Policy and Planning Mechanisms for Coastal Relocation: Barriers and Opportunities

Anamaria Bukvic
Virginia Polytechnic Institute and State University

Follow this and additional works at: https://digitalcommons.odu.edu/hraforum_10
Part of the Climate Commons, Emergency and Disaster Management Commons, and the Public Policy Commons

Repository Citation
https://digitalcommons.odu.edu/hraforum_10/5

This Presentation is brought to you for free and open access by the Hampton Roads Sea Level Rise/Flooding Adaptation Forum at ODU Digital Commons. It has been accepted for inclusion in October 30, 2015: Beyond Toolkits: Adaptation Strategies and Lessons by an authorized administrator of ODU Digital Commons. For more information, please contact digitalcommons@odu.edu.
Policy and Planning Mechanisms for Coastal Relocation: Barriers and Opportunities
“If we stick to former paradigms we are bound to be defeated in every battle. The point is not to prepare plans and tools to avoid surprise, but to be prepared to be surprised.”

- Lagadec, 2008
“As sea level rises faster and coastal storms, erosion, and inundation cause more frequent or widespread threats, relocation (also called (un)managed retreat or realignment), while not a new strategy in dynamic coastal environments, may become a more pressing option.

Up to 50% of the areas with high social vulnerability face the prospect of unplanned displacement under the 1 to 4 foot range of projected sea level rise for several key reasons:
- they cannot afford expensive protection measures themselves,
- public expense is not financially justified (often because social, cultural, and ecological factors are not considered), or
- there is little social and political support for a more orderly retreat process.”
Different from migration, displacement, resettlement

“A permanent and irreversible voluntary movement of the whole or part of the community, from the original to a new location due to sudden or gradual climate change impacts that differ from the usual variability, guided by the integrated and anticipatory planning support.”

State lawmakers have begun to grapple with that question as they consider how to plan for the effects of climate change and rising sea levels on coastal development. But they have temporarily put aside the more delicate question of whether homeowners in Connecticut’s most vulnerable shoreline areas ought to rebuild at all, after a bill before the Environment Committee prompted a great deal of concern.

That legislation, proposed by the Connecticut chapter of the Nature Conservancy, called for “a fair and orderly legal process to foster strategic retreat of property ownership, over a period of several decades,” in coastal areas subject to erosion or repetitive structural damage.

The words “retreat” and “orderly legal process” sparked suspicions that the bill was laying the groundwork for the seizure of private homes by eminent domain.
WHY SHOULD WE PLAN FOR RELOCATION?

- Avoid psycho-social and economic costs of emergency displacement and evacuation
- Reverse decades of unsustainable coastal development
- Allocate resources to long-term effective solutions
- Include public participation in all steps of process
- Ensure policy, planning, and financial support
- Identify opportunities emerging from this process
- Improve outcomes, fostering resilience

“When it is urgent, it is already too late.”

- Talleyrand
HOW TO PROCEED?

Controversy

Opposition

Lack of policy and planning

Uncertainty

Data gaps

Complexity

DECISION-MAKERS
POST HURRICANE SANDY • MARCH 2013
SOME ARE BRAVING IT OUT...
MANY PROBLEMS REMAIN....
POST KATRINA, POST SANDY

Should we stay or should we go now?
If we go there will be trouble
An’ if we stay there will be double
So come on and let us know
Should we stay or should we go?
NO retreat NOT NOW
NO surrender NOT EVER
ROCKAWAY 4 ever
OUTCOMES:
Repetitive and permanent impacts...

Psycho-social and economic damages
Indirect/secondary impacts
Recovery progress...

MEDIATORS:
Stress and trauma
Personal circumstances
Attitudes and perceptions

Should we stay or should we go?
AVOIDING MISTAKES FROM THE PAST

- Overconfidence in technology and engineering solutions
- Choosing only short-term solutions
- Avoiding wicked problems until they escalate
- Lack of accountability and inertia
RELOCATION – REALISTIC OR NOT?

- Perceptions differ – based experience and exposure
- Praise for local government, organizations, and community
- Frustration with FEMA
- Self-organization and block-level coordination
- “I cannot believe that this will happen again”
- Many concerns: tax increases, FEMA maps, insurance, repetitive damage, contradictory requirements...
POST HURRICANE SANDY SURVEY 2

Survey Locations
1. Belmar Borough, Monmouth County, NJ
2. Manasquan Borough, Monmouth County, NJ
3. Lavallette Borough, Monmouth County, NJ
4. Pine Beach Borough, Ocean County, NJ
5. Long Beach Township, Ocean County, NJ
6. Ventnor City, Atlantic County, NJ
7. Margate City, Atlantic County, NJ
8. Longport Borough, Atlantic County, NJ

Coordinate System: NAD 1983
Data Provided by FEMA MOTF County Impact Analysis
**Response preferences for the stress measure**

**Causes of stress in the aftermath of Hurricane Sandy**
1. Rebuilding and recovery
2. Recurrent hazards
3. Filing insurance claims
4. Loss of personal belongings
5. Mold and corrosion
6. Future in this community
7. Looting and crime
8. Moving somewhere else

**Response preferences for the recovery concerns**

**Concerns driving consideration of relocation**
1. Insurance rate increase
2. Tax increase
3. Tidal inundation and frequent flooding
4. Crime increase
5. New FEMA advisory maps
6. City rebuilding requirements
7. Uncertainty when flooding will occur
8. Neighbors, friends, family move out
9. Strangers in the neighborhood
10. Construction crews and activities
Response preferences for the relocation drivers measure

Would consider relocation in the future if:
1. Crime becomes worse
2. We have two or more floods in the next few years
3. Insurance cannot cover full reconstruction
4. Services and amenities do not restore their full function
5. We have one more flood in the next few years
6. School system deteriorates
7. I am offered financial compensation (buyout)
8. Businesses do not reopen
9. I am offered with comparable housing in similar community elsewhere
10. Neighbors, friends, and family move out
11. I am provided with free legal service
12. I receive assistance with finding a new job elsewhere
13. I can move together with my neighbors
NY Gov. A. Cuomo’s Buyout and Acquisition Program ($171m):
- Full pre-storm fair market value in 500-year floodplain damaged >50%

Incentives:
- 5% staying locally (within County)
- 10% for very high risk/enhanced areas
- 10% for collective/neighborhood level relocation

Purchased 1,200 properties: 500 open space, rest resold

“The one thing you absolutely have to avoid is the jigsaw or jack-o’-lantern effect, where you have lot, home, lot, home, home, lot, home,” said James Rubin, the director of New York Rising.

- The New York Times

FOX BEACH 165
OAKWOOD BEACH
http://foxbeach165.com/
OTHER EXAMPLES: ALASKA

WHAT HAVE WE LEARNED?

- Narrow the gap between actual and perceived risks
- Develop flexible mechanisms to address different challenges
- Work with host communities and neighborhoods
- Explore synergies between sending and receiving areas
- Minimize livelihood disruption (work-live locations optimized)
- People are resettled to together if preferred
- Resources for relocation available during and after if needed
- Explore potential benefits and opportunities
- Account for contextual circumstances

---

CONCLUSIONS

- Spontaneous relocation is already happening under the radar and should be acknowledged
- The major shifts in attitudes and actions, as well as the ability to “think the unthinkable” needed
- Policy and planning barriers to recovery and relocation should be identified and addressed
- More research needed on when, why, how, where of relocation.
- Affected households and businesses should be engaged in relocation planning from the very beginning
- Creative tools and approaches would support participatory learning about the risks and +/- of staying vs. relocating
Bikini islanders seek US refuge as sea levels threaten homes

By Matt McGrath
Environmental correspondent, BBC News

7 hours ago | Science & Environment

Flooding in the Marshall Islands in 2014 caused extensive damage and left hundreds homeless

About 1,000 Bikini islanders have applied to relocate to the United States as rising seas threaten their adopted home.