Delegation: Angola

Delegate: Magdalene SextonDwyer

Committee: Framework Convention on Climate Change

The Impact of Climate Change on Human Health

Angola has felt the effects of climate change significantly. Angola’s temperature has increased by 1.5°C since 1960. (Climate change adaptation in Angola, 2012) Additionally, rainfall patterns have been extremely unpredictable resulting in severe crop damage, and overall, rainfall has decreased. (Climate change adaptation in Angola, 2012) Additionally, the health of Angolan citizens is jeopardized with the effects of climate change, as the availability of health facilities and infrastructure is limited. Furthermore, the national alert system for natural disasters is not up to date with modern technology. (International Clean Energy Analysis Gateway: Assisting developing countries with clean energy deployment, 2010) Specific health detriments in Angola include extreme heat conditions, death from severe floods and storms, and malnutrition. Furthermore, with the poor quality health facilities, infectious diseases such as cholera, typhoid fever, and diarrhea disease will increase in prevalence after floods. (Climate change adaptation in Angola, 2012) Additionally, malaria, which has recessed in recent years, is likely to surge by 2080. (Climate change adaptation in Angola, 2012) (Angola National Adaptation Programme of Action, 2011) Higher global temperature results in an increase of the *Plamodium* parasite, which causes malaria in vectors and causes those vectors to bite. (Cho, 2014) Angola is working with the President’s Malaria Initiative to strengthen the nation against malaria, through methods including indoor residual spraying, mosquito bed nets, and rapid identification of malaria patients to ensure treatment through artemisinin-based combination therapy (ACTs). (Diagnosis and treatment, 2016)

Angola’s days in the top 10% of all temperatures will become two to four times more frequent by 2060. (Climate change adaptation in Angola, 2012) Such temperatures would have detrimental effects on Angola’s wildlife, and increase the risk of many species’ displacement. Furthermore, the sea level on the western coast of Angola has the potential to increase by a meter by 2100 due to the effects of climate change, which puts 30% of Angola’s population at risk of flooding effects, and could render much of the low altitude farmland useless. (Climate change adaptation in Angola, 2012) Droughts in Angola would reduce both agricultural production and livestock production, which could lead to malnutrition in the country. (Climate change adaptation in Angola, 2012)

Climate Refugees

Angola is dramatically affected by the El Niño Southern Oscillation (ENSO) effect. As of June 2016, according to the United Nations, 1.4 million Angolans were affected by the most recent El Niño in 2015. (DR Congo, Angola must be ‘in funding spotlight’ ­– UN humanitarian official, 2016) Malnutrition and the yellow fever have been drastically increased in the nation as a result of ENSO. (DR Congo, Angola must be ‘in funding spotlight’ ­– UN humanitarian official, 2016) The El Niño caused drought in Angola, and its following La Niña resulted in flooding in the region, both of which exacerbated food security. Malnutrition increased among the population, affecting 95,000 children. (Xinhua, 2016)

Deforestation is also a significant issue in Angola, which was exacerbated by the recent civil war. Displacement resulting from the civil war caused the increased need for firewood as a source of heat, which led to mass deforestation. This deforestation has since exacerbated soil erosion and limited agricultural production. (War destroys forests in Angola, n.d.) However, the acacia tree is very significant in Angola, as it is a native tree to the country. Acacia is used in reforestation processes in Angola as the tree is adaptable to diverse climates. (Lubuku, 2005)

The Benguela Current is an oceanic current flowing from the southern Atlantic Ocean north, along the western coast of the African continent. The conditions of the Benguela Current have significant impacts on Angola’s coastal communities. The Benguela Current is normally a cool temperature and includes water from the Indian Ocean, which combines with the warmer water of the Southern Equatorial Current. The Benguela Current is in danger of increasing in temperature and salinity with climate change, which would have adverse effects on Angola fisheries, specifically anchovy populations, and water sources. Additionally, the ENSO exacerbates the heating of this current. (Benguela Current – Global warming, n.d.)

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

To accomplish Angola’s Intended Nationally Determined Contribution (INDC), approximately $15.7 billion US dollars is required, yet much of this funding has already been provided to the government through the Unconditional Mitigation and Adaptation scenario. Although Angola’s greenhouse gas emissions only amounted to less than .1% of the global greenhouse gas emissions, Angola has pledged action to reducing their greenhouse gas emissions further. (Draft Intended Nationally Determined Contribution (INDC) of the Republic of Angola, 2015)

In their INDC, Angola lists different actions Angola has or is taking towards using renewable energy sources. These measures include expanding the capacity of the Cambambe Hydroelectric Power Plant, the Towmbwa Wind Farm project, the Matala Dam, and the Lauca Dam in Angola, to reduce current greenhouse gas emissions and transfer energy dependency on renewable sources. (Draft Intended Nationally Determined Contribution (INDC) of the Republic of Angola, 2015) (First phase of construction of Matala Dam in Angola completed, 2016) (Infrastructure for hydropower in Angola, n.d.) (First phase of construction of Matala Dam in Angola completed, 2016) (Two thirds of work to build Lauca dam in Angola is completed, 2016) Angola’s emissions from the industry sector only amount to less than one million tons of carbon dioxide. Angola also set the target to reduce emissions from land change and forestry by 5 million tons of carbon dioxide by 2030, through methods including reducing deforestation, fully utilizing their biomass resources, and phasing out harvested land. (Draft Intended Nationally Determined Contribution (INDC) of the Republic of Angola, 2015)

Angola has implemented a project, Mapping of the Winds and Solar of Angola, which successfully located territory in Angola suitable for renewable energy sources to be developed. These energy sources include maximizing wind energy, solar energy, biomass energy, and hydroelectric energy. (Draft Intended Nationally Determined Contribution (INDC) of the Republic of Angola, 2015) Currently, Angola has approximately 58 million hectares of available, arable land. (Bananas – Angola’s green gold, 2015) Angola plans to decrease land degradation with aid from the Food and Agricultural Organization (FAO), through various Sustainable Land Management projects, such as increasing preservation and quality of soil and water, and properly managing ecosystems and natural resources. (Sustainable land management, 2016) Angola is also working with the FAO to preserve fisheries, thus increasing food security. The African Development Bank is helping Angola develop other Sustainable Land Management projects such as agroforestry, in over 350 communities. To increase resilience of farmers and agricultural production, the Farmer Field Approach is implemented in Angola, in which farmers are given the resources to experiment with various agricultural practices, tools, crops, and field conditions to find suitable farming techniques for themselves. (Integrated Production and Pest Management Programme in Africa, 2016)

Sources

Angola National Adaptation Programme of Action. (2011). *National Adaptation Programme of Action Under the United Nations Framework Convention on Climate Change,* 1-91. Retrieved October 30, 2016, from http://unfccc.int/resource/docs/napa/ago01.pdf

Bananas – Angola’s green gold. (2015, July 12). Retrieved November 8, 2016, from http://www.euronews.com/2015/12/07/focus-bananas-angola-s-green-gold

Benguela Current – Global warming. (n.d.). Retrieved November 8, 2016, from http://what-when-how.com/global-warming/benguela-current-global-warming/

Cho, R. (2014, September 4). How climate change is exacerbating the spread of disease. Retrieved October 30, 2016, from http://blogs.ei.columbia.edu/2014/09/04/how-climate-change-is-exacerbating-the-spread-of-disease/

Climate change adaptation in Angola. (2012). *USAID,* 1-4. Retrieved October 30, 2016, from https://www.climatelinks.org/sites/default/files/asset/document/angola\_adaptation\_fact\_sheet\_jan2012.pdf

Diagnosis and treatment. (2016). Retrieved November 7, 2016, from https://www.pmi.gov/how-we-work/technical-areas/diagnosis-and-treatment

DR Congo, Angola must be ‘in funding spotlight’ ­– UN humanitarian official. (2016, June 29). Retrieved November 7, 2016, from http://www.un.org/apps/news/story.asp?NewsID=54362#.WCM\_mmsrKUl

Draft Intended Nationally Determined Contribution (INDC) of the Republic of Angola. (2015, November). Retrieved November 6, 2016, from http://www4.unfccc.int/submissions/INDC/Published%20Documents/Angola/1/INDC%20Angola%20deposito.pdf

First phase of construction of Matala Dam in Angola complete. (2016, July 18). Retrieved November 8, 2016, from http://www.macauhub.com.mo/en/2016/07/18/first-phase-of-construction-of-matala-dam-in-angola-completed/

Infrastructure for hydropower in Angola. (n.d.). Retrieved November 8, 2016, from http://www.riverawarenesskit.com/KuneneRAK-DVD/KUNENERAK\_COM/EN/MANAGEMENT/WATER\_INFRASTRUCTURE/DAMS\_AND\_INFRASTRUCTURE/INFRASTRUCTURE\_FOR\_HYDROPOWER\_I.HTM

Integrated Production and Pest Management Programme in Africa. (2016). Retrieved November 7, 2016, from http://www.fao.org/agriculture/ippm/programme/ffs-approach/en/

International Clean Energy Analysis Gateway: Assisting developing countries with clean energy deployment. (2010). *Adaptation Partnership,* 36-41. doi:10.2172/970344 Retrieved October 30, 2016, from http://www.preventionweb.net/files/25655\_angola.pdf

Lubuku, S., Hesemann, J. & Tan, V. (2005, June 3). Angolan refugees help to rehabilitate Congolese camps. Retrieved November 7, 2016, from http://www.unhcr.org/cgi-bin/texis/vtx/search?page=search&skip=261&docid=42a077c14&query=environmental%20refugees

Sustainable land management. (2016). Retrieved November 7, 2016, from http://www.fao.org/nr/land/sustainable-land-management/en/

Two thirds of work to build Lauca dam in Angola is completed. (2016, April 20) Retrieved November 8, 2016, from http://www.macauhub.com.mo/en/2016/04/20/two-thirds-of-work-to-build-lauca-dam-in-angola-completed/

War destroys forests in Angola. (n.d.). Retrieved November 7, 2016, from http://wrm.org.uy/oldsite/bulletin/28/Angola.html

Xinhua. (2016, April 30). El Niño-induced drought affects 1.4 million people in Angola: UN. Retrieved November 7, 2016, from http://news.xinhuanet.com/english/2016-04/30/c\_135324179.htm