

Offsets from CA and Midsouth Rice Production

Climate Action Reserve Webinar
February 16, 2012



Conservation Innovation Grant 2011-2014

- First CIIG project 2007-2010
- Scope of current CIIG: California and Midsouth
- Partners: California Rice Commission, Winrock International, TerraGlobal Capital, DNDC-ART, PRBO Conservation Science, and more.



Goals of the Project

- Demonstration of aggregation and verification for rice projects
- Economic modeling
- User interface tool development
- Wildlife habitat assessment
- Outreach to the California Air Resources Board



Project Practices

- Eligible practices in CA: Baling, dry seeding, reduced winter flood
 - Early drainage (draining 5-10 days before the normal drain date)
- Potentially eligible practices in the Midsouth:
 - Installation of side inlets, intermittent flooding, early drainage, winter flood management, zero grade and stubble removal, pump and motor enhancements

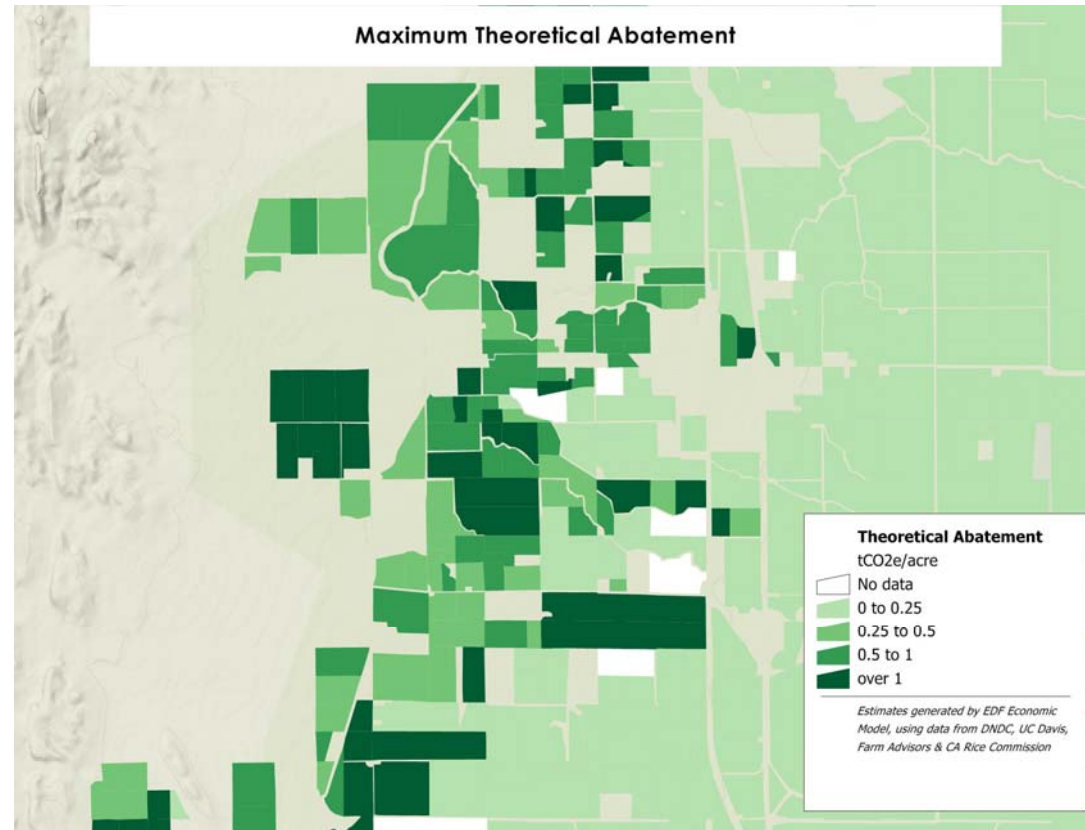


Economic Model

- Estimates of carbon project profits
- Inputs into the model:
 - Emissions from DNDC model
 - Cost assumptions and yield data for various practices (UC Cooperative Extension data and farmer consultation)
 - Price of rice received (2010 state average from USDA): \$17.80/cwt
 - Projected carbon credit value: \$10/ton



Potential GHG savings



- Estimates of potential tons in CA; Midsouth forthcoming
- Combination of practices affects emissions

Profit Estimates

- Field perspective
 - Very dependent on yield results
 - Switching to a practice may produce some cost savings, but yield decreases would eliminate that practice.

| Farming Practice | | Yield (cwt/ac) | Difference in Yield (cwt/ac) | Difference in Emissions (tCO2e/ac) | Difference in Cost (\$/ac) |
|--------------------|-----------------------|----------------|------------------------------|------------------------------------|----------------------------|
| No Winter Flooding | Residue Incorporation | 88.35 | 0.00 | 0.00 | 0.00 |
| | Baling | 88.33 | -0.02 | -0.02 | 43.67 |
| | Surface Residue | 88.35 | 0.00 | 0.00 | -19.26 |
| | Drill Seeding | 80.06 | -8.29 | -0.64 | -19.64 |
| | | | | Area: 127 acres | |

Profit Estimates Continued

| Farming Practice | | Yield (cwt/ac) | Difference in Yield (cwt/ac) | Difference in Emissions (tCO ₂ e/ac) | Difference in Cost (\$/ac) |
|--------------------|-----------------------|----------------|------------------------------|---|----------------------------|
| Winter Flooding | Residue Incorporation | 88.17 | 0.00 | 0.00 | 0.00 |
| No Winter Flooding | Residue Incorporation | 88.17 | 0.00 | -0.66 | -0.35 |
| | Baling | 88.17 | 0.00 | -0.39 | 43.32 |
| | Surface Residue | 88.17 | 0.00 | -0.68 | -19.61 |
| | Drill Seeding | 87.94 | -0.24 | -0.96 | -19.63 |
| Area: | | 137 acres | | | |



Challenges and Opportunities

- Use of DNDC
- Early adopters
- Verification
 - Practices
 - Costs



Questions?

Candice Chow-Gamboa
Working Lands Program Associate
cchow@edf.org
916.492.7172

