# Northeast Carbon Polices and the Northeast Forester

*Cleaning the air, restoring the forest*

Forest Guild Northeast Regional Meeting

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# Introduction and Goals

- Explain RGGI in context of other systems
- Review potential forestry offsets
- Offer ways you can influence the RGGI process for setting carbon offsets.





# Carbon Trading Systems

- Supported by legislation
  - International
  - National
  - State and Regional
- Volunteer
  - Registries
  - Trading Exchanges

# Trading systems supported by legislation

- International
  - Kyoto
- National
  - Nothing - yet.
- State and Regional
  - California
  - Northeast Regional Greenhouse Gas Initiative

# NE Regional Greenhouse Gas Initiative

- Goes into effect in 2009
  - 9 NE states-- CT, RI, MA, ME, NH, VT, NY, NJ, and DE
  - Afforestation is the only forestry credit currently available
  - Now evaluating new offset categories

# Volunteer Programs

- Registries
  - Rule 1605b
  - The Climate Registry
  - Georgia Registry
- Trading Exchanges
  - Chicago Carbon Exchange
  - European Carbon Exchange

# Three Tasks for NE Forestry Community

1) Synthesize research and knowledge on forestry practices that sequester carbon.
   - Forest Guild upcoming report

2) Develop Forestry Community consensus on which practices deserve credits.

3) Engage in and influence RGGI process to set new protocols for carbon offsets.

# Forestry Practices that Sequester Carbon – *and deserve offset status*

- RGGI: likely criteria
  - Baseline determination
  - Additionality
  - Leakage
  - Permanence
  - Monitoring
  - Verification
  - Cost
  - Co Benefits

# Focus Criteria: Additionality

- Understand carbon flow in and out of forest
- Determine practices that sequester more carbon.
- Determine management regimes that sequester more carbon.

# A Full Accounting of Carbon Sequestration from Forestry:

- Increase in carbon storage in the forest and in wood products
- Reduction in carbon emissions from use of biomass as an energy source
- Increase in substitution of wood products for carbon intensive products

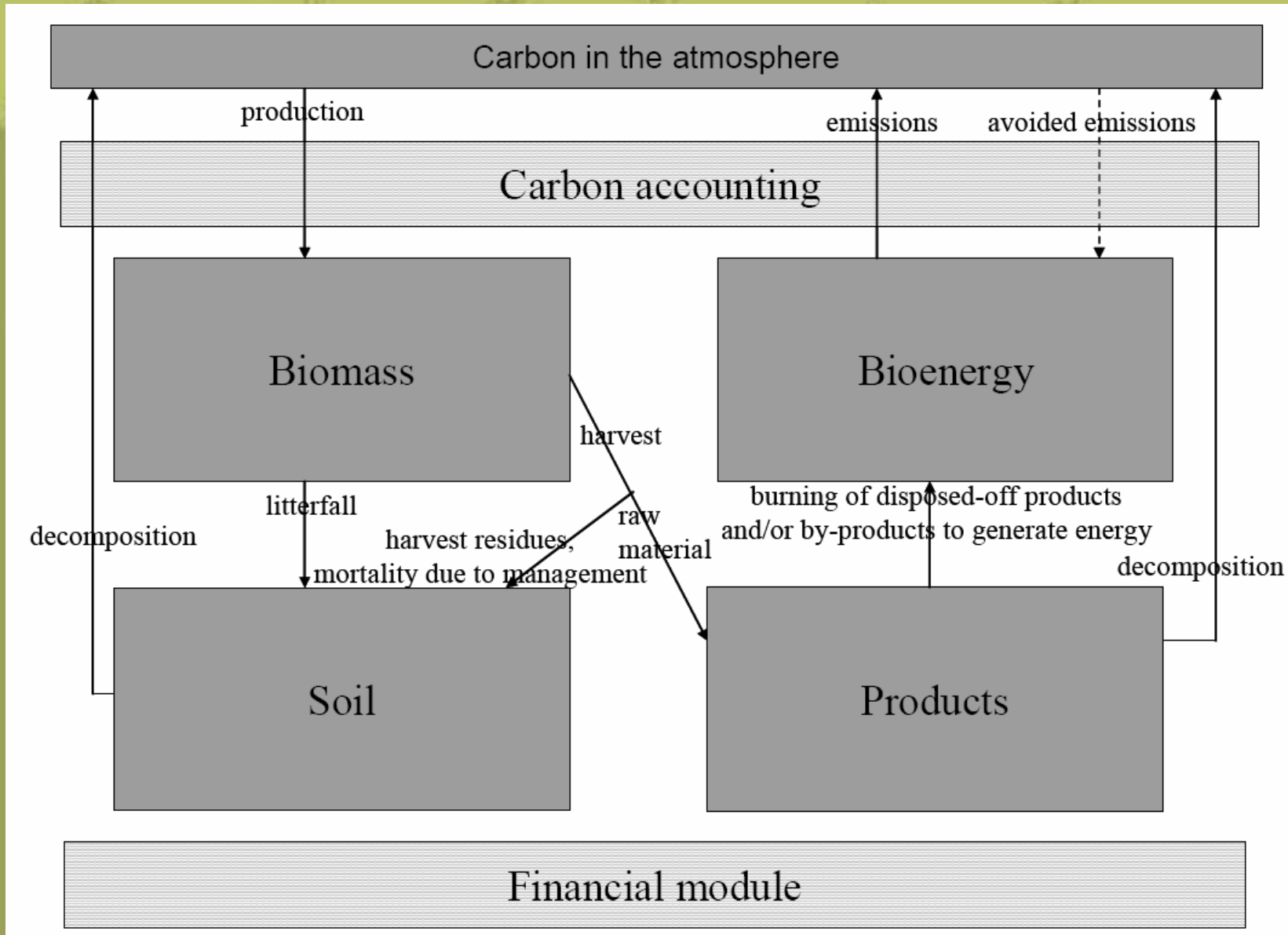



*Figure 2.1. The modules of CO2FIX V 3.1.*

modified from: Schelhaas, M.J. et al. 2004. *CO2FIX V 3.1 – A modeling framework for quantifying carbon sequestration in forest ecosystems.*

# Forest Practices that Increase Carbon Sequestration on Forestland

- 1. Afforestation of agricultural land
- ***2. Reforestation of harvested land***
- ***3. Modification of management practices***
- ***4. Adoption of low impact harvesting***
- ***5. Lengthening rotation cycles***
- ***6. Preservation of forestland from conversion***

# Continued

- 7. Adoption of agroforestry practices
- 8. Establishment of short rotation plantations
- 9. Urban forestry practices
- Source: Stavins et al

# Healthy, adequately stocked stands designated as reserves.

- Maintain and allow to mature to older more complex forests
- They will continue to accumulate carbon on site while….
- Providing other ecosystem services

# Unhealthy, inadequately stocked stands designated as reserves

- Restore to fully functioning systems

- Enhance desired structure through appropriate management techniques
  - planting
  - thinning
  - species mix alterations
  - invasive species removal and or protection

# Forests in danger of conversion to non-forest uses

- Protect through full fee or easement purchase

- Continue to manage or designate as reserves

# Understocked stands

- Restore to full stocking and productivity

# Adequately stocked stands- harvesting likely

- Prevent introduction of poor harvesting practices - introduce Excellent Forestry

- Reduce or eliminate high grading and liquidation cutting

# Adequately stocked stands- minimally acceptable forestry

- Increase rotation ages
- Retain trees post harvest
- Switch to low intensive harvesting methods
- Introduce Excellent Forestry
- Where appropriate move from even age to uneven aged management regimes

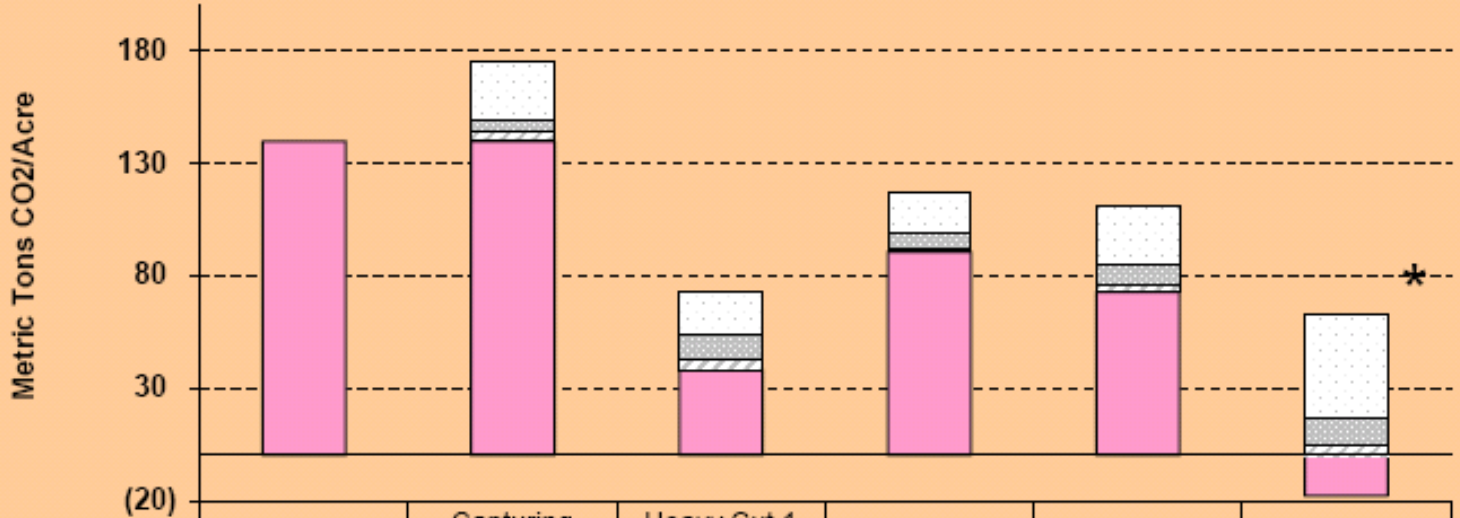
# Adequately stocked stands - managed with Excellent Forestry

- Optimize pre-commercial and commercial thinnings
- Enhance stand complexity
- Increase rotation age
- Retain trees post harvest
- Switch to low intensive harvesting methods

# DRAFT

**Figure 6 "**

**Total carbon stored on and off site, plus fossil fuel emissions avoided**




| | Natural Stand | Capturing Natural Mortality | Heavy Cut 1 Small Sawtimber | ECT 1 - 5 cd | ECT 1 - 8 cd | Option 2 9 cd |
|---|---|---|---|---|---|---|
| Total emissions avoided from burning biomass rather than fossil fuels | 0.00 | 26.31 | 18.95 | 18.15 | 26.40 | 46.52 |
| Amount of carbon stored in landfills | 0.00 | 5.62 | 11.02 | 6.24 | 9.02 | 11.71 |
| Amount of carbon stored in product | 0.00 | 3.90 | 4.59 | 1.72 | 2.77 | 4.54 |
| GHG impact accounting for net change onsite, including onsite sequestered (undecayed) material | 139.37 | 139.37 | 37.90 | 90.33 | 72.47 | -17.82 |

* Note -- The height of this bar above the zero line is less than shown because of the onsite loss of carbon storage shown below the zero line.

Slide from Alec Giffen's presentation

# Focus Criteria: Co-benefits

- Forestry provides many ecosystem services.

- Some of these services offset carbon intensive technologies.

# Carbon Credits- not the only way to achieve carbon sequestration

- State based regulations and incentives to practice Excellent Forestry
  - Stewardship planning
  - Current use tax programs
  - Liquidation harvesting laws- Maine
  - Cutting practices enforcement- MA
  - ETC….
- Sale of credits = funds for forestry?

# Three Tasks for NE Forestry Community

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  - ***Forest Guild upcoming report***

- 2. Develop Forestry Community consensus on which practices deserve credits.

- 3. Engage in and influence RGGI process to set new protocols for credits.

# 2. Develop Forestry Community Consensus

- Utilize upcoming Guild report as a gathering point for discussion
  - Guild Members- Join the Forest Guild Climate Change Working Group
  - Join our non-guild members Reading Group.
  - Join the Guild and partners to engage the Northeast forestry community on forestry offsets in RGGI.

# Challenges to Consensus

- Supporters of reserves
  - fear managed forests sequester more carbon than reserves- will we harvest reserves?
- Supporters of Excellent Forestry
  - fear carbon credits will be issued for any kind of harvesting and perpetuate poor forestry
- Supporters of short term rotations
  - fear credits only for expanded reserves

# 3. Engage and influence RGGI process on carbon offsets

- RGGI led by Staff Working Group
  - two representatives from each state
- Steering committee guides the process
  - MA,NY and NJ representatives
- Subgroups- one on stakeholder involvement
  - International Paper, Conservation Law Foundation, Natural Resource Defense Council Union of Concerned Scientists, Environment Northeast, etc.

# Summary

- Tremendous opportunity if we act
- Big down side if we don’t
- Your involvement is required