

RURAL COASTAL COMMUNITIES: A UNIQUE CASE OF RESILIENCE VERSUS RISK

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Globally, coastal regions host over 40 percent of the human population, and demographers predict continued growth for coastal regions. These trends are similar in the US, which experienced a 69.6 percent increase in coastline county populations between 1960 and 2008 (compared to 64.3 percent increase in inland counties). Despite the vulnerabilities of coastal areas to climate change impacts, coastal development continues to occur, particularly in urban and high amenity areas, and coastal infrastructure and property values continue to increase. As a result, coastal cities and beach tourism destinations receive disproportionate levels of attention in adaptation dialogues and disaster relief aid. Rural coastal communities, while they experience the same threats (i.e., sea level rise, salinization and storm-related flooding), will experience different impacts (e.g., losses in agricultural livelihoods and lifestyles) and, therefore, warrant specific focus in the climate change adaptation dialogue.

Coastal North Carolina is one of two coastal states with fewer than 10% of the population residing within coastline counties. Further, North Carolina is unique in that the majority of the tourism industry is focused on the barrier islands despite the greater than 3,000 miles of coastlines that constitute the “Inner Banks” (a term coined by developers and the tourism industry for the mainland coastal region). As such, agriculture, commercial fishing, and logging are the dominant industries within the Inner Banks. Salinization of groundwater and surface water from storm-driven flooding poses the greatest current threat to agriculture and timber production in this region. Yet, rising sea levels will exacerbate these problems, particularly as many of the peninsulas are at or even below sea level. The concentration of salt in the sounds of North Carolina, which hold profitable brackish fisheries, stand to experience change as well. The strategies needed for these communities to adapt will be distinct from those used in tourism based coastal communities. While the dialogue on adaptive capacity and resilience continues to grow for coastal regions, there is a need to focus on the unique context of such rural coastal communities.

This paper presents results of focus group research that employed the Rural Coastal Community Resilience (RCCR) framework in 3 communities in North Carolina’s Inner Banks. The RCCR framework is a conceptual social science tool for community planners and decision makers to evaluate community resilience within the context of threats from climate change. Going a step beyond disaster planning, the RCCR framework includes principles of sustainable development that are necessary for rural coastal communities to maintain local livelihoods and the environment that they depend on in order to be able to finance adaptation. The RCCR framework is based on indicators for both risk and resilience. Conceptually these indicators are positioned on a spectrum where risk and resilience are opposing forces. Through facilitated discussions of the risk and resilience indicators, participants can better visualize their community within the context of climate threats, hazard mitigation, and the socio-ecological resilience of their system, while identifying key community strengths and weaknesses in terms of adaptive capacities.