

CHAPTER 9

Adaptation to repetitive flooding: expanding inventories of possibility through the co-production of knowledge

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Introduction/background

Coastlines throughout the world are highly productive places which hold and support many diverse human communities, and account for the homelands of over one billion people (Hauer et al., 2016; Neumann et al., 2015). Because of their large populations and vulnerability to flooding under conditions of climate change (Hauer et al., 2016), understanding adaptation to flooding conditions is a critical part of our collective response to sea level rise. When flooding becomes a normative condition—an event that occurs with regularity and is not an aberration—then these events are collectively understood as repetitive flooding. Current population-based estimates predict that between 4.2 and 13.1 million people in the United States alone are at risk of water inundation given current projections of sea level rise and repetitive flooding (Hauer et al., 2016).

Despite significant predictions that relocation away from coastal areas may be necessary in the future, there are relatively few policy mechanisms available to proactively relocate people away from coastal areas; and researchers have suggested that there is currently no state or federal agency, or regulatory governance framework, to relocate communities *as communities* instead of as individual property owners (Bronen and Chapin, 2013; Marino 2018; Maldonado and Peterson). This is of particular concern to Indigenous communities who have experienced the traumas of forced relocation in their histories (Walters et al., 2011); and to social researchers who have noted that displacement can frequently result in negative social consequences for individuals and communities across

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