Committee: United Nations Frame Work on Climate Change: COP22

Topic:  The Impact of Climate Change on Human Health

Country: Bahrain

IMPROVING THE IMPACT CLIMATE CHANGE HAS ON HUMAN HEALTH

It has now becoming a recognizable issue that climate change is a serious risk factor for human health. Human health would benegatively affected by extreme weather events like storms, floods, and heat waves, leading to a vulnerability towards disease vectors, mosquitoes, waterborne pathogens, and food quality[[1]](#endnote-1). Through the increased temperatures caused by the greenhouse effect, trapping in the heat in Earth's atmosphere will lead to an increase of infectious diseases. More individuals will become defenseless the number of mosquitoes carrying harmful pathogens infection more than the 17 million people[[2]](#endnote-2) it already kills. Additionally with the higher CO2 concentrations and more frequent sand storms those living in desert areas will run the risk of increased allergic reactions and lung diseases[[3]](#endnote-3). Furthermore food production also impose a serious issue by threatening basic human needs. With higher temperatures, lower rainfall and sea level rising, food security is at high risk. Not only will climate change yield production of crops but it can also increase prices of major crops. This could have a direct impact on the amount of calorie intake leading to a cycle of malnutrition and hunger. With climate change rapidly impacting human health in a negative way it has come apparent that we can further combat this issue potentially affecting the lives of billions.

Bahrain is very understanding on the increasing impact that climate change has directly on our society and wellbeing as well global communities. Bahrain’s Health Strategy seeks to promote partnership in improving the health of the population of Bahrain and to ensure universal access to high quality, responsive health services[[4]](#endnote-4). Specifically, systematic databases was developed and analyzed and examine the influence of the climate in human health areas such as morbidity, children’s health, foodborne diseases, and hospital discharges[[5]](#endnote-5). With this information it allowed for future health impact assessments as well as adapt to such responses. It is imperative that we reducing climate change seeing that we are an Arab nation and further increased temperatures would lead to detrimental effects on our elders and younger children. Furthermore Water availability is currently low and is expected to decline in Bahrain as well a number of Arab countries including, Sudan, Algeria, Morocco, Syria[[6]](#endnote-6), and more. Water scarcity and damaged infrastructure is expected to inflict major health problems such as increased risk of cholera, and other deadly vector borne disease. Climate change has many effects on agricultural production. As a number of studies have shown, increased temperatures will cause much higher water needs and food-borne diseases [[7]](#endnote-7)will become more prevalent in Bahrain with its hot conditions. If we don’t make changing countries like our self will face malnutrition and hunger.

Bahrain sees the impact climate change has on its people’s health, and can only image those effected ling in polluted countries such as China and the US. With this understanding Bahrain has proposed multiple solutions regarding the improvement inhuman health.

Bahrain’s first solution is implementing a specialized inhaler that targets your lung by creating a protective layer from pollution contaminates. It will allow for the user to inhale a certain molecule called ectoine[[8]](#endnote-8). The molecule is rooted in a specific bacteria that could be found in the Egyptian desert[[9]](#endnote-9) which will helps stabilize the water on the surface of the lungs which forms a protective layer. By administering this product we can help stabilize the amount of people affected by climate change. Bahrain believes that anyone is allowed access to this product and sees it best to have kids use this product at a young age in polluted areas. It will decrease their likelihood of not contracting medical problems related to lungs or circulatory infections or diseases. In addition we would like to utilize the kite patch which makes you invisible to mosquitoes. By having the patch emit a chemical compound[[10]](#endnote-10) people will no longer have to worry about the pesky blood suckers and the potential disease they might contain.

Next Bahrain would like to have countries implement vogmasks. Vogmasks are much more efficient than medical mask that are used in polluted cities such as China, Japan and India.  These mask are different in a sense they are made to specifically to help you breathe better quality air. By having the filter it protects an individual from particles such as, pollen, dust, and other airborne contaminants. With its low cost and reusable carbon filter more people can reduce the amount of song filling into your lungs reducing lung infections and cardiovascular problems.

Additionally through the implementation of a photosynthesis bike not only will it keep mankind healthy and active it also helps promote a more ecofriendly environment. The unique thing about these bikes are the frame itself would convert [sunlight](http://inhabitat.com/index.php?s=sunlight) into energy to run the oxygen-producing fuel cell battery[[11]](#endnote-11). A filter would then be placed between the handlebars would strip matter from the air such as dust, and pollens and release clean air toward the rider. The bike would even be able to continue releasing clean air while it’s parked, using solar battery power. By having these bikes constantly filtering out polluted air it will lower the amount of smog relating to carbon emissions, slowing down climate change and clean the air simultaneously. It would do extremely well in areas such as Amsterdam, India, China, and New York.

        Furthermore Bahrain believes that we should implement air purifier buildings. These large industrialized building will act as an electronic vacuum to absorb and purify the pollution within the atmosphere surrounding the city or location of the large device. When purifying the air the tower will collect and separate the smog which contains carbon dioxide. With the collected amount of carbon we would compress it down hard enough to create a diamond. Through this creation not only will we become wealthier but it will offer more jobs due to the upkeep of such a vital piece of machinery and the making of the jewelry. Will also leave to a longer lifespan by reducing the smog

In regards to agriculture and food production vertical farming is a viable option seeing it equivalent to 4 to 6 acres of outdoor land[[12]](#endnote-12). The crops being produced will be organic and maintained in a controlled environment where they will protected from droughts and floods. Furthermore by implanting vertical farms it would significantly decrease the water intake. With the use of hydroponic technology it uses 70%[[13]](#endnote-13) of the region's drinking water

Finally Bahrain believes in Desalination plants based off of solar energy. This improve the amount of emission being produced harming the citizen’s wellbeing because it uses natural energy to power the plant rather than oil. Additionally through utilizing renewable clean water it will lower the amount of individual suffered by waterborne diseases such as cholera and hepatitis B. It will be extremely effective since we are a region that gets sunshine year round. Bahrain is faithful that with these solutions we can contribute to solving many issues regarding to the impact climate change has on human health.

Committee: United Nations Frame Work on Climate Change: COP22

Topic:  Climate Change Refugees

Country: Bahrain

IRRADICATING THE RAPID AMOUNT OF CLIMATE REFUGEES

Climate refugees, are also known as refugees of natural disasters or environmental migrants. These people have been forced to flee their homes due to changes in the surrounding environment, and the increase of climate change will continue to increase at a rapid pace. The term “climate refugee” presents an international problem because it has no legal standing under any existing international refugee and asylum law[[14]](#endnote-14), making it nearly difficult to impossible for these refugees to receive aid in attempt to prepare and recover from natural disasters[[15]](#endnote-15).  Currently, it is estimated that each year there are more than 36 million[[16]](#endnote-16) people who are displaced by natural disasters, and by 2050, the UN estimates for this number to reach 50 million. According to the Intergovernmental Panel on Climate Change, in the past three decades the earth has been becoming excessively warm at a rapid pace due to global warming[[17]](#endnote-17). Rising temperatures are a direct cause of melting glaciers and ice caps that contribute to sea levels rise, and each year it rises an additional 0.13 inches[[18]](#endnote-18). With sea levels rising comes devastating effects on coastal habitats, especially small islands that will soon disappear and leave climate refugees needing a shelter as well as proper aid and recognition. A majority of the current climate refugees are from small islands contributed by flooding, other climate refugees have suffered from earthquakes, tsunamis, monsoons, droughts, and volcanic eruptions[[19]](#endnote-19). Due to the expectancy of natural disasters and with the rapidly increasing temperatures, it is difficult to prepare and recover from these events aiming it extremely difficult for these vulnerable refuges to recover.

Bahrain believes that we should prevent the increasing number of people becoming climate refuges. Although Bahrain does not accept any climate change refugees[[20]](#endnote-20) and has intention in doing so in the near future but we have been constant in providing finical aid to those in need. We see this issue as charge scale problem but since Bahrain is a small island nation and we do not have the luxury to house so many refugees unlike larger nation in Europe or even other Arab countries. Taking in refugees is a geographically matter[[21]](#endnote-21) for Bahrain not a personal one. If climate change counties to affect sea level rising our country will be submerged making our citizen refugees so it doesn't make sense to further endanger and uproot more lives if such events do occur. Bahrain is among those highly vulnerable islands seeing, based on analysis of satellite images; almost 11% of the land area of Bahrain will be lost due to sea level rise of 50 cm if no action is taken for protection[[22]](#endnote-22). Bahrain sees it in the best interest to continue to support financially than be flooded demographical and economically.

As a countered like Bahrain we understand the importance of stopping the amount of climate refuges form increasing. Being surrounded by water we are at risk ourselves from our whole country being coming refuges. In order to combat this solution Bahrain has proposed many solutions regarding the prevention of these refuges as well as support.

First Bahrain would like to use breakwater which slows down the erosion of coastal areas and island nations as a coastal defensive approaches to reduce the amount of people in danger from floods or even rising sea waters. Most importantly it will disperse the kinetic energy from wave and current patterns. Next is the implementation of dykes, dams, and storm surges across countries to help with flood protection. This is vitally important not only to Bahrain since we are effected by harmful floods but also many other nation who need this solution implemented. Dykes help to prevent flooding because they are an artificially made wall put into major deltas to help manage water levels[[23]](#endnote-23). To strengthen dykes from strong and rising waters a stronger top layer over the dyke is to be created, and also to reinforce navigation locks and the discharge sluices. With this prevention mechanism Bahrain believes will be able to withhold floods if sea levels will continue to progress lowering the risk flooding in major cities. Bahrain believes that this solution can benefit all other coastal nations as well. By constructing a series of dikes and floodgates to protect commercial ports, we are able to ensure and maintain a stable environment around river mouths and shorelines protecting our countries income, and trade.

In regards of reducing the amount of refugees occurring we would like to further endorse the use of emergency and response teams during natural disasters. Bahrain would like to work in close relations with Action Against Hunger, as well as utilize the Emergency Nutrition Network. Through establishing regional offices we are able to help transport food and other goods to the climate refugees in need. This will be implemented after receiving expressive permission from governments and utilizing the HTI’s hydropack as well as UNICEF's bricks[[24]](#endnote-24). Hydropack is a portable and personal water purification system therefore giving refugees the easy access to water from any source while the bricks are a container for food and water as well as a temporary shelter[[25]](#endnote-25).

Additionally wit with this we would like improvement of natural disaster tracking technology for tsunamis, earthquakes, and even volcanic eruptions. For instance with the earthquakes the Early Earthquake Warning System (EEW)[[26]](#endnote-26) that places 1,000 seismic monitors across a nation and instantly sends out public alerts when the source and magnitude of an earthquake is detected it automatically sends out public alerts stopping trains, elevators, and computers as well as making announcements alerts on phones, raids and T.V prompters.

Furthermore to improving the conditions and sanitation of refugee camps Bahrain would improve the housing part of these camps is through Concrete Canvas Shelters (CCS)[[27]](#endnote-27). These rapidly deployable hardened shelters are extremely durable to normal disasters, and are designed to last for over ten years, which are also a financial benefit because tents wear out quickly and have to be replaced often. With these tents will be included basic medical supplies and sanitation necessities.

Lastly we would like to implement water bicycles sue to the fact they are very cheap and is seen as one of the most useful inventions created.  Through harnessing kinetic energy to purify water, users can ride the bike to any nearby body of water for immediate access to a source of potable drinking water. We would also like to implement Med Air’s GIS mapping as an analytical, data management, and visualization tool to assess the condition of the refugee’s then map where aid is needed[[28]](#endnote-28). Volunteers would then conduct monthly sweeps of refugee hotspot. We would like to make it mandatory that at each camp a [Pure Water Bottle](http://inhabitat.com/pure-water-bottle-filters-99-9-of-bacteria-with-uv-light/) will be distributed. This device is capable of filtering soiled water in two minutes by using a combination of 4 micron-sized water filters and a wind-up ultraviolet light system removing 99.9% or contamination from any water source[[29]](#endnote-29). Overall with these solutions Bahrain is hopeful that we recued the rapid number if people becoming climate refugees.

Committee: United Nations Frame Work on Climate Change: COP22

Topic:  Steps to Enforce the Paris Agreement and Further Reduce Greenhouse Gas Emissions

Country: Bahrain

ENFORCING THE PARIS AGREEMENT AND REDUCING THE AMOUNTGREEHOUSE GAS EMISSION

Climate change have severely affects the environment and ecosystems around it such as glacier melting, species extinction, and even coastal flooding. In 1988 the UN created the crucial committee of the Intergovernmental Panel on Climate Change (IPCC), which works towards combatting climate change around the world[[30]](#endnote-30). Humans are the main cause of climate change, creating 100 billion tons of greenhouse gases into the atmosphere each year[[31]](#endnote-31). The greenhouse effect is when gases such as water vapor, carbon dioxide, methane, and nitrous oxide create a blanket like cover around the earth’s atmosphere, thus causing the earth to heat up. In 1997[[32]](#endnote-32), the UN adopted the Kyoto Protocol, which is an international agreement that aims to reduce pollutants and their emissions into the atmosphere. This protocol also put the liability on developed nations because they are mainly the nations responsible for emissions into the air. Last year the Paris Climate Conference (COP21)[[33]](#endnote-33), meet form November 30 to December 11 to discuss the steps towards reduction in climate change. With the reduction of greenhouse gas emission being the goal, it can be challenging having all counties set an agreement and stay committed to it. As of May, nearly 180 countries have signed the Paris Agreement but only 16 countries have since ratified it. In December, the Global Action Plan set out to limit global warming to well below 2 degrees Celsius[[34]](#endnote-34) above pre-industrial levels, with the agreement entering into 2020.

Despite the fact Bahrain is country who earns its income on oil, we are ready to support new agreements on tackling climate change. We are prepared to reduce the amount of greenhouse emissions and our reliance of fossil. Bahrain is promoting the expansion of programs to conduct more research more new approaches that utilize clean energy. In addition Bahrain was the first country so have a large scale integration of wind turbines in building to help reduce emissions[[35]](#endnote-35).Furthermore we are carrying out its responsibilities and adherence to the international treaties and conventions related to the environment, specifically the United Nations Framework Convention on Climate Change (UNFCC) and Kyoto Protocol Commitments[[36]](#endnote-36). In regards towards sustainable development, Bahrain has made specific progress in meeting its Millennium Development Goals (MDGs) and towards sustainable development in general. Bahrain is committed to promoting sustainable development practices throughout all sectors and will continue working towards consolidating the achievements made for certain goals and prioritize activities to meet those MDGs[[37]](#endnote-37). Bahrain sees the necessary shift to cleaner technologies in order to protect living standards on Earth.

Although Bahrain is known for its trade with oil we are prepared to reduce the amount of emission and fossil fuels to better our country and the environments a whole. With this we have created solutions to help other nations like our self-reduce emissions contributing to climate change and the rising temperatures.

First Bahrain would like to implement Cloud seeding. This application of scientific technology can enhance a cloud's ability to produce precipitation. Through the use of silver iodine[[38]](#endnote-38) the idea is to add ice-forming particles to keep clouds and the water in them cold rather than evaporating. This will provide more precipitation for farmers and reduce droughts by providing the necessary water. It will also contribute to the spread of trees and plants will help the ecosystem. By creating clouds it will protect mountains and glaciers from melting because they will no longer have that direct sunlight. With this we can manipulate the temperatures creating seasons for all countries year round the way it as intended to. Another approach is Emitting sulfur into the atmosphere. Through doing this the sulfur combines with water vapor to form sulfate aerosols[[39]](#endnote-39), creating fine particles. These will then get swept upward by natural wind patterns and are dispersed over the globe. Once spread across the stratosphere, the aerosols will reflect about 1% [[40]](#endnote-40)of the sunlight hitting Earth back into space offsetting greenhouse gas warming.

Second, emission trading has become a technique that helps control how much carbon dioxide is released through the global market and by using the Emissions Trading System we hope to decrease pollutants. Emissions trading have a “cap and trade” policy that sets limit on how much greenhouse gases can be emitted by power plants and factories in a country. Each nation will have a cap on how much CO2 emissions can be released, and if a nation is planning to go over their cap they can buy or receive more emission allowances or permits[[41]](#endnote-41). This is when a country will trade with them. After each year the companies in the nations give up their allowances to cover all of the emissions they released, and if they went over their cap, they receive fines pertaining to how much they exceeded the limit. The concept of emissions trading is to have a set limit on pollutants being released[[42]](#endnote-42) and also put more pressure on the market and have nations work with their own companies to determine ways to stay within their limit. The ultimate goal is that the cap will decrease year after year and lessen the amount of gases into the atmosphere.

Furthermore, a unique type of solar energy which is more effective than regular solar panel. This would be photovoltaic solar energy. Through using electronic process that occurs naturally in semiconductors solar energy will travel through an electrical circuit to power a grid. When sunlight strikes it ionize the semiconductor, which makes the electrons break free from their atomic bonds[[43]](#endnote-43). These electrons are then forced down into a direction to create and electrical current. This type of solar energy is more effective because rather than regular solar panels that have cells which reflect the light, Photovoltaic will absorb all energy[[44]](#endnote-44).

Finally Bahrain would like to utilize a system that will filter the air and collect the emission of greenhouses gasses containing carbon dioxide. Through this solar powered factory system we cancollect the carbon and then compress it at high pressure to create diamonds. With this purifier we can clean the atmosphere and rather than storing all of carbon from carbon capture we can make product used for multiple reasons. With these solutions Bahrain believes we can reduce the amount of greenhouse emission and have counties stand as a unified front regarding the issue.

1. https://www.epa.gov/climate-impacts/climate-impacts-human-health [↑](#endnote-ref-1)
2. http://www.who.int/mediacentre/factsheets/fs387/en/ [↑](#endnote-ref-2)
3. http://dujs.dartmouth.edu/2009/02/global-climate-change-asthma-pulmonary-consequences-of-fossil-fuels/#.WB55I\_krKF4 [↑](#endnote-ref-3)
4. http://unfccc.int/resource/docs/natc/bhrnc2exsume.pdf [↑](#endnote-ref-4)
5. http://unfccc.int/resource/docs/natc/bhrnc2.pdf [↑](#endnote-ref-5)
6. http://unfccc.int/resource/docs/natc/bhrnc2.pdf [↑](#endnote-ref-6)
7. http://unfccc.int/resource/docs/natc/bhrnc2.pdf [↑](#endnote-ref-7)
8. https://www.theguardian.com/environment/2016/sep/16/new-inhaler-protects-lungs-against-effects-of-air-pollution [↑](#endnote-ref-8)
9. https://www.theguardian.com/environment/2016/sep/16/new-inhaler-protects-lungs-against-effects-of-air-pollution [↑](#endnote-ref-9)
10. http://www.npr.org/sections/alltechconsidered/2013/08/07/209575570/a-patch-designed-to-make-you-invisible-to-mosquitoes [↑](#endnote-ref-10)
11. http://inhabitat.com/photosynthesis-bike-could-purify-the-air-as-you-ride/ [↑](#endnote-ref-11)
12. https://offgridworld.com/vertical-farm/ [↑](#endnote-ref-12)
13. http://www.cropsreview.com/vertical-farms.html [↑](#endnote-ref-13)
14. http://www.ibanet.org/Article/Detail.aspx?ArticleUid=B51C02C1-3C27-4AE3-B4C4-7E350EB0F442 [↑](#endnote-ref-14)
15. https://environment.yale.edu/blog/2015/12/the-paris-agreement-spotlight-on-climate-migrants/ [↑](#endnote-ref-15)
16. http://www.un.org/en/globalissues/briefingpapers/refugees/nextsteps.html [↑](#endnote-ref-16)
17. https://nca2009.globalchange.gov/global-climate-change/index.html [↑](#endnote-ref-17)
18. http://ocean.nationalgeographic.com/ocean/critical-issues-sea-level-rise/ [↑](#endnote-ref-18)
19. https://nanseninitiative.org/wp-content/uploads/2015/10/12-LESSONS-LEARNED.pdf [↑](#endnote-ref-19)
20. http://www.al-monitor.com/pulse/originals/2015/09/syria-gulf-countries-respond-criticism-over-refugees. [↑](#endnote-ref-20)
21. http://www.al-monitor.com/pulse/originals/2015/09/syria-gulf-countries-respond-criticism-over-refugees. [↑](#endnote-ref-21)
22. http://www.arabclimateinitiative.org/Countries/egypt/ElRaey\_Impact\_of\_Sea\_Level\_Rise\_on\_the\_Arab\_Region.pdf [↑](#endnote-ref-22)
23. http://e360.yale.edu/feature/to\_control\_floods\_the\_dutch\_turn\_to\_nature\_for\_inspiration/2621/ [↑](#endnote-ref-23)
24. http://www.htiwater.com/shop/hydropack.php?Vl=6 [↑](#endnote-ref-24)
25. http://inhabitat.com/unicefs-amazing-lego-inspired-bricks-carry-food-and-water-to-disaster-victims/ [↑](#endnote-ref-25)
26. https://earthquake.usgs.gov/research/earlywarning/ [↑](#endnote-ref-26)
27. http://www.concretecanvas.com/concrete-canvas-shelters/what-is-it/ [↑](#endnote-ref-27)
28. http://www.medair.org/en/jobs/positions/information-systems-project-manager-im-gis-leb/ [↑](#endnote-ref-28)
29. http://inhabitat.com/pure-water-bottle-filters-99-9-of-bacteria-with-uv-light/pure-water-purifier-2/ [↑](#endnote-ref-29)
30. https://www.ipcc.ch/organization/organization\_history.shtml [↑](#endnote-ref-30)
31. https://www.epa.gov/climate-change-science/causes-climate-change [↑](#endnote-ref-31)
32. http://www.cop21.gouv.fr/en/a-commendable-conference/ [↑](#endnote-ref-32)
33. https://ec.europa.eu/clima/policies/international/negotiations/paris/index\_en.htm [↑](#endnote-ref-33)
34. http://www.e-architect.co.uk/bahrain/bahrain-world-trade-centre [↑](#endnote-ref-34)
35. http://unfccc.int/resource/docs/natc/bhrnc2.pdf [↑](#endnote-ref-35)
36. http://unfccc.int/resource/docs/natc/bhrnc2exsume.pdf [↑](#endnote-ref-36)
37. http://www.weathermodification.org/faq.php [↑](#endnote-ref-37)
38. https://www.technologyreview.com/s/511016/a-cheap-and-easy-plan-to-stop-global-warming/ [↑](#endnote-ref-38)
39. https://www.technologyreview.com/s/511016/a-cheap-and-easy-plan-to-stop-global-warming/ [↑](#endnote-ref-39)
40. https://www.edf.org/climate/how-cap-and-trade-works [↑](#endnote-ref-40)
41. http://environment.about.com/od/capandtradefaq/f/capandtrade.htm [↑](#endnote-ref-41)
42. http://www.huffingtonpost.com/rosaly-byrd/an-introduction-to-carbon-cap-and-trade\_b\_6737660.html [↑](#endnote-ref-42)
43. http://www.seia.org/policy/solar-technology/photovoltaic-solar-electric [↑](#endnote-ref-43)
44. https://blogs.ucl.ac.uk/sustainable-resources/2015/11/30/csp-vs-pv-understanding-the-current-situation-and-future-outlook/ [↑](#endnote-ref-44)