

Framing issues & introductory remarks

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Bioenergy Sustainability Conference

Nashville TN • Oct 21, 2019



Welcome!



BIOENERGY SUSTAINABILITY CONFERENCE

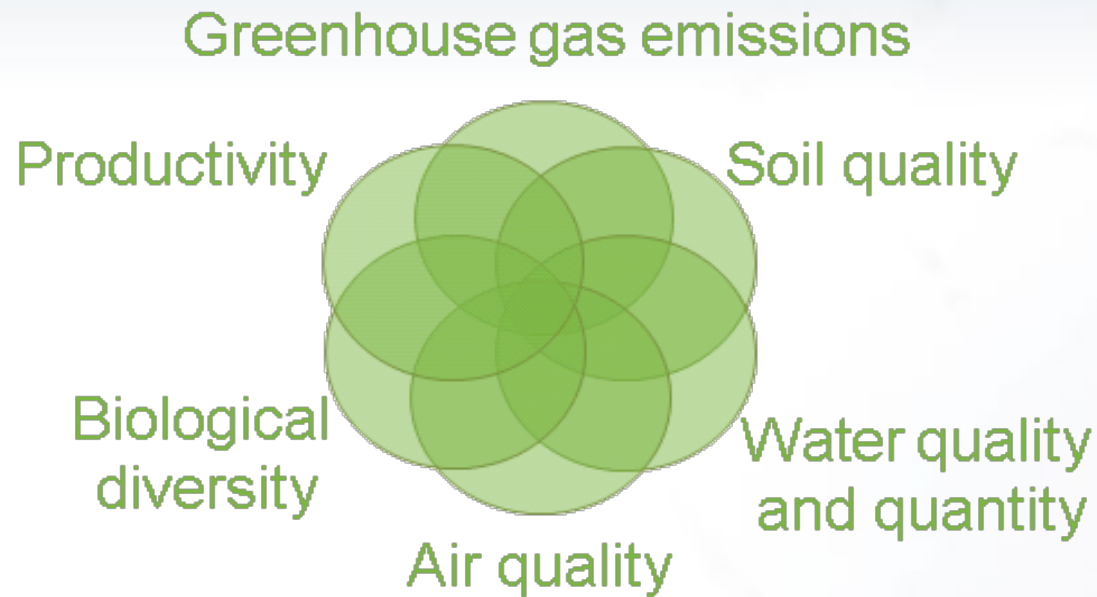
October 21-22, 2019 | Nashville, TN

Objectives – discuss recent research advances and –

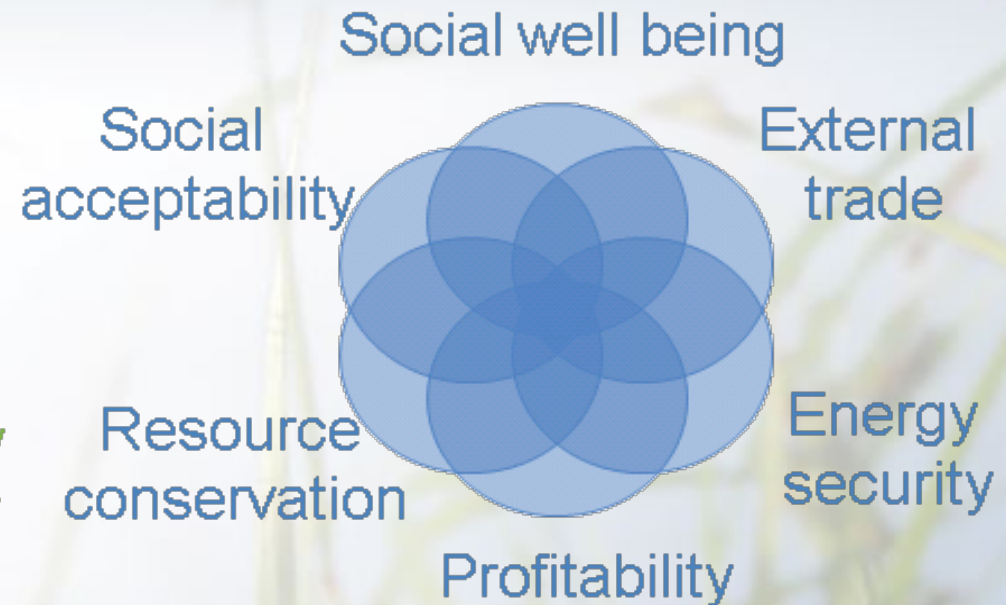
- What are the key challenges to more sustainable bioenergy?
- How is “sustainability” defined in your program?
 - Research priorities
 - Specific work underway
- Path forward
 - Lessons learned from failures
 - Challenges of junk science
 - Terminology & definitions matter

Bioenergy sustainability indicators

(12 categories of 35 indicators)



McBride et al. (2011)
Ecological Indicators
11:1277-1289



Dale et al. (2013)
Ecological Indicators
26:87-102.

Recognize that measures and interpretations are context-specific

Efroymsen et al. (2013) *Environmental Management* 51:291-306.

Engage stakeholders and local communities in process



Analysis and Sustainability

Strategic Goal: *Develop science-based strategies to understand and enhance the economic, social, and environmental benefits of advanced bioenergy relative to conventional energy systems.*

Approaches:

- Develop and maintain analytical tools, models, methods, and datasets to support science-based quantification and improved decision-making.
- Ensure high-quality, transparent, reproducible, peer-reviewed analyses.
- Explore the impact of emerging opportunities and identify R&D needs and critical metrics to enable new ideas.
- Develop sustainable system designs that increase bioenergy production while enhancing economic, social, and environmental outcomes.
- Ensure broad engagement with stakeholders.



Enhancing the Economic, Social, and Environmental Benefits of a Growing U.S.

Great program coming up --
Thank you!



<http://www.ornl.gov/sci/ees/cbes/>



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