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**EXAMINING THE CONNECTIONS BETWEEN CLIMATE CHANGE AND GENDER EQUALITY: FILLING DATA GAPS THROUGH GEOSPATIAL AND SURVEY DATA INTEGRATION**

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***Abstract***

Climate change poses threats to all aspects of human wellbeing. While the effects are widespread, existing literature indicates that pre-existing socio-cultural and economic disadvantages are likely to render women and girls especially vulnerable. To assess empirically whether climate change has gendered effects, the association between climate-related factors (drought, humidity, rainfall, flood risk, temperature, proximity to water) and gender-related outcomes (early marriage, adolescent births, intimate partner violence, access to water and clean cooking fuels) is tested across 5 countries in Asia (Bangladesh, Cambodia, Nepal, Philippines, Timor-Leste). This is followed by analysis to test whether these climate-related factors affect women and men differently, by measuring their differentiated effect on educational attainment and body mass index.

This paper contributes to filling long-standing data gaps on the connections between gender equality and climate change by integrating Demographic and Health Survey data with geospatial data. Multivariate binary logistic regression analysis and random forest modelling are both applied to examine these associations. Findings from the regression analysis indicate a statistically significant association between some key climate variables and gender outcomes. Random forest findings complement these results overall, and flag additional climate-related variables as important in classifying the risk of gender-related disadvantages.

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