

**California Air Resources Board Expert Workgroup
Preliminary Prioritization of Topics**

Please rate each of the potential topics as high (H), medium (M), or low (L) priority for the workgroup by placing an X in the appropriate rating column.

Potential Expert Workgroup Topic	Rating		
	H	M	L
GTAP Model:			
Elasticity values – Input values used for land use modeling for different fuels.			
Impacts on food consumption – The impacts of large scale use of crop based biofuels on food price and consumption and the resulting net effect of changes in food consumption on LUC emissions.			
Co-products – The credit allotted to co-product benefits.			
Land cover types – Types of land available for conversion to cropland and effects on land use change estimates.			
Yield changes/intensification of farming – Impacts from intensification of farming activities performed to achieve higher yields induced by price effects.			
Other Land Use Change/Indirect Effect Topics:			
Emission factors – Review of emission factors used for converting a land use change value to equivalent GHG emissions.			
Time accounting – Review of time accounting methods.			
Livestock issues – Potential for intensification of livestock management and changes in emissions from enteric fermentation.			
Yield changes over time – Evaluate the external model adjustment for changes in yield from the model baseline year to current yields.			
Sustainable practices – Review sustainable farming practices and their effects on LUC emissions.			
Uncertainty in LUC estimates – Conducting a more comprehensive sensitivity analysis and validating land use change estimates with empirical data.			
Biofuels without LUC emissions or other indirect effects.			
Other Fuels:			
Secondary effects in the energy market – Review indirect effects associated with other fuels.			
Land use effects – Identification and quantification of direct and indirect land use effects of other fuels.			
Comparative Modeling Approaches:			
FAPRI-FASOM - Compare FAPRI-FASOM models (used by U.S. EPA) to GTAP.			
Dynamic modeling – Explore potential of dynamic models in LUC modeling.			
Other approaches - Other approaches that can be used in place of indirect land use modeling for quantifying indirect emissions for biofuels, such as the concept of "opportunity cost".			
GREET Model:			
Co-products – The credit allotted to co-products benefits.			
Fertilizer use – GHG emissions resulting from fertilizer application.			
Sustainable practices – Review sustainable farming practices and their effects on direct farming emissions.			
Water use – GHG emissions resulting from irrigation practices.			

Please list any additional topics that you believe the workgroup should address:

1.