

# ASSESSING THE BREADTH & DEPTH OF SHRIMP AQUACULTURE CERTIFICATION SCHEMES

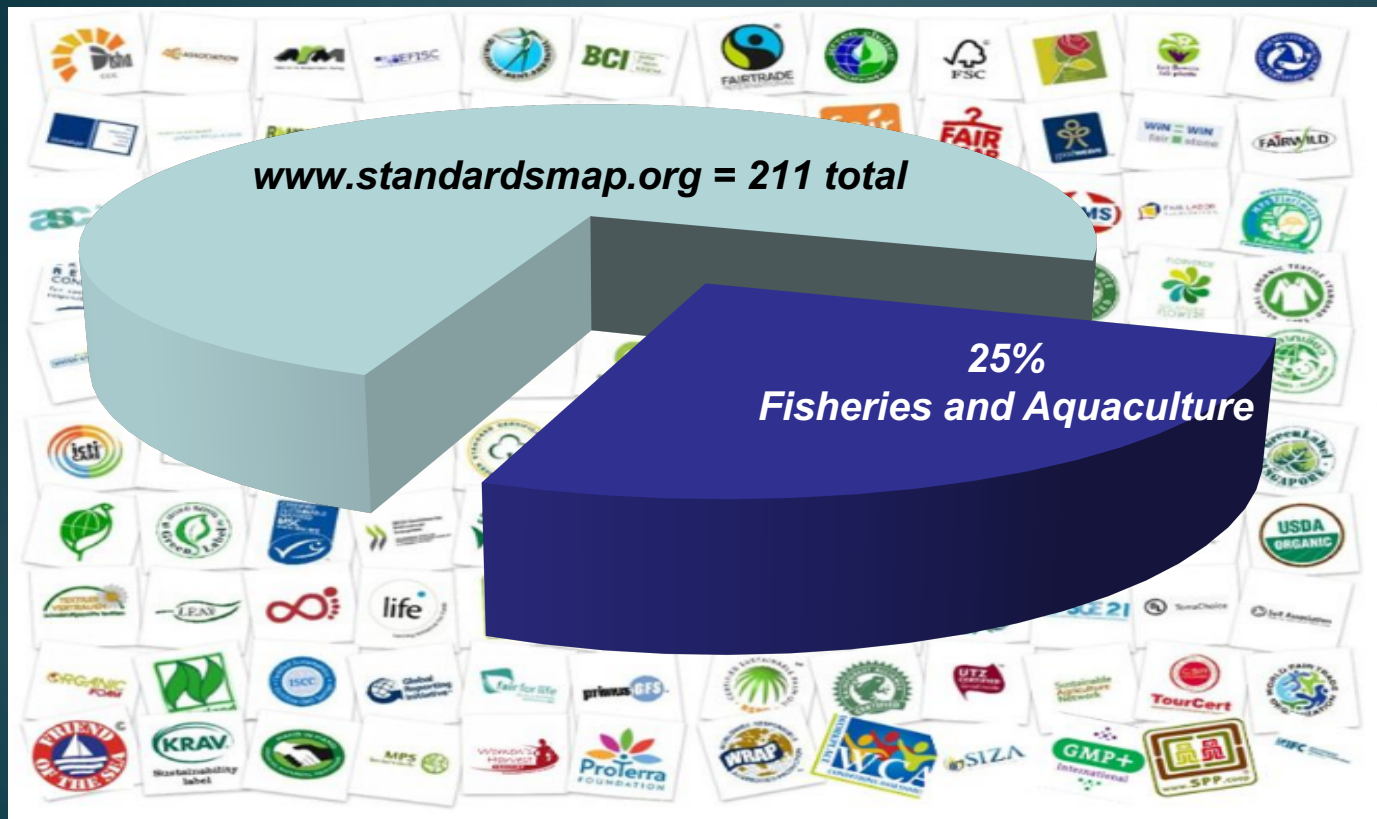
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@TlustyM

# There are many certifications — How do they compare, and can they work together?





# *My belief is....*

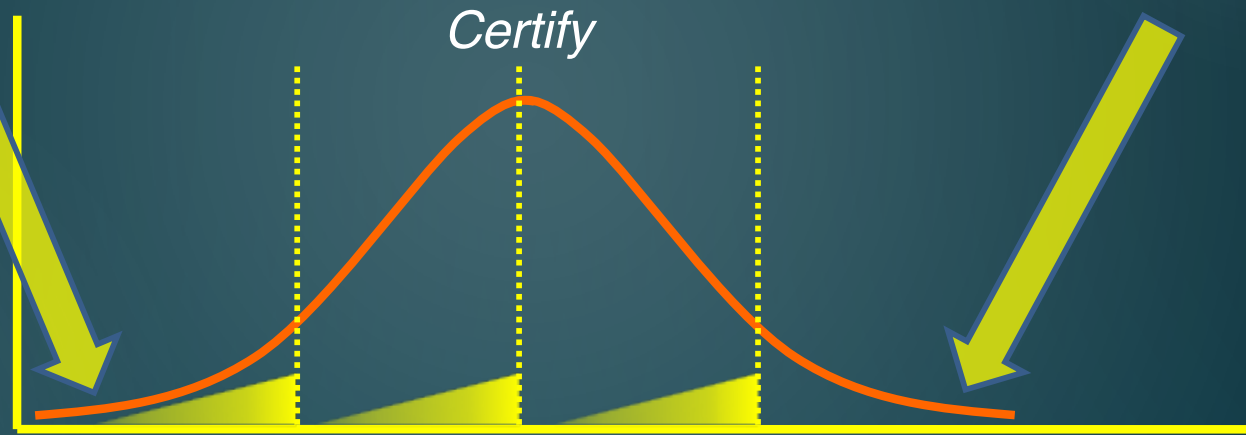
We don't need one certification. For seafood to continually improve, we need many. They need to be differentiated and we need to link them to create a path toward greater sustainability.



# Multiple certifications — part of a strategy to improve all of aquaculture

*Ensure regulatory environment keeps pace with sector development*

# of producers



Lower environmental impacts →

# The challenge: Shrimp standards



**Can we tell the difference between:**

3 international standards

BAP, ASC, GlobalGAP

3 national standards

Thailand, Vietnam, Indonesia

Across five categories of impacts

- Environmental protection
- Social issues and community protection
- Feed
- Supply risk (e.g., disease)
- Food safety



**GOAL**  
2016 Guangzhou China

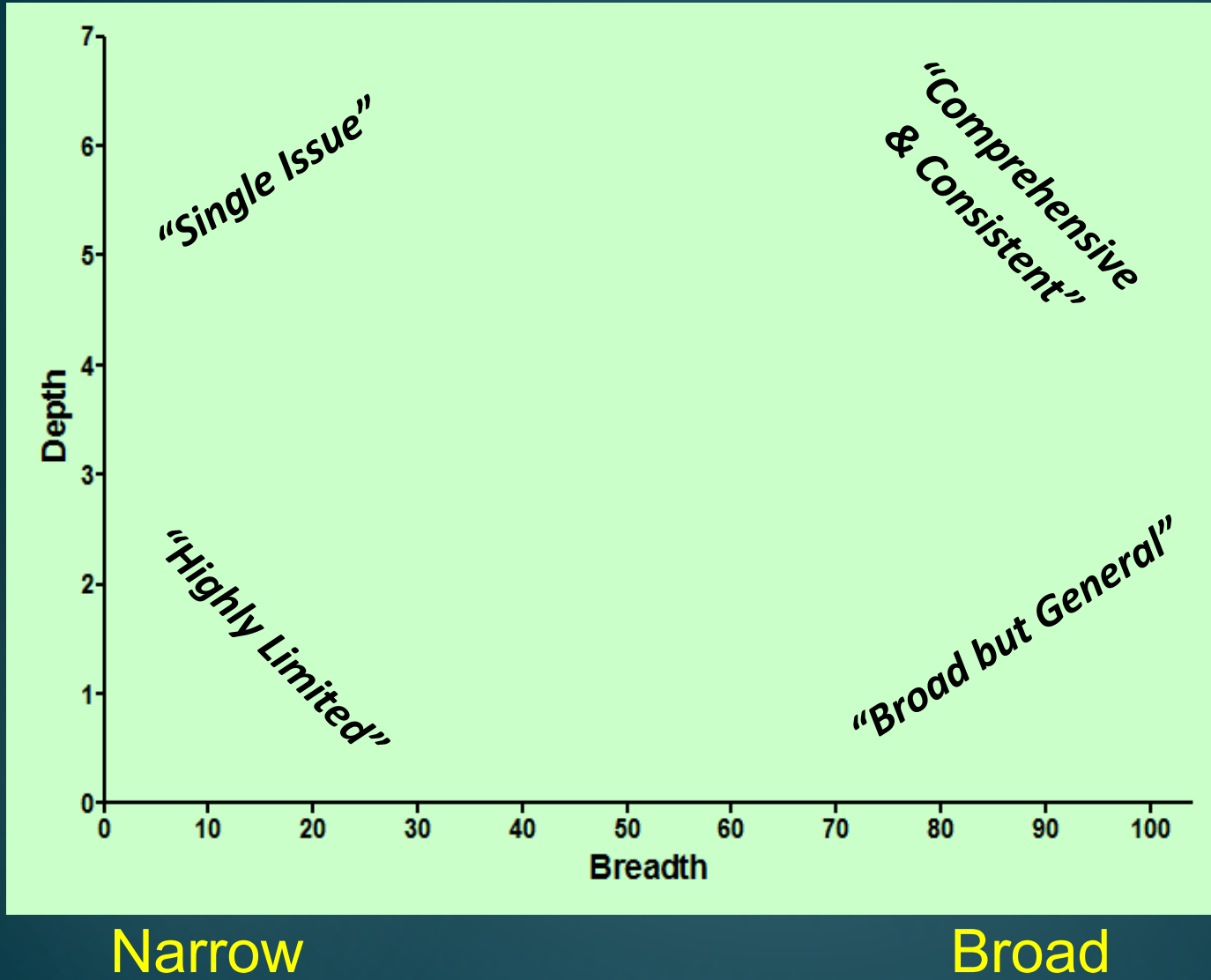
# Heaven Lake, 天池

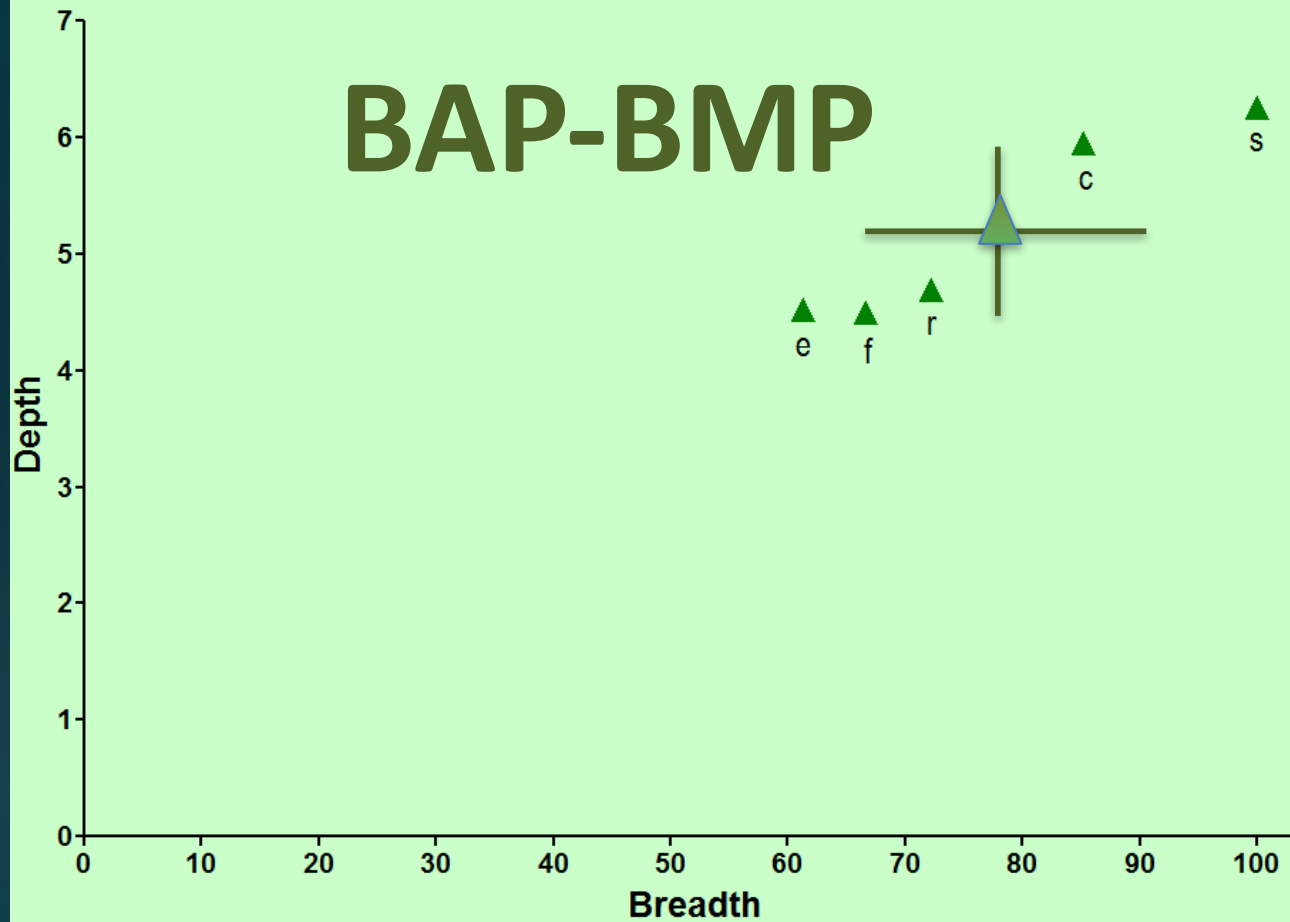
Breadth or Area: 9.82 km<sup>2</sup>

Depth: 384 m



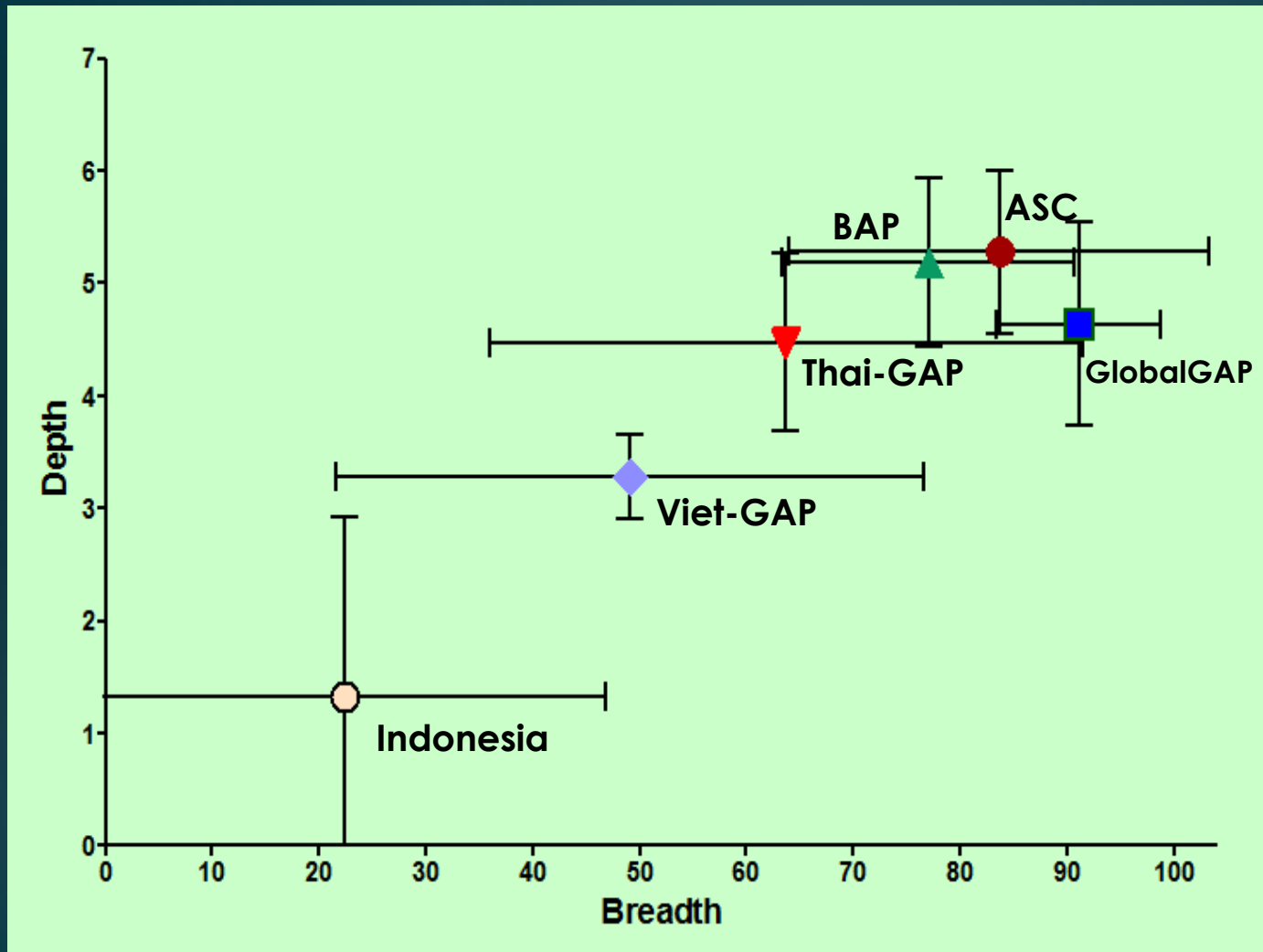
Less Stringent More Stringent

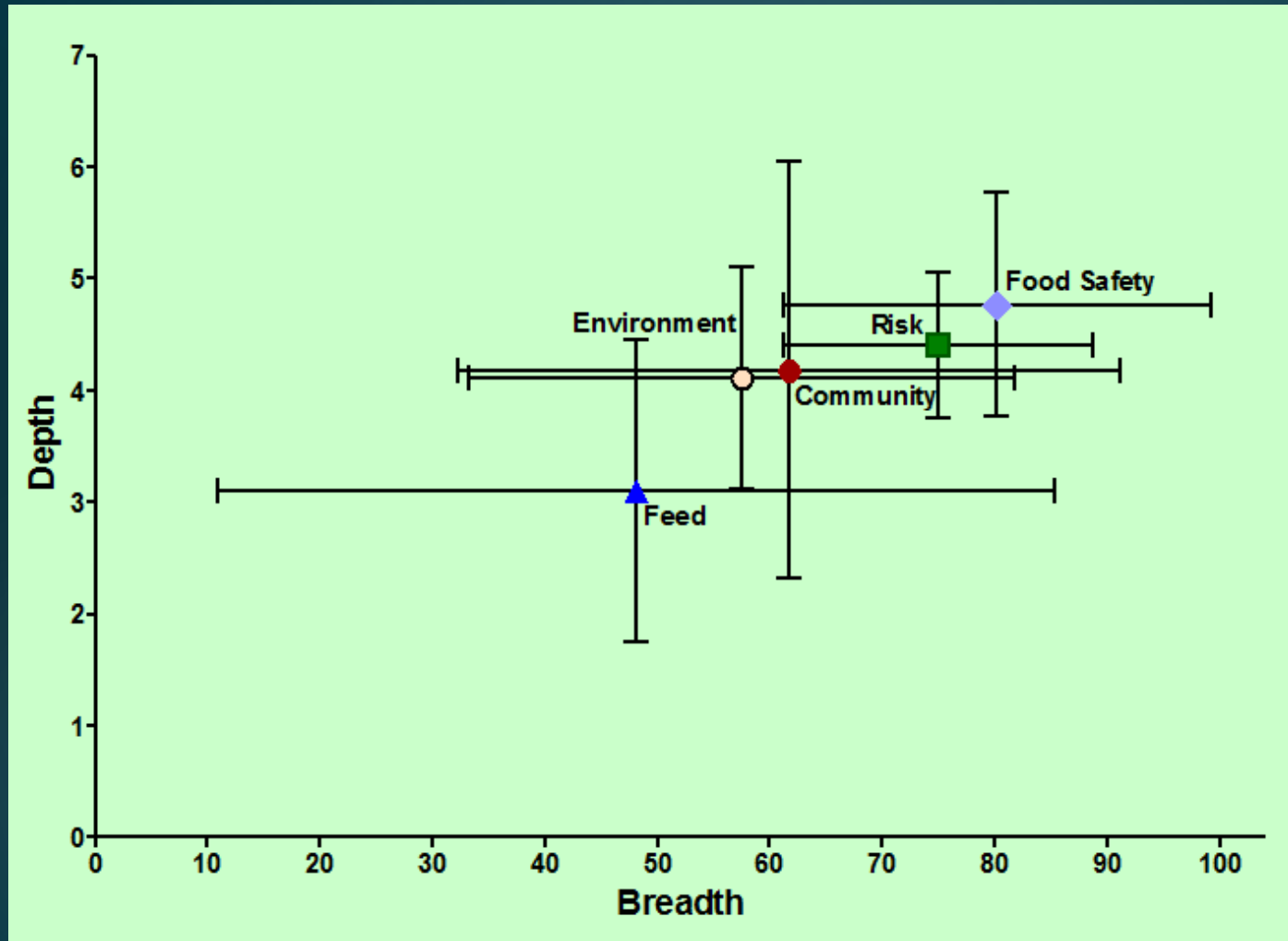




- e - Environmental protection
- s - Social issues and Community Protection
- f - Feed
- r - Supply risk (e.g., disease)
- s - Food safety







# Key findings



- Breadth and Depth scoring was able to visually represent potential differences in rigor between standards.
- Groupings highlighted differences between national and international standards. National schemes can have a broad coverage of issues but also ignore whole issues (e.g., feed).
- Scoring reflected the key differences in the approaches used by standards.
- Comparisons on individual criteria are more descriptive than summary statistics.
- More advanced statistics can be used to tease apart differences (but that is the purpose of the statistical methods).



# Thank you!



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Statistical tools to assess the breadth and depth of shrimp aquaculture certification schemes

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