

# Motivational Barriers to Implementing Conservation

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Robyn S. Wilson and C. Dale Shaffer-Morrison  
School of Environment and Natural Resources



**THE OHIO STATE UNIVERSITY**

COLLEGE OF FOOD, AGRICULTURAL,  
AND ENVIRONMENTAL SCIENCES

# Overview



## Intention-Behavior Gap

Findings from WLEB farmers for nutrient reduction practices



## Closing the Gap

Maintaining motivation and creating opportunities to act on one's good intentions



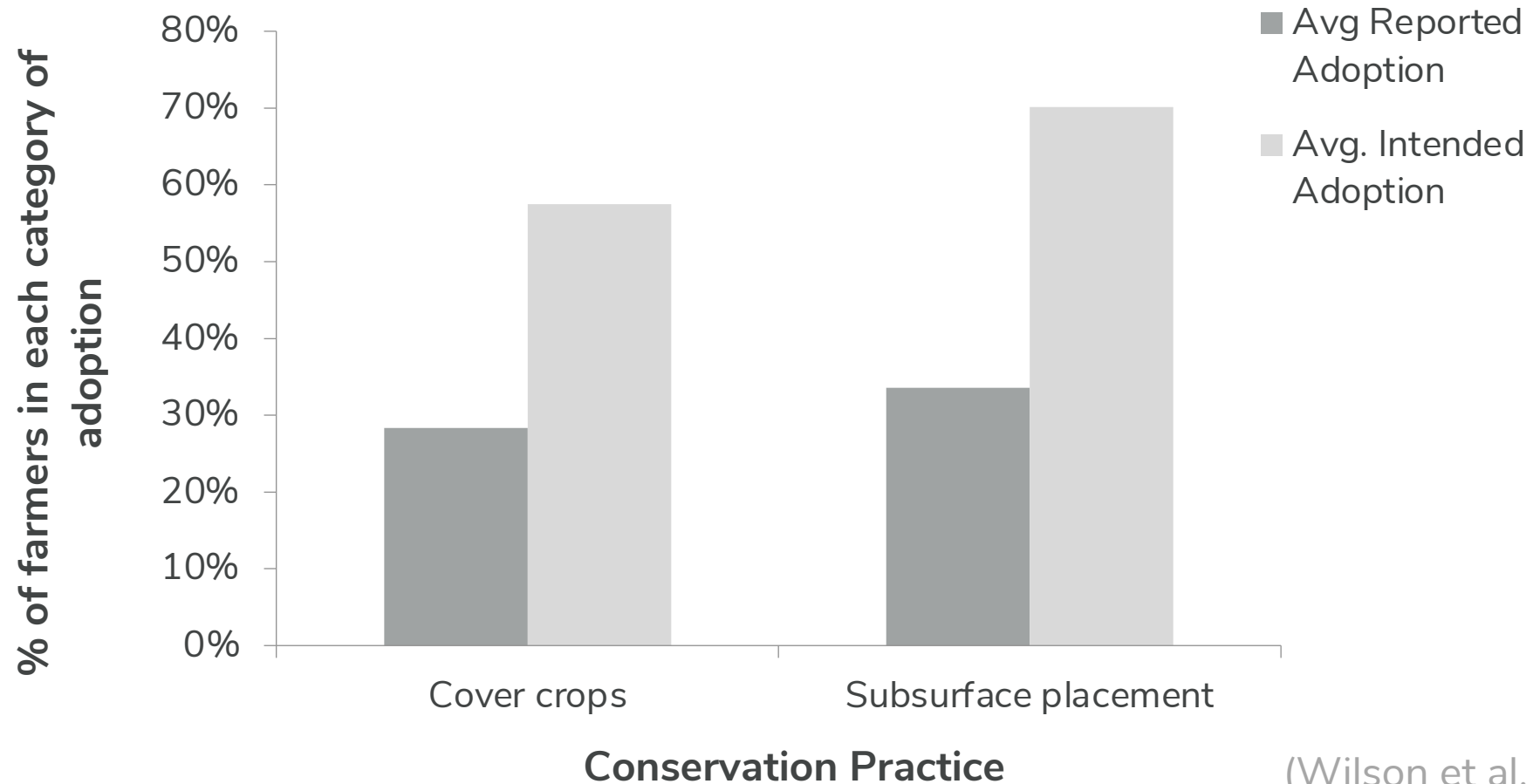
## Innovative Interventions

Experimenting with if-then plans and meaningful feedback for behavioral persistence

# Intention-Behavior Gap

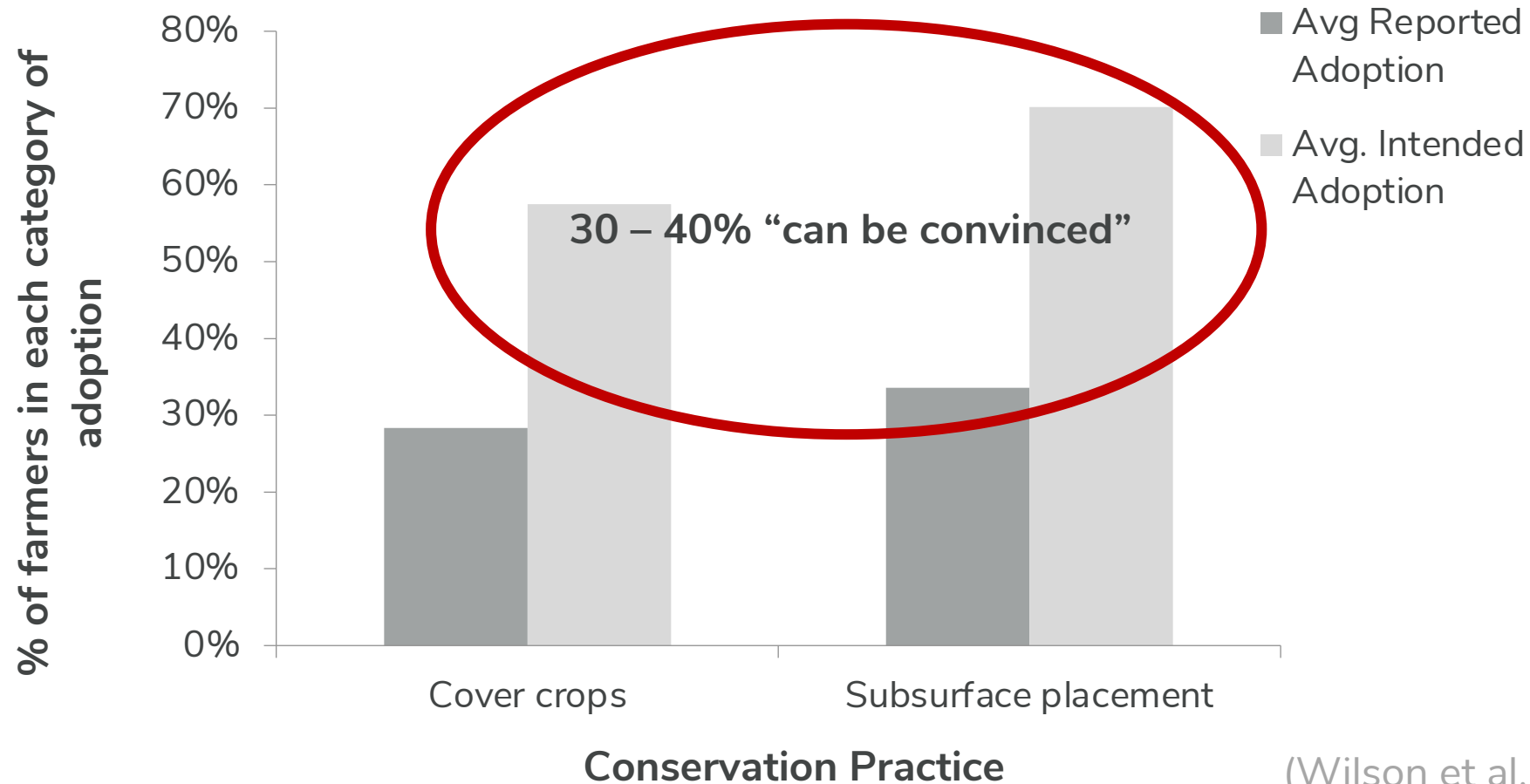
Practice specific findings for WLEB farmers

# Intention-Behavior Gap

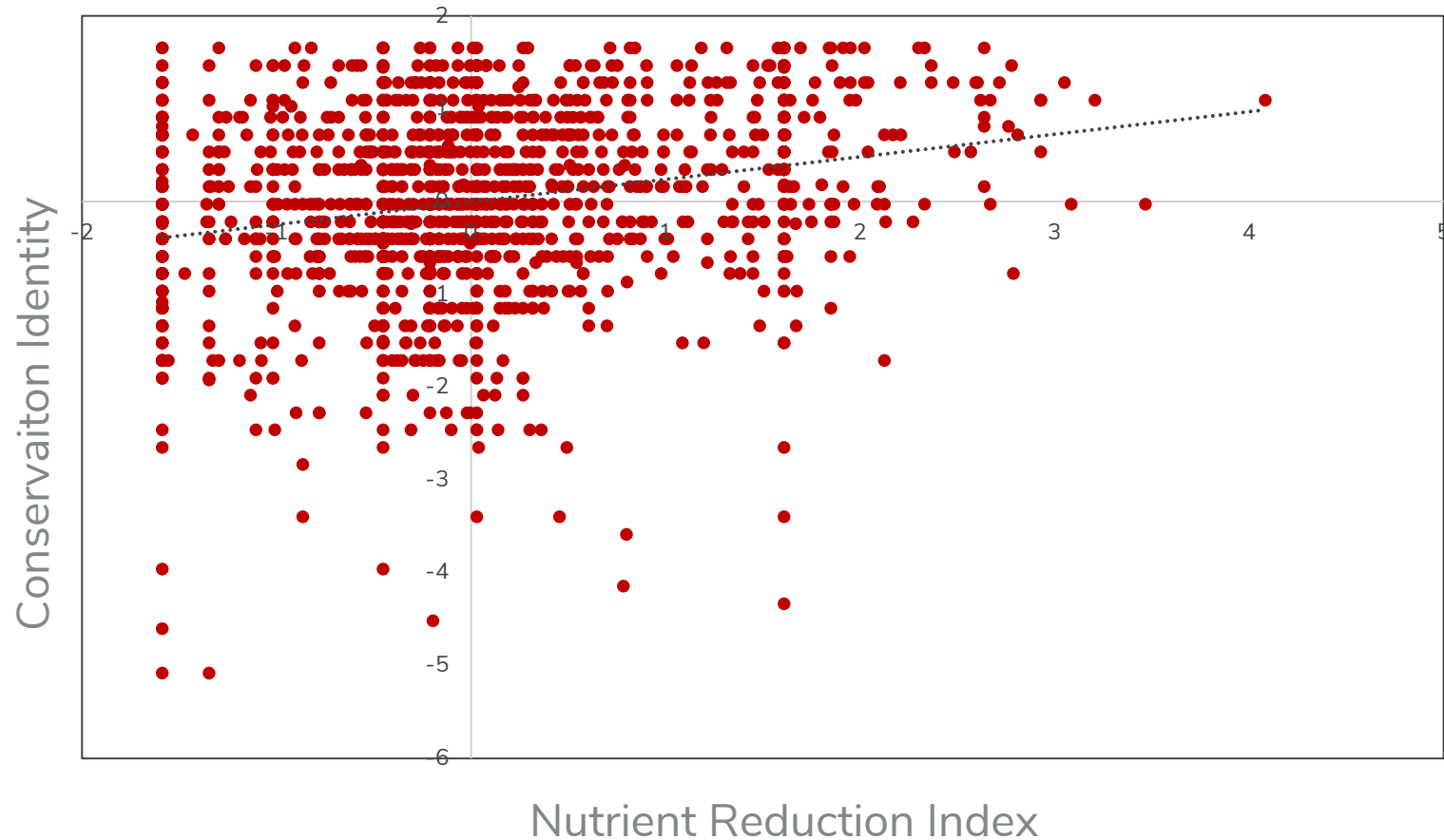


(Wilson et al. 2019 JGLR)

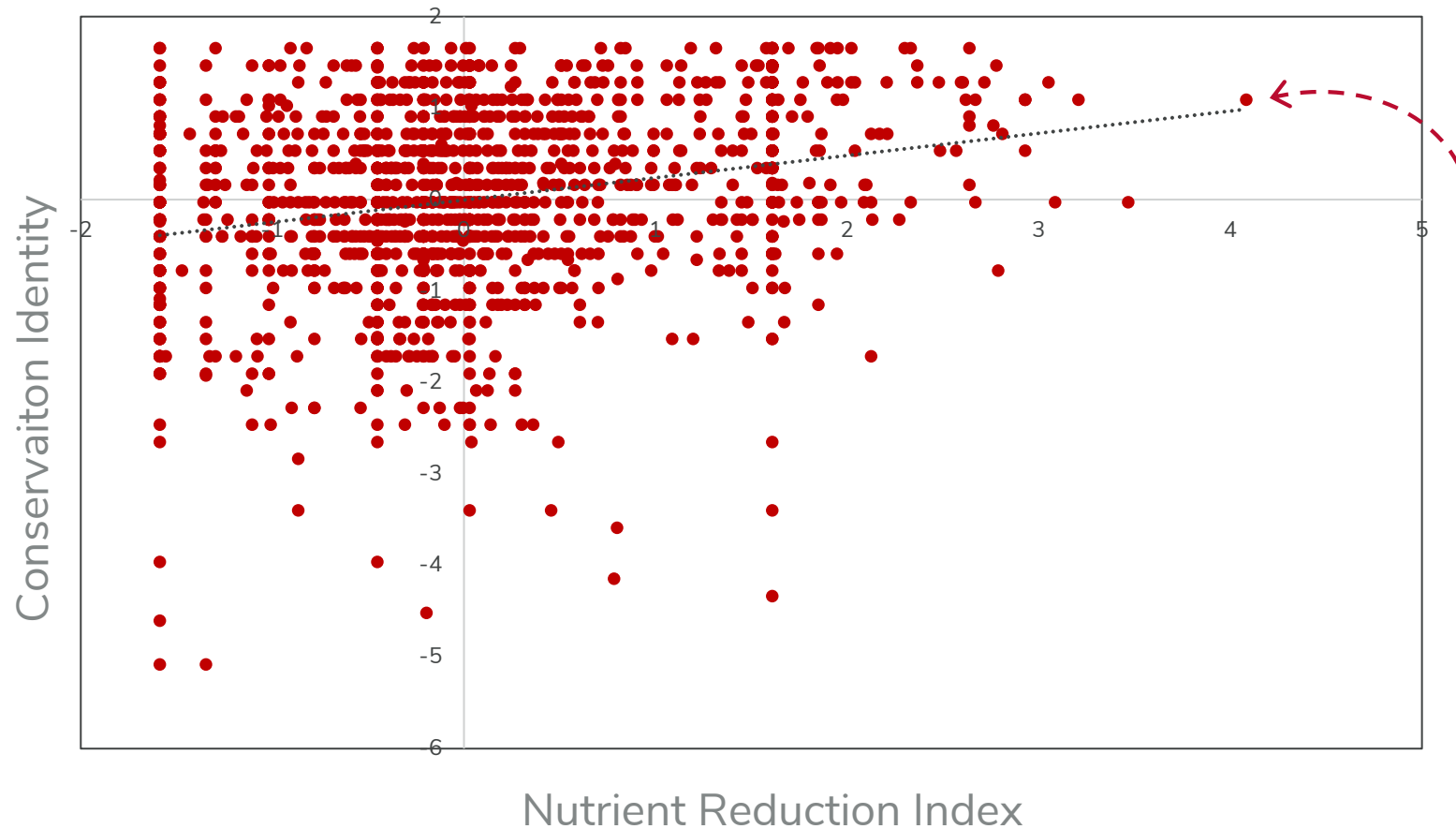
# Intention-Behavior Gap



# Why does this gap exist?



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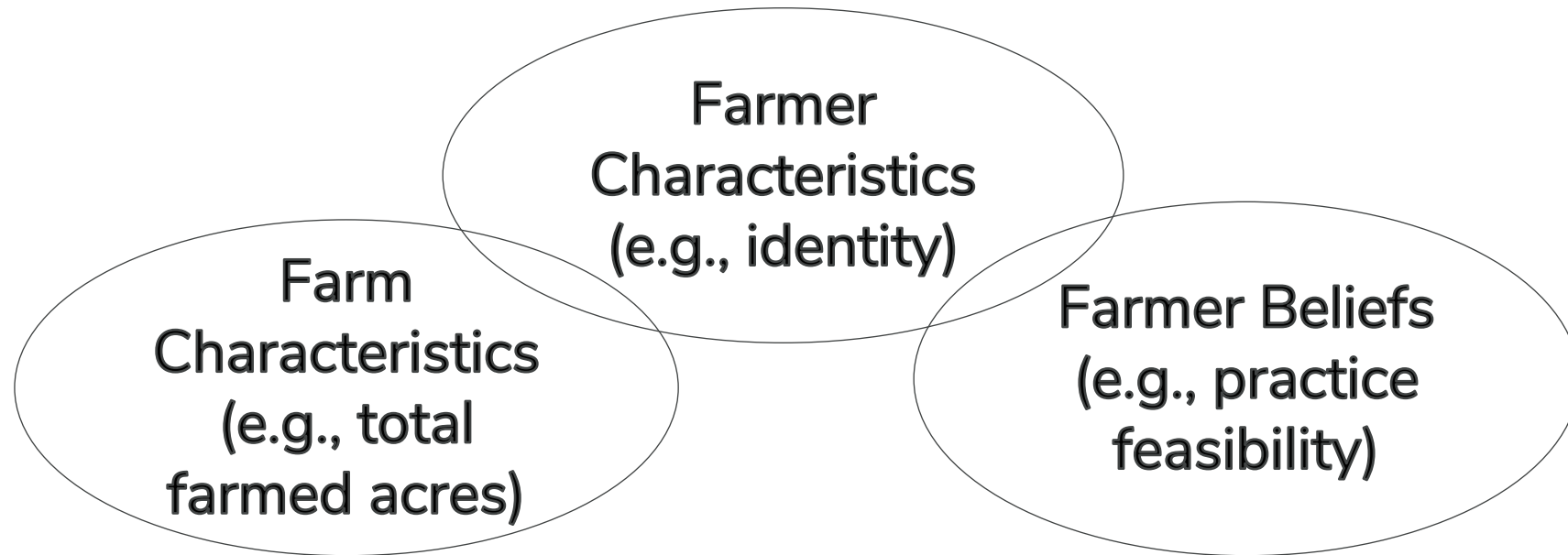


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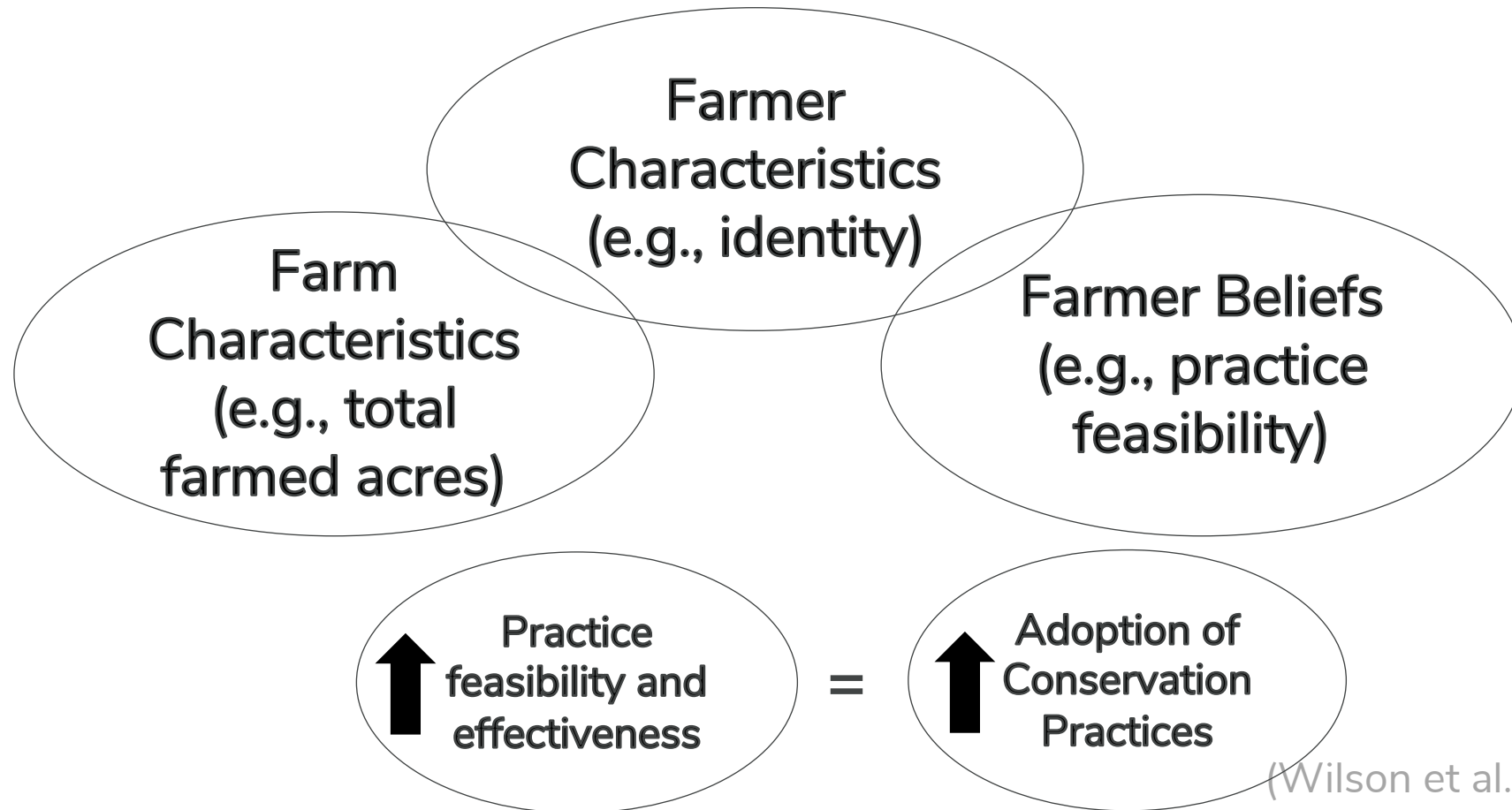


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(Wilson et al. 2018 *Wat. Res*)

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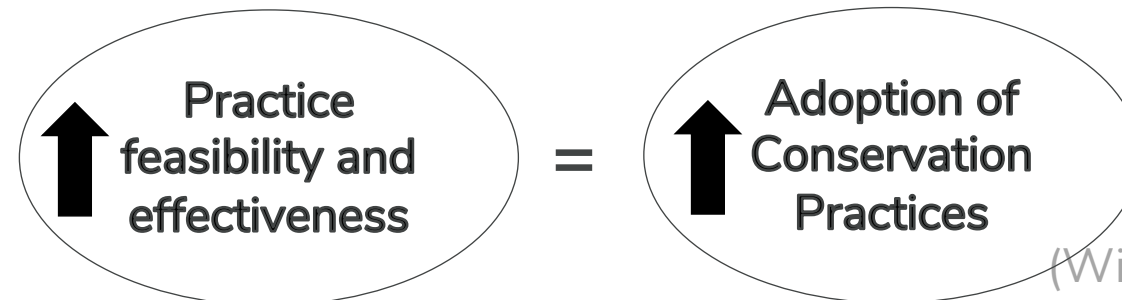


(Wilson et al. 2018 *Wat. Res*)

# Why does this gap exist?

**Farmers with high (vs low) perceived feasibility and effectiveness are 10-15x more likely to already have a practice in place**

farmed acres)

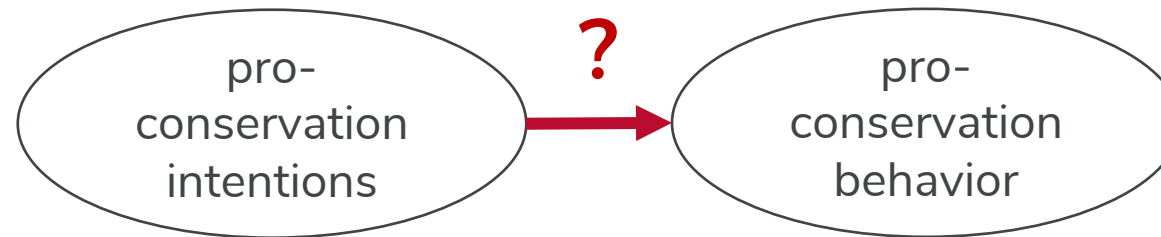


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# Closing the Gap

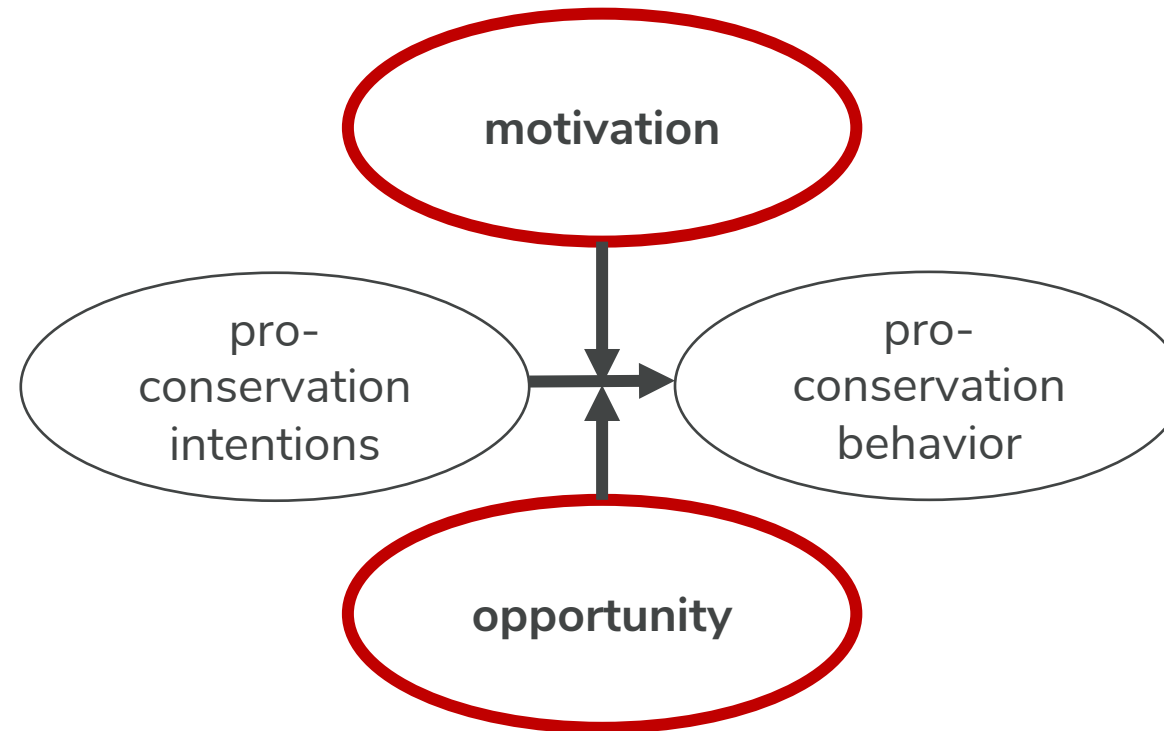
**Maintaining motivation and creating opportunities**

# Closing the Gap



(Kollmuss & Agyeman, 2002)

# Closing the Gap



(Fazio & Towles-Schwen, 1999; Udall et al., 2021; Vesely et al., 2021)

# Meta-Analysis (positive predictors 20% of time)

## Farm Characteristics

- Farm size
- Operational diversity
- Environmentally vulnerable

Floress, K. M., Gao, Y., Gramig, B. M., Arbuckle, J. G., Church, S. P., Eanes, F. R., ... & Prokopy, L. S. (2019). Meta-analytic data from agricultural conservation practice adoption research in the United States 1982-2018.



# Meta-Analysis (positive predictors 20% of time)

## Farm Characteristics

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## Farmer Characteristics

- Formal education
- Past behavior
- Program/practice specific knowledge
- Seeking out information

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## Farmer Beliefs

- Attitudes toward the program/practice
- Conservation/altruistic identity
- Positive impact expected on yield

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# Barriers?

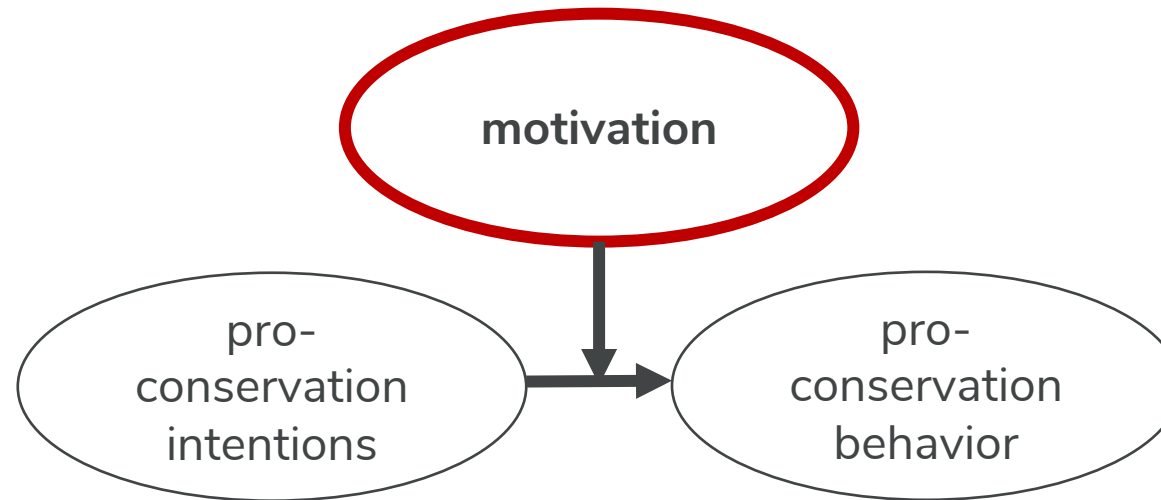
## Motivation

- A weak conservation identity
- Lack of formal education
- Lack of knowledge about the program/practice
- Negative attitudes toward the program/practice
- Expected negative impacts on yield
- No past conservation

## Opportunity

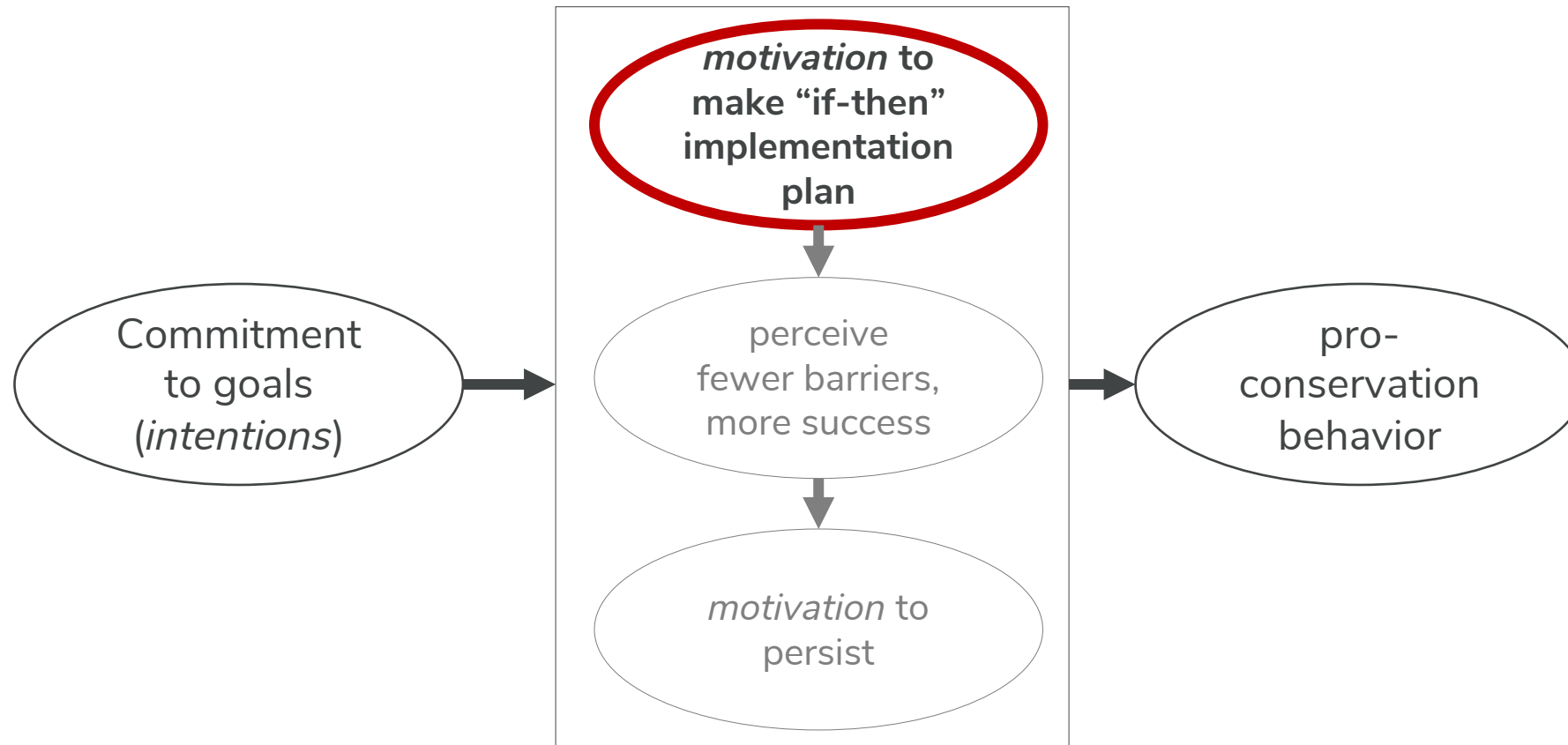
- Operating a small farm
- Operating less diverse farms
- Not having an obvious vulnerability (e.g., steep slopes)
- Tendency to not seek out information

# Closing the Gap



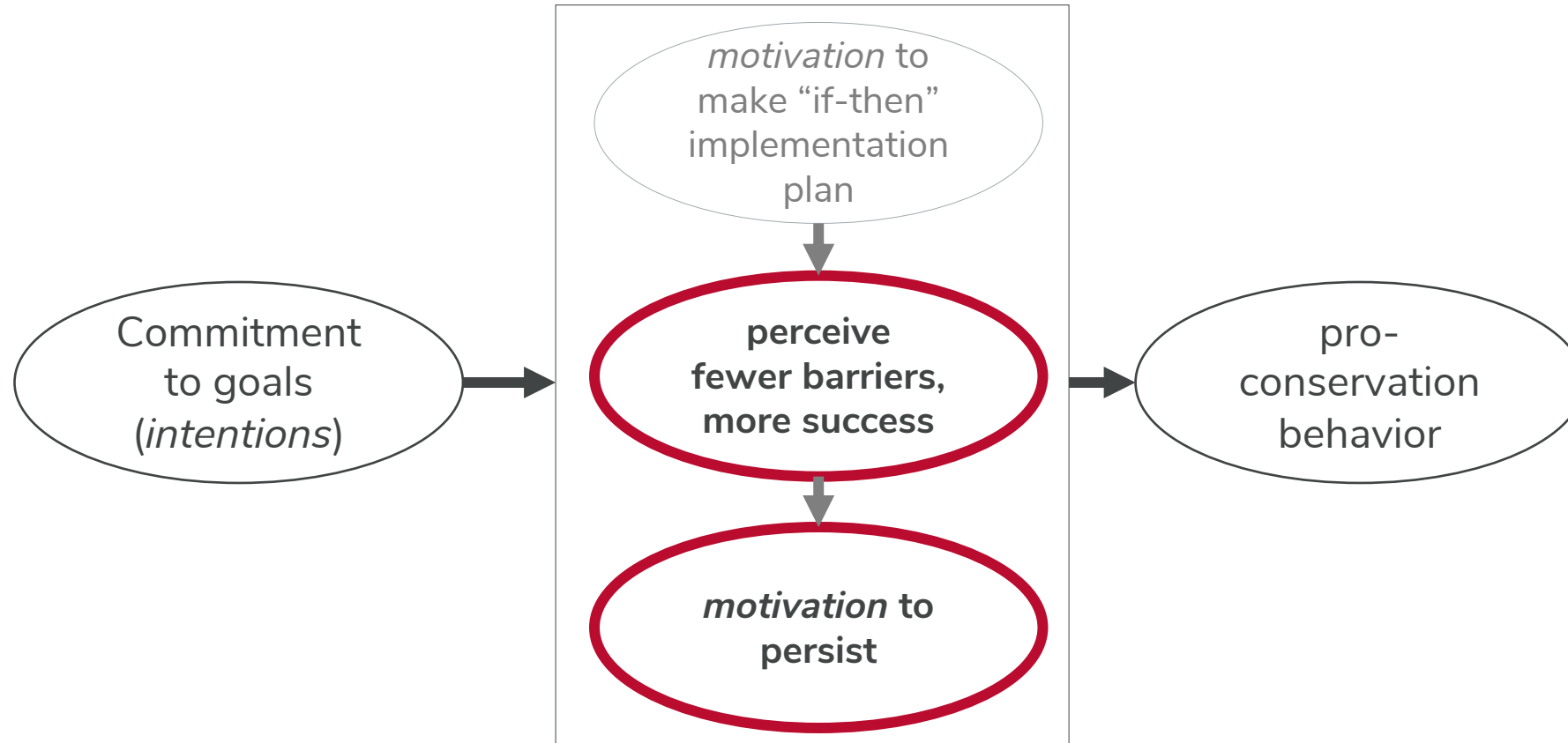
(Fazio & Towles-Schwen, 1999; Udall et al., 2021; Vesely et al., 2021)

# Making an “if-then” plan



(Gollwitzer & Oettingen, 2012)

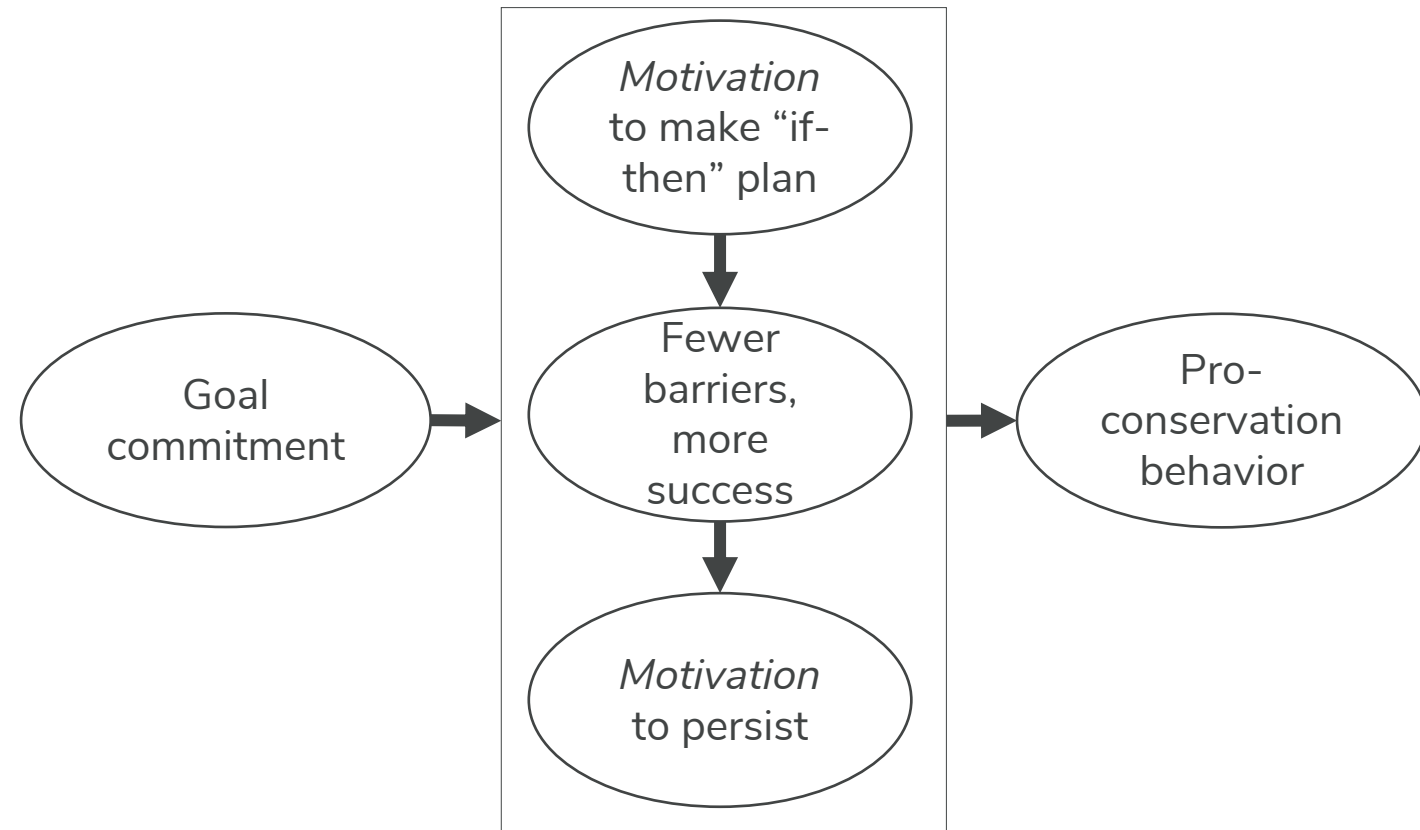
# Receiving appropriate feedback



(Gollwitzer & Oettingen, 2012)

# Farmer examples

## “John” the low conservationist



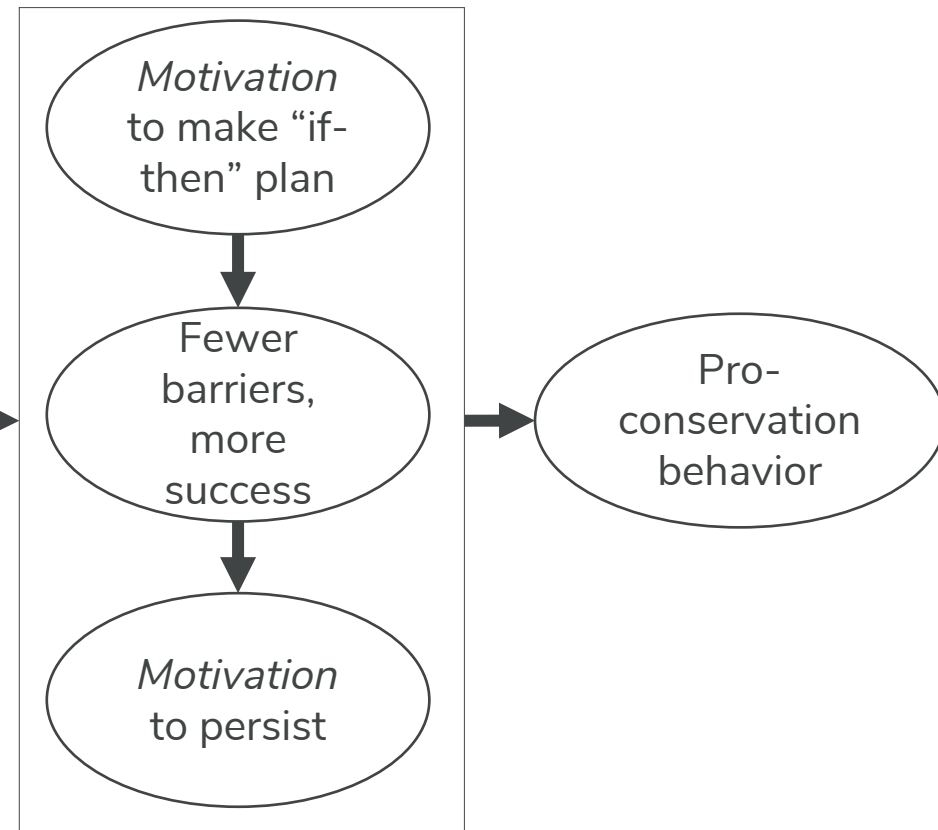


# Farmer examples

**“John” the low conservationist**



**30%**

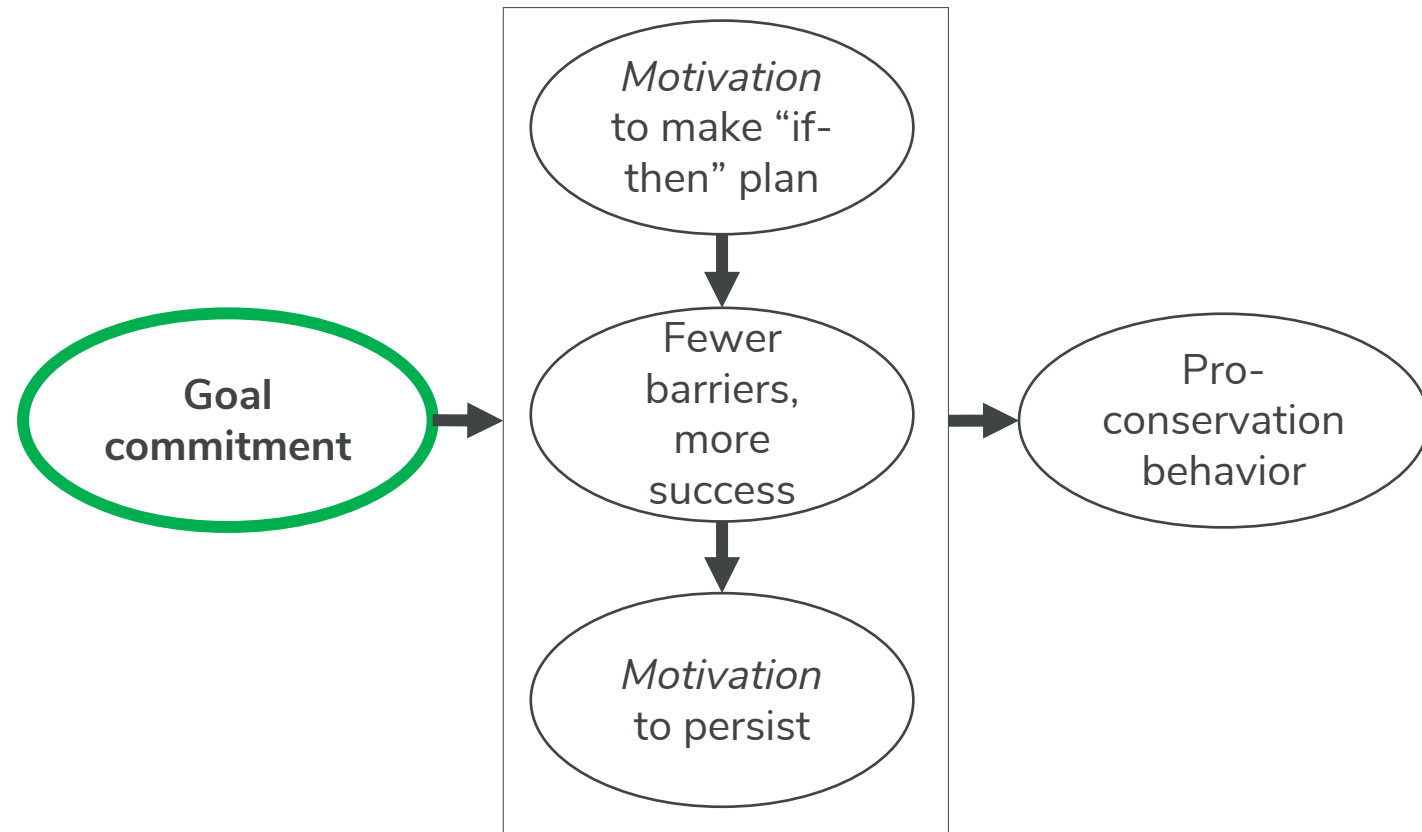


# Farmer examples

“Brad” the high conservationist

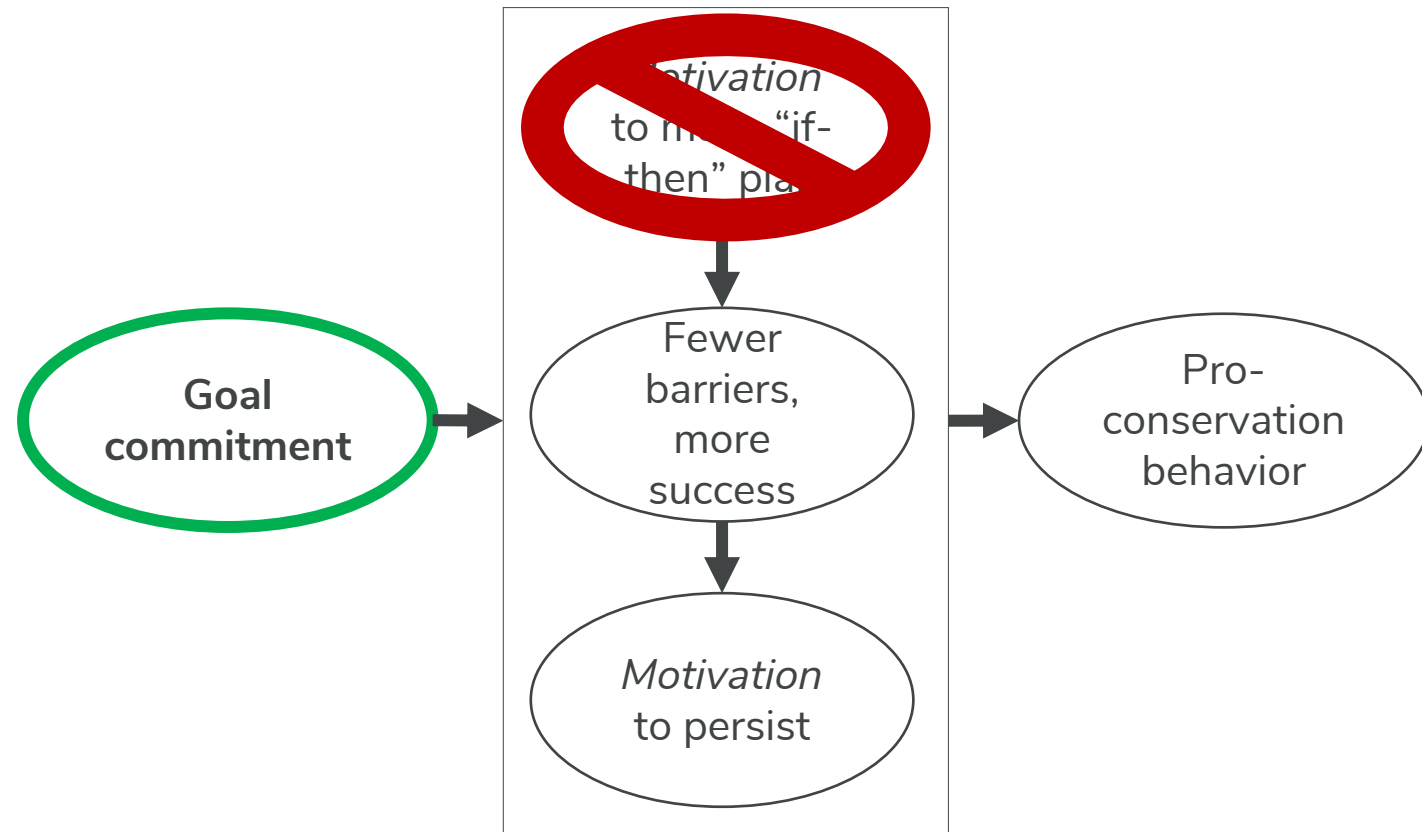


70%



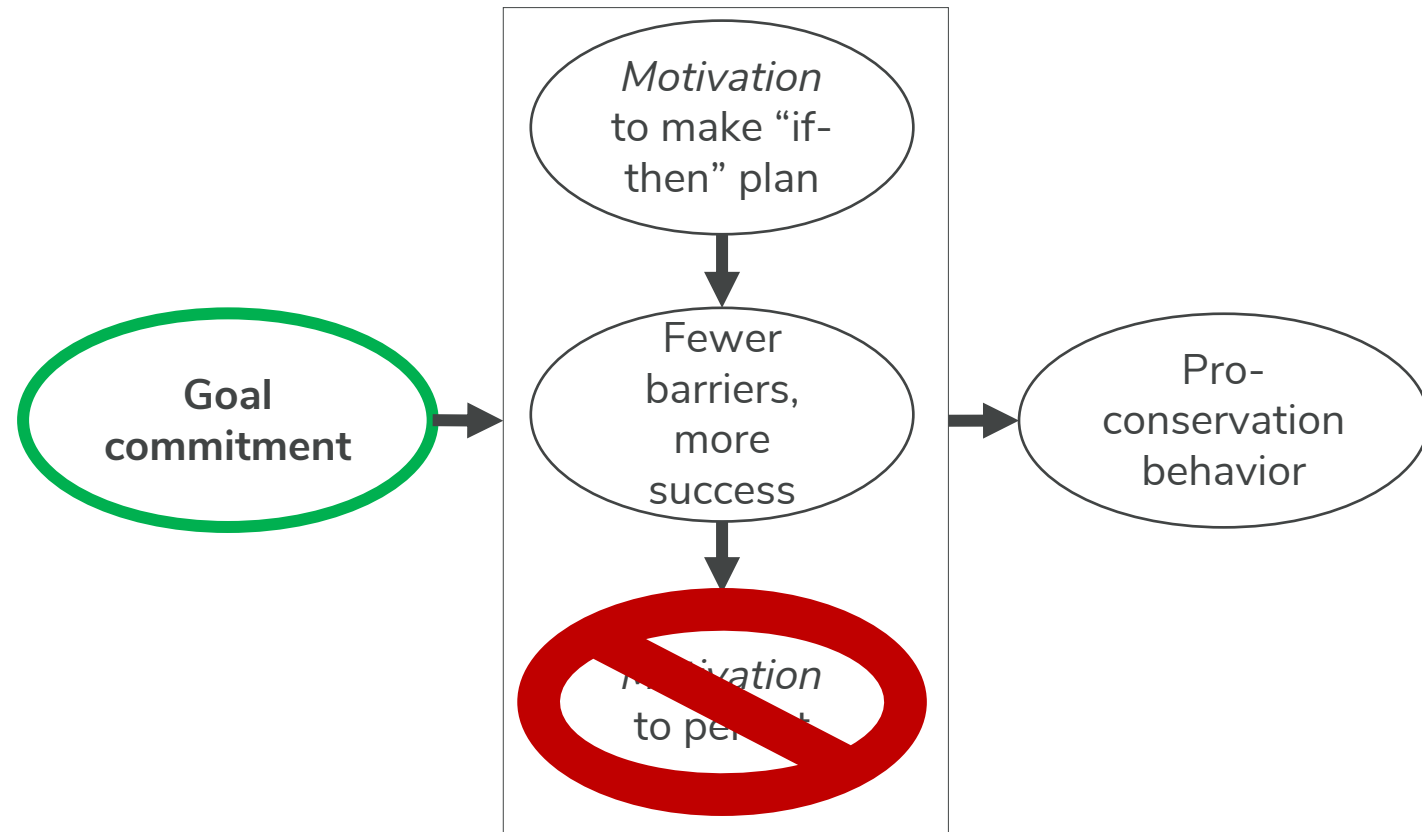
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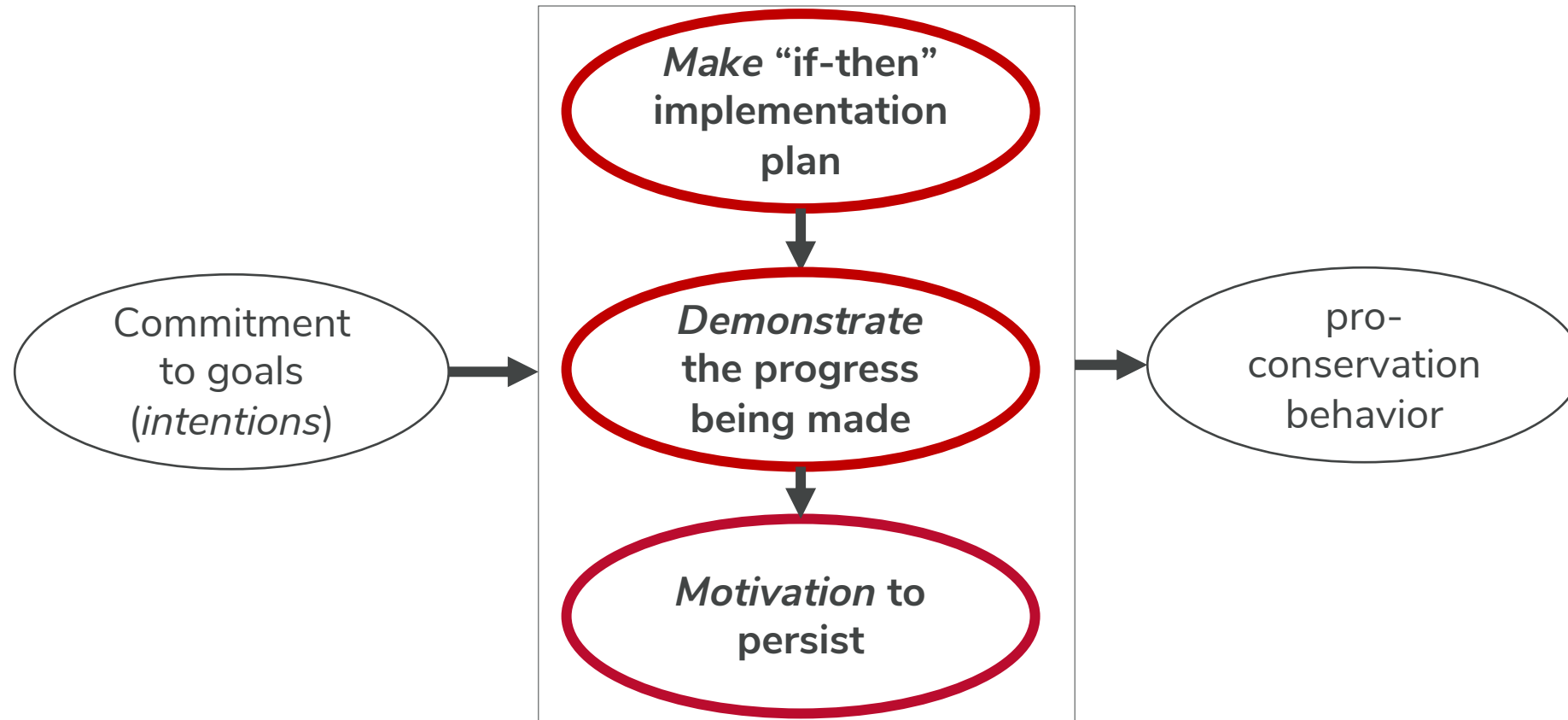


# Farmer examples

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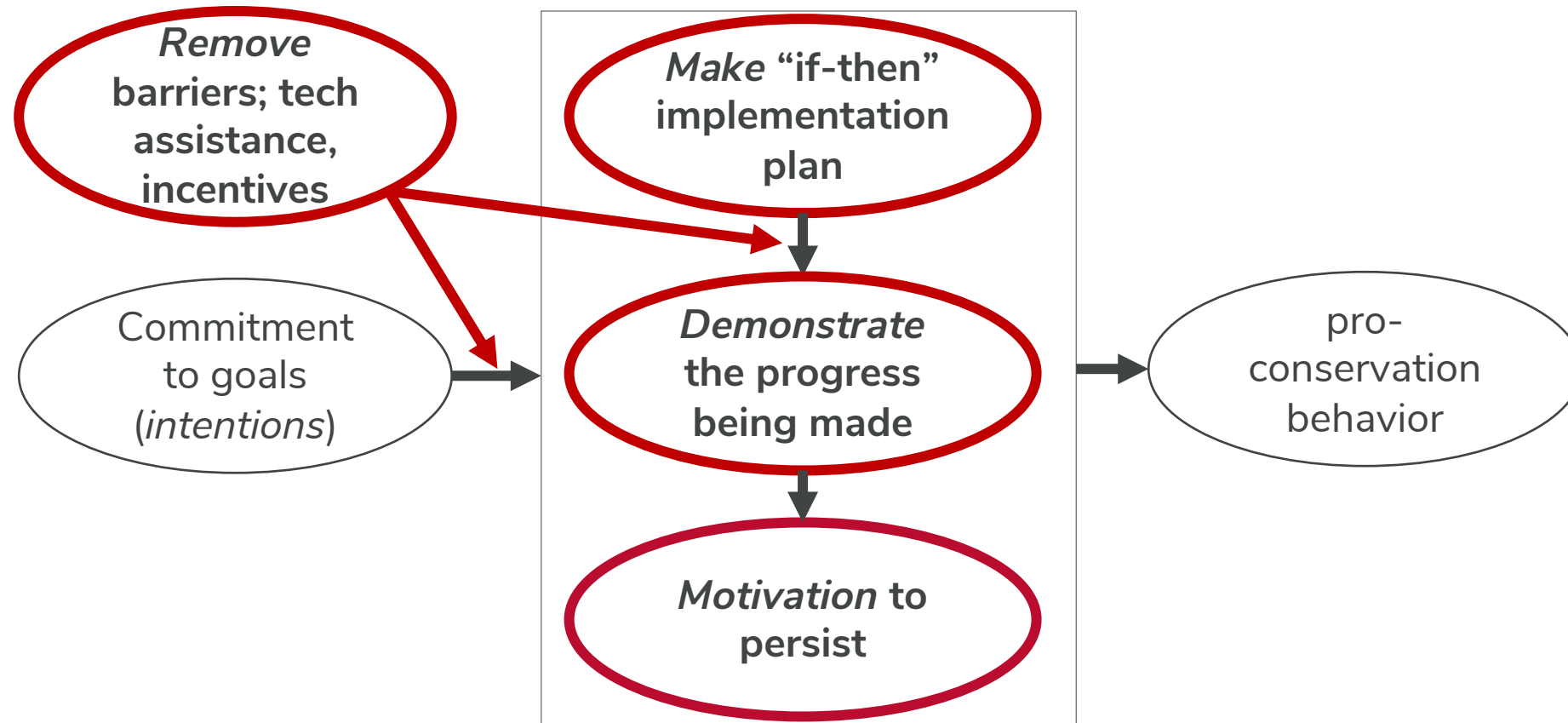


# How can we encourage motivation?



(Sklar & Fujita 2017)

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# Innovative Interventions

**Experimenting with if-then plans and meaningful feedback for behavioral persistence**



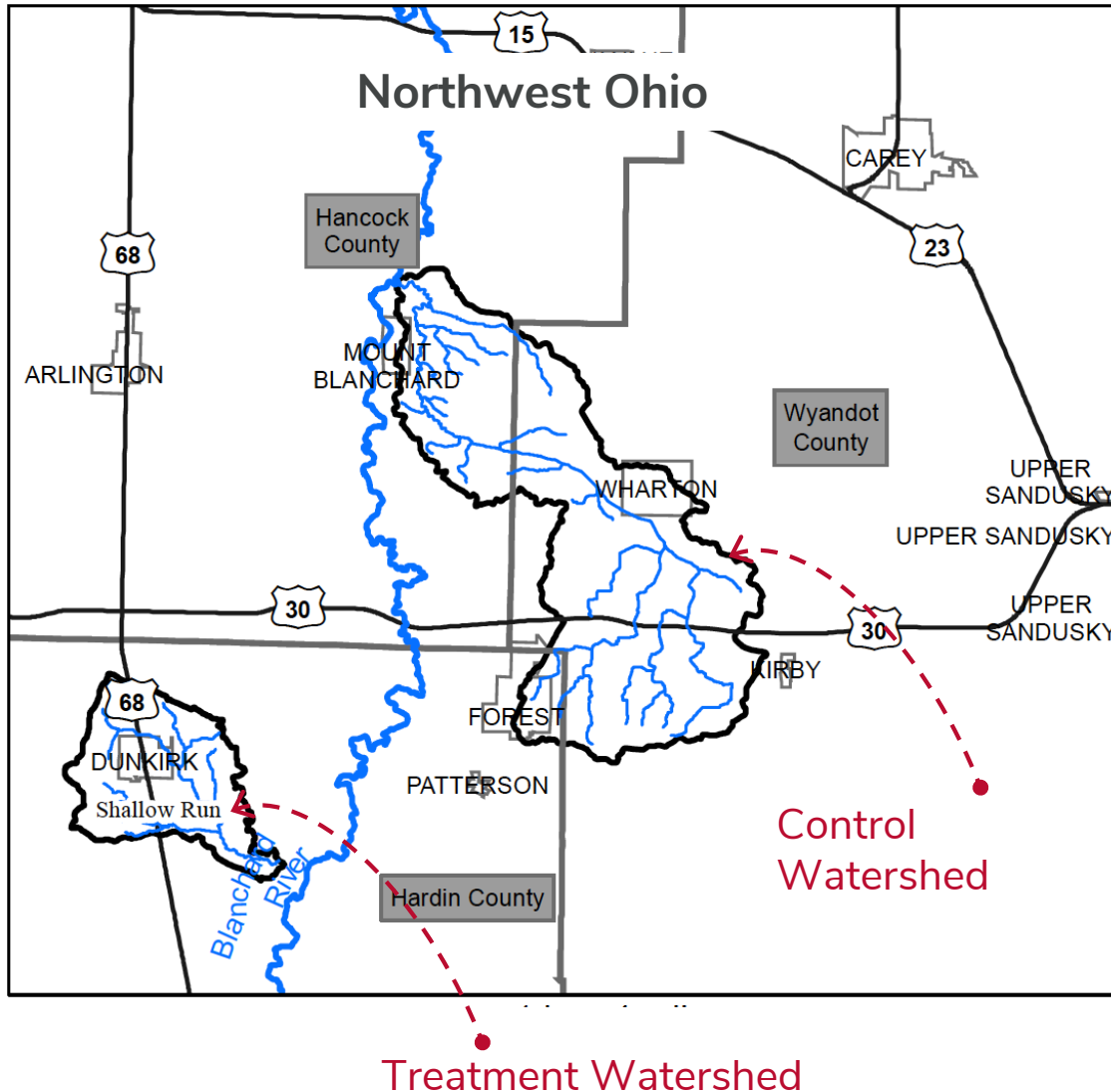


# Pilot Watershed Project

Test the effect of unique economic, social and behavioral interventions on adoption and persistence

Increase adoption of recommended practices from ~30% to 70%

Test the effect of increased adoption of recommended practices on soil health and water quality



# Paired Design

**Control and treatment watershed**  
HUC12 Shallow Run, Potato Run

## Opportunity interventions

One-on-one technical assistance  
Agglomeration incentives

# Motivational Interventions



- **Community Benefit**

Annual community benefit that increases with the number of farmers who participate



- **Planning**

Identifying why one engages in conservation, how current behavior is discrepant, and how to move forward



- **Feedback**

Annual feedback on the increasing numbers of acres and participants, and changes in environmental outcomes



# Takeaways

- Many farmers are motivated, but may struggle to maintain that motivation given the barriers they face
- Reminding people of their values, creating an "if-then" plan, and demonstrating progress toward goals can increase motivation and create persistence
- Barriers can decrease motivation (i.e., paperwork, narrow profit margins, time, equipment, uncertainty in benefits, rental acreage)
- The most progress will be made by "motivating the motivated" and making conservation as easy as possible



# Thank you!

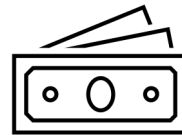
[Wilson.1376@osu.edu](mailto:Wilson.1376@osu.edu)

 @RiskWilson



## More Information

<https://u.osu.edu/wilsonlab/>



## Funding

4R Research Fund Project #4RN-09,  
NIFA Award No. 2018-68002-27932,  
NSF CNH Award #1114934, NSF  
INFEWS/T1 Award #1739909



## Acknowledgements

Dr. Mary Doidge, Dr. C. Dale Shaffer-  
Morrison, Dr. Hugh Walpole, Dr.  
Maggie Beetstra, Callia Tellez