



# Using Models to Inform Climate Change Policy: Current Priorities

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# Modeling Priorities

- *Current conditions/baseline*
- *Domestic agriculture/forestry sector*
- *International Assessments*

## **Current conditions/baseline**

- **Changes in specific farm/forest production and land use management practices produce GHG mitigation benefits**
- **Incentivizing the use of these practices and land uses is one straight forward approach to creating opportunities for agriculture and forestry in a national GHG framework.**
- **To evaluate the potential of this approach, USDA needs a detailed picture of current production practices and land uses on the ground – for crops, livestock, and forestry**

# **Current conditions/baseline: Key Questions**

- **What is the difference between current practices and “100 percent adoption?”**
- **How many farms/forests and acres would be eligible for “early adopter” incentives?**
- **Do predicted or observed changes in U.S. practices constitute net changes?**
- **How do practices differ among states? This would indicate the distribution of potential benefits and costs associated with specific offset/set-aside provisions.**
- **What are the current trends in carbon sequestration in forests?**

## **Domestic A&F sector assessments**

- **It appears unlikely that agriculture and forestry would be included as covered industries in the context of a national GHG mitigation framework.**
- **It is generally recognized that these sectors are potential sources of significant low cost mitigation opportunities.**
- **There are very divergent views on if and how agriculture and forestry should be included in a national framework to reduce GHG emissions.**

# Domestic A&F sector assessments: Key questions

- What are the implications of including agriculture and forestry under a set-aside, as offsets, with both provisions?
- How would agriculture and forestry be impacted by a carbon tax on energy?
- How would renewable fuel mandates affect agriculture and forestry's GHG profile? What are the effects of a carbon tax or cap-and-trade on bioenergy?

# **Domestic A&F sector assessments: Key questions**

- **Can the USDA Conservation programs play a larger role in GHG mitigation**
- **What are the potential roles/implications of managing public lands for GHG mitigation?**
- **What are the implications to agriculture and forestry of alternative choices for a baseline?**

# **International Assessments**

- **The parties to the UNFCCC and the Kyoto Protocol have set a goal of completing negotiations on new agreements by December 2009.**
- **The US has decided to include emissions from indirect land use change in GHG lifecycle assessments of biofuels.**



# **International Assessments: Key Questions**

- **What are the implications of international land-use change for domestic GHG and renewable fuels policies?**
- **How would different global frameworks for reducing tropical forestation affect US agriculture and forestry markets?**
- **How would these impacts be affected as the level of commitment increases?**
- **What would the time path of impacts look like over 10, 25, 50, and 100 years?**

**Thank you**

