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## A Teenager's Journey to Climate Advocacy in Puerto Rico

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## A Teenager's Journey to Climate Advocacy in Puerto Rico

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## A Teenager's Journey to Climate Advocacy in Puerto Rico

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The specter of climate change imposes enormous challenges on the well-being of children and adolescents, including risks for increasing mental health impairments, a growing public health concern on its own. And the COVID-19 pandemic has exacerbated our woes. In the *Our Changing Planet: The U.S. Global Change Research Program for Fiscal Year 2020*, scientists argue that extreme weather events, including heat waves and hurricanes, are associated with post-traumatic stress disorder (PTSD), anxiety, and depression.<sup>1</sup> Additional research shows that “rates of major depression, social phobia, and separation anxiety were more common than PTSD 18 months after Hurricane Maria among children in Puerto Rico.”<sup>2</sup>

When we examine global climate change and adolescent mental health, we can be in a catch-22 situation. Environmental degradation and extreme weather events can cause mental health problems directly and indirectly<sup>2</sup>; but simultaneously, climate change awareness has been shown to cause what the *American Psychiatric Association* has coined as eco-anxiety.<sup>3</sup> Nevertheless, this situation is inescapable; we must all be aware and raise our voices assertively to demand effective action to mitigate climate change and its untoward effects.

The words inheritance and legacy typically imply a beautiful aspect of family and community life. The fact that we receive and pass down traits, values, and traditions is a human custom that we treasure. Our family and cultural heritage shape the foundation in which we grow and discover our life's mission. In the unfortunate case of climate change and the environmental crisis, Millennials and Gen Zs are getting a wretched bargain. Besides the rich traditions that we are learning to love and treasure, we also are inheriting formidable environmental problems. And yet, I see so many adults neglecting policy choices that are difficult in the short term but crucial for shaping our future.

I have to admit that I worry often. Compared to prior generations, mine is inheriting a planet that very soon--if countries do not take radical steps today to switch to cleaner energy and reduced greenhouse emissions or conceive extraordinary technological breakthroughs--could be uninhabitable for a growing number of people. Scientists have been explaining and issuing warnings about climate change and its consequences for a long time. This advice has often gone largely unheeded. My reaction to this inaction has been to explore how I can be part of the climate movement and do my best to help “save” our very own Mother Earth. This may sound idealistic, or even unrealistic, but I like to fathom that my generation *dreams big and we drive change*.

I am 16 years old, and I live in Puerto Rico. This archipelago of unique natural beauty and distinctive hospitality has gone through a rough 4-year stretch, and some reasonably argue even longer. Puerto Rico is suffering from poverty, anemic economic development, and environmental challenges. The island has many improperly managed contaminated

locations that have been declared Superfund sites by the U.S. Environmental Protection Agency.<sup>4</sup> As if that wasn't concerning enough, scientists have postulated that "increasing warming amplifies the exposure of small islands and low-lying coastal areas to the risks associated with sea level rise for many human and ecological systems, including increased saltwater intrusion, flooding and damage to infrastructure."<sup>5</sup>

In its 2019 climate summary report, the National Oceanic and Atmospheric Administration reported that average temperatures in Puerto Rico have risen more than 1.5°F since 2015.<sup>6</sup> Even at my age, I can attest how summers have become more challenging to play outside, with lesser shaded areas and having to seek refuge indoors. That is why I prefer to ride my skateboard at night. Puerto Rico is still recovering from the horrors of the 2017 hurricane season. It is called season for a reason, and to my chagrin it annually begins anew, predictably eliciting apprehension. Whenever a storm system is detected by satellites off the coast of West Africa, a sense of foreboding begins to whisper in my brain.

In September 2017 I was starting the eighth grade, and I was planning to participate in my school's basketball tryouts. I was a member of the Junior Honor Society, and my hobbies were playing chess and video games. I would have never imagined that so quickly after Hurricane Irma, another potent storm would viciously strike the island and trigger a cascade of environmental and social setbacks unseen in decades. It was a 1-2 knockout punch; nature showed no mercy. Besides the obvious infrastructure and other damage, Hurricane Maria wreaked havoc on our mental health. I am not sure if there is a way to describe in words the trauma of listening and feeling this thing viciously hitting my home nonstop for hours, seeing so many trees blown away, being scared because my home was flooding, and the uncertainty of not knowing how my loved ones had fared.

Our house didn't have any water for weeks because we lacked electricity needed to operate a pump for the water cistern. Fortunately, we had stockpiled some water for drinking and minimal hygiene. Creativity and solidarity were our best allies. Often I felt as if we were the participants of a survival reality show. We had to stand in long lines at the fire station to obtain water. We also had to wait in lines under hot and humid conditions for hours at a time just for a bag of ice (if we were lucky to find any), and for gasoline for the car and for the neighbor's electricity generator. Our good Samaritan neighbors graciously allowed us to connect an electrical extension cord to one of their outside outlets for a couple of weeks so that we could power the refrigerator and a small fan to give respite from the hot nights.

Ironically, because of ecological reasons, for years my parents were hesitant to buy an electricity generator as they were saving to someday buy panel systems and because these generators produce air and noise contamination. Right after Irma, they were so panicked that they decided to purchase a generator. I accompanied my mom to the wholesale store, but it turned out many others had the same idea, provoking a shortage of installation services as many were struggling to prepare. We did not have electricity for 4 months, and still we were fortunate because some communities were without power for close to a year. The experience converted many in Puerto Rico to pursue and demand green energy choices that are affordable, sustainable, safer to use, and more accessible.

One of the most painful experiences, one which I am yet to overcome, was the relocation of two of my dearest friends and their families out of the island due to the new realities of life here. Our vulnerability and uncertainty of the future after these hurricanes also made me want to leave. Every single aspect of my life was uprooted, including basketball and school. And if I, a privileged high school teenager, was having a terribly hard time, imagine how much more suffering and trauma this situation must have imposed on needier families, who already had precarious life conditions before the storms. In fact, almost half of the population here lives below the poverty level. After the hurricanes, I witnessed how families in extreme poverty and social disadvantage lost everything they had, how their schools closed permanently, and how their community centers never reopened again. This made me understand what has been written about how those less responsible for climate change are the ones that will suffer the most from its consequences.

Migration, environmental degradation, hurricanes, and the pandemic are all somehow related to climate change. A year after Hurricane Maria, almost 4% of the population left our island, becoming climate migrants. Environmental degradation with increasing particulate matter due to use of fossil fuels is associated with diverse adverse health conditions, including increased chances of dying from COVID-19.<sup>7</sup> Climate change may be speeding up hurricane intensification, giving communities less time to prepare and causing more damage overall. To complicate matters, the response to these disasters can bring other challenges. For example, just as during the COVID-19 pandemic, plastic utensils and packaging became ubiquitous after the storms. Plastic degradation is associated with the release of potent greenhouse gases into the atmosphere, contributing to the climate change problem. Disaster preparedness and response must be thought of from a climate action perspective.

Let me share something even more personal. I suffer from severe eczema, allergies, and asthma, which have been a significant source of distress in my life. These inflammatory conditions are multifactorial and complex. The year after the hurricanes, my eczema symptoms peaked, bringing much suffering and affecting my quality of life. It is worrisome that, according to growing scientific evidence, these conditions are worsened by climate change and air pollution. Climate change has been associated with longer seasons for pollen and other allergens, and increased risks for asthma and eczema.<sup>8</sup> In 2018, related to the hurricanes, Puerto Rico had one of the highest levels of mold spore counts on local record, possibly adversely affecting those suffering from atopic conditions such as myself.

I see my personal story as a metaphor for what we're doing to our planet and as an example of how climate change can affect human health, especially of those who already are more vulnerable. Climate change is like our "planet's eczema." Previous generations and our very own actions are sickening our planet. Greenhouse gases are causing "severe inflammation" to our planet's atmosphere, surface, and oceans, making it hotter every year. And just like my skin, the Earth's surface "dries and flakes" with droughts, making it burn with massive wildfires. The Earth "oozes and bleeds" constantly with the melting of its icebergs and shrinking of its glaciers. And when our Earth's "eczema flares," storms become category 5 hurricanes quicker.

During the intervening years, other challenges have surfaced: the 2020 earthquake sequence and the COVID-19 pandemic. The 2020 Atlantic Basin hurricane season had the most named hurricanes on record.<sup>9</sup> Yet it seems that we continue heading in the wrong trajectory. We continue witnessing relentless deforestation, construction projects that invade our coastlines and in prima facie violation of construction codes, and an electricity grid renovation plan that is not fully based on sustainability and climate adaptation and mitigation. This is either of the unawareness or unwillingness of those who can make public policy decisions to address global warming and what that means to our safety, physical, and mental health.

My experience and reflection inspired me to launch a group called Estudiantes de Puerto Rico para la Acción Climática (Puerto Rico Students for Climate Action). We have met virtually and started our journey to learn more about climate and motivate others to appreciate that we can't delay action. We devised a drawing contest for middle and high school students. Through similar activities, we plan to engage more teenagers and provide a channel for their voices as advocates for our planet.

There are replicable success stories on climate mitigation, adaptation, and prevention that we can all apply today, individually and collectively. Global climate change is one of the top survival and social issues, and we must summon our technological wherewithal and policy resolve to implement solutions. In addition, we should highlight past achievements made to protect our environment. We need to come together and encourage those to work for our environment. There are climate heroes among us. Greta Thunberg is truly an inspiration for our generation. Isra Hirsi, founder of the U.S. Youth Climate Strike, is another talented activist who energetically strives on behalf of the planet. Finally, we should avoid falling into the "climate catastrophism" trap. That would completely paralyze us. While we embrace solutions, let us talk more about compassion and be hopeful.

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