes of climate change.[2] In 1988, along with the World Meteorological Organization (WMO), UNEP founded the Intergovernmental Panel on Climate Change, the leading international scientific collaboration on climate change assessment.[3] Twenty years after the committee's creation, at the UN Conference on Environment and Development (the Earth Summit in Rio), UNEP and the international community declared that "humanity stands at a defining moment in history"[4] and committed to more

radical action to combat climate change.[5] Another major outcome of the 1992 Earth Summit was the United Nations Framework Convention on Climate Change (UNFCCC), a landmark climate-change agreement. In 1997, UNEP extended the UNFCCC in the famed Kyoto Protocol, aimed at decreasing the emission of greenhouse gases by 5% by 2012 and legally binding for industrialized countries.[6] More



UNEP's Global Action

http://staging.unep.org/images/Official_unep_map.jpg

recently, in 2012, the United Nations Conference on Sustainable Development (Rio+20) outlined a process to create Sustainable Development Goals (SDGs). It also strengthened and upgraded several aspects of the UNEP, including funding and universal membership on the governing council for all 193 UN member states.

At the start of each HOMMUNC committee session, there will be a roll call where the chair will take attendance of delegates, to which each delegate must simply respond "present." If late, send a note to the dais to let them know of your presence. At the beginning of committee, we will set the agenda to discuss the effects of climate change on human health and then move into debate. Debate will begin with a speakers' list, in which delegates may discuss any aspect of the topic they wish. The rest of committee will be comprised of

moderated and unmoderated caucuses. Moderated caucuses will make up the majority of committee, during which delegates vote on and debate a specific aspect of the topic. During unmoderated caucuses, the rules of formal debate are suspended and delegates may leave their seats. This time is used to build blocs and write working papers and draft resolutions. Delegates must make a "motion" in order to open the speakers' list or propose a moderated or unmoderated caucus. The chair will take several motions at one time, then will hold a vote on them in order of most to least disruptive, and a motion will pass with a simple majority. For example, a delegate could say "Motion for a ten-minute moderated caucus with one-minute speaking time for the purpose of discussing ___."

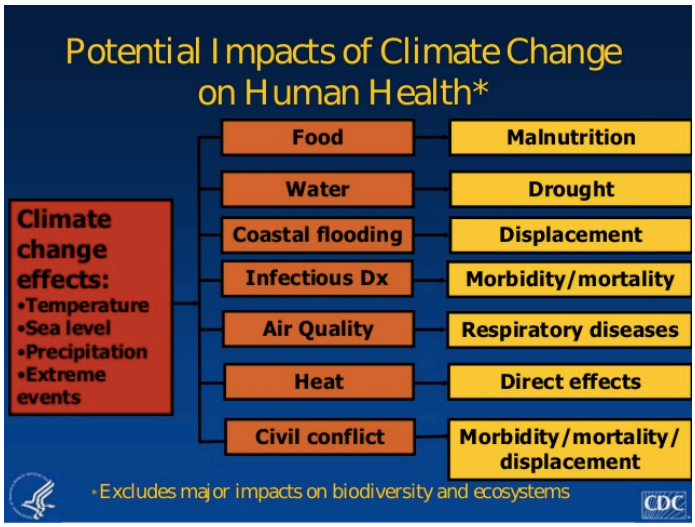
After a certain period of time, the chair will accept working papers. Working papers require sponsors, helped draft the resolution, and signatories, who would like to see the resolution debated, of a certain number decided by the chair. Working papers will be presented by the sponsors, after which there will be a Q&A session of a certain amount of time decided by the chair, and the possibility, time allowing, to merge or revise into draft resolutions which will be voted on.

Topic A: The Impact of Climate Change on Human Health

Overview

Across the globe, human health is negatively impacted by climate change and anthropogenic factors. The World Health Organization (WHO) has found that 23 percent of all premature deaths around the world can be attributed to environmental factors (among children, that figure rises to 36 percent). Rising temperatures causing disease outbreaks and natural disasters, modern environmental health hazards such as mercury and lead, indoor and outdoor air pollution, wildfires, and other causes result in nearly seven million deaths per year.[7] "There is a growing awareness that humans, through their intervention in the environment, play a vital role in exacerbating or mitigating health risks," UNEP Executive Director Achim Steiner said at a meeting of the Committee of Permanent Representatives last year. "We are eating into an ecological infrastructure that not only sustains us, but protects us. The fallout from the footprint of human activity in the 21st century seems to grow every year."[8] The list of health conditions that can be linked to pollution is long and growing, including skin and lung cancer, asthma, lead and mercury poisoning, and zoonotic diseases such as malaria, Ebola, and Zika. Each day, about 1,000 children die from drinking water polluted by bacteria and viruses.[9] There is strong evidence that international action to protect the environment can have strong, positive impacts on human health. The UNEP is responsible

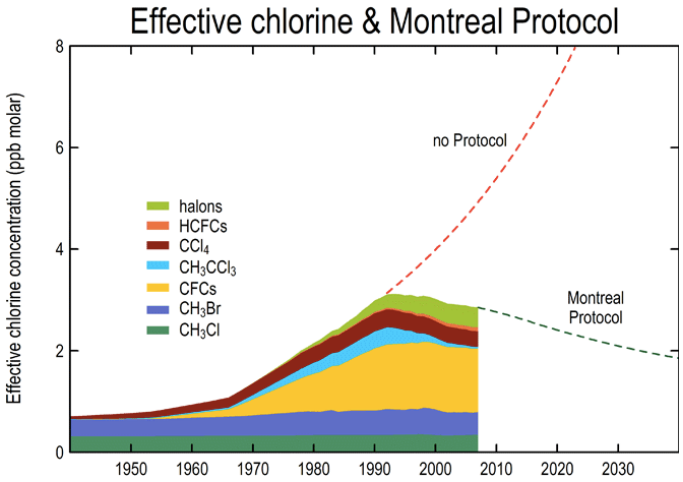
for understanding the complex relationships between global climate change and key aspects of international public health to effectively resolve this multi-layered issue.



A Breakdown: Possible Impacts of Climate Change on Human Health
https://image.slidesharecdn.com/climatechangeandpublichealth-141111124522-conversion-gate01/95/climate-change-and-public-health-7-638.jpg?cb=1415709940

History

UNEP has previously taken a myriad of actions to decrease the harmful effects of environmental degradation. The UN's Intergovernmental Panel on Climate Change (IPCC) was established by the World Meteorological Organization (WMO) and the UNEP in 1988 to assess the scientific literature on climate change and its effects. The IPCC has published reports, known as Assessments, in 1991, 1996 and 2001, in which it addresses the specific effects of climate change on health and possible courses of action to combat those effects.[10] The Montreal Protocol, which took effect in 1989, banned nearly 100 substances that deplete the ozone layer. Parties to the protocol meet annually to update the list of substances and ensure its implementation. Because of that progress, some two million cases of skin cancer will be prevented before 2030. The phase out of these chlorofluorocarbons (CFCs) should result in a cumulative $1.8 trillion in global health benefits by 2060.[11]



Positive Effects of Montreal Protocol
http://adst.org/wp-content/uploads/2014/09/Montreal-graph.gif

UNEP sponsored a phase-out of leaded gas, an antiquated component of gasoline, which had more significant environmentally harmful effects than practical benefits. The movement took place in most industrialized countries and as of June 2016 is nearly complete, (only Algeria, Yemen and Iraq continue to use it). Already, this action has prevented over one million premature deaths each year.

Most recently, in the 2016 second session of the United Nations Environment Assembly (UNEA-2) at UNEP headquarters in Nairobi, Kenya, the assembly discussed how the environment impacts human health and the implementation of such aspects of the 2030 Agenda for Sustainable Development.

Current Situation

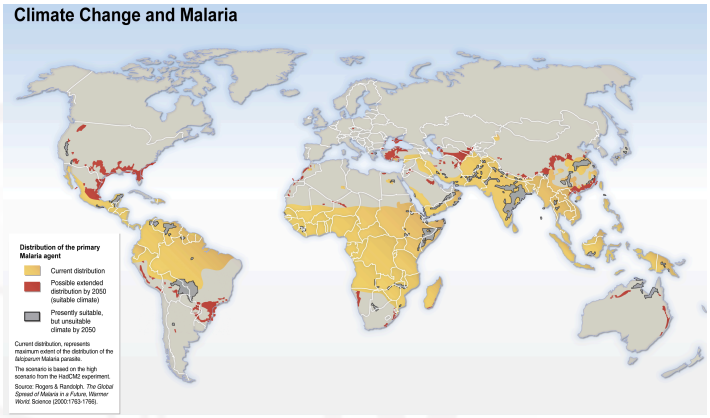
UNEP has noticed and discussed many specific effects of climate change on human health recently. In certain instances, global warming may have a positive effect on health (for example, milder winters in less temperate countries could lead to fewer deaths). However, overall, scientists believe that climate change will have mostly negative consequences for public health. There is now broad recognition that climate change poses serious risks to global

human health. The rising temperatures increase the frequency of heat waves and cause smog in cities, posing serious public health problems. As ice sheets melt, sea levels are rising so rapidly that some nations, including Tuvalu, the Maldives, the Marshall Islands, Kiribati, and Tokelau, could be submerged within about 50 years. There will even be drastic impacts on coastal areas of the United States and other countries. The oceans are getting warmer and more acidic, affecting water circulation, destroying coral reefs, and threatening marine life. There is growing evidence that global warming is also increasing the frequency of extreme weather such as storms, droughts and wildfires, leading to property damage and loss of life, and threatening food and water supplies.[12]

The IPCC Second Assessment (1996) devoted a full chapter to the health risks of climate change. The Third Assessment report (2001) includes early evidence of the actual health impacts and made some predictions about future impacts. The report stated that climate change can affect health directly, through extreme weather events that cause injury or death; and indirectly, by increasing diseases, polluting air and water, and jeopardizing food supplies leading to malnutrition or starvation.[13] Both the Third Assessment and the IPC Fifth Assessment (2014) concluded with high confidence that climate change would cause increased heat-related deaths, greater frequency of infectious disease epidemics following floods and storms, and substantial health effects following displacement from

flooded coastal areas and increased storm activity.

Specifically, changes in the transmission of infectious diseases are likely to be a major consequence of climate change. Warmer temperatures and stagnant pools from flooding are breeding grounds for mosquitoes that spread malaria, as well as dengue and yellow fever. Some rodent-borne diseases are associated with flooding, including leptospirosis, tularemia and viral hemorrhagic diseases. Climate events also influence other diseases related to rodents and ticks, including Lyme disease, tick borne encephalitis, and Hantavirus. In the tropics, heavy rainfall and contaminated water supplies lead to diarrheal diseases such as cholera, cryptosporidium, E.coli infection, giardia, shigella, typhoid, and viruses such as hepatitis A. Malaria is most sensitive to excessive monsoons and high humidity from climate change. Recent analyses show malaria epidemic risk increases five times after an El Niño weather event. Regions bordering current endemic malaria zones will be most affected. A temperature increase of 2-3 degrees Celsius would increase the number of people at risk of malaria by around 3-5%, or several hundred million people.[14]

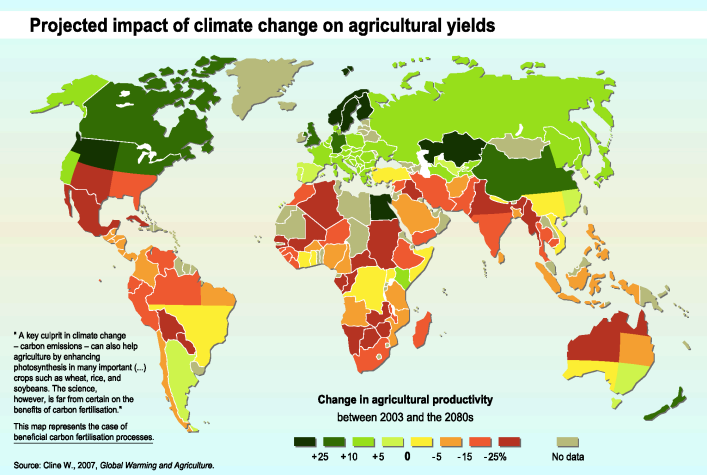


Climate Change's Spreading of Malaria
http://acclimatise.uk.com/login/uploaded/climate-change-and-malaria-scenario-for-_053.png

Extremes of temperature can also kill people. The very young or very old with pre-existing conditions are most

susceptible, however, in the future, temperature increase due to climate change could compromise normal human activity such as growing food or performing manual labor outdoors. According to some estimates, by 2100 temperatures could rise by four or seven degrees Celsius, a change that could exceed the human ability to thermo regulate.[15]

Climate change is likely to increase the frequency and amplitude of the El Niño weather patterns leading to very low and very high temperatures, as well as more frequent droughts, floods and hurricanes. Insurance company Munich Re found that there were three times as many natural catastrophes in the last 10 years as there were in the 1960s. Developing countries are poorly equipped to deal with natural catastrophes leading to a rapid increase in the number of people killed, injured or displaced. Changing weather patterns, such as heat waves, floods, droughts, and fires, or indirect effects from ecological disruptions such as crop failures, shifting patterns of disease, or displacement forced by prolonged drought, may have direct impacts on human health.[16] In particular, crop failures could diminish crop production in poor regions, greatly increasing the risk of undernutrition.



Food Supplies Endangered by Climate Change
https://upload.wikimedia.org/wikipedia/commons/a/a9/Projected_impact_of_climate_change_on_agricultural_yields_by_the_2080s,_compared_to_2003_levels_(Cline,_2007).png

Possible Solutions

While the final solution to reducing the effects of climate change on human health is to halt climate change, the harmful effects can be greatly mitigated through public health preparedness. Public health preparedness means taking measures to reduce vulnerability to health risks, especially associated with climate change. This includes basic health services such as clean water, sanitation, vaccination, and child services provision, disaster preparedness, response, and relief, and development to alleviate poverty.[17] The effect of climate change is greatest in exacerbating existing health risks, so increasing resilience in already endangered areas is the greatest way to combat it.

One of the first elements of public health preparedness is research and risk assessment. Risk varies greatly depending on region, topography, capacity for response, isolation, and poverty. People in poor countries will face greater health risks, and public health action must include assessments of the most vulnerable populations in an effort to eliminate health disparities. Coastal areas may be at great risk of flooding, algal blooms, and severe storms, while tropical areas are at great risk of spreading infectious diseases, and landlocked warmer areas may be at risk of drought and forest fire.[18] In 2012, WHO found that less than one percent of health costs due to climate change are from health adaptation, so far greater steps can be taken in this area, both nationally and internationally. IPCC provides global assessments every few years, but assessments addressing specific vulnerabilities are lacking.

Possible solutions include national assessments facilitated by UNEP or UNEP-sponsored international scientific risk assessment based on region. These assessments are more commonly known as vulnerability mapping, assessing current risk and predicting future risk in order to implement proper preparations. Creating vulnerability maps includes collecting, analyzing, interpreting, and disseminating data from health surveillance or tracking systems to identify and solve health problems. This process can include meteorological data, ecological data (such as mosquito density), social factors, and disease surveillance. Epidemiologists, climatologists, and ecologists, can research the effect of climate change on infectious in order to create complete pictures of risk.[19] Epidemic early warning systems combine clinical data from emergency departments and outpatient clinics, laboratories, veterinary data, telephone hotlines, and pharmaceutical data. These systems exist in many parts of the world for vector borne, foodborne, waterborne, and respiratory diseases, but could be expanded to a global scale.[20]

Health preparations or adaptation can include disease surveillance and monitoring, improving the investigative and diagnostic capacity to identify health problems at the population level. The capacity of public health laboratories could be enhanced to allow rapid diagnosis and reporting of diseases that are reintroduced or appear in new locations. In addition, early warning systems can effectively reduce the impact of a climate-related health risk. These systems would include

consideration and identification of factors that drive risk, such as weather forecasting, regional data collection, effective alerting of public health officials and the public, prevention, and response plans.

Finally, reducing emission of climate-altering pollutants (CAPs) often goes hand-in-hand with mitigating the effects of climate change on human health. There is already a surplus of international plans and legislation waiting to be implemented regarding climate change itself, so this committee should be sure to steer clear of general climate change solutions, but some specific initiatives can have co-benefits of reducing CAP emissions and limiting climate change's impact on health. Providing reproductive health services can improve overall health and limit population size, in turn reducing CAP emissions. Encouraging a shift of diets away from animal products can be healthier and use less-CAP requiring food. Finally, clean energy or use of public transportation can limit CAP emission and improve air quality and health at the local level.

Again, the most effective solutions will provide a framework for climate-related health issues to be addressed on a regional basis. Hotter climates may need a heat wave detection and response protocol, coastal areas may need a flood or storm relief program, and tropical areas more health centers and disease warning and control.

Bloc Positions

Each country has its own individual policy towards climate change, which may change frequently with political party control. Additionally,

different countries have different degrees of cooperation with international intervention, and delegates are recommended to research their individual country's policy on these issues. However, countries in the same geographical region will tend to have similar climate-related health issues they will want to make sure to address.

Africa

As a whole, Africa is one of the most impoverished and least developed regions of the world, and therefore at some of the greatest risk to health impacts due to climate change. According to WHO, nearly one-third of Africa's diseases can be attributed to environmental factors.[21] Climate change has exacerbated drought and crop failure in Africa, causing dehydration and malnourishment, and disease spreads easily through polluted water and areas with poor sanitation. Generally, African members on this committee will look for international aid, whether through UNEP or NGOs, in improving general healthcare and responses to dehydration and malnourishment.[22]

Asia

Rapid urbanization across Asia has led to generally poor air quality throughout the region. WHO estimates that 24 percent of all disease in Asia is linked to climate change and environmental factors.[23] In addition to air pollution, parts of Asia suffer from water contamination, waste management problems, and general poor sanitation, especially in less developed areas. Delegates from Asian countries will look to focus on how UNEP can solve those specific issues, as well as

navigating relations with the private sector, the source of air pollution in Asia.

Europe

Most European states are well developed and do not suffer significantly from natural disasters such as floods or drought. However, especially in poorer communities, basic health staples, such as access to clean water and proper sanitation, are often lacking.[24] Some European member states have put forward their own initiatives regarding such health concerns and can play a role in expanding the scope of those programs.

North America

North American region and climate ranges greatly: the Western United States suffers greatly from drought and forest fire while coastal areas in the Southeast and in Mexico suffer from floods and hurricanes. Studies performed in North America have confirmed the link between environmental degradation and worsening human health.[25] North American members will most likely look to focus on outlining response and relief programs and protocols for natural disasters such as droughts, forest fires, and hurricanes.

South America

South American deforestation has worsened air pollution and allowed the spread of infectious disease through the process of logging operations.[26] South American delegates should look for ways to combat these effects and create responses that can be applied globally.

Questions to Consider

1. What environment-related health effects are present in your country? Has your country taken any action against them?

2. What is your country's stance towards recognizing/addressing climate change? What is your country's history with international intervention/aid?
3. How can solutions address specific regions, specific problems, and varying degrees of vulnerability?
4. How can UNEP work with the private sector to reduce anthropogenic emissions harmful to health and utilize NGOs?
5. What is your country's response protocol for natural disasters, epidemics, or outbreak of disease? Does your country work internationally on health issues?
6. How can solutions keep watch over the effects of climate change on human health and mitigate its effects in the long term?

SOURCES

[1] http://www.unep.org/post2015/history.php

[2] http://ozone.unep.org/en/treaties-and-decisions/montreal-protocol-substances-deplete-ozone-layer

[3] http://www.ipcc.ch/organization/organization.shtml

[4] https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf

[5] http://www.unep.org/post2015/history.php

[6] http://unfccc.int/resource/docs/convkp/kpeng.html

[7] http://www.who.int/globalchange/en.

[8] http://www.un.org/apps/news/story.asp?NewsID=53273#.WJSpdPkrJaQ.

[9] http://www.who.int/globalchange/climate/summary/en.

[10] http://unfccc.int/2860.php.

[11] http://ozone.unep.org/en/treaties-and-decisions/montreal-protocol-substances-deplete-ozone-layer

[12] http://nca2014.globalchange.gov.

[13] http://www.ipcc.ch/ipccreports/tar/wg2/index.php?idp=348

[14] http://www.ipcc.ch/pdf/assessment-report/ar5/wg2/WGIIAR5-Chap11_FINAL.pdfhttp://www.ipcc.ch/pdf/assessment-report/ar5/wg2/WGIIAR5-Chap11_FINAL.pdf

[15] http://www.ipcc.ch/pdf/assessment-report/ar5/wg2/WGIIAR5-Chap11_FINAL.pdfhttp://www.ipcc.ch/pdf/assessment-report/ar5/wg2/WGIIAR5-Chap11_FINAL.pdf

[16] http://www.ipcc.ch/pdf/assessment-report/ar5/wg2/WGIIAR5-Chap11_FINAL.pdfhttp://www.ipcc.ch/pdf/assessment-report/ar5/wg2/WGIIAR5-Chap11_FINAL.pdf

[17] http://www.ipcc.ch/pdf/assessment-report/ar5/wg2/WGIIAR5-Chap11_FINAL.pdfhttp://www.ipcc.ch/pdf/assessment-report/ar5/wg2/WGIIAR5-Chap11_FINAL.pdf

[18] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2253589/

[19] http://www.who.int/globalchange/climate/summary/en/

[20] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2253589/

[21] http://www.who.int/quantifying_ehimpacts/publications/preventing-disease/en/

[22] http://staging.unep.org/dewa/africa/publications/aeo-1/aeo-1report.asp

[23] http://www.unep.org/regions/roap/events/reh-2016/regional-forum-effort-towards-better-environment-and-health

[24] http://www.jpost.com/Israel-News/Sanitation-asbestos-related-diseases-among-principle-environmental-health-concerns-in-Europe-395500

[25] http://www.cec.org/background-materials/childrens-health-and-environment-north-america

[26] https://www.fic.nih.gov/News/GlobalHealthMatters/Pages/0408_deforestation-peru-amazon-infectious.aspx