Membership

• ARB staff representative: Kevin Cleary
• Uwe Fritsche (Oeko-Institut, Germany)
• Holly Gibbs (Stanford University)
• Keith Kline (ORNL)
• Steffen Mueller (University of Illinois at Chicago)
• Richard Nelson (Kansas State University) – Co-chair
• Don O’Connor (representing CDFA, S&T Consulting)
• Michael O’Hare (University of California, Berkeley)
• Sonia Yeh (University of California, Davis) – Co-chair
Task 1. Identify and compare the existing datasets and C emission factors

- Consult experts and conduct internal comparative review of datasets used for direct and indirect LULUC analyses
  - EPA Renewable Fuel Standard 2010 (EPA)
  - CARB-Woods Hole Research Center (WHRC)
  - FAO – Forestry Resources Assessment 2005 (FRA 2005)
  - New IPCC Tier-1 Global Biomass Carbon Map for the Year 2000 Global Above-and Below-ground Living Biomass Carbon Density (R&G)
  - C stock estimates for tropical landscapes (Gibbs 2008)
Task 1. Identify and compare the existing datasets and C emission factors

• Compare assumptions about C stock (biomass C and soil C), conversion, and fluxes
  – Spatial resolution of land types and associated cover and the corresponding data on C stock (biomass C and soil C), fluxes (sources and sinks) in the reference and disturbed scenario
  – Degradation factors to existing forestland
  – Rate and duration (and the spatial resolution) of biomass and soil C loss after conversion
  – Rate and duration (and spatial resolution) of C uptake (+/-) after land use conversion in the corresponding converted land use type(s).
Task 2. Identify important GHG emission sources and sinks that are ignored in previous analysis

- *Additional* fertilizers that will be required to improve yield
- Other inputs changes (e.g. energy inputs +/-) associated with yield and/or management changes
- **Credits for crops that sequester N2O**
- GHG emissions from land that stayed in the same use category but changed management practices
- **Accounting of harvested wood**
- Other non-GHG aerosols and gases, such as ozone precursors, carbon monoxide (CO), nitrogen oxides (NO$_x$), sulfur oxides (SO$_x$), and black carbon (BC)
- Should albedo be considered?
- **Mode of clearing (burning vs. smoldering vs. mechanical)** affects the BC and CO emission factors
Potential Outside Experts

• **Suggested by subEWG members:**
  – Brent Sohngen/OSU (Global land use/biomass emission factors and databases)
  – Richard Houghton (WHRC) (Global soil and biomass C stock and emission factors)
  – Dr. Charles Rice, Kansas State University
  – Dr. Tristam O. West, ORNL
  – Sassan Saatchi (NASA JPL) - tropical to global biomass maps using satellite data
  – Experts from MIT (Emission factors used in EPPA model global land use/emission model)
  – Experts involved in the European studies (Emission factors most related to EU ILUC studies)
  – Susan Tarka Sanchez, Life Cycle Associates, LLC from CEC FFCA Deliverable (review of EPA/CARB methodology and lit review)
  – Johan Six and Mark Delucchi (UCD) (N2O emissions)
  – Nancy Harris, Sean Grimland and Sandra Brown/Winrock
  – Experts from Woods Hole (Global soil and biomass C stock and emission factors)
  – Gregg Marland, ORNL (Global soil and biomass C stock and emission factors)

• **Suggested by stakeholders:**
  – Rob Mitchell ([rob.mitchell@ars.usda.gov](mailto:rob.mitchell@ars.usda.gov))
  – Heather Young ([hlyoungs@berkeley.edu](mailto:hlyoungs@berkeley.edu))
  – Marta Chrusch