CITIES IN A CHANGING WORLD:
QUESTIONS OF CULTURE, CLIMATE AND DESIGN

• Paper / Proposal Title:
Mapping Social and Natural Hazards: A Survey of Potential for Managed Retreat in the United States

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• Abstract (300 words):
The purpose of this study was to investigate how factoring the impact of natural disasters beyond flooding would affect managed retreat policy eligibility in the United States. For the study design, a correlation analysis method compared weighted measures of flooding and other natural disasters (e.g. wildfires, tornadoes, heatwaves, etc.) to CBSA Populated areas, prevalence of cropland, and relative poverty on a county level.

The study found that the vast majority of CBSAs eligible for managed retreat programs under a policy inclusive of non-flooding events would have already been covered by flood-only managed retreat policies. However, a majority of those counties that are not covered by a flood-only managed retreat policy have high rates of poverty and are either heavily populated and/or agriculturally active. The correlation is particularly strong between counties that are subject to multiple natural hazards and those that have both high rates of relative poverty and cropland prevalence. These findings also reveal that, while current flood-based policies in the United States serve many areas that do need access to managed retreat funding and implementation, other vulnerable areas are overlooked by this approach. These areas are often deeply impoverished and are therefore particularly vulnerable to natural
disaster. If and when those disasters do occur, these areas are often less financially prepared to recover or retreat from the disaster’s advance and, due to the limitations of the current policies discussed above, are less able to take the precautionary measures necessary to mitigate their risk.

• Author(s) Biography (200 words each):

Karim Ahmed graduated from The Cooper Union with a Bachelor of Architecture in 2013. He is a registered architect in the State of New York and a member of the American Institute of Architects (AIA) Bronx Chapter and is active in the Committee for Design for Risk and Reconstruction at the AIA Center for Architecture. In 2017 he co-founded and is currently principal of Reform Architecture, as Bronx-based studio committed to the study of the built environment with a critical and analytical eye to produce respectful, sustainable, and socially beneficial architecture. Since 2019, he has worked as part-time faculty at The New School, in the Parsons School of Design. Karim is a co-founder and serves as a board member of Pillars of Peace, a New York based charitable organization dedicated to ending cycles of domestic violence.