



STAC Workshop Report-Out

Overcoming the Hurdle:
Addressing Implementation of Agricultural Best Management Practices
(BMPs)
Through a *Social Science* Lens

July 13 · 14 · 20
2021

[Collins, L., Stephenson, K., Palm-Forster, L., Power, L., Gibson, A., Arbuckle, J., Handen, A., and Read, D. \(2022\)](#)

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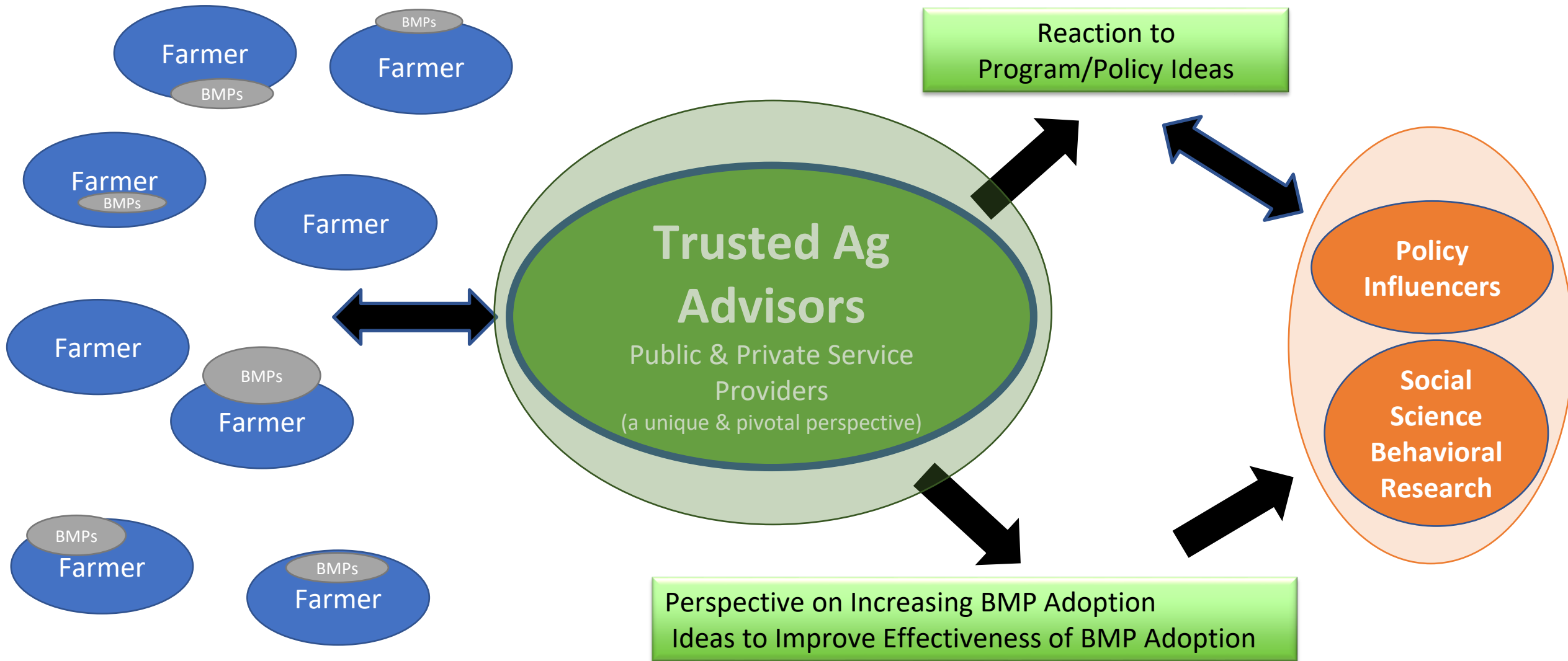
Why the Workshop?

Behavioral Change

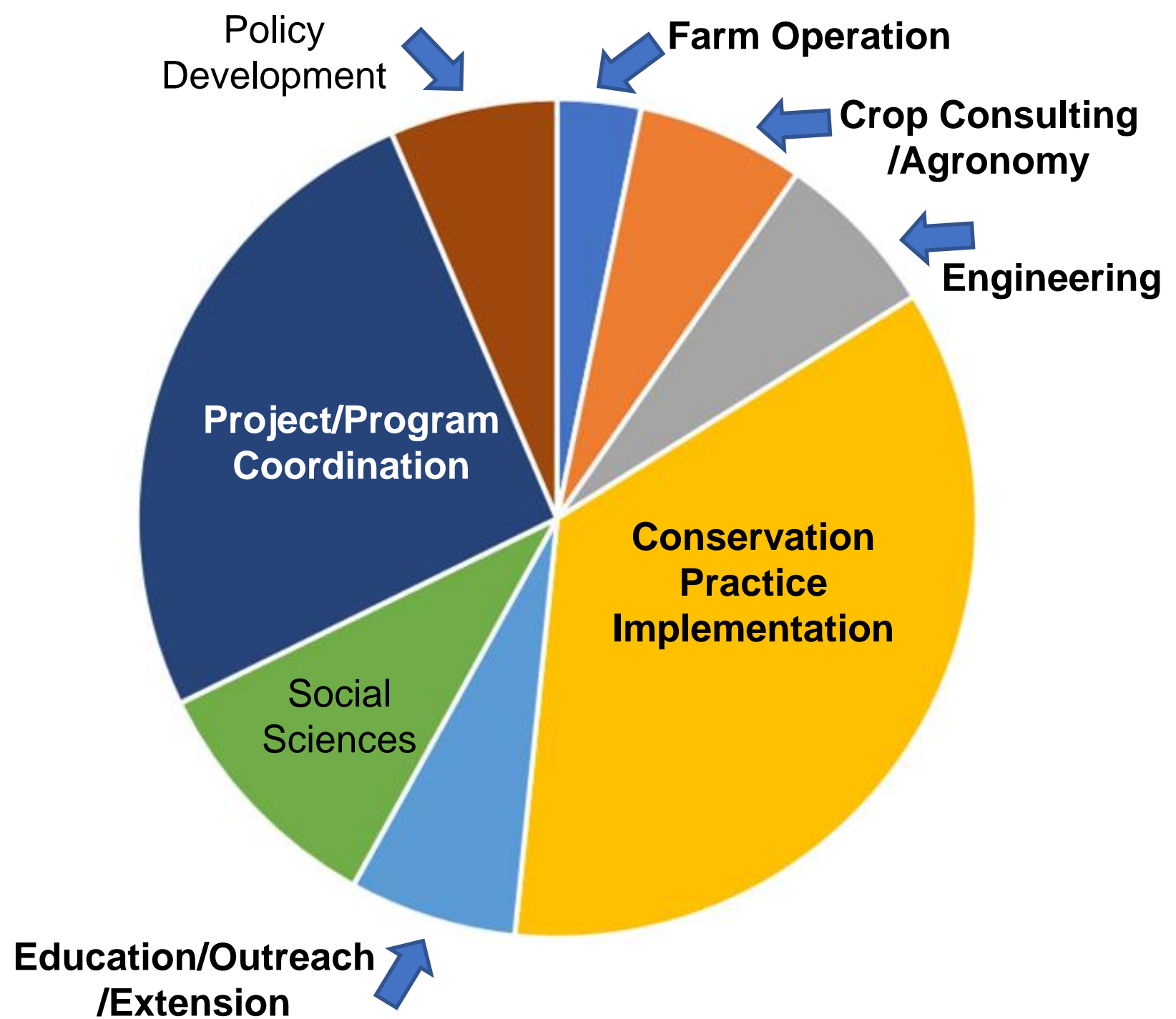
Improve Engagement Among Hesitant BMP Adopters

Increase Adoption of Cost-Effective* BMPs

What We Wanted To Know



Who Showed Up?



Sorting Through it All

50-70 People

3- 3 Hour Sessions

5 Break-Outs per Day

= Almost 20 Hours of Discussion



Key Findings

BMP Implementation Programs Should be Easy & Flexible.

Outcome-Based BMP Incentives are Needed.

Farmers Want to Know What Works. ★

Conservationists Want to Know What Works. ★

Fostering Career Conservationists is Essential.

Connecting with Reluctant BMP Adopters is Critical. ★

Evidence-Based Program Design Can Increase Effectiveness.

BMP Implementation Programs Should be Easy & Flexible.

Immediate Need

Reduce barriers to farmer outreach and BMP adoption.

#1 Collaboration needed across federal, state & NGOs to streamline conservation programs.

- Restructuring to allow for fast-tracking of funding and fewer paperwork requirements.

#2 Allocation of resources for building trusted relationships between service providers & farmers.

- Establish indicators of successful relationship building as a specific deliverable in anticipated project outcomes.

Outcome-Based BMP Incentives are Needed.

Immediate Need

Long-term commitment to development of alternative BMP incentive mechanisms.

#3 Scalable programs related to **Pay-for-Performance** & other incentive structures.

- steadiness of payments, committed funding, BMP crediting assurance, communication & outreach.

#4 **Clear & consistent BMP crediting** system

- load reduction credit reflects the impact of BMPs in critical landscapes
- based on potential water quality impact (**right BMPs, right place**) in lieu of avg. values

Farmers Want to Know What Works.

Immediate Need

Build trust in sources of information through local community (e.g., farmers, local govts).

#5 Bolster local efforts to collect & synthesize data. 

- Communicate localized monitoring findings with local & regional BMP influencers

#6 Communicate directly to ag-minded audiences on the opportunities & limitations of the CBP model & other available decision support tools. 

Conservationists Want to Know What Works.

Immediate Need

Forum for idea exchange for creative solutions to increase effective BMP adoption.



#7 Establish quarterly **workshop sessions for service providers** to discuss BMP implementation strategies.

- Identify timely topics with conservation boards & other relevant organizations
- Provide **continuing ed credits** for professional advancement

Fostering Career Conservationists is Essential.

Immediate Need

New incentive structures for the development & retention of conservation professionals.

Strategies will vary across the six Bay states.

Address retirement wave with new generation of conservationists.

#8a Evaluate need for predictable funding to conservation districts

- competitive staff salary & benefits (relative to federal & private sector)

#8b Equitable distribution of funding for conservation district staffing

- history of positive water quality outcomes
- continued need for improvement

#8c Increase technical capacity with more conservation training opportunities



Connecting with Reluctant BMP Adopters is Critical.

Immediate Need

Incentives & tools to better equip conservation professionals to reach reluctant BMP adopters.

Adaptation of capacity needs to local areas
(e.g., training in leadership and social engagement strategies).



#9a Train service providers to **tailor messaging for individual farmers** → expand reach beyond active BMPs adopters.

- e.g., National Wildlife Federation's *Grow More*

#9b Identify **compelling & useful (to farmers) technical targeting tools** proliferate their use in conservation efforts.

#9c Fund & support for farmers doing **peer-to-peer education & outreach** in conservation.

#9d Identify & **celebrate success at all levels**

- long history of prioritizing conservation OR those taking the first steps

#9e **Coordinate outreach** across organization

- Unified messaging & minimize farmer fatigue

Evidence-Based Program Design Can Increase Effectiveness.

Immediate Need

Insights from the social sciences to guide conservation program design & implementation

Embed social science research within programs to test new strategies & measure their success.

#10 Synthesize relevant social science knowledge

- What do we already know about conservation decision-making?
- Identify strategies with potential to improve conservation outcomes.
- Systematically test different communication & outreach strategies and evaluate
 - BMP adoption & water quality
- Develop, experimentally test & evaluate an incentive-based program for farmer advisors
 - Connect reluctant BMP adopters to service providers.

This Wraps is Up Nicely...

“...The incredible complexity of delivering resources to farms creates an unusual amount of waste of public resources and it is frustrating to farmers,

so I think focusing on how to **deliver those resources quicker and with less complexity is crucial.**

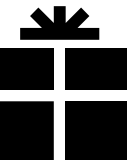
There needs to be a sense of urgency about that. There is a lot of talk, but how do we fix it? A sense of urgency would go a long way in getting people to engage and be willing to do things.

I hear all time, ‘We had a farmer hooked and by the time the funding came in they had quit.’ Not surprising. Their energy went somewhere else.

A very basic concept: **Everything has an opportunity cost. If you make being a responsible citizen too difficult or complicated, they’ll go do something else.”**



--Day 3 Workshop Participant



Recommendations w/ AgWG Role

Recommendation #5 (Local Success):

The CBP should **use available localized information** and data to craft and disseminate success stories.

Recommendation #6 (Communication):

The CBP should develop a **communication strategy to directly engage agriculture-minded audiences** on the opportunities and limitations of the Chesapeake Bay Watershed Model and other available decision support tools.

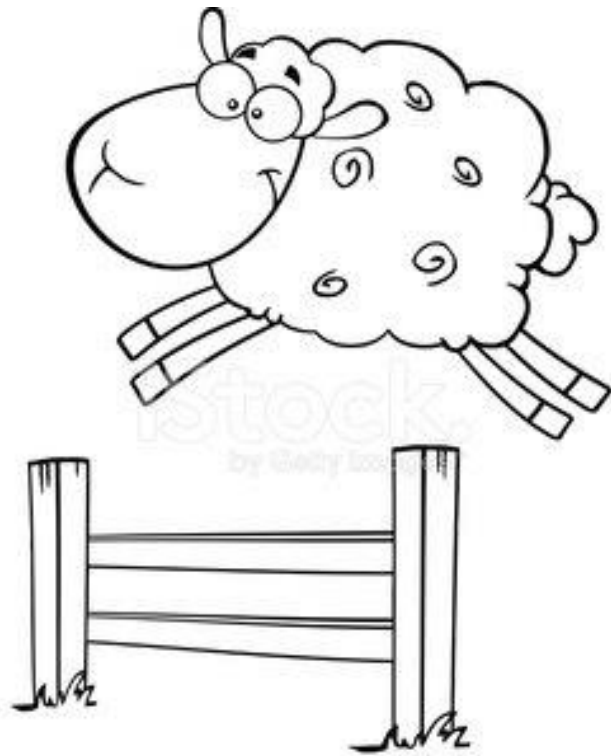
Recommendation #7 (Peer Learning Exchange):

The CBP should establish quarterly **workshop sessions for agricultural service providers** that cross CBW jurisdictional boundaries to discuss BMP implementation strategies.

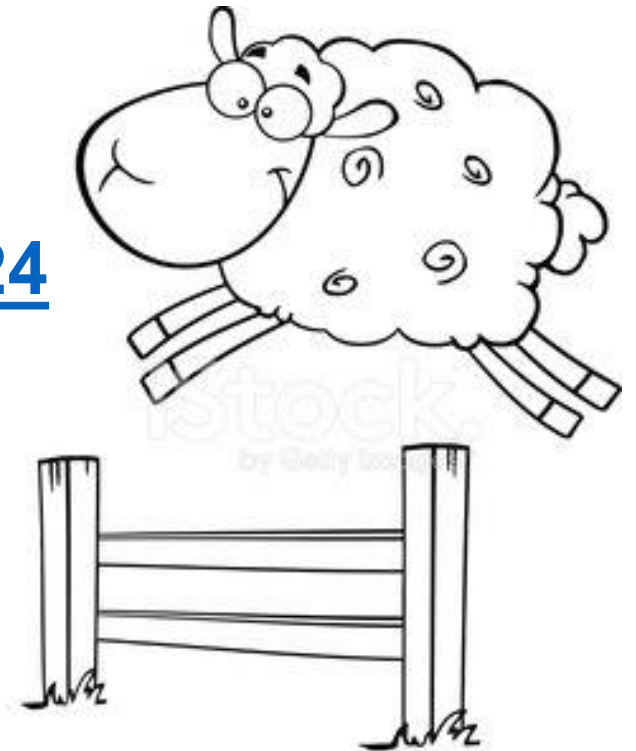
Recommendation #9 (Professional Training):

The CBP should support partners in **adapting capacity needs to local areas** (e.g., training in leadership and social engagement strategies).

Questions/Discussion



Water Quality GIT October 24 **EXTENDED DISCUSSION**



Abbreviated Recommendations

Recommendation #1 (Streamline):

The CBP should support the collaboration of federal, state, county, and non-governmental partners (NGOs) in accelerating efforts to streamline conservation programs so that farmers can enroll easily and conservation professionals can manage projects efficiently.

Proposed CBP Partner(s): Management Board, funding organizations

Recommendation #2 (Value Relationships):

The CBP should support program managers and designers by allocating resources for program design that enable the time necessary for building and nurturing trusted relationships between conservation professionals and farmers.

Proposed CBP Partner(s): Management Board, funding goal organizations

Recommendation #3 (Creative Incentives):

The CBP should support scalable programs across the CBW related to Pay-for-Performance and other incentive structures using common program design techniques such as steady payments over time, committed funding sources, compatibility with the CBP's BMP crediting system, communication and outreach.

Proposed CBP Partner(s): Management Board

Abbreviated Recommendations

Recommendation #4 (Differential BMP Crediting):

The CBP should develop and implement a clear and consistent BMP crediting system in which pollutant load reduction credit reflects the relative impact of implementing BMPs in critical CBW landscapes.

CBP Partner(s): Scientific, Technical Assessment & Reporting (STAR) Team and relevant workgroups, Water Quality Goal Implementation Team, Modeling Team

Recommendation #5 (Local Success):

The CBP should use available localized information and data to craft and disseminate success stories.

Proposed CBP Partner(s): CBP Communications Office, Scientific, Technical Assessment & Reporting (STAR) Team and relevant workgroups, **Agriculture Workgroup**, Local Leadership Workgroup, Local Government Advisory Committee (LGAC), Citizens Advisory Committee (CAC), Strategic Engagement Team, Chesapeake Monitoring Cooperative

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Abbreviated Recommendations

Recommendation #7 (Peer Learning Exchange):

The CBP should establish quarterly workshop sessions for agricultural service providers that cross CBW jurisdictional boundaries to discuss BMP implementation strategies.

Proposed CBP Partner(s): Agriculture Workgroup, Local Leadership Workgroup, Local Government Advisory Committee (LGAC), Citizens Advisory Committee (CAC), funding organizations

Recommendation #8 (Institutional Knowledge & Capacity):

The CBP should support **new incentive** structures for the development and retention of conservation professionals. Strategies will vary depending on the organizational framework of conservation districts in each of the six Bay states.

Proposed CBP Partner(s): Management Board

Recommendation #9 (Professional Training):

The CBP should support partners in adapting capacity needs to local areas (e.g., training in leadership and social engagement strategies).

Proposed CBP Partner(s): Management Board, Local Government Advisory Committee (LGAC), Local Leadership Workgroup, Agriculture Workgroup, CBP Communications Office, Strategic Engagement Team

Recommendation #10 (Research Synthesis & Application):

The CBP should support collaboration amongst CBW partner organizations to synthesize relevant social science knowledge and distill what we already know about behavior as it applies to conservation decision-making.

Proposed CBP Partner(s): Chesapeake Research Consortium (CRC), The Center for Behavioral & Experimental Agri-Environmental Research, Management Board, Fostering Chesapeake Stewardship Goal Implementation Team, CBP Communications Office, Strategic Engagement Team

What we learned: Day 2

Key themes: fun vs. stressful conservation work?



Fun?

- Working outside
- Engaging People & Partners
- Building Trust & Making Connections
- Making a Better World
- Hearing Examples That Work

“Helping farmers is rewarding”



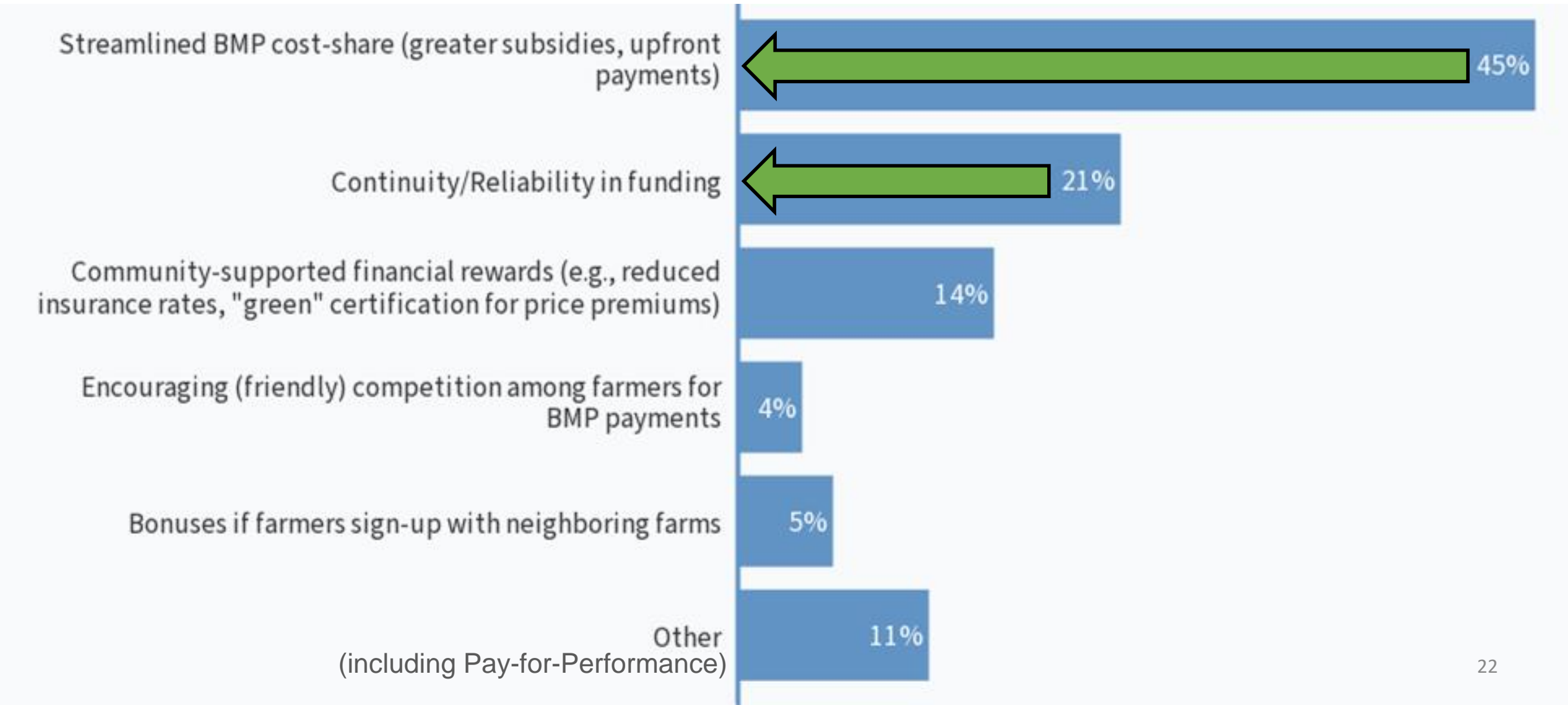
Stressful?

- Deadlines
- Paperwork
- Over-documentation
- Time from Idea to Implementation
 - Tight Turnarounds & Delays
- Restrictions
- Programmatic *Manure*
- Conflict
- Competing Priorities

Day 2 (emphasis on ag service providers) Solutions: How Do We Get There?

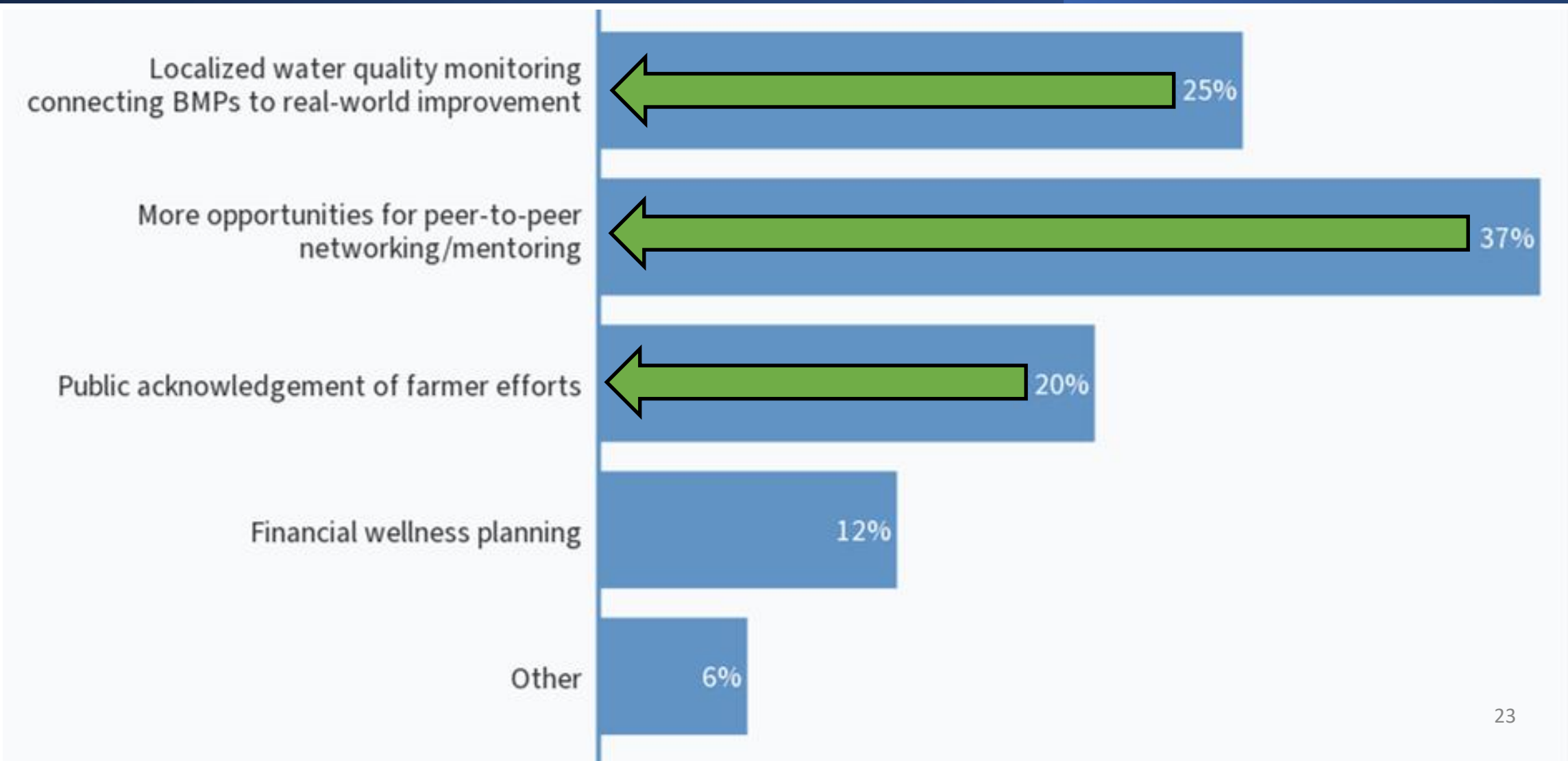
Most Important Financial Incentives for Reluctant Adopters

(Choose 2)



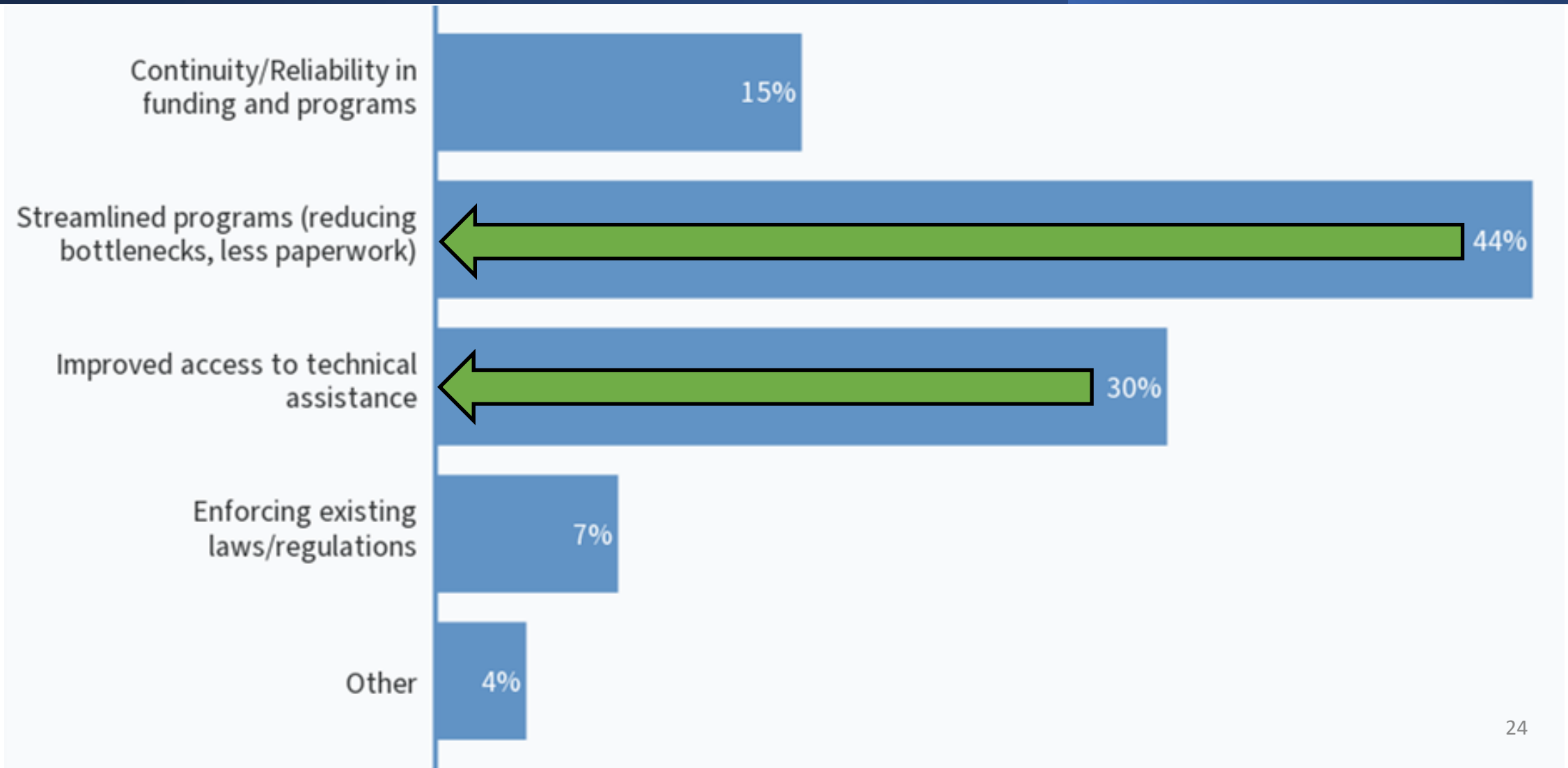
Most Important Education/Outreach for Reluctant Adopters

(Choose 2)



Most Important Programs/Policy for Reluctant Adopters

(Choose 2)

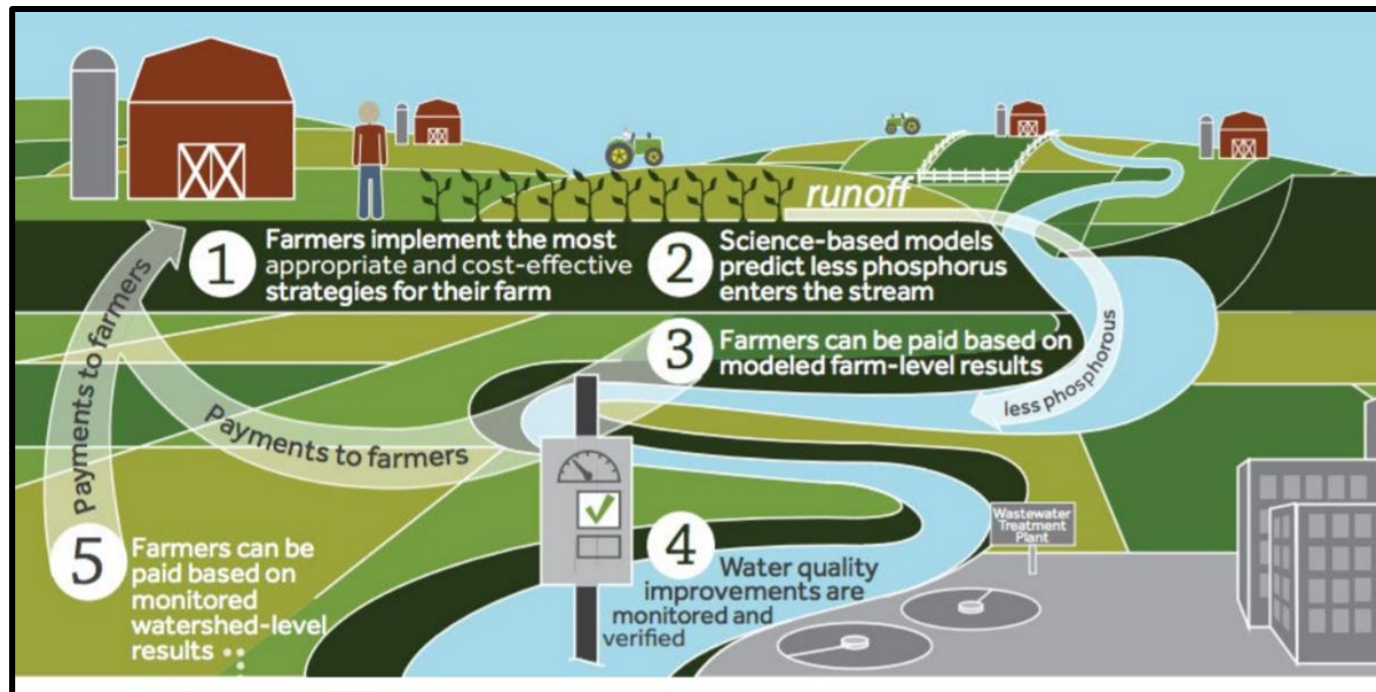


What we learned: Day 2

Developing Solutions through Exploring Scenarios

Scenario 2: More Flexible Financial Tools

- Interest in Pay for Performance high, but lots of questions on how to implement & who would benefit
- Potential for other financial tools as well?



What we learned: Day 2

Developing Solutions through Exploring Scenarios

Scenario 3: Using Insights from Behavioral Science

- Need to think about framing: farmer centered, producers as part of the solution
- Work with communities (networks, peer-to-peer, celebration of success)



<https://www.morningagclips.com/central-pa-dairy-farm-helps-protect-chesapeake-bay/>



https://www.lancasterfarming.com/news/main_edition/one-farmer-s-journey-to-planting-a-better-buffer/article_40d2dbed-a0fc-5b81-b4e8-44b8140f0653.html

What we learned: Day 2

Developing Solutions through Exploring Scenarios

Scenario 4: Rewarding Conservation Professionals

- Rewarding conservation professionals who work for conservation districts may not work; consider farmer peer-to-peer networks?
- Opportunities for other types of rewards/incentives?



<https://conservationfinancenetwork.org/2020/04/15/farmers-on-the-frontlines-of-the-regenerative-agriculture-transition>



<https://www.suffolknewsherald.com/2016/09/08/farmers-take-boating-trip-along-chesapeake-bay/>

What we learned: Day 2

Developing Solutions through Exploring Scenarios

Scenario 5: A Mix of the Above

- No single idea enough- need a mix of practices to meet people where they are
- Think about programmatic design, streamlining, funding, human behavior

RIGHT BMPs?



Buffers



Stream Exclusion



Nutrient Management



Bioreactors



Cover Crops



No-Till

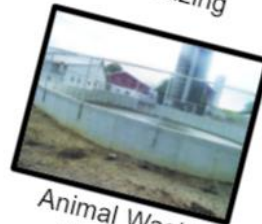


Dairy Precision Feeding

RIGHT PROGRAMS?



Prescribed Grazing



Animal Waste Systems



<https://bloximages.newyork1.vip.townnews.com/lancasterfarming.com/content/tncms/asset/s/v3/editorial/b/c4/bc4a0770-a396-11eb-8db5-bfe971433a44/6081bd486a2bd.image.jpg>

Day 3: Report Back

Technical Targeting Tools

Preliminary Recommendations

- ❖ **Collaborate w/ Service Providers on Tool Development -> Two-Way Conversation**

Tool options varied & too complex

- ❖ **Use Tools as Gateway to Conversation on Field-Level Management**

Mixed trust in tools

- ❖ **Engage Reluctant Adopters by Listening**

What problems need solving?

What will save you time and money?

“Meet farmers where they are and provide feasible options”

- ❖ **Increase Agribusiness Role in Incentivizing/Messaging**

Ag retailer promote field-level mapping and field-level management

Talk in terms of yield & profit

Day 3: Report Back

Flexible Financial Incentives

Preliminary Recommendations

❖ **Implement Pay-4-Performance Incentive Structures**

Reluctant adopters in high loss areas w/ high public benefit (low farm benefit)
Supplement cost-share after initial investment
Differential load reductions crediting for BMPs

❖ **Improve Existing Cost-Share Programs**

Recent losses in reliable federal funding sources
Minimize burdensome paperwork
Flexibility

❖ **Flexible Program Enrollment**

Focus on critical source areas* rather than whole farm

❖ **Localized Control of Funding**

Conservation district flexibility on expenditures
\$ for districts unencumbered by program rules

❖ **Drive Programs to Right Landscapes, Right Farmers**

“Some projects have 3,4,5 sources of funding to get a project done. Each has own requirements and paperwork. Discouraging to get farms on board.”

Day 3: Report Back

Behavioral Science: Farmer-Focused Programming

Preliminary Recommendations

- ❖ **Implement Staff Retention Strategies (e.g., higher pay)**
- ❖ **Training in Soft-Skills/ How to Frame Outreach**
 - Self-presentation/ on-farm etiquette
 - Approaches for different personality types
 - Establishing trust
 - Use Shared/Accessible language (forget alphabet soup)
- ❖ **Provide Tools for Conservation Professionals**
 - Catalogue success stories
 - Mentorship program
- ❖ **Research on *Farmer-to-Farmer* Influence**
 - Equip farmers to encourage BMP adoption
 - Access to funds to direct where needed
 - Bonuses for encourage BMP adoption
- ❖ **Improve Program Coordination**
 - Reduce contact-fatigue by coordinating with like-minded partners
 - Recognition of farm needs (not program goals)
 - Consider spatial targeting in priority watersheds

“People may tell you what you want to hear. Will agree with you to be polite. Resistant folks may argue but do what they need to do in the end. There are a lot of personalities out there... Folks have to learn to meet people where they are. Farmers need to be afforded a little patience and latitude. They are humans like the rest of us.”

Rewarding Effective Conservation Leaders

Preliminary Recommendations

- ❖ **Establish Set Pay Scale for District Staff**

Consistent TA fundamental to relationship building
Certainty will help work & retention

- ❖ **Uncouple District Funding from BMP contracts**

Quantity vs. quality; right people/places/practices

- ❖ **Allow Districts to Establish Conservation Goals**

Request funding based on needs

- ❖ **Increase University Extension Support**

Monitoring, evaluation & promotion of BMPs

“The lack of consistent funding for outreach and technical assistance affects staff members' ability to make relationships with farmers and limits their ability to use BMPs that will solve farmers' problems.”

Day 3: Report Back

Mixed Bag

Preliminary Recommendations

❖ **Tailor Education & Outreach**

Audiences are specific

❖ **Utilize Compliance as a Tool**

Simple & easy to enforce

Gateway to engage farmers, *if not ideal*

Be **flexible**

What? → keep cows out of stream

How? → tailored to farm needs & feasibility

❖ **Increase Speed & Accessibility of Funding**

❖ **Provide Marketing/Branding Opportunities**

Success stories on buffer implementation

Moving beyond compliance to something more

“Not a lot of farmers trust the model, so we are trying to do more monitoring where we are not just water quality...If you can’t show proof, no one believes it is true. We need to encourage them to share information to get credit. We all think we are doing well, but it is not showing up the way we think it should.”