Loss and Damage: The Adverse Effects of Climate Change on Human Rights

Jad Abdel Nour [1 2 3 11] & Rehman Hassan [4 5 6 7 8 9 10 11 12 13 14 15 16 17]

[1]Research and Policy Analyst Intern, United Nations Women for Peace Association (UNWFPA)

[2]Public Policy Advocate, Harvard T.H. Chan School of Public Health and Boston Children's Hospital Strategic Training Initiative for the Prevention of Eating Disorders (STRIPED)

[3]Co-Director of Writing, CoVisualize (CVT)

[4]Adolescent Champion & Digital Experience Committee Co-leader, Partnership for Maternal, Newborn, and Child Health, World Health Organization (WHO)

[5]Youth Representative (Youth4Health Group), Pan American Health Organization (PAHO), World Health Organization (WHO) & Organization of American States (OAS)

[6]Chief SDG-3 Youth Advisor and Co-Chair of Health, Future, & Gender Equity Committees, Youth Advisory Board, United Nations Human Settlements Programme (UN-HABITAT)

[7]USA Youth Leader, Global Alliance for Improved Nutrition (GAIN)

[8]Leadership Council Member, USA for UNFPA, UN Population Fund (UNFPA)

[9]Green Advocacy Coalition, World Young Men's Christian Association (World YMCA)

[10]Secretary, Child-Friendly Cities Initiative, United Nations Children's Fund (UNICEF)

[11]Young Champion, United Nations Refugee Agency (UNHCR)

[12]Youth Ambassador, Human Rights Campaign (HRC)

[13]Junior Council Member, Americares

[14]Student Ambassador, Human Rights Watch (HRW)

[15]CEO & Founder, iCure Health International 501(c)(3)

[16]Representative & Young Ambassador to the United Nations, Citizen Outreach Coalition

[17]Stanford University

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Loss and Damage: The Adverse Effects of Climate Change on Human Rights

"Climate change poses an immediate and far-reaching threat to people and communities around the world and has adverse implications for the full enjoyment of human rights" (United Nations Human Rights Council Resolution 18/22). Climate change today is one of the most significant issues plaguing society today; central to protecting and promoting the human rights of all people is securing their futures. Thus, climate action is a necessity for the full realization of human rights across the world.

Hurricane Katrina: Climate Disaster on the United States Gulf Coast

In 2005, Hurricane Katrina, one of the five deadliest hurricanes in the United States, struck the United States Gulf Coast. As the costliest hurricane in the United States as well, Hurricane Katrina caused $186.3 billion in damages, 1,392 fatalities, 520 direct deaths, 565 indirect deaths, and displaced 1.2 million people.[1] Scientists have emphasized the important role climate change played in the consequences of this natural disaster, such as in the form of flood elevations.[2] The connection between climate change and coastal storms is that rising sea levels increase the chances that storms will surge. The storm will ride along higher waters, allowing it to move further inland and cause more damage, endangering the lives of millions.

Hurricanes in the North Atlantic are becoming more intense and longer. The Fourth U.S. National Climate Assessment found that "[h]uman activities have contributed substantially to [...] the observed upward trend in North Atlantic hurricane activity since the 1970s."[3] Additionally, with warmer sea surface temperatures, hurricanes increase their frequency, duration, and intensity.

Hurricane Katrina disproportionately impacted low-income and Black communities. In New Orleans, 35% of black households and 59% of poor black households did not own a vehicle,

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[1] "1 Tropical Cyclone Report Hurricane Katrina 23-30 August 2005." 4 Jan. 2023, https://www.nhc.noaa.gov/data/tcr/AL122005_Katrina.pdf. Accessed 31 Jan. 2024.
[2] "Simulations of Hurricane Katrina (2005) under sea level and climate conditions for 1900." 5 Dec. 2013, https://link.springer.com/article/10.1007/s10584-013-1011-1. Accessed 31 Jan. 2024.
[3] "Downloads - Climate Science Special Report." https://science2017.globalchange.gov/downloads/. Accessed 31 Jan. 2024.

lacking their own means of transportation to escape Hurricane Katrina. On the other hand, only 15% of white households lacked a vehicle. The mortality rate was thus four times higher for black residents 18 years old or older than white residents.[4]

During Hurricane Katrina, the communities impacted faced other challenges that shed light on social inequality and environmental justice. There were challenges in evacuation, accessing emergency aid from the federal government, and recovering from the hurricane. People were displaced, their homes were destroyed, and healthcare services were hurt, causing a lack of access to medical care. There are many similar cases, such as Hurricane Sandy in 2012 and Hurricane Harvey in 2017.

Hurricane Katrina also had a significant impact on the full realization of the human rights of all people across the world. In the context of Articles 23 and 26 of the *Universal Declaration on Human Rights*, Hurricane Katrina destroyed many small businesses and schools, causing economic fallout in the areas and limited access to education. Climate change has the powerful ability to impair the right to work; wildfires, hurricanes, floods, and other natural disasters can also cause these impacts.

The effects of natural disasters like these are long-lasting. Analyses of mental health post-Hurricane Katrina have found significant mental health impacts in low-income survivors of Hurricane Katrina. Low-income Hurricane Katrina survivors were twice as likely to experience worse mental health outcomes than survivors of higher socioeconomic statuses.[5] Additionally, displaced people who did not return to their communities had elevated depression levels than survivors who returned home after the hurricane.[6]

Public Policy, Legislation, Practices, Strategies, and Institutional Arrangements in the United States

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[4] "Hurricane Katrina Deaths, Louisiana, 2005 … | Cambridge Core." 8 Apr. 2013, https://www.cambridge.org/core/journals/disaster-medicine-and-public-health-preparedness/article/hurricane-katrina-deaths-louisiana-2005/8A4BA6D478C4EB4C3308D7DD48DEB9AB. Accessed 31 Jan. 2024.
[5] "The Impact of Hurricane Katrina on the Mental and Physical Health of Low-Income … - NCBI." 9 Feb. 2012, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3276074/. Accessed 31 Jan. 2024.
[6] "Trauma and Stress Response Among Hurricane Katrina Evacuees - NCBI." https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1854990/. Accessed 31 Jan. 2024.

Based on the United States 2021 Nationally Determined Contribution (NDC) contained sector-by-sector emissions reduction pathways. In the electricity sector, the United States aims to have 100% carbon pollution-free electricity by 2035 by working with state and local governments to support the carbon pollution-free energy potential of nuclear and carbon power plants. One of the United States' commitments to this initiative is to back the research and development of software toward a carbon pollution-free and affordable electricity system. In the transportation sector, with light-duty vehicles, aircraft, and ships dependent on fossil fuels, the United States aims to enact policies to reduce emissions, including incentives for zero-emission personal vehicles, funding for car charging infrastructure, and tailpipe emissions and efficiency standards. The US is also looking into how it can support the decarbonization of international maritime and aviation energy with the International Maritime Organization (IMO) and the International Civil Aviation Organization (ICAO). The United States is considering government help for energy efficiency and programs for efficient electric heating and adopting modern energy codes for new buildings. The United States will also invest in new technologies to reduce construction-associated emissions. In the heavy industry sector, the United States government will back research, development, and commercialization of low- and zero-carbon processes and products and use procurement power to support early markets for these products.[7]

The US, too, aims to reduce emissions through programs for ecosystems in the agricultural industry. To achieve this, the US is focusing on climate-smart agricultural practices and reforestation in agriculture and lands. The federal and state governments will invest in forest protection and management to reduce wildfire intensity and restore forests damaged by wildfires. The United States will also work to increase ocean sequestration and pursue "blue carbon." The National Oceanic and Atmospheric Administration (NOAA) defines blue carbon as "carbon dioxide that is absorbed from the atmosphere and stored in the ocean."

In terms of reducing non-CO2 greenhouse gases such as methane and hydrofluorocarbons, the United States will implement the American Innovation and Manufacturing (AIM) Act to phase down hydrofluorocarbon use. The United States will invest in plugging leaks across the natural

[7] "The United States of America Nationally Determined Contribution." https://unfccc.int/sites/default/files/NDC/2022-06/United%20States%20NDC%20April%2021%202021%20Final.pdf. Accessed 31 Jan. 2024.

gas distribution infrastructure to reduce methane usage. There will also be incentives for using technologies that reduce agricultural methane emissions.

Below are some Youth Climate Policy Recommendations for the United States based on the Outcomes Document of the 2023 United States of America Local Conference of Youth Climate Change Conference.[8]

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- *Guarantee* the right to a clean and healthy environment in national law for present and future generations (e.g. Held v. Montana).
- *Commit* to including young people in consultations and implementation in the development of the 2025 NDC and beyond, such as through workshops, consultative virtual sessions, and active recruitment of young leaders.
- *Prioritize* funding allocations to projects that alleviate health, environmental, and climate risks in frontline communities (e.g. Justice40 only calls for benefits, funding must be included).
- *Commit* to a national equitable phase-out of all fossil fuels, an end to all new fossil fuel projects, and a transition of subsidies from fossil fuels to climate resilience and climate action efforts (regardless of COP28 outcome).
- *Establish* a National Climate Education Office within NOAA and follow through on promoting the adoption of the Climate Change Education Act.
- *Establish* a half percent tax on big corporations/individuals that make $1B a year to go towards a revolving sustainability and climate justice fund (e.g. Portland Big Box Retailer Tax).
- Create a National Climate Adaptation Plan (NCAP).
- Establish a national cooling center and resilience hub network by setting up a National Climate Resilience Office within NOAA
- Scale adaptation funding and co-benefits with mitigation (e.g. only $0.10 of the IRA went to adaptation, yet it's considered our largest climate investment).

[8] "LCOY USA 2023 National Youth Climate Statement." https://www.canva.com/design/DAF0SWtDu1g/WH7cjC5d-_YHF7Et4yv9Qw/view?utm_content=DAF0SWtDu1g&utm_campaign=designshare&utm_medium=link&utm_source=viewer#1. Accessed 31 Jan. 2024.

- *Optimize* the power grid by establishing a standard for grid efficiency, microgrids, and climate vulnerability assessments required from utilities (e.g. NYC).
- *Establish* a national moratorium on building infrastructure, such as homes, in climate-vulnerable areas.
- *Increase* methane reduction goal to 50% from 2005 levels by 2030 with an improved accountability mechanism.
- *Subsidize* electrification of small businesses and new job training for communities impacted by the Just Transition (potentially offered via the Civilian Climate Corps).
- *Mandate* climate education in public schools, post-incarcerated schools, and trade schools; and operationalize a national training program for adult education on climate resilience.
- *Invest* in bus and rail rapid transit systems and public transportation improvement programs to shift reliance away from airplanes and cars.
- *Ensure* that 100% of federally funded infrastructure projects incorporate climate resilience measures by 2025.
- Pass a national Carbon Fee and Dividend (e.g. a steadily rising carbon price starting at $15/ton and increasing by $10/ton each year to reduce domestic greenhouse gas emissions by 30% in the first five years and 90% by 2050 (Kaufman, et al. 2019), putting the US on a path to keep 1.5˚C alive.)