

Analyzing the Impacts of Turkish Dam Building on Downstream Iraqi Farmlands

Wednesday, October 25, 2023 4:40 PM (20 minutes)

Turkey's Southeastern Anatolia (GAP) Project aims to inspire economic growth in an underdeveloped region of Turkey through the construction of 22 dams along the Tigris and Euphrates rivers. To address downstream Iraq's protests concerning their access to water, Turkish officials publicly promised to maintain a "fair and equitable" flow of water into Iraq. However, struggling Iraqi farmers now blame Turkey's new dams for exacerbating the effects of drought and climate change. In an attempt to address the gap in research concerning the actual impact of Turkish dams on downstream Iraq, this project quantifies changing reservoir water levels, vegetation levels, and population levels surrounding the upstream Turkish dams and the downstream Iraqi Mosul Dam. Using NDVI data to estimate changing vegetation over time, UN-adjusted population rasters to estimate population change, and satellite radar altimetry to estimate the changing water levels of the dam, we assess whether Turkey's agricultural development seems to come at the expense of Iraqi farmland and farmers.

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Session Classification: Student Competition

Track Classification: Environmental Analysis & Policy