

Bipartisan Policy Efforts in Carbon Measuring, Monitoring, Reporting, and Verification and Biomass Production Towards a Net-Zero Emissions Goal

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Bipartisan Policy Center (BPC)

- Founded in 2007 by Senate leaders
 - Tom Daschle
 - Bob Dole
 - George Mitchell
 - Howard Baker
- Not-for-profit think tank in Washington, D.C.
- Bring together policymakers from all sides
- Reaching across the aisle

Energy Team

- Developing efforts towards reaching national goal of achieving net-zero emissions by 2050
- Project areas:
 - Innovation
 - Deep decarbonization
 - Farm and forest natural carbon solutions initiative
 - Social considerations and impact
 - Carbon management
 - Critical minerals
 - Demand side policies
 - Smarter, cleaner, faster infrastructure task force
 - Climate and trade

Tasks



Figure 1. Representation of stakeholders and resources affected by bipartisan efforts in the energy sector.

- Carbon MMRV
 - Government role in quantifying carbon sources and sinks
 - Current efforts across agencies
 - Carbon capture and sequestration
 - Identify gaps in knowledge and policy
- Biomass Policy
 - Biomass sourced from range of feedstock options, converted using different technologies, and used for various end applications, such as carbon removal
 - Existing and past policies support biomass across supply chain
 - Identify gaps in knowledge and policy
- Purpose Grown Crops/Energy Crops
 - Myths/things you didn't know
 - Emerging – misunderstanding
 - Role in helping US achieve aviation decarbonization
- Clean Hydrogen Production
 - Industry perspective

Carbon MMRV Policy

- Agricultural activities contributed 11% of net total GHG emissions in US in 2020 (USDA RFI, 2023)
- Several bipartisan policies introduced in 2023
 - Biochar Research Network Act (S.732)
 - ACE Agriculture Act (S.834)
 - DOE and USDA Interagency Research Act (H.R.1713)
 - Forest Data Modernization Act (S.1743)
 - Agriculture Innovation Act (S.98)
 - Promoting Precision Agriculture Act (S.734)
 - Precision Agriculture Satellite Connectivity Act (H.R.1339)
 - Advancing Research on Agricultural Climate Impacts Act (S.2241)
 - Forest Incentives Program Act (S.1366)
 - Precision Agriculture Loan Act (S.719)
 - PRECISE Act (S.720)
 - CREST Act (S.1576)

- Agencies involved
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- Gaps in knowledge and policy
 - Lack of consistent, accurate methods and data
 - Need to increase collaboration among agencies and institutions
 - Create innovative ways to capture and sequester carbon (i.e., biochar)
 - Improve overall understanding of how practices influence emissions

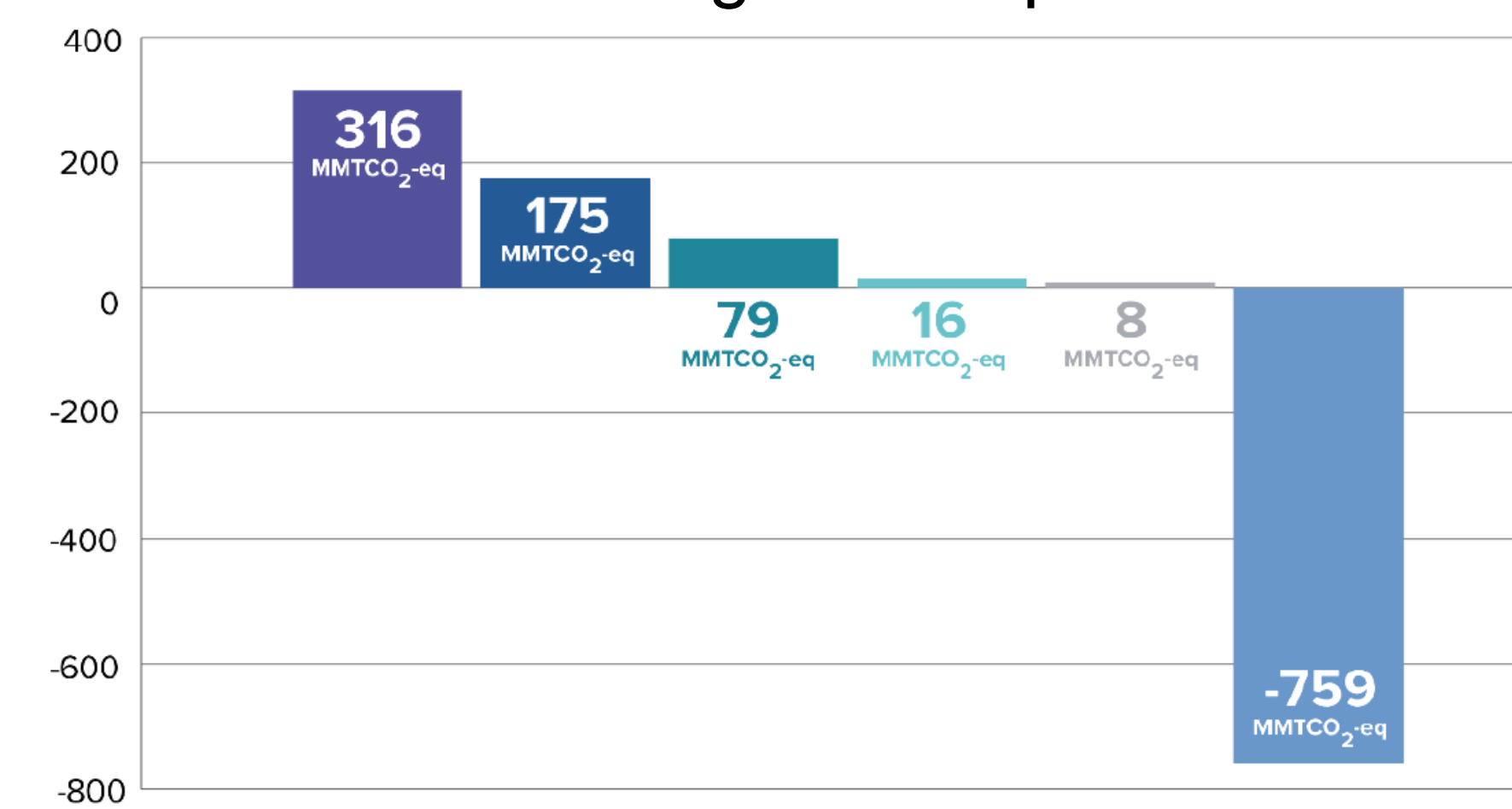


Figure 2. Agricultural net GHG emissions and sinks in 2020 (USDA RFI, 2023).

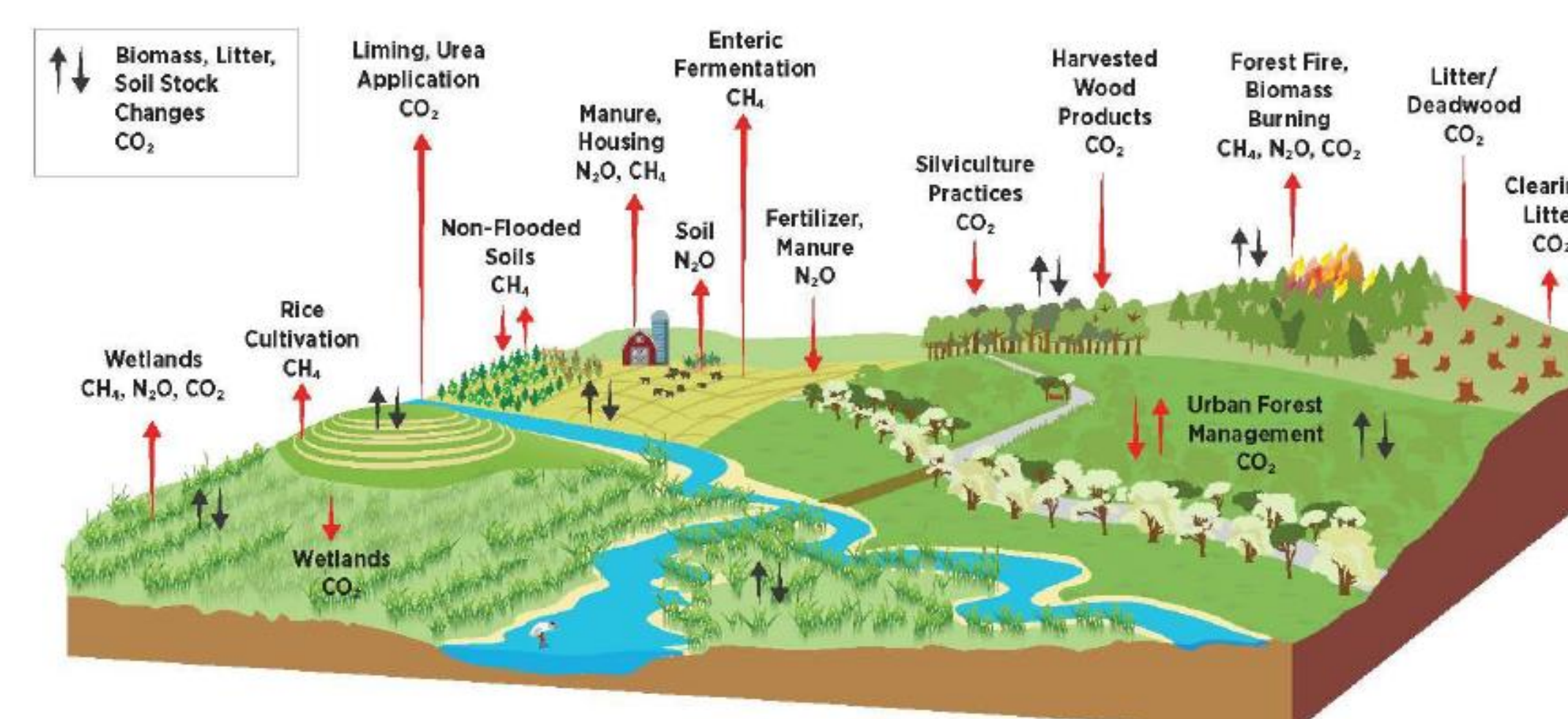


Figure 3. Main GHG emission sources and sinks in agriculture and forestry systems (USDA RFI, 2023).

Biomass Policy

- Many current policies and programs in place today
 - A number of them have expirations ranging from 2023 to 2032
 - Sustainable Aviation Fuel Credit (40B)
 - Carbon Capture and Sequestration Tax Credit (45Q)
 - Clean Hydrogen Production Tax Credit (45V)
 - Clean Electricity Production Tax Credit (45Y)
 - Clean Fuel Production Credit (45Z)
 - Biomass Crop Assistance Program (BCAP)
 - Second Generation Biofuel Producer Tax Credit
 - Biomass Research and Development Initiative
 - Low Carbon Fuel Standard (LCFS)
 - Biobased Markets Program/BioPreferred Program
- Agencies involved



- Gaps in knowledge and policy
 - Increase feedstock support as most current policies are in end use
 - Lack of regulatory certainty due to expirations in place
 - Consider life cycle and techno-economic impacts of technologies and projects
 - Use of second generation feedstocks as alternatives
 - Shift focus from supply to demand and mid-stream segments (i.e., infrastructure, manufacturing)

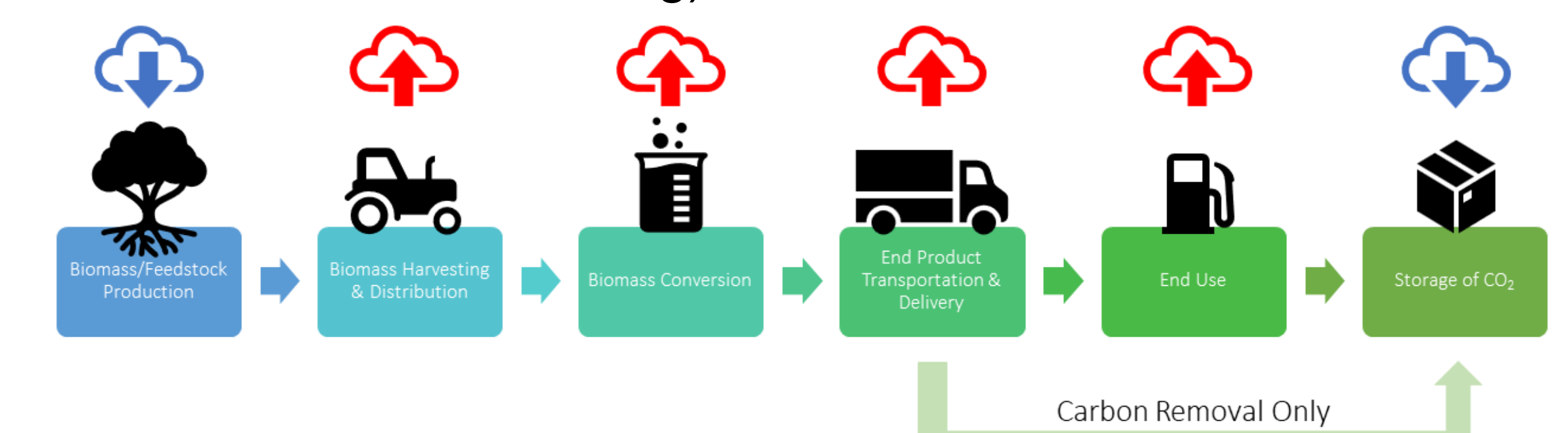


Figure 4. Biomass supply chain indicating carbon sources and sinks.

Conclusions and Takeaways

- Bipartisanship and collaboration essential to moving policy and research forward, especially in energy sector
- Policy research/writing are different than academic research/writing
- Connections to PhD research
 - Research group focuses on ways to capture and sequester carbon
 - Create nature-based solutions and alternatives to currently used methods
 - Life cycle assessment (LCA) track and quantify carbon sinks and emissions
 - Policies can help fill in gaps in knowledge in research

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