# **Beyond ILUC:**

# **Towards a Sustainable Biofuels Industry**

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IATP - ILUC Meeting - September 14, 2011

# My Bona Fides: An Early Sparring Round

Friday, February 15, 2008 9:06 am

Minnesota Public Radio Stories





• Are biofuels earth-friendly?: Two recent studies in the journal Science argue that biofuels like ethanol might contribute to global warming.

#### Guests:

Joe Fargione: Regional science director for the Nature Conservancy.

Timothy Searchinger: Researcher at the Woodrow Wilson School of Public and International Affairs at Princeton University.

Bill Lee: General Manager of the Chippewa Valley Ethanol Company in Benson, MN and former chairman of the Renewable Fuels Association.

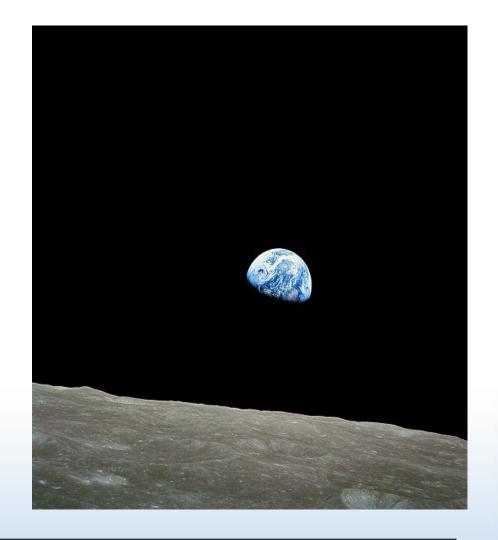


## sustainability, adj...

Show of hands....

Is it Important?

Or Not?



"We can't get it together, it IS together..."

Stewart Brand



# **Further Points of Agreement?**

- Extracting finite fossil energy from the earth is not sustainable by any definition
- Biofuels <u>can</u> have much lower carbon intensity (CI) than fossil fuels and <u>have the</u> <u>potential</u> to be "sustainable"
- Biofuels have "inherited" concerns over the sustainability of modern crop agronomy

# How to Create Sustainable Biofuels and Agricultural Industries

First, you get consensus on....

"Sustainability"

...then quickly move on to the difficult bits...



#### What's Your Definition of Sustainable Agronomy?

- Soil Scientist: Carbon / Organic Matter Content
- Conservationist: Topsoil Erosion
- Farmer: Productivity, Yields and Profits
- Economist: Commodity and food prices, jobs, BOT
- Environmentalist: water use/water quality impacts
- Ecologists: Species diversity
- Climate scientists: Net GHG emissions
- Nat'l Security/Military Strategist: Domestic fuels
- Social Scientist: Viable of small farm communities

Can we say that outcomes that only optimize some of these concerns are Sustainable?



# Sustainability and Biofuels Policies

#### RFS2

- 1<sup>st</sup> complete year = 2011
- Sole metric is CI\*
- Huge market potential
- Pass:Fail
- Corn ethanol = Success!(?)
- Cellulosic & Advanced biofuel = Failure to-date
- ILUC wrangling will have minimal affect

#### LCFS (CA & Other States)

- 1<sup>st</sup> reporting year = 2011
- Sole metric is CI
- Huge market potential
- Rewards improvement
- Feedstock & technology neutral
- ILUC increment could inhibit some biofuels participation
- No certainty that its backloaded, steeply inclining requirements will drive biofuels innovation or use



<sup>\*15</sup> bgpy cap for corn ethanol is a permanent implicit metric of unsustainability

# **How Did We Get Here?**

- RFS2 and LCFS reflect battles between two (too) narrow sustainability definitions
  - Environmental community:
     Flawed Perspectives
    - Ag/Biofuel community:
       Flawed Perspectives
- RFS2 corn ethanol trade-offs were they worth it?
- LCFS uncertain sustainability outcome!

### What is a Better Direction?

- Ag and Enviros! More engagement, dialog and a broadening mutual definition of "sustainability"
- Start small, start larger, just Start Talking
- In policy initiatives strive for:
  - Performance-based incentives
  - Feedstock and technology neutrality
  - Honest accounting of the fossil baseline
  - Simple, manageable but robust metric accounting
  - Prioritize initiatives that improve multiple metrics



 "Better Together\*" alignment is absolutely necessary to broadly advance "sustainability"

\*N. Greene – 11:37 am IATP/ILUC Meeting U of M .St. Paul

