



California Carbon Fest 2018: International Challenge in Terrestrial Carbon Measurement and Mitigation

Dates: September 10 – 13, 2018

Blue Oak Ranch Reserve & San Francisco, California

The Carbon Institute is bringing together international terrestrial carbon specialists to the UC Berkeley Blue Oak Ranch Reserve in a challenge to estimate land-use and forest carbon stocks and fluxes. The California Carbon Fest 2018 will be held in conjunction with the Global Climate Action Summit to “to showcase climate action and inspire deeper commitments from national governments, and each other, in support of the Paris Agreement.”

The Carbon Fest 2018 event will highlight a new successful model of international cooperation to use advanced science and technical skills to advance joint climate change mitigation and adaptation. This international effort will showcase the University of California Natural Reserve System, the world-class greenhouse gas science of UC schools, the value of international partnerships, and the use of new technologies to estimate emissions factors and activity data. The Carbon Fest 2018 will also explore techniques to estimate fire risk as a way of projecting possible terrestrial carbon fluxes.

The challenge will involve environmental science experts and students from the United States, China, Indonesia, Cameroon, and the Democratic Republic of the Congo. Experts will work in teams, based on technical specialty. Partners on each team will collaborate and estimate the terrestrial carbon stocks and fluxes (emissions and removals) of the reserve and assess key options to increase the resilience of the reserve to wildfires. The teams will apply their expert judgment on how to stratify lands, which methodologies to apply, generation of activity data (rate change) and emissions factors (carbon densities). The overarching goal will be to use science to inform increased ambition and action on climate change. The teams will use primary field data, data supplied by the Blue Oak Ranch Reserve and The Carbon Institute, as well as peer-reviewed science.

An International Panel will judge the teams’ success in satisfying the inventory quality indicators of the United Nation’s Intergovernmental Guidelines: transparency, consistency, comparability, completeness and accuracy (TCCCA). The event is sponsored by The Carbon Institute, along with government and academic partners and funders in the US, China, Indonesia, Cameroon, and the Democratic Republic of the Congo, and is hosted by the UC Berkeley Blue Oak Ranch Reserve. The event will conclude with an award ceremony in San Francisco, at the Sky Changers Awards, also an official affiliate event of the Global Climate Action Summit.



Specifics:

- Experts and students from developing country universities (Indonesia, China, Cameroon, Democratic Republic of Congo) and UC Berkeley.
- The teams will estimate the Blue Oak Reserve carbon stocks as well as net and gross carbon emissions within the reserve over a given period.
- The teams will apply the 2006 IPCC guidelines and be judged according to the five quality indicators of Transparency, Consistency, Completeness, Comparability, and Accuracy.
- The teams will estimate sources of uncertainty and suggest how uncertainty can be reduced for tighter inventories and mitigation.
- The teams will clearly communicate suggested land-use management and policy responses to emissions (including increasing fire and infestation risk).
- The teams will transparently share their emissions factors, activity data, and analyses. High quality emission factors may be submitted to the international Emission Factor Database of the IPCC.

We will achieve:

- A novel technical challenge to showcase excellence in GHG science.
- Examples and processes for how to apply IPCC guidelines at sub national scales.
- Information and recommendations about uncertainty analysis, clearly communicated to policymakers.
- The launch of Sky Changers award program and fellowship.
- A new form of international cooperation to support California and international efforts to guide mitigation and verify actual changes.
- A menu of future proposed research projects enabled by international carbon collaboration, developed collaboratively by the teams.
- Carbon neutralization (pending agreement with a quality offset provider).

Schedule:

- The teams will complete their work at the Blue Oak Reserve from September 11-13.
- The International Judging Panel will assess the work on September 13.
- The Sky Changers Awards will be presented on September 13 at the prestigious Battery Club in San Francisco, with a keynote speech by the world famous explorer and climate change activist, Tim Jarvis.

Event Partners and Participants:

- The Carbon Institute; UC Berkeley (US); the GHG Management Institute (US); the Centre for Climate Risk and Opportunity Management, Bogor Agricultural University (Indonesia); the Forest Carbon Accounting and Monitoring Centre, State Forestry Administration (China); CRESA Foret-Bois, University of Dschang (Cameroon); University of Kinshasa (Democratic Republic of the Congo).