



“It Was Beautiful Here, and Then the Pollution Came”: Researching Youth Climate Emotions in Coastal Ecuador

Neela Nandyal, University of Minnesota-Twin Cities, Minneapolis, MN, USA

Abstract

In this reflection I share findings from researching youth climate hope and future outlooks in a fishing community in coastal Ecuador. I discuss how teens in this community experience both climate despair and climate hope and look to nearby nature to inform their thoughts on climate change.

Keywords

climate emotions, climate hope, climate despair, solastalgia, [climate literacy](#), El Niño, Latin America, nearby nature, pollution, Ecuador,

Acknowledgements

The fieldwork discussed in this paper was funded in part by the University of Minnesota CEHD Graduate Global Grant and the Graduate School Thesis Research Travel Grant. The author is grateful to Mayi Quimis Pincay and Carlos Gutierrez for their expert assistance.

Introduction

In summer 2022, I traveled to Ecuador to conduct a pilot study on the attitudes, values, and practices shaping environmental education in the coastal province of Manabí. Although I had some prior experience of living in South America and had taken

numerous classes on the region's history and geography, I had never been to Ecuador before. It turned out to be a marvelous trip. I met many educators and professionals working to protect nature through local government, nonprofit organizations, and schools. Through my interviews with community members, I learned that pollution and contamination of the ocean were among the top environmental concerns, and people worried about the effects on human health. I also found that many people had observed *positive* changes in the local environment in their lifetime – these were typically people in their 40s and 50s who could remember when the beaches were more polluted and littering went unchecked. For them, the recent adoption of environmental regulations in Ecuador had begun to rein in pollution, which many of my participants pointed to as a sign of progress. All of this led me to wonder, how did the younger generation feel about the future of the environment in Manabí? What did youth think about local sustainability efforts and climate change more broadly? In summer 2023, I returned to Ecuador to explore these questions in more detail. My key takeaways from this period of field research are below.

Between Hope and Despair: Climate Emotion and Future Outlooks

To better understand youth climate emotion and future outlooks on the environment in coastal Ecuador, I conducted a mixed methods study that involved a 35-question survey of 193 secondary school students and semi-structured interviews with 17 of the student participants. What the study revealed was that students had the capacity to experience a multitude of climate emotions (including climate despair and climate hope) simultaneously. In the survey, for example, just over two thirds of participants reported that they were “worried” or “very worried” about climate change. Yet in interviews, worry over the environment did not seem to affect the day-to-day life nor long term plans of participants, a common indicator in measuring eco-anxiety (Hickman et al., 2021). Rather, I perceived my participants' worry over climate change as a sort of climate despair or solastalgia. Students lamented how “through social media you learn a lot about different places and how we are polluting” and “you can see garbage everywhere” (Student participants, 2023). While many students blamed their peers and fellow townspeople for local environmental pollution, others were more specific – linking contamination and loss of wildlife to the local fishmeal plant. As one student explained, “I can tell you that since

the factory started the pollution, nature has never been as beautiful as it was before, because before here...there were deer...there are no more because of the pollution and the smoke from the factory. That's why we must clean up the beach: because it was beautiful here, and then the pollution came" (Student participant, 2023).

Additionally, the survey¹ revealed the students to be fairly hopeful about their own role in mitigating the climate crisis. 74% of youth participants agreed or strongly agreed with the statement "I think that the actions of individuals like me have a role to play in mitigating the negative effects of climate change" and 67.4% of the students agreed or strongly agreed that "I am optimistic that the effects of climate change will be reversed, because there are several actions that individuals like me can take to improve the problem of climate change". As one student reasoned "...if we stop polluting and we listen...and make less garbage, it can be better" (Student participant, 2023). For these participants, hope over mitigating climate change and environmental degradation was hinged on both personal and community agency.

Nearby Nature and the Specter of El Niño

Interviews with students also highlighted the ways that youth turn to [nearby nature](#) to notice changes in the natural world and connect these changes to ideas about climate change. Most of the participants came from fishing or farming families and spent their free time on the beach. Summer 2023 was an El Niño year for Ecuador, which meant that the Pacific experienced unusually warm temperatures, with serious implications for marine life (including depleted fisheries), vulnerability to flooding, and decreased tourism from the highlands. While I had not anticipated including the topic of El Niño in my interviews with students, it soon emerged as a common theme in many of my conversations with local youth. In interviews, students often discussed El Niño in conjunction with their thoughts about climate change, environmental risk and natural disaster. As one student observed, "El Niño is coming and now there are many dead birds around the beach...they have died because of the scarcity of fish" (Student

¹ The survey design and content drew heavily from recent studies on youth climate hope. The questions examples in this reflection are modeled on questionnaires by Finnegan (2022), Li and Monroe (2018), and Ojala (2012).

participant, 2023). Other students dwelled on anticipated floods and family hardship, one youth warned “we have to be prepared with supplies, food, medicines and everything necessary because they say it is going to be long, prices are going to rise ...and we will not be able to work because of the heavy rains” (Student participant, 2023). The interviews revealed how these students' thoughts and feelings about climate change are profoundly shaped by the local environmental conditions they experience.

Concluding Thoughts

While this study centers on the climate emotions of youth from a rural community in coastal Ecuador, it has broad implications for environmental and climate literacy education as it speaks to the experiences of young people everywhere. . In making space for discussing climate emotion in classrooms, teachers can support students in developing climate literacy, especially climate hope and envisioning alternative, low-carbon futures. Moreover, teachers can draw on students' own lived experiences and local environs in talking about climate change, emphasizing how climate literacy can be fostered through the love of nearby nature. Finally, teachers should consider the role of environmental risk and local climate histories in their students' perceptions of climate change.

References

- Finnegan, W. (2022). Educating for hope and action competence: A study of secondary school students and teachers in England. *Environmental Education Research*, 1–20. <https://doi.org/10.1080/13504622.2022.2120963>
- Hickman, C., Marks, E., Pihkala, P., Clayton, S., Lewandowski, R. E., Mayall, E. E., Wray, B., Mellor, C., & van Susteren, L. (2021). Climate anxiety in children and young people and their beliefs about government responses to climate change: A global survey. *The Lancet Planetary Health*, 5(12), e863–e873. [https://doi.org/10.1016/S2542-5196\(21\)00278-3](https://doi.org/10.1016/S2542-5196(21)00278-3)
- Li, C., & Monroe, M. C. (2018). Development and validation of the climate change hope scale for high school students. *Environment and Behavior*, 50(4), 454–479. <https://doi.org/10.1177/0013916517708325>
- Ojala, M. (2012). Hope and climate change: The importance of hope for environmental engagement among young people. *Environmental Education Research*, 18(5), 625–642. <https://doi.org/10.1080/13504622.2011.637157>