The Quandary of Quantifying Changes in Capital: What’s the Value of Strengthened Networks?

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National Drought Mitigation Center
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National Integrated Drought Information System (NIDIS)
• **Process evaluation or monitoring** involves asking whether the program is reaching stakeholders, whether delivery of services is consistent with proposed activities, and what resources have been expended.

• **Impact or outcome evaluation** involves asking whether the program produced intended outcomes, or what the “net effect” of the program has been.

• **Measuring efficiency** involves comparing program outcomes to their costs.
  - A **cost-benefit analysis** requires estimates of the tangible and intangible benefits of the program, as well as direct and indirect costs.
  - A **cost-effectiveness analysis** only puts a dollar figure on costs, and reports benefits as outcome units (based on the outcomes found in impact(outcome evaluation, and expressed as “degrees” or “levels”).
• How do we measure
  ◦ Changes in the nation’s capacity for management of drought-related risks; and
  ◦ Changes in preparation for and mitigation of the effects of drought
Percent who were impacted by drought, felt they could reduce impacts, felt they could quantify reduction in impacts, and felt they could assign a dollar value to the reduction in impacts
NDMC Evaluation Approaches

- Focus groups & Interviews
  - ACF Stakeholders – 2014
- Surveys
  - NIDIS participants
    - 2012
  - MRB Climate Outlook Webinars
    - 2012 & 2014
• If you did receive NIDIS information during the 2011-2013 drought, were you able to use the information? (did you do anything differently?)
• As a result of what you did with NIDIS drought information, did anything change around you?
  ◦ Did anyone else do something differently? (prompt - could be positive or negative)
  ◦ (prompt) Have you seen any uses of the information in other ways, socially, economically, politically, environmentally, culturally?
• **Natural:** opportunities for restoration projects, no impact on oyster populations
• **Cultural:** change in water use habits
• **Human:** increased understanding and interest in using climate outlook information, ability to use information
• **Social:** increased interactions and exchange of information with other basin stakeholders, knowing who to contact
• **Political:** state water management plan
• **Financial:** new funding for research
• **Built:** new tools/climate products, electronic newsletter
As a result of your participation in ACF Basin Webinars or Climate Outlook Forums, please complete the following:

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<tr>
<th></th>
<th>Decreased</th>
<th>Stayed the same</th>
<th>Increased a little</th>
<th>Increased a lot</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>My understanding of how to use available drought and water supply information has...</td>
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<td>My understanding of where to find drought and water supply information has...</td>
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<td>My interest in using drought and water supply information to make decisions has...</td>
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<td>My ability to incorporate drought and water supply information into decisions I make has...</td>
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<td>My interactions and exchange of information with other basin stakeholders have...</td>
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In 2002, a large drought affected much of the United States. Recently, many parts of the U.S. have again been affected by drought. Comparing your readiness for drought before 2002 and now, please complete the following statements.

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<th>Decreased</th>
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<tbody>
<tr>
<td>The amount of drought information available to me has...</td>
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<td>My ability to incorporate drought-related information into decision-making has...</td>
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<td>Coordination of drought-related efforts in my area has...</td>
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<td>Interest in drought preparedness in my area has...</td>
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<td>Efforts to develop drought preparedness and/or response strategies in my area have...</td>
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</table>
If information you found through the webinar series was used in decision-making, did it have an impact in any of the following areas? (check all that apply)

- Farming
- Livestock production
- Water supply or quality
- Energy
- Recreation and tourism
- Plants, fish and wildlife
- Fire
- Society, public health and safety
- Other
- None
What would you estimate was the financial benefit of decision?

- There was no financial benefit
- Less than $1,000
- $1,000 – $10,000
- $10,000 - $50,000
- $50,000 - $100,000
- $100,000 – $500,000
- $500,000 - $1,000,000
- More than $1,000,000
- I don’t know
- I don’t care to share that information
- The benefit of the decision was other than financial

We would greatly appreciate it if you could provide an example(s) of how you’ve used webinar information in decision-making.
Again, the problem of financializing benefits
What else should we ask?

- Time/effort needed to find information
- Vegetative cover/rangeland health rating
- Change in water use norms
- Drinking water supply
- Mental health statistics
- Policies that address upstream and downstream user needs
- (questions should be built on knowledge of local impacts of drought)
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