

Field to Market®

Biodiversity Metric Revision Workshop

September 05, 2024

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In general, the types of discussion that must not occur are those that may suggest or imply agreements among competitors with respect to prices, terms of sale, discounts, credit, or any other such items that could impact prices.

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If at any time during the course of the meeting a participant believes that a topic prohibited under the antitrust laws is being discussed, or is about to be discussed, they should advise the facilitator and chair who will halt any further discussion.



Agenda

3:00 PM	<ul style="list-style-type: none">• Welcome and recognition of the organizations present• Housekeeping• Objectives for today's call
3:10 PM	Discussion about the comments received during the July 31 event
3:40 PM	Proposing two options
4:00 PM	5-minute break
4:05 PM	Gathering feedback
4:30 - 4:55 PM	Wrap-up discussion, discuss next steps, complete feedback form



Proposed Workshop Schedule

July 2024 (completed)

- Background
- Discuss indicators
- Collect feedback

September 2024 (today)

- Share summary of feedback
- Discussion of Biodiversity indicators we could implement
- Collect feedback

October 2024

- Further discussion and refinement if we reach a consensus, **or**
- Potential next steps if agreement is low



Expectations and Housekeeping

- Let's be respectful of each other. We can work together even if we have different views on biodiversity.
- Let's feel free to brainstorm and explore ideas.
- We are here to find a consensus to move forward, even if the metrics we are going to propose are not perfect or don't meet all expectations.
- We'll take notes without attribution to an individual or organization. We will stop the recording before the feedback section.



Purpose of the Workshop Series

- Learn about what we have done up to this point regarding the biodiversity metric revision
- Learn from each other's perspectives
- Reach a consensus on a biodiversity indicator we can use for the next three to five years
- There is quite a bit of work happening regarding biodiversity in many standard-setter organizations. We might have to replace the model of choice within a short few years



July 31 Recap

- Current biodiversity metric (Habitat Potential Index)
- Proposed revision (WILD Index) and the feedback we received during the comment period
- Discussion on several biodiversity reporting frameworks (CBD, WBCSD, SBTN, TNFD, SAI)
- Member feedback about seven unresolved issues

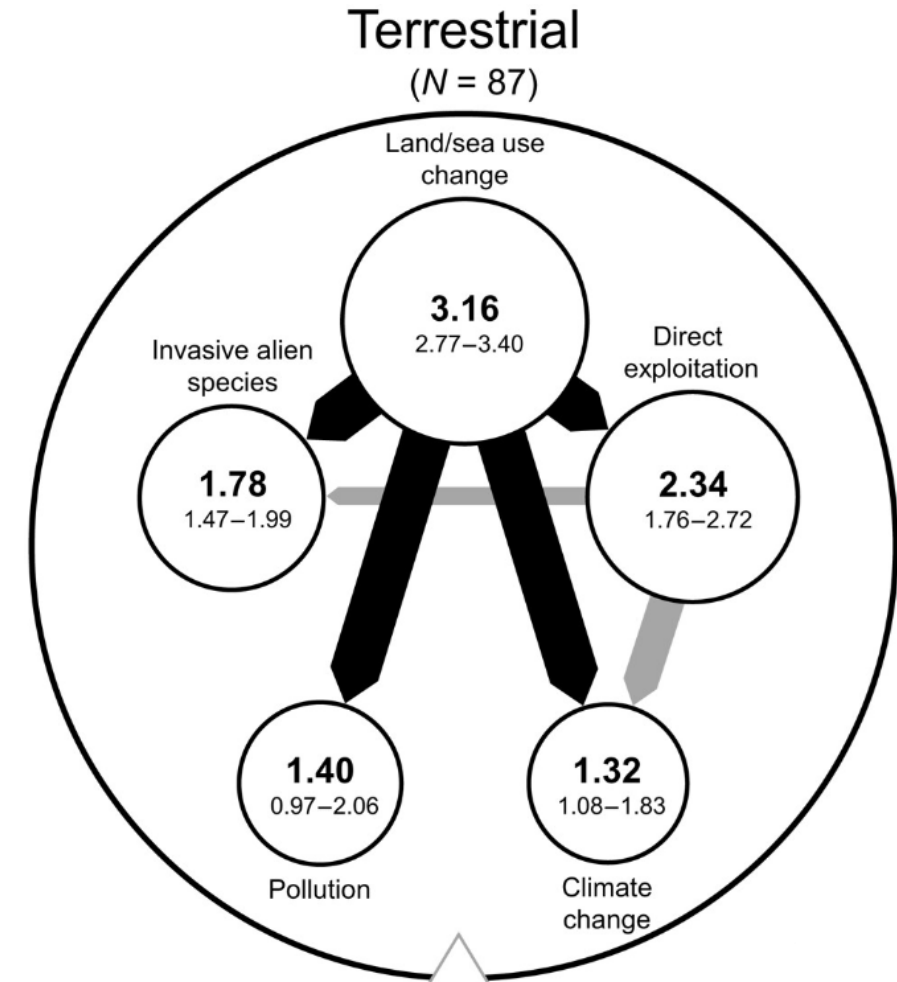


Primary Drivers of Biodiversity Losses

DOI: [10.1126/sciadv.abm9982](https://doi.org/10.1126/sciadv.abm9982)

There is good agreement in the scientific literature that biodiversity losses in terrestrial ecosystems are primarily driven by the following:

- Land use change, which includes habitat loss (e.g., expanding cropland)
- Overexploitation of natural resources (e.g., overhunting)
- Invasive species
- Pollution
- Climate change



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Feedback From Questions on July 31



What We Asked You Last Time

Quantitative or
qualitative?
Direct or indirect
measure of
biodiversity?

Above-ground,
below-ground,
and aquatic
biodiversity?

Field-level or
farm-level?

Should the
biodiversity
metric be optional
or part of the
suite of metrics?

Renaming the
metric

Management of
owned vs
rented/leased
land

Temporal
considerations of
biodiversity?



What We Heard From You (number of votes)

Indirect and
quantitative: 22
Indirect and
qualitative: 10

Above-ground: 25
Below-ground: 18
Aquatic: 6

Field-level: 13
Farm-level: 14

Optional: 13
Mandatory: 11

Renaming the
metric
Love it: 2
Hate it: 3
Indifferent: 12

Management of
owned vs
rented/leased
land
To Resolve

Temporal
considerations of
biodiversity
Yes: 19
No: 0



Decision Table

Issue	Decision	Notes
Type of measurement	Indirect and quantitative	
Focus	Above-ground	Recognizing the rising interest in below-ground and aquatic biodiversity
Domain	Field-level with the option to aggregate to farm-level	
Flexibility	Fixed with the rest of the metrics	No ability to opt out of the metric
Name	The metric will be renamed to reflect what it does	
Cropland ownership	Needs more discussion	Owned and rented/leased farmland will be treated equally at the beginning
Temporal considerations	A temporal component should must be included	



High-Level Themes From Member Comments

- We cannot meet everyone's needs with a single type of metric/indicator
- All approaches to measuring biodiversity will have shortcomings and tradeoffs
- Growers and the supply chain need flexibility
- Below-ground biodiversity might be a better fit under a separate soil health indicator
- We need a period for piloting the new metric and conducting sensitivity analyses
- The metric/indicator name must reflect that is focused on croplands
- Landscape context should be considered
- The WILD Index scope, focus, and goals were not well defined. We grouped too many components under a single indicator



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Potential Ways To Move Forward

Considerations

- A true biodiversity metric, such as measuring species richness, abundance, distribution, and connectivity within farm boundaries, is not feasible without an on-farm assessment by trained staff
- We need an indirect indicator that approximates how much a farm area supports biodiversity
 - It must provide information of value to growers
 - It must be useful for the ag supply chain
 - It must be useful to track progress
- During the July 31 workshop, we explored indirect proxy measures or indicators of biodiversity proposed by several frameworks



How A Biodiversity Indicator Will Be Used

Will growers find value in it?



Can we explain the value of the indicator in a corporate setting and get people to rally around it?





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Option 1



Option 1

- **We could start by implementing a simple, entry-level indicator, and keep working on a comprehensive indicator**
- **Growers or project administrators would select the model of choice (easy or comprehensive) that fits their needs**
- **Entry-level indicator: Natural/semi-natural areas around cropland**
 - Mapping acres of cropland and natural/semi-natural land under a grower's control
 - The indicator would be the ratio of natural/semi-natural (NSN) areas to cropland
 - We could incorporate the concept of acre-months of NSN area as a temporal component (discussed in subsequent slides)
 - Likely would align with the frameworks reviewed (CBD, WBCSD, SBTN, TNFD, SAI)
 - *We could implement this by June 2025 in pilot/testing mode without retiring the Habitat Potential Index (current model of choice)*



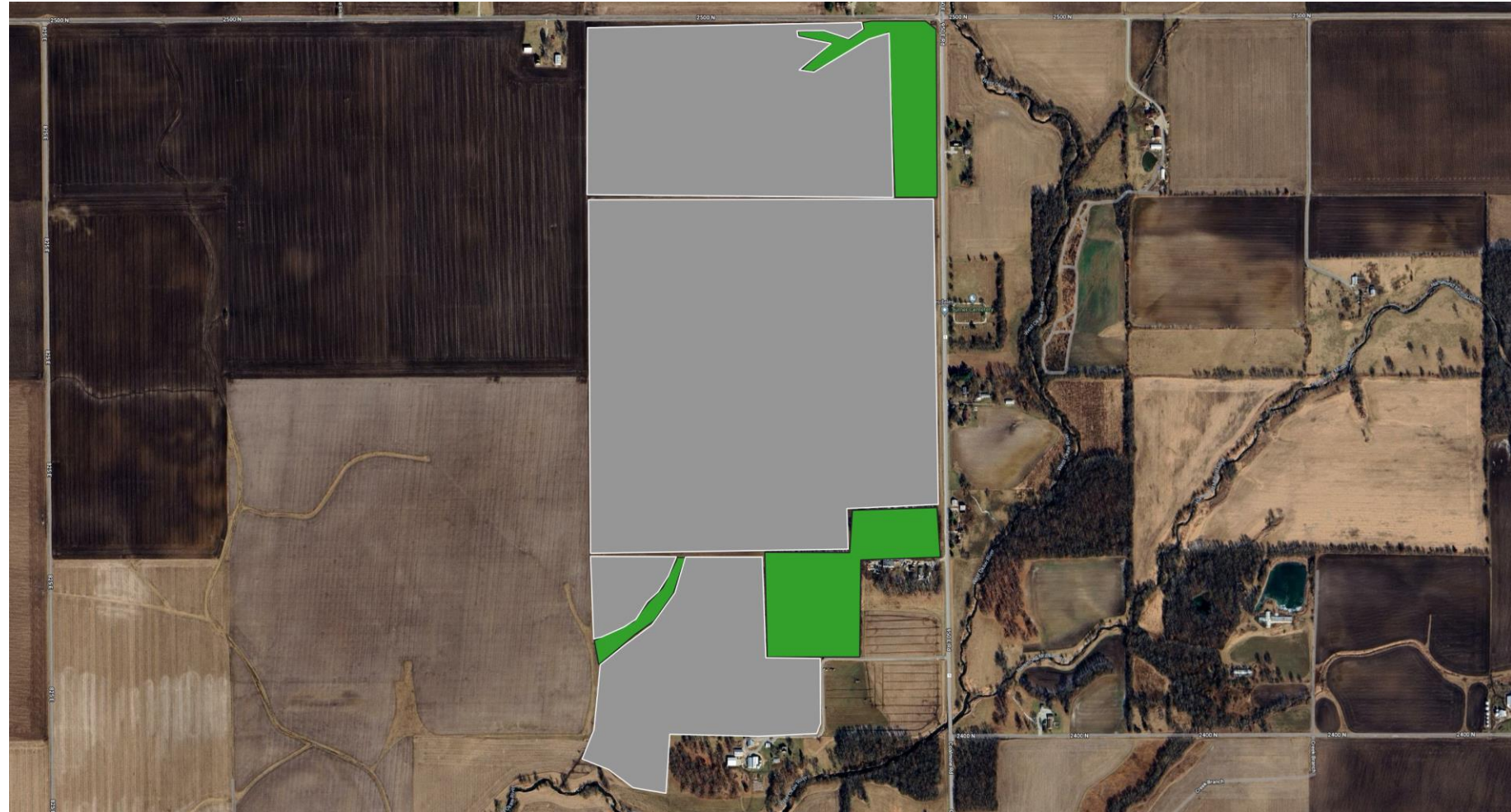
Option 1

- **We could start by implementing a simple, entry-level indicator, and then work on a comprehensive indicator**
- **Growers or project administrators would select the model of choice (easy or comprehensive) that fits their needs**
- **Keep working on a comprehensive indicator**
 - We would keep working on a much-improved version of the WILD Index (multi-component, geospatial, etc.)
 - We would need to apply for grants/funding with other like-minded organizations. We would task an expert ecologist/biologist to conduct the bulk of the work and help us reach alignment among Field to Market members
 - *The implementation timeline would be much longer, depending on the project design and funding acquisition. Finding the right scientist or group of scientists would also take time (June 2026 under the most optimistic conditions)*



Example – Baseline Year

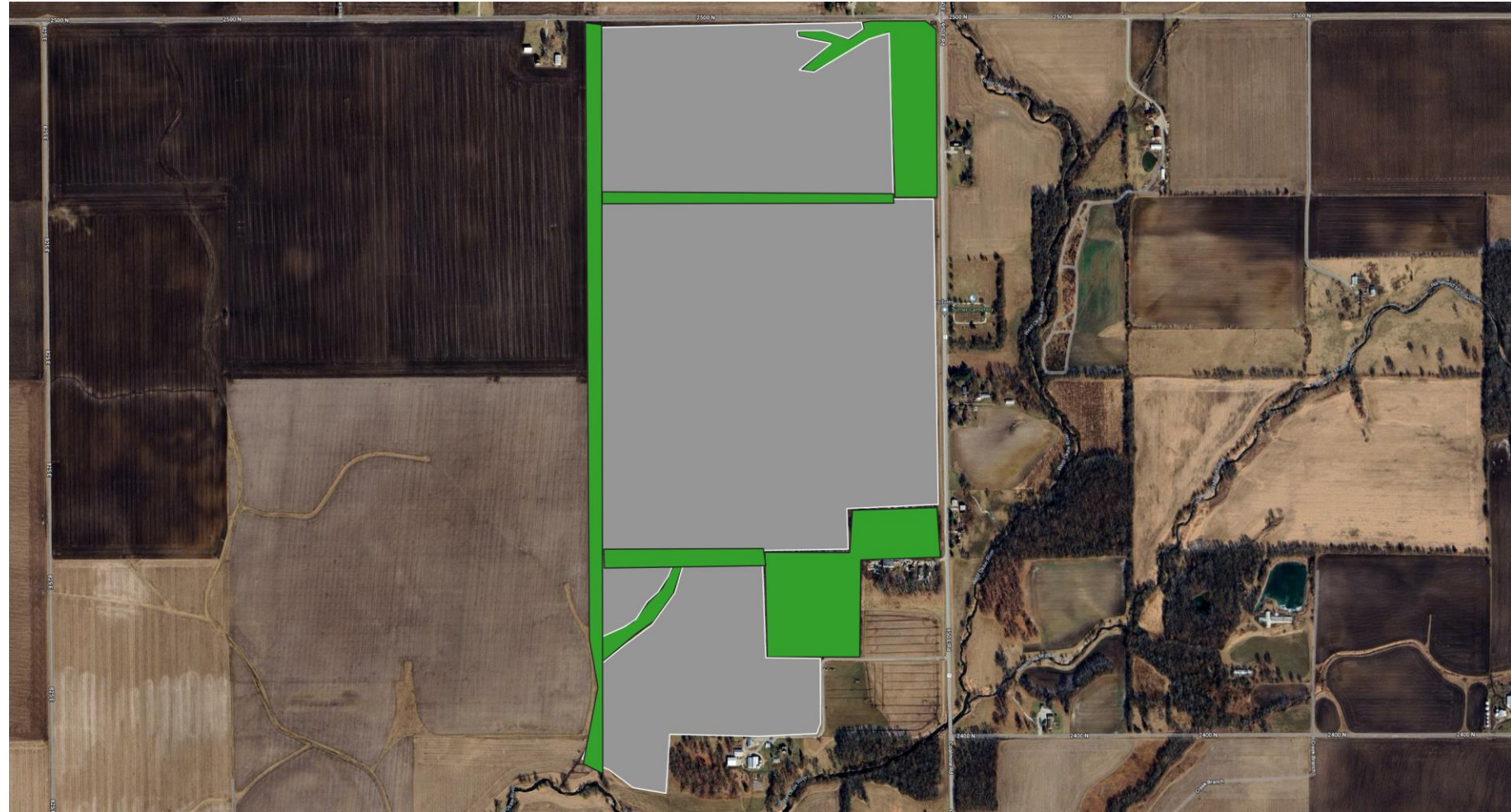
- Cropland
 - 276 acres (gray)
- Natural/semi-natural features
 - 12 acres (green), including forest, grass waterways
- Ratio (indicator)
 - $12/276 = 4.3\%$





Example – After Intervention

- Cropland
 - 266 acres (gray)
- Natural/semi-natural features
 - 22 acres (green), including forest, grass waterways
- Ratio (indicator)
 - $\frac{22}{266} = 8.3\%$





Ratio of Natural/Semi-Natural Areas to Cropland With A Temporal Component

Type	Months												Acre-year	Acre-month	Formula
Cropland	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	266	3,192	$266 \times 12 = 3,192$
NSN area	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	22	264	$22 \times 12 = 264$

The ratio of acre-months is the same as the last slide: $264 / 3,192 = 8.3\%$

Type	Months												Acre-year	Acre-month	Formula
Cropland	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	155	1,862	$266 \times 7 = 1,862$
NSN area	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	132	1,594	$22 \times 12 + 266 \times 5 = 1,594$

The ratio of acre-months of habitat to quantify off-season potential habitat would be $1,594 / 1,862 = 85.6\%$ (85% of available land as potential habitat [permanent + seasonal])



To Recap Option 1

- Entry-level indicator: ratio of natural/semi-natural (NSN) areas to cropland
- Entry-level indicator with temporal component: ratio of NSN area to cropland incorporating the concept of acre-months of permanent and seasonal habitat
- This indicator could potentially be used to report or track the guidance of improved ecological integrity (WBCSD), no conversion of natural ecosystem (SBTN), enhancement of biodiversity in agriculture (CBD), and cropland with natural vegetation (TNFD).
- We would continue working on a comprehensive indicator.



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Option 2



Option 2: Natural Resource Concerns Indicator

Instead of focusing just on a biodiversity indicator, we could apply a broader concept many of you suggested: a context-specific Resource Concerns Indicator.



Soil

America's vitality is rooted in the soil. Today, private landowners across the country are partnering with NRCS to conserve and improve soil. Additionally, NRCS is also a leader in soil science, playing a pivotal role in clas...



Water

Farmers, ranchers, and forest landowners recognize water as our Nation's most precious resource. Every day, new producers are stepping up to work hand-in-hand with NRCS to implement systems that conserve water and keep valuab...



Land

No matter if you grow crops or raise livestock, or you manage timber or want to improve your private land, NRCS has options for you that are good for your land and its natural resources.



Air

NRCS helps private landowners conserve our air resources. These address air quality and atmospheric change issues on farms and ranches.



Plants

Plants are common ingredients in many NRCS conservation practices. That's because they hold soil in place, protect stream banks and shores, filter pollutants, offer food for livestock and cover for wildlife. They also heal th...



Animals

Both domestic and wild animals are a critical component of ecosystems and our environment. Domesticated animals, such as livestock, provide us with food and fiber, while wildlife support healthy ecosystems.



Wildlife Habitat

Two-thirds of the land in the lower 48 states is privately owned, and produce much of the country's food and fiber. They also provide much of our nation's open space and the habitats that wildlife need.



Invasive Species and Pests

Invasive plants and pests can ruin crop fields and forests and drastically alter the natural processes of ecosystems.



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Plants

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Field Borders

Grassed
Waterways

Forest Stand
Improvement

Brush
Management



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Two-thirds of the land in the lower 48 states is privately owned, and produce much of the country's food and fiber. They also provide much of our nation's open space and the habitats that wildlife need.

Hedgerow
Planting

Streambank/
Shoreline
Protection

Structures
for Wildlife

Prescribed
Burning

Early
Successional
Habitat

Upland
Wildlife
Habitat



Natural Resource Concerns Indicator

- This indicator would also ask for the size of natural/semi-natural areas (e.g., one acre of Upland Wildlife Habitat) and the number of practices implemented. However, the framing would be broader than just biodiversity.
- As long as the size of natural/semi-natural areas is recorded as part of the indicator, members might be able to use the indicator in several supply chain reporting frameworks.



What Was Discussed Today

Option 1

- Simple indicator of the ratio of Natural/Semi-Natural areas to cropland (with a temporal component) to start piloting by 2025 without retiring the Habitat Potential Index
- Secure funding and hire appropriate help to develop a comprehensive indicator for 2026

Option 2

- Reframe the Biodiversity Metric as a Natural Resource Concerns Indicator to enable more flexibility by grower, region, and project



Quick Pulse Check

- Click on <https://forms.office.com/r/THnZpkh1Rj> (update: this form is closed)
- We'll discuss the feedback received in real-time

Homework

- Full feedback form: <https://forms.office.com/r/5k4Atwj2TD>
 - This form will remain open until October 15, 2024

Next Steps

- We will summarize the feedback received today and see if there is any alignment among members.
- Depending on the level of alignment, we may host one more workshop in late October.
 - Reach a decision?
 - Refocus the effort?
- We plan to publish a document describing our efforts in the past six years in the biodiversity space and what we have learned collectively as staff and from Field to Market members.

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ADJOURN

