

Successes in Climate Adaptation

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Introduction

- Local initiatives have been succeeding in
 - Reducing vulnerability to climate change, or
 - Increasing community resilience,
 - Mostly in name of “hazard” or “disaster mitigation”
- Among the best documented are
 - Soldiers Grove, a small village in Wisconsin
 - Tulsa, Oklahoma
 - The Napa Valley, California
- They shed light on how to succeed in adapting

Soldiers Grove, WI

- Rejected a US ACOE levee early in 1975
- Sought to relocate downtown out of floodplain
- Local efforts frustrated until flood in July 1978
- With federal funding, the village began in 1979
 - To buy out commercial and residential structures
 - Remove them from the flood plain, and
 - Help owners finance and rebuild on higher ground
- Completed relocation in 1983, transforming floodplain into a public park

Local Evaluation

- Multiple benefits apparent in 1983
 - “from the standpoint of improving the business climate, increasing the tax base, creating jobs, modernizing services and eliminating blight, relocation is succeeding.”
- Nature did not test relocation until record floods
 - They came in August 2007 & June 2008
 - Park where downtown used to be “took a direct hit”
- Village reaffirmed the wisdom of relocation
- Costs : \$2.2m local & state, \$4.4m federal

Tulsa, OK

- Citizens organized after June 1974 flood
- City gov't gradually responded; by 1984
 - Improved capabilities, organization, regulations
 - Approved bond issue and utility surcharge
 - Began removing houses from floodplain
- By 1992, lowest insurance rates in nation
- 1,000+ structures removed from floodplain
- 1998 FEMA grant for multi-hazard partnerships

Scaling Up

- Initiative transformed into Tulsa Partners, Inc.
 - Many partners united by long-term goal, to build a disaster-resistant & sustainable community
 - Includes Homebuilders Assoc, former opponents
- Many projects implemented to mitigate losses
 - From windstorms, tornados, lightning, extreme heat and drought, and winter ice storms
- Some scaled up to state & federal levels
- Tulsa has avoided major flood damage

Napa Valley, CA

- Citizens rejected US ACOE proposal in 1995
- Began 30-month Community Coalition process
 - Coalesced around “Living River” flood-protection & restoration plan, culminated in Measure A
- Voters approved Measure A in March 1998
 - ½ cent sales tax increase required 2/3 majority
- Groundbreaking began in 2000
 - Major new developments already under way
 - Reduced flood damage from major flood in 2005

Local Evaluations

- Project 75% complete in 2009
 - Tax increase covered \$240m of \$520m total
- Flood mitigation plus other benefits
 - “Old levees have been removed or breached, creating more than 1,000 acres of new wetlands. Five new bridges that used to act as dams during flood flows have been reconstructed.”
 - “The project has increased the safety of Napa residents, spurred economic development, cleaned up acres of contaminated riverfront, and restored important habitats.”

First Takeaway

We know how to do climate adaptation

- Places have already succeeded in reducing net losses & vulnerability to climate change
- These “showcases” provide positive, long-term visions of what “success” means in adaptation
- They guide & inform action, illuminating different paths to reductions in net losses and vulnerability.
- These paths are available for adaptation to similar circumstances elsewhere.

Second Takeaway

- How did these local initiatives succeed?
 - First, they proceeded *incrementally*, step-by-step, despite uncertainties *and* because of uncertainties
 - Second, they proceeded *pragmatically*, engaging those who could make a difference on their own terms – economics, public safety, restoration, etc.
 - Third, they leveraged resources outside their control: local knowledge, funding, extreme weather events
- All this reflects the quality of local leadership

Third Takeaway

- Evaluation of each step was necessary
 - To guide progress toward a long-term goal
 - Explain progress to outsiders, and
 - Mobilize more resources to sustain the initiative
- They did *not* rely on standard evaluation models
 - That assume fixed criteria over fixed periods
 - Measures for all important outcomes, and
 - Ability to isolate formal & effective responsibility