

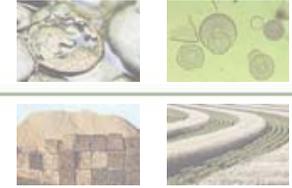
REDD as a Compliance Option

Brian Murray
Director for Economic Analysis
Nicholas Institute for Environmental Policy Solutions
Duke University

Workshop on sector-based offset crediting and a subnational (REDD) program

California Air Resources Board
Sacramento, CA

July 30, 2010



Overview

- Basic REDD concepts
 - What
 - Why
 - Who
 - How
- Policies/how incentivized
- Critical challenges/design issues
- What this means for California

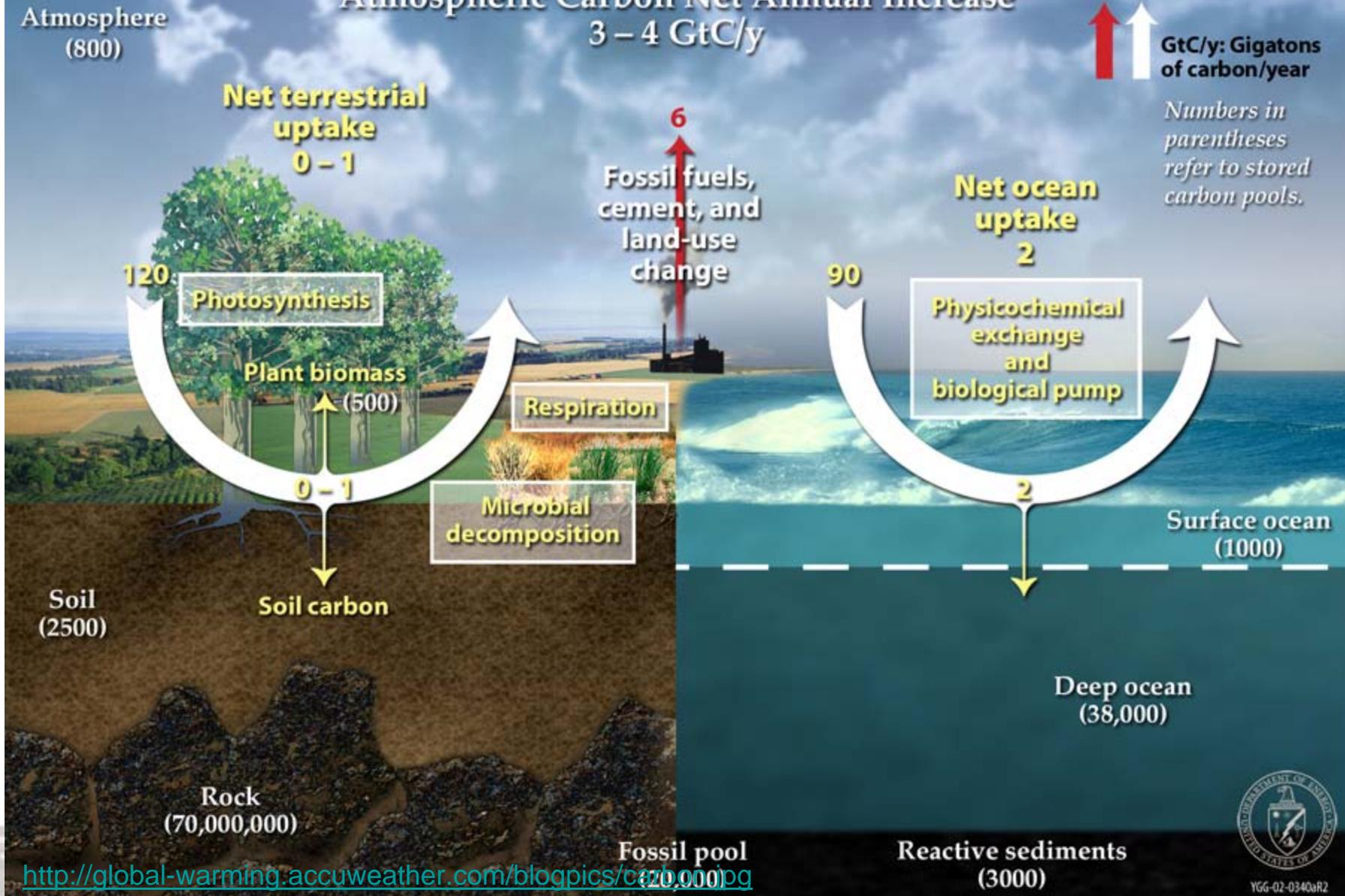


Simplified Global Carbon Cycle

Atmospheric Carbon Net Annual Increase
3 – 4 GtC/y

 GtC/y: Gigatons of carbon/year

Numbers in parentheses refer to stored carbon pools.



<http://global-warming.accuweather.com/blogpics/carbon.jpg>

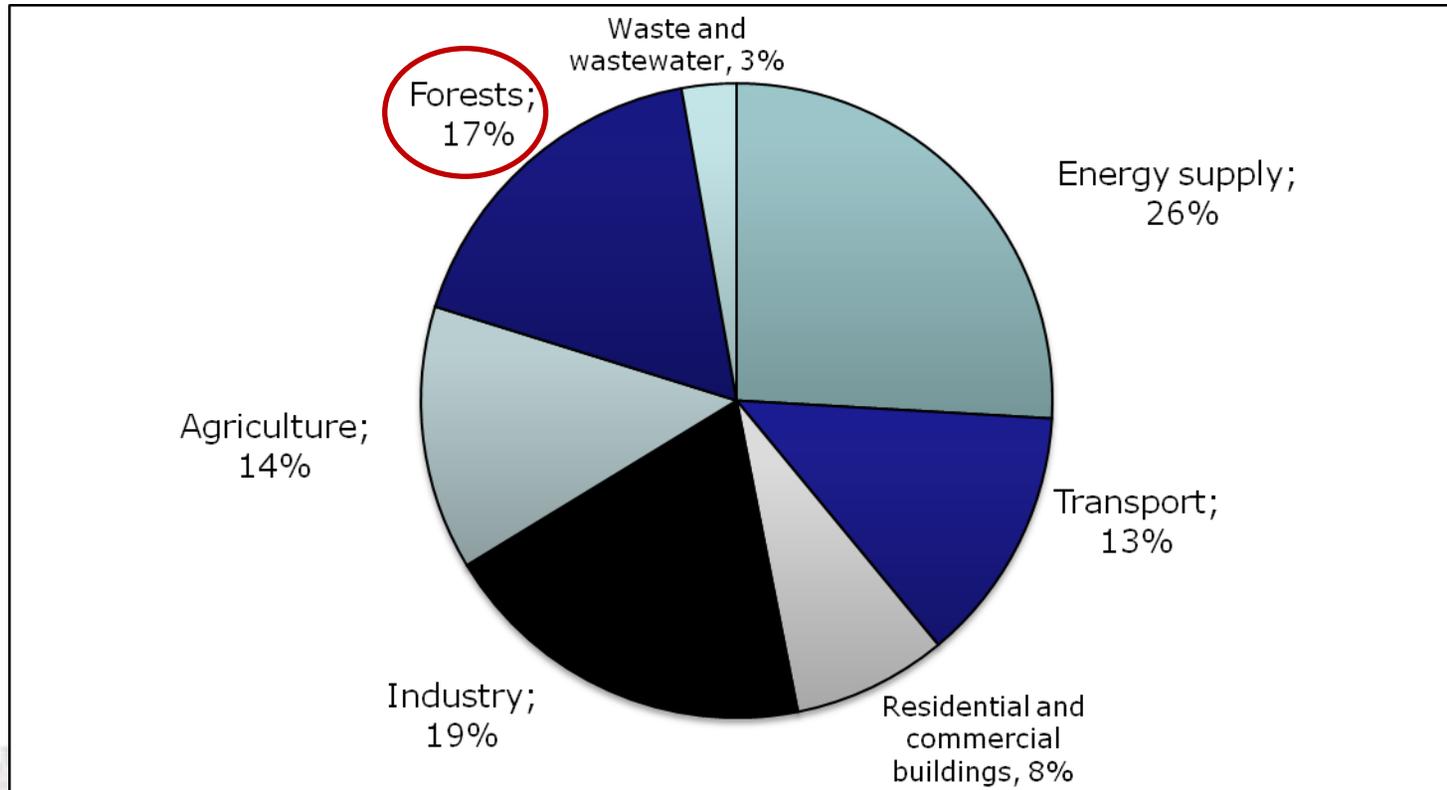


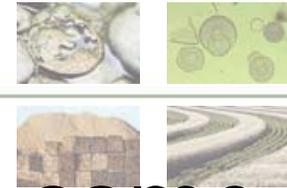
YGG-02-0340aR2



Stopping forest loss helps combat climate change

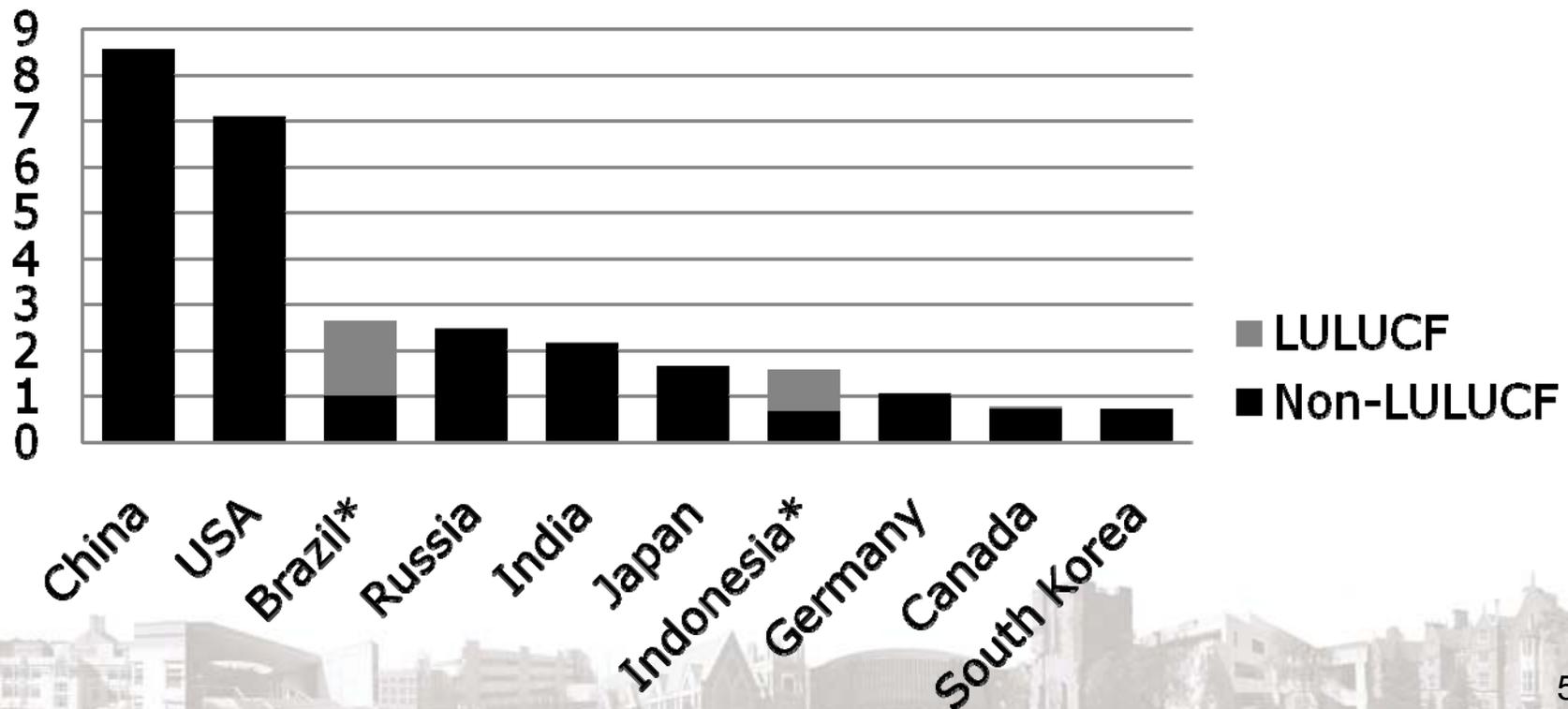
And losses in biodiversity, water degradation, other ecosystem services, and traditional livelihoods ...



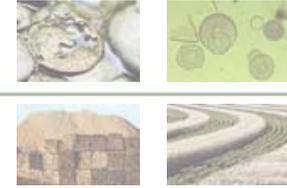


Deforestation is main source for some top emitting countries

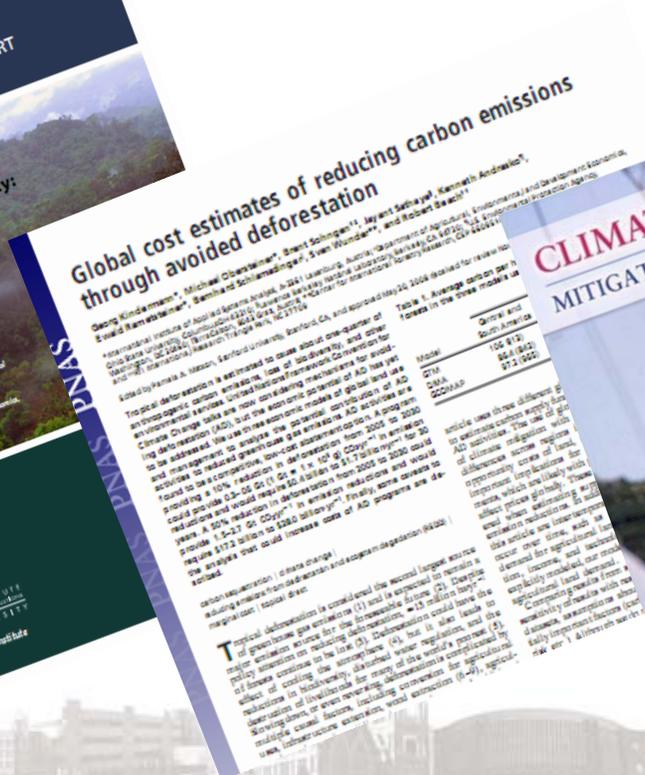
Top 10 Emitting Countries, 2005 (Billion Tons CO₂e)

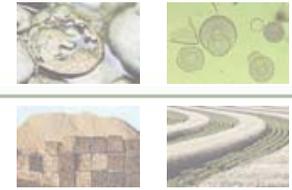


Source, EDGAR data base (<http://edgar.jrc.ec.europa.eu/background.php>)



Economic studies estimate opportunities to lower global compliance costs with forests/REDD





Co-benefits



Fao.org



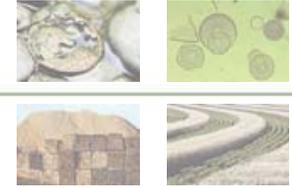
Tropical-forests.com



Science Daily.com



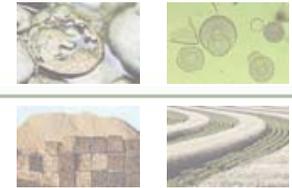
Goallover.org



REDD Policy mechanisms

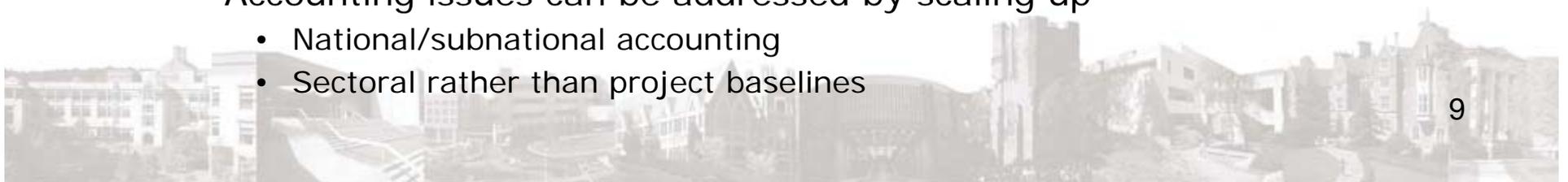
- Forested countries self-regulate
 - Not likely soon
- Developed countries pay for the reductions
 - **Traditional development assistance**
 - **Carbon emissions trading**
 - Voluntary market
 - Won't discuss today
 - Compliance markets/offsets
 - International
 - U.S. Federal
 - State (CA)

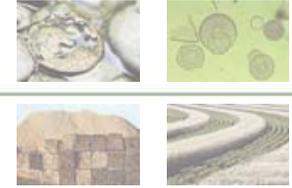




REDD as an Offset: Making sure the Reductions are Real

- Issues stopping REDD from being part of international offsets (CDM) to date
 - Measurement, reporting, verification (MRV) concerns
 - “Accounting” issues
 - Additionality – paying for actual reductions (rather than status quo)
 - Leakage – stopping deforestation here, shifting it there
 - Permanence – delaying, rather than eliminating
- How can these be resolved
 - MRV methods have improved with technology, data
 - UN/WB driven efforts
 - University/private sector efforts
 - Accounting issues can be addressed by scaling up
 - National/subnational accounting
 - Sectoral rather than project baselines

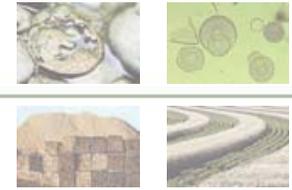




Making it Real: Issues to Resolve

- Scope
 - Deforestation only (RED),
 - Plus Degradation (REDD),
 - Plus forest management and carbon stock enhancement (REDD+)
- Technical issues
 - MRV methods dissemination
 - Additionality: Setting national/subnational baselines for forest emissions
 - Nesting project accounting within national/subnational
 - Permanence: liability for carbon reversal
 - Leakage: shifting emissions to an ungoverned source
- Institutional issues
 - Property rights
 - Governance
 - Transparency



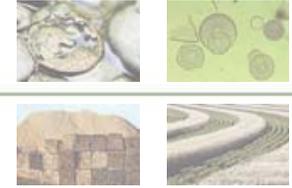


Status of Policy Efforts to Date

UNFCCC Process

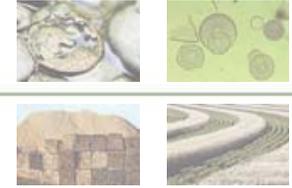
*Kimberly Todd, US EPA
presentation
[now]*





US Congress

- All recent climate legislative proposals have REDD provisions
- Waxman-Markey (2009) - House
 - Setaside allowance revenues (5%) for REDD capacity building
 - REDD as an international offset - subject to (large) limits)
 - Strategic reserve funds could buy more
- Kerry-Lieberman (2010) - Senate
 - No allowance set aside for REDD
 - REDD as an offset
 - Preferential: national level
 - Subnational (state/province) allowed if national baselines/policies not ready
 - Project-level:
 - Only in some countries
 - Only for initial period
- Senate legislation now in the cooler
- What's next?



On to California

- Global climate negotiations opened the door to remedy the situation
 - Put **REDD** on the table for the Copenhagen (post-Kyoto) process
- U.S. Congress advancing climate legislation that includes, inter alia, provisions for REDD
- The Copenhagen and US processes are struggling
- Some see California/AB 32 as best hope now for a market for REDD
 - Scale not the issue (offset limits make this small market)
 - Proof of concept

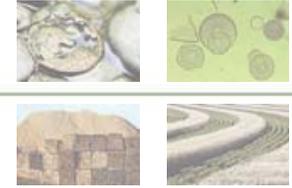


Compliance Grade Criteria

| Criterion | Rationale |
|---|---|
| MRV against a state/provincial baseline | Must be accurate and consistent measurement of actual emissions vs agreed baseline at subnational level |
| Legal | Meets applicable laws in CA and host country, states |
| Efficient | Matches payments with real reductions and has capacity to minimize transaction costs from project development through credit distribution and use |
| Resilient | Applies risk management principles to deal with reversals (impermanence) and other performance shortcomings |
| Sustainable | Incentives sustain forest protection. Consistent with long-term goals and planning for national RED, land use, forests, agriculture and economic development in host country. |

Adapted from: Murray, B.C., L.P. Olander, and D.P. Kanak. 2009. "Forging a Path for High-Quality Compliance REDD Credits." *Nicholas Institute for Environmental Policy Solutions, Duke University.*

<http://nicholasinstitute.duke.edu/ecosystem/forest-carbon-finance-summit/forging-a-path-for-high-quality-compliance-redd-credits>



Next

- Governors Task Force
- ARB Issues presentation
 - Sector-based crediting
 - Nesting subnational/project accounting
 - Activity Scope: RED(D)(+)
 - Crediting baselines
 - Other key implementation issues