Carbon Sequestration Potential in Natural & Working Lands

Insights for the Council of State Governments—Eastern Regional Conference

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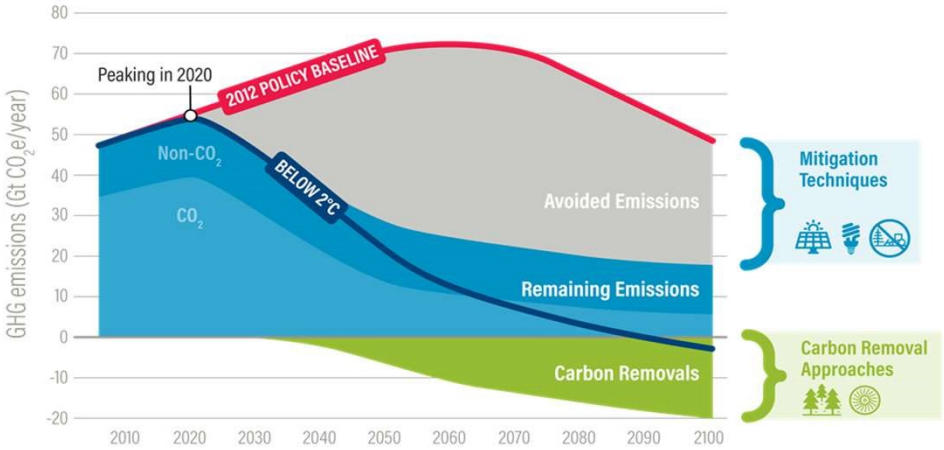
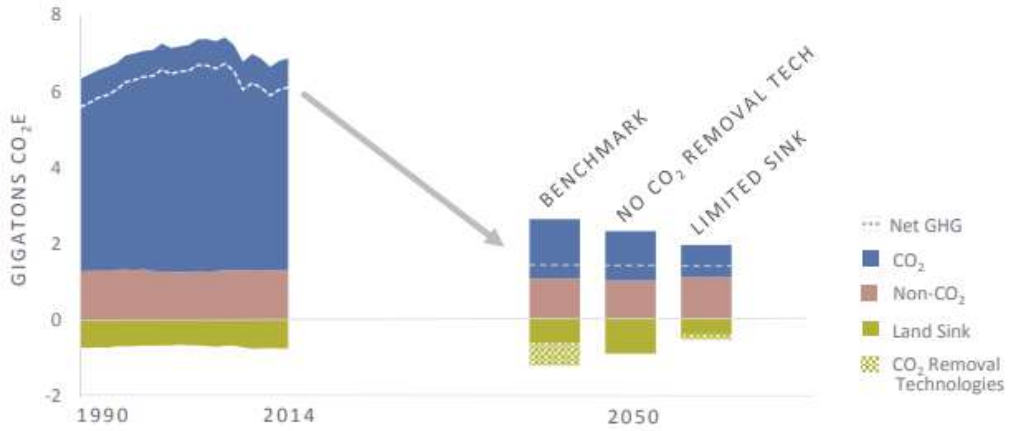
IPCC: TARGET IS GLOBAL CARBON NEUTRALITY

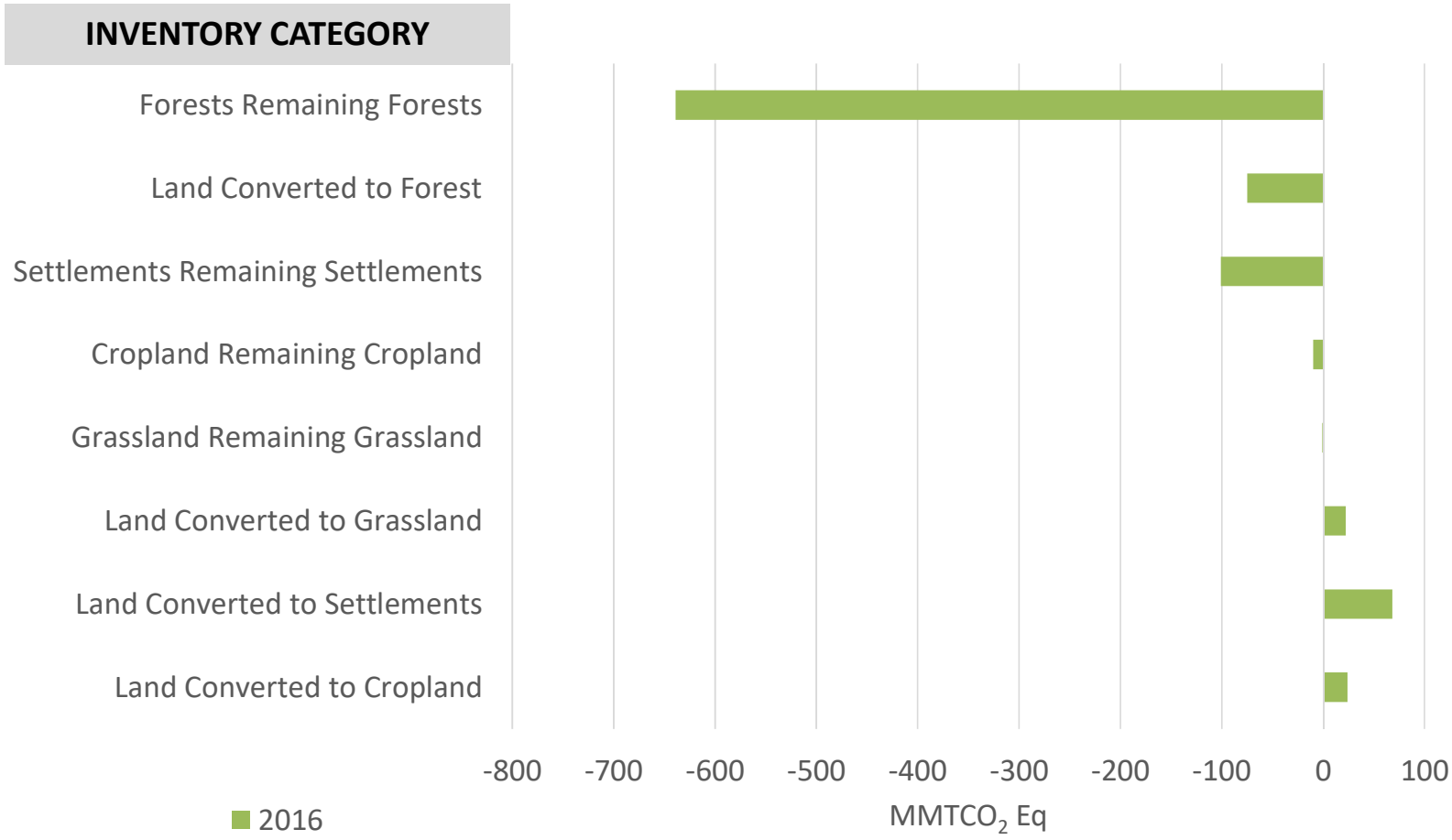




- **1.5°C:** carbon neutrality by mid-century
- **2°C:** carbon neutrality by late-century

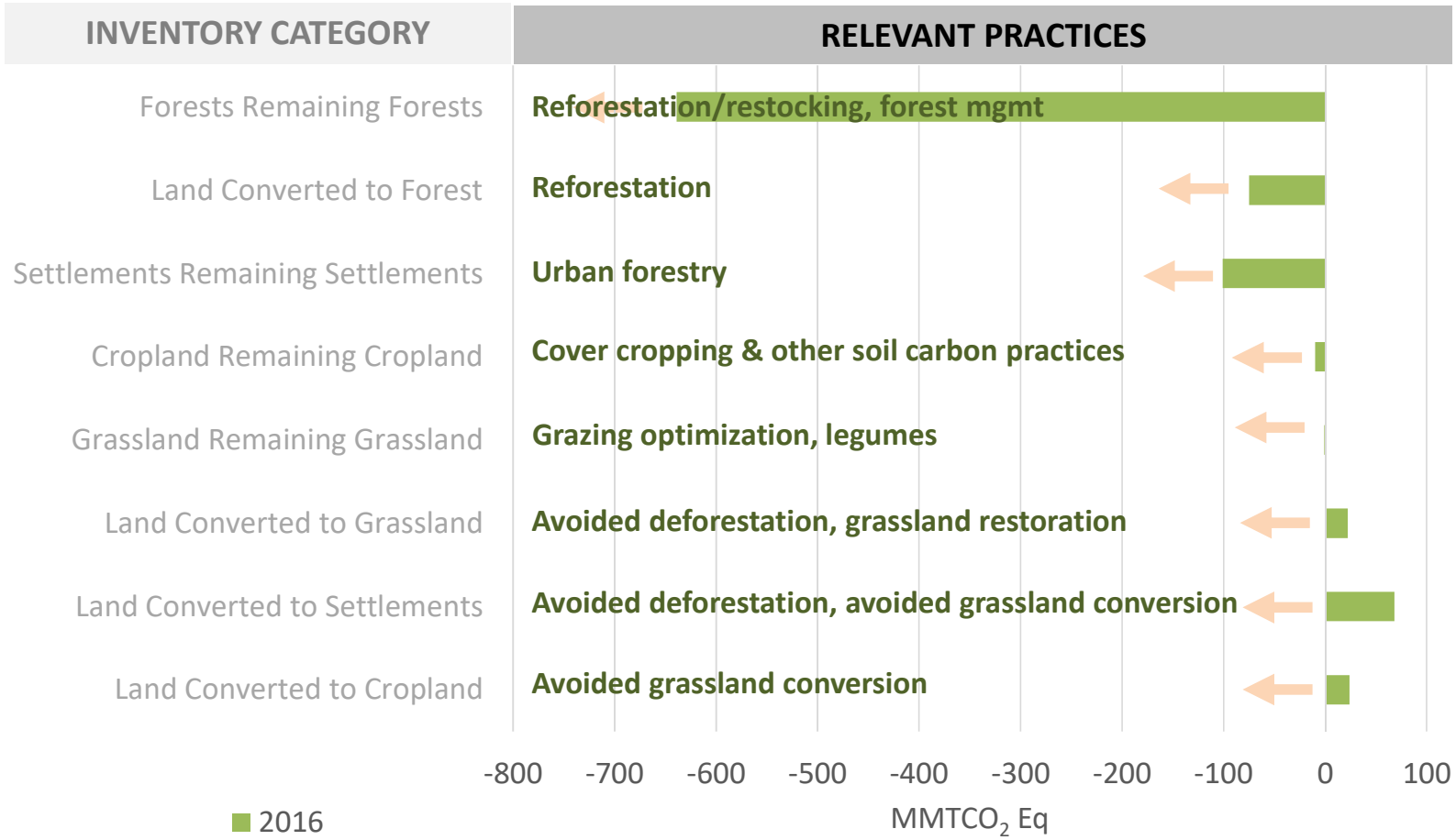
- U.S. Midcentury Strategy left **2 gigatons** on the table in 2050

LAND SECTOR IS KEY TO REACHING CARBON NEUTRALITY



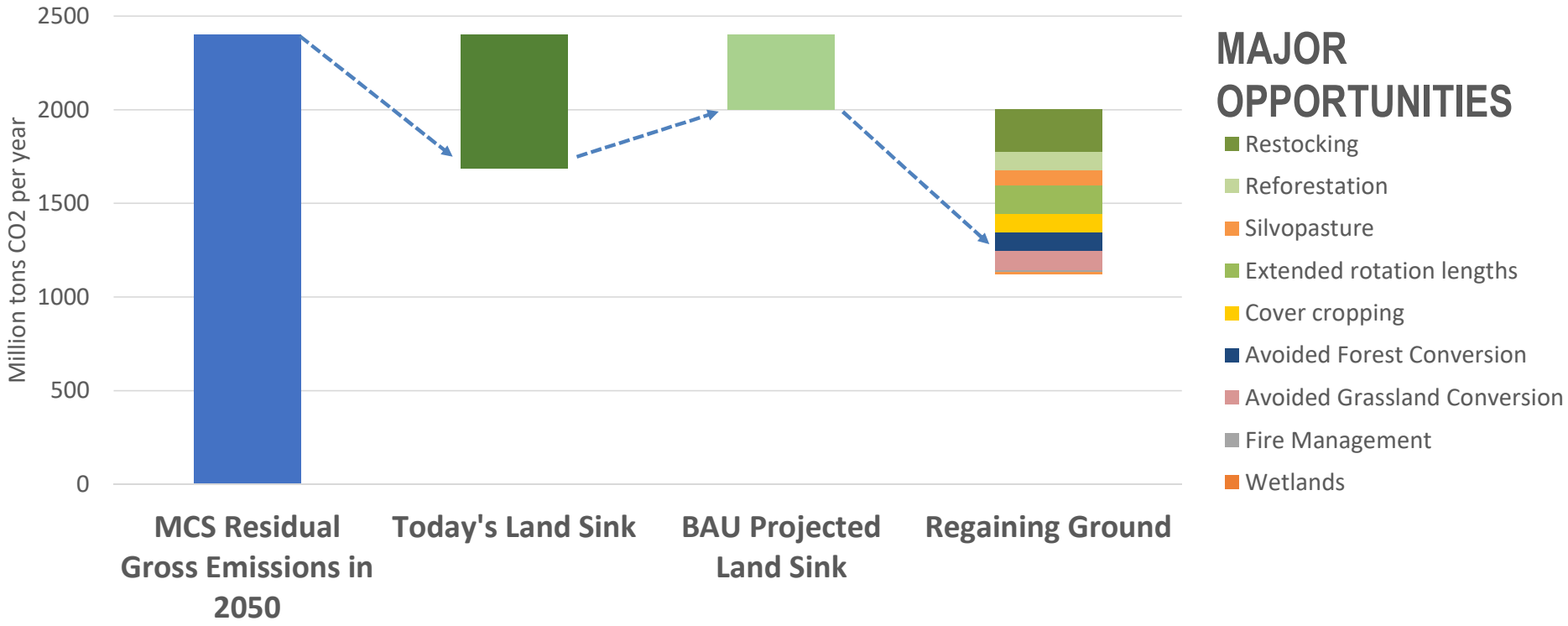
Source: US GHG Inventory

WIDE RANGE OF PRACTICES CAN AUGMENT THE CARBON SINK

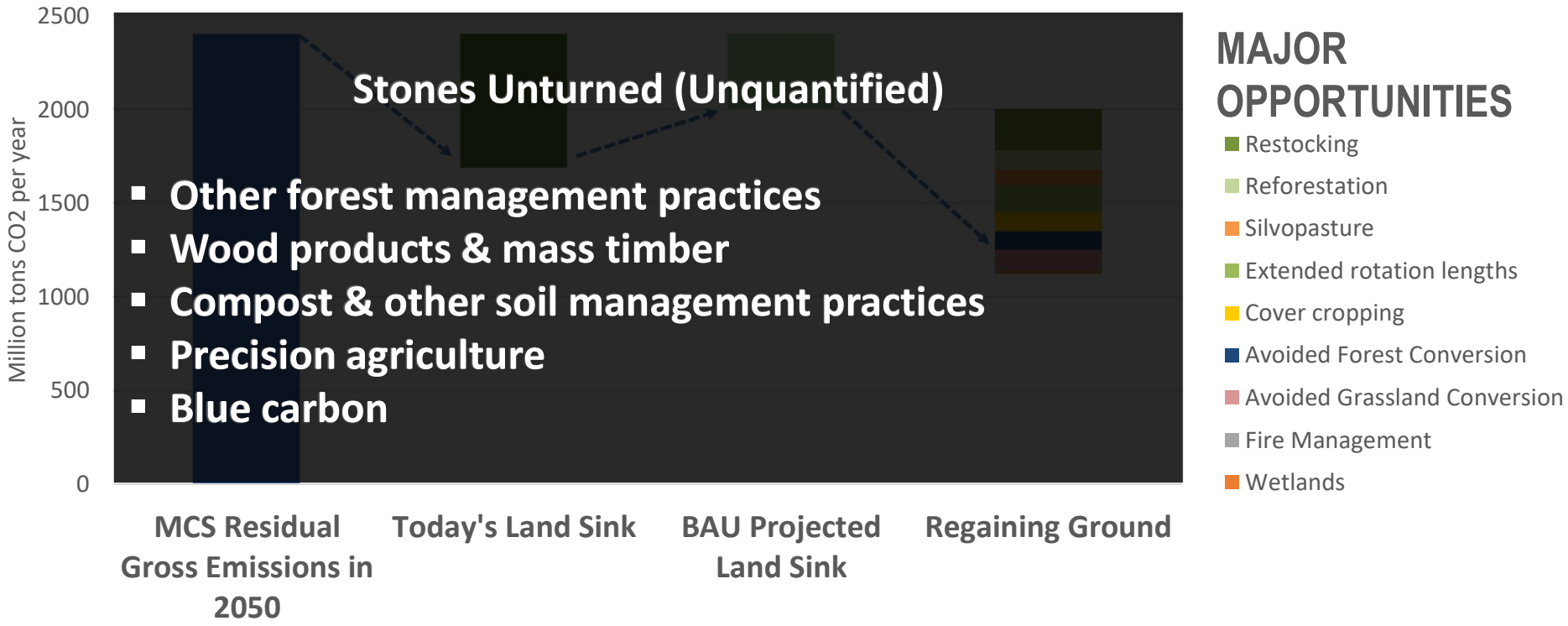


Source: US GHG Inventory

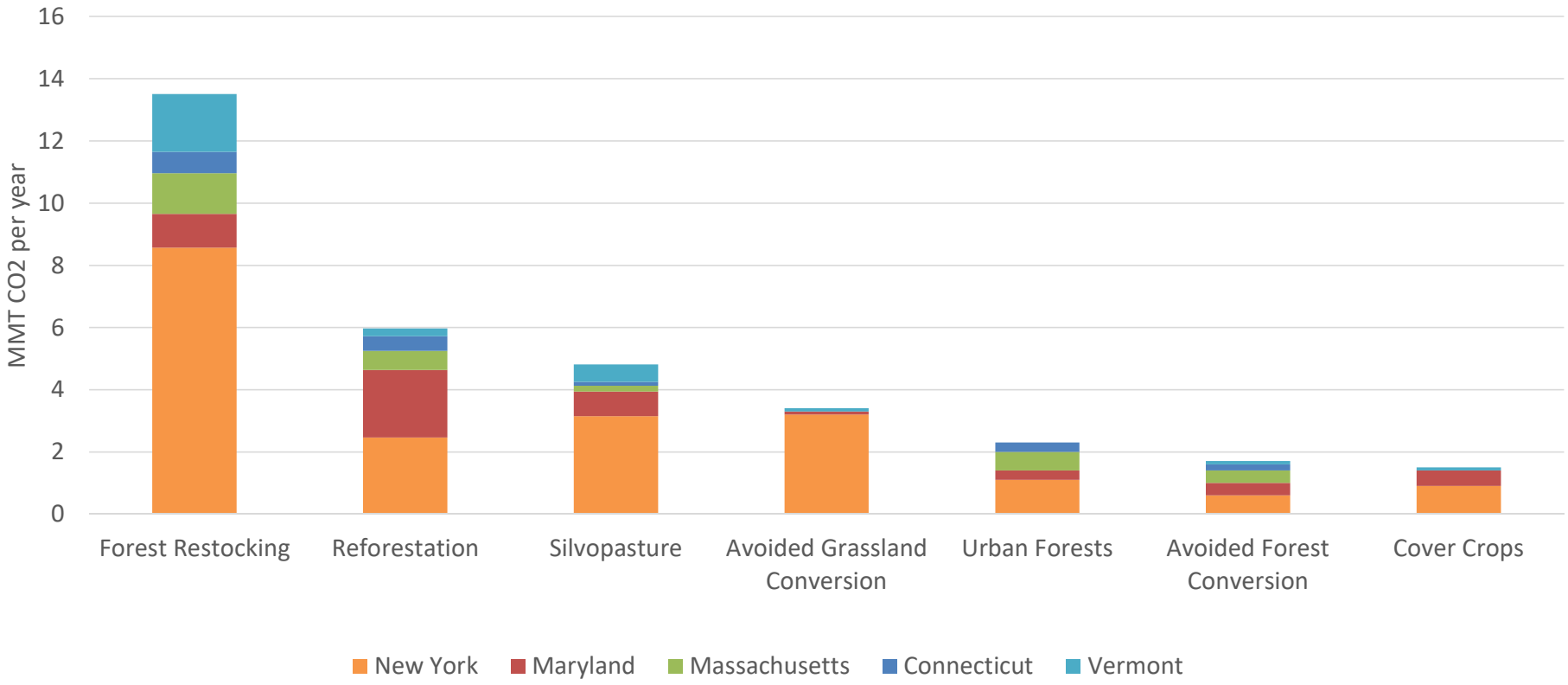
WE NEED TO PURSUE MULTIPLE PATHWAYS…



…AND EXPLORE NEW ONES



SEQUESTRATION OPPORTUNITIES IN THE NORTHEAST



MEASURING RESULTS

Option 1: EPA State Inventory Tool/ Forest Inventory & Analysis

- "Default" approach based on federal data
- Forest carbon estimates are rolling 7-year averages
  - Not ideal for tracking disturbances and land use change
- Misses trees outside of forests
- Coarse resolution at sub-state level (e.g. county, forest type, ownership class)

Option 2: Remote Sensing Tools

- University of Maryland is developing a pilot approach for lidar-based inventory in Maryland and Delaware
  - Add-on to baseline data collected for all Northeastern states
- OpTIS uses satellite data and AI to monitor cover crop and no-till adoption in the Midwest

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KEY TAKEAWAYS

Include the land sector in climate action strategies

Pursue multiple pathways (and encourage experimentation)

Follow the tons

Measure, measure, measure!

Thank you!

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