

THE EFFECTS OF COLONIZATION ON WATER DISTRIBUTION IN INDIGENOUS LANDS: CASE STUDIES IN THE NAVAJO NATION AND PALESTINE

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Globally, access to high quality water resources is strongly driven by economics, governance, technology, and water availability, among other factors. In many regions, water distribution politics has been used to oppress and control disenfranchised minority groups, impacting societal health and limiting economic development. This is commonly seen when land is colonized; indigenous communities often suffer from a lack of natural resources, which are taken and redistributed by the colonizer. This work investigates water availability and water quality inequity caused by settler colonization in two regions—Palestine and the Navajo nation. To do so, we applied the dissimilarity index, a metric frequently used to measure inequality in health outcomes, to diagnose differences in access to clean water among neighboring regions with contrasting socioeconomic settings. Preliminary results from Palestine show that over the past 25 years, water use in Israeli settlements was 75% higher than in Palestine, while the mortality rate due to unsafe water sources was 93% higher in Palestine. In the Navajo Nation, it is expected that poor water quality is a major driver of inequitable water access and associated quality-of-life outcomes such as poverty levels, mortality rates, and economic data. Overall, this study explores the disparities in water access, health, and environmental outcomes between colonized and self-governed areas and provides an analytical framework to identify similar water inequities in other areas of the world that have a history of colonization.

PRESENTER BIO: Farah Aryan is currently a graduating environmental engineering major at UF and will be pursuing her masters in biological engineering at UF this upcoming spring. She is interested in environmental justice and hopes to pursue a career that allows her to fight for equal water use for all.