Climate Services for Vulnerable Communities: Listening to African American Farmers

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Climate vulnerability and African American farmers

• Vulnerability to drought is determined by both environmental and social conditions

• Climate information has the potential to reduce vulnerability

• Climate information in the SE does not reach nor address the specific needs of the African American farming population
Research questions

• How do African American farmers share and acquire technical information?
• What are African American farmers’ coping strategies during drought?
• What role does climate and weather information play in farming decisions?
• Would access to climate information reduce vulnerability?
  • If so, what types of climate information are needed?
  • How should that information be disseminated?
A climate-based decision support system (DSS) for agriculture and natural resource management.

www.agroclimate.org
Historical factors that marginalized African American farmers

Resources:

• Unequal access to USDA funds and credit

• Unequal access to quality farmland located near water sources
Information:

- Discrimination within the Agriculture Extension System
Research partnerships

Federation of Southern Cooperatives: Civil rights organization comprised of farmers’ cooperatives

Fort Valley State University Extension: 1890s Historically Black University that provides extension services to minority farmers
Quantitative and qualitative methods

Phone survey: \(N=98\)

In depth interviews: \(N=38\)

Institutional analysis interviews: \(N=9\)

Outreach, Networking, and Participation

Farmer’s Conferences: 12 (2007-11)

Estimated total attendance \(N=3,000\)

Future steps

In depth interviews: \(N=12\)

Institutional analysis interviews: \(N=3\)

Workshops: 2-3 (Fall 2011)

2-3 (Spring 2012)

Tool Development: 2011 (Fall/Winter)
Number of survey participants per county (N=98)

Number of interviews per county (N=38)
Impacts of the 2008 drought on African American farmers (N=98)

Of the farmers surveyed:

- 79% lived in an affected area.
- 65% suffered losses.
- 77% DID NOT have irrigation.
- 72% DID NOT have crop insurance.

Farmers that suffered the greatest loss:

- 80% of row crop farmers (N=24)
- 69% of produce farmers (N=48)
- 61% of livestock ranchers (N=18)
- 25% of tree farmers (N=4)
Coping strategies during the 2008 drought by farmers surveyed (N=37)

- Did not recover
- Used savings or other investment
- Sold livestock
- Sought other income
- Received grants or loans
- Used other technique
- Scaled down farm
- Replanted- after rain
- Changed or diversified crops
Profile of African American farmers interviewed (N=38)
Sources of AGRICULTURAL information used by farmers interviewed (N=38)

- Family
- Hands-On
- Workshops
- Extension
- Other farmers
- Cooperative
- Schooling
- Buyers
Sources of weather and climate information

TV
Almanac
Radio
Online
Extension
Own observations
Other farmers
Newspaper

Survey (N=98)  Interview (N=38)
Interviewed farmers reported (N=30):

<table>
<thead>
<tr>
<th>Decisions potentially influenced by forecasts</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crop variety</td>
<td>9</td>
</tr>
<tr>
<td>Crop type</td>
<td>6</td>
</tr>
<tr>
<td>Land preparation</td>
<td>5</td>
</tr>
<tr>
<td>Irrigation management</td>
<td>4</td>
</tr>
<tr>
<td>Whether or not to farm that season</td>
<td>4</td>
</tr>
<tr>
<td>Amount of land under cultivation</td>
<td>3</td>
</tr>
<tr>
<td>Planting dates</td>
<td>3</td>
</tr>
<tr>
<td>Lease agreements</td>
<td>1</td>
</tr>
</tbody>
</table>
Lessons learned

African American farmers are highly vulnerable to climate shocks because:

• many grow produce, which is easily damaged by drought, etc.
• many lack buffering mechanisms (irrigation, insurance)
• many may sell land and livestock (disinvest) to cope with losses
• many have lost the important social networks their parents relied on for support
Lessons learned

Reaching African American farmers require innovative approaches because:

- many are seniors with lower levels of computer literacy than the broader population
- many are part-time, small-scale farmers and not on the “radar-screen” of conventional extension services
- legitimacy is built very slowly, through direct engagement of trusted institutions (cooperatives, 1890s extension)
- they are very experienced farmers and do not readily seek information outside their own social networks.
- forecast responses may be restricted by the timeline of other risk management mechanisms.
Moving forward

• Investigate the role cooperatives and other social networks play in reducing vulnerability.

• Establish a “Climate Information Working Group” composed of farmers, climate scientists, and extension agents.

• Establish and maintain relationships with institutions and individuals across the SE who provide or disseminate information to African American farmers.
Thank you