

Vermont Climate Council 2025 Update to Vermont's Climate Action Plan

**Agriculture and Ecosystems Subcommittee
Agriculture Input Session**



Vermont Climate Action Plan

Dennis Curran

- **2020** Global Warming Solutions Act (GWSA)
- **July 1, 2025** Climate Action Plan Update due; updated every 4 years
- Plan is a roadmap for how to achieve objectives set by GWSA
- **The Update focuses on:**
 - Cutting Climate Pollution (aka. emissions reductions & sequestration)
 - Adaptation & Resilience in Built and Natural Environment
 - Natural and Working Lands Solutions
 - Public Health and Housing

Vermont Climate Action Plan Update

Vermont Climate Council & Subcommittees

Spring and Summer 2024

Council orients update and subcommittees begin work

Fall 2024

Task Groups draft updates to Pathways, Strategies, and Actions.

Subcommittees submit recommendations to Council in **December**

Winter 2025

Council compiles a draft updated plan

Spring 2025

Council revises and finalizes plan based on public input.

Plan delivered by July 1, 2025

Engagement and Outreach



Public kick-off meetings



Eight input sessions: Cross-Sector Mitigation, Rural Resilience, Agriculture & Ecosystems, Municipalities



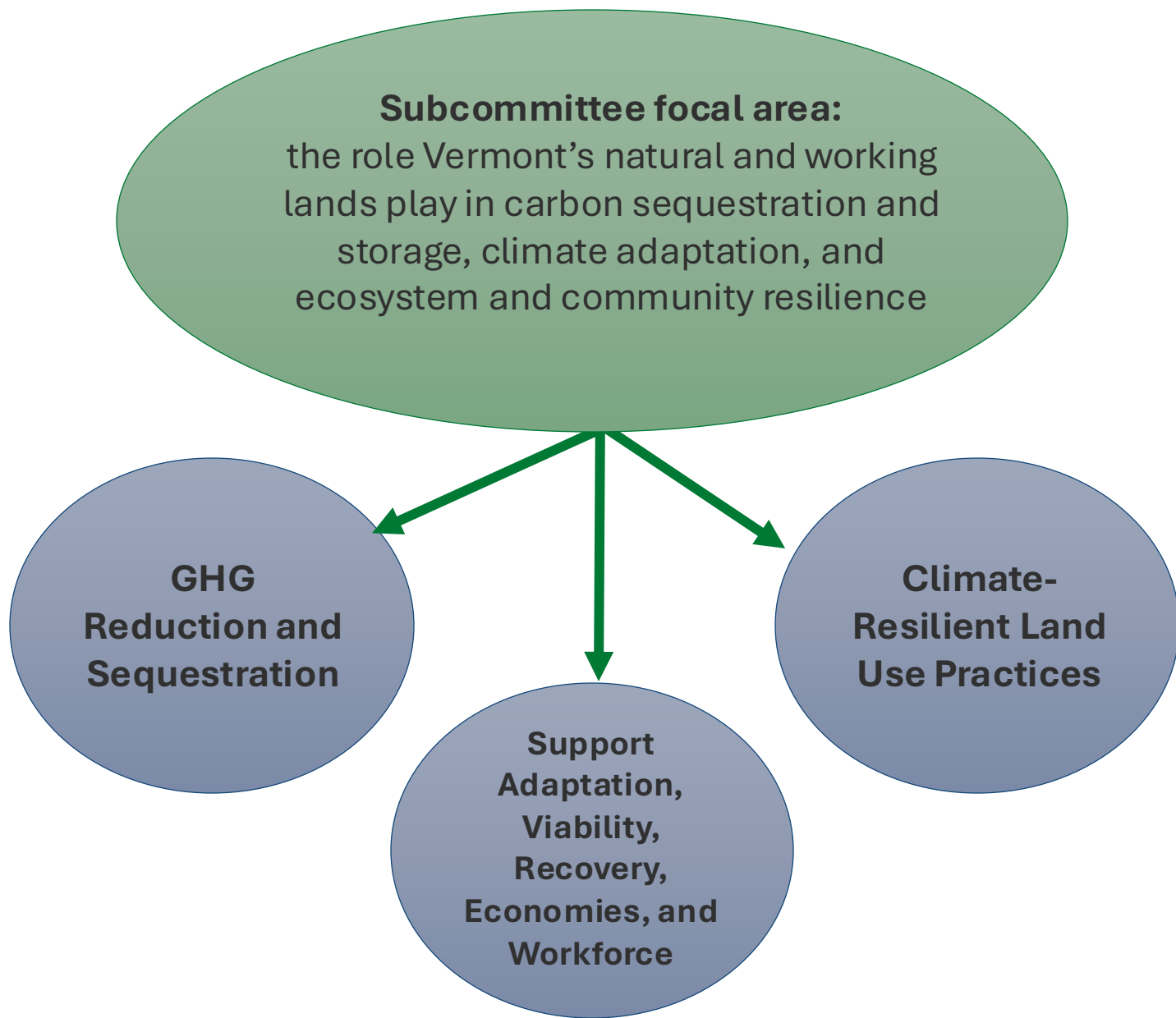
We are here!

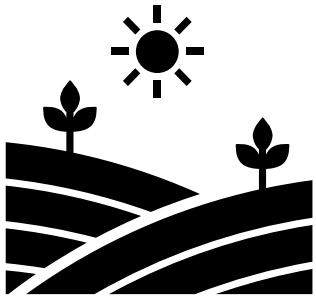


Public consultation on draft plan

Community engagement throughout!

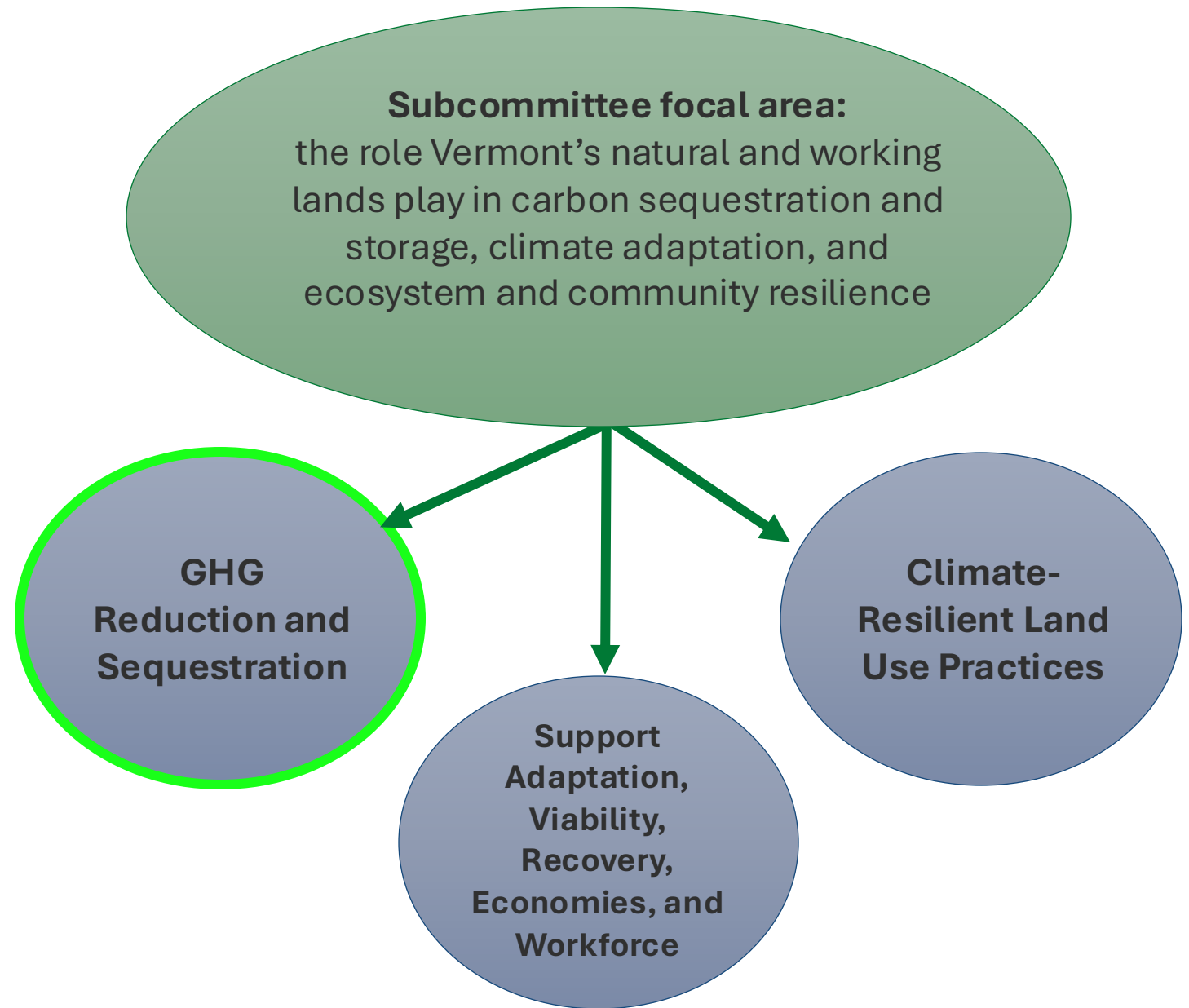
Meeting Vermonters where they are; partnering with community-based orgs; focus groups, etc.





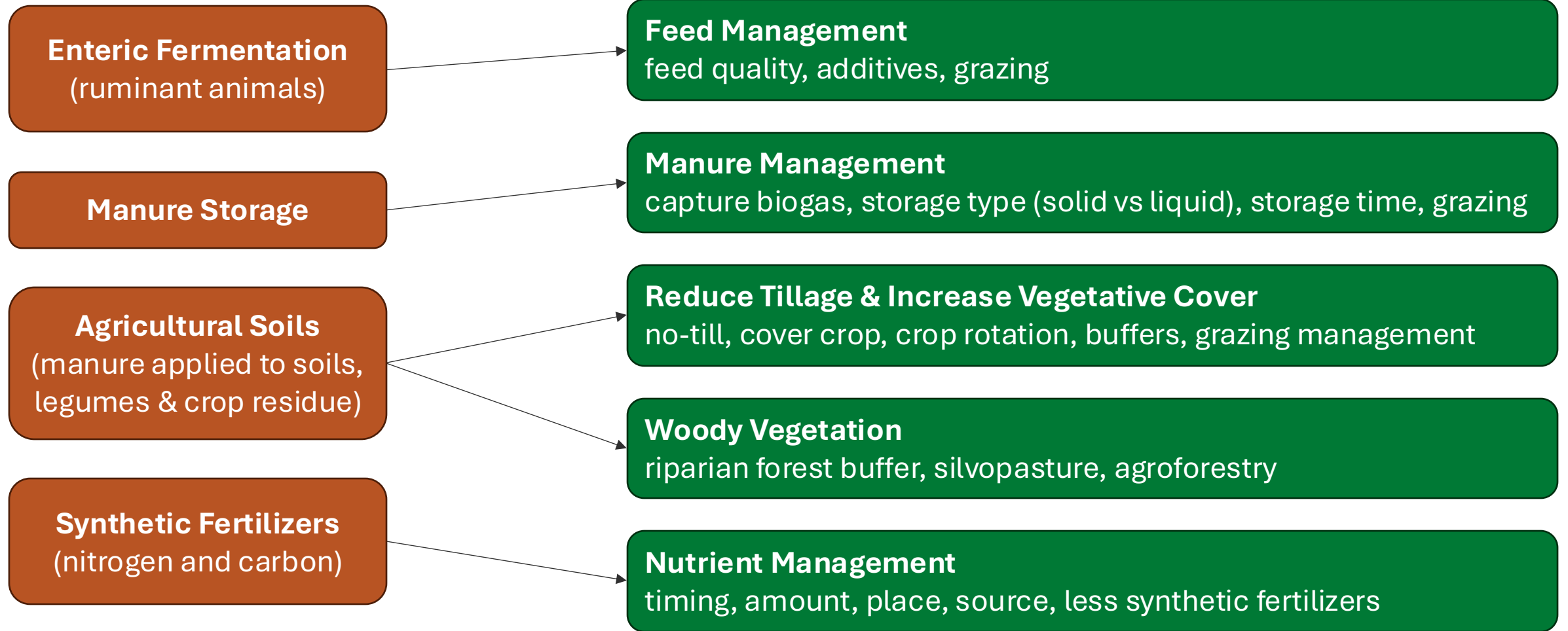
Today, we are focusing on:

- reducing agricultural greenhouse gas emissions and increasing carbon sequestration
- supporting adaptation and economic viability for farms
- promoting climate-resilient practices in Vermont's agricultural sector



Emission Sources from Agriculture

Agricultural Mitigation Strategies (both reduce and remove emissions)



*Emissions on farms from electricity and fuel consumption and transportation are captured in respective sectors.

*Emissions from landuse change, and sequestration from agricultural soils and forests are captured in Landuse, Landuse Change, and Forestry (LULUCF) sector.

Mitigation – GHG Reduction and Sequestration

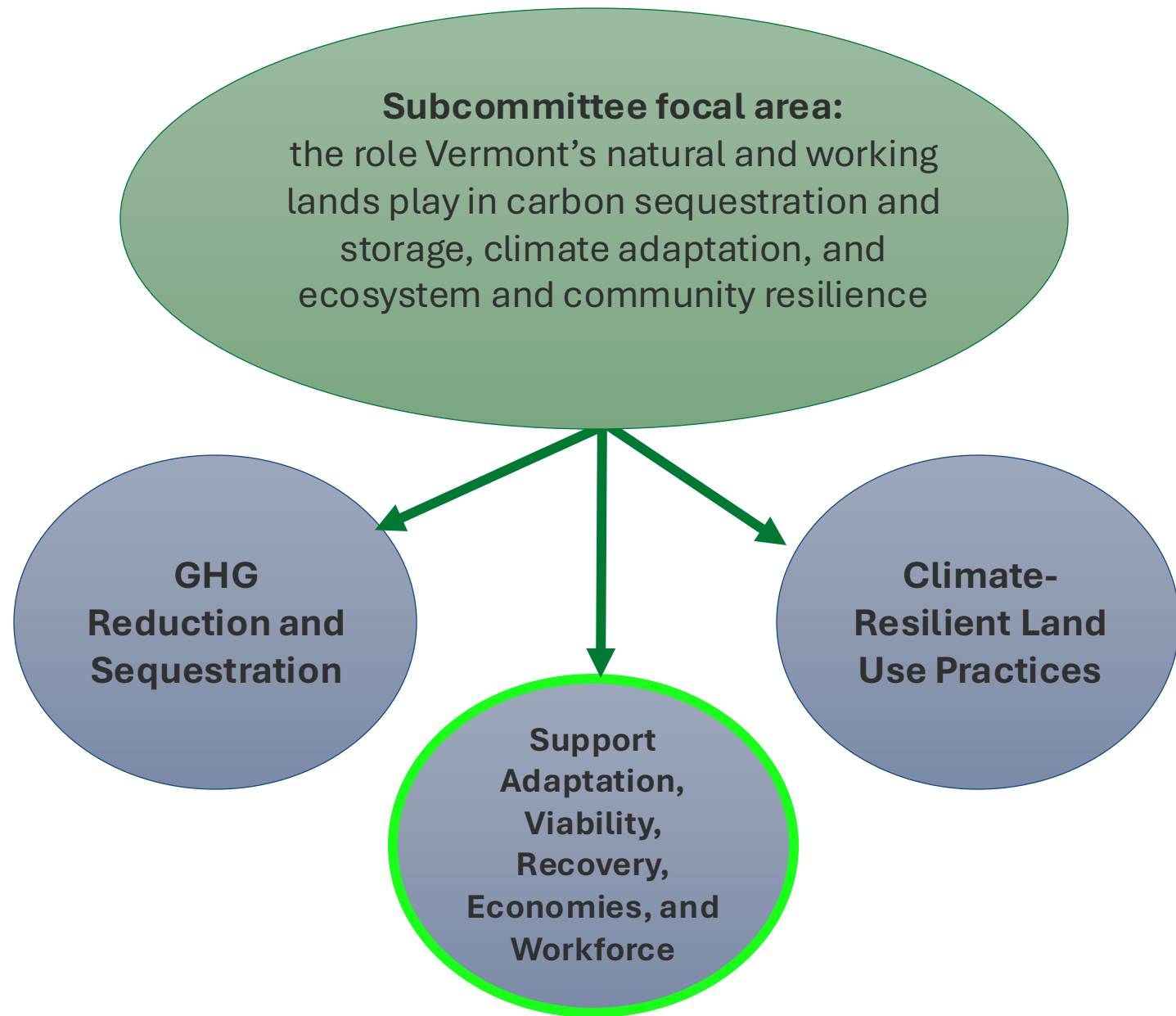
Pathway 10: Maintain and expand Vermont's natural and working lands' role in the mitigation of climate change through human interventions to reduce the sources and enhance the sinks of greenhouse gases.

- Implement agronomic practices that **reduce tillage** and **increase vegetative cover**, e.g., no-till, cover crop.
- Implement **grazing practices** that increase vegetative cover and forage quality, e.g. rotational grazing.
- Implement **nutrient management** and amendments (e.g., biochar, compost) on cropland and grazing land.
- Implement edge-of-field practices that increase herbaceous and **woody vegetation**, e.g. riparian forest buffer (e.g. CREP).
- Implement **agroforestry** and silvopasture practices that integrate woody vegetation in agricultural production.
- Expand Capital **Equipment** Assistance Program (CEAP) program to extend beyond water quality and incorporate climate change criteria.
- Implement **methane capture** and energy generation on farms, e.g., anaerobic digesters and covers.
- Research and pilot improved **manure management** and storage programs.
- Research and develop a climate **feed management** program, including both feed amendments (e.g. seaweed, biochar) and feed quality (e.g. forage quality) to reduce enteric methane emissions; consider downstream impacts, sustainability and equity.
- Implement natural resource restoration practices that support climate mitigation and resilience, including river corridor easements, wetland restoration, and afforestation practices with consideration to agricultural land loss.

Mitigation – GHG Reduction and Sequestration

Pathway 23: Maintain and expand Vermont's natural and working lands' role in the mitigation of climate change through human interventions to reduce the sources and enhance the sinks of greenhouse gases.

- Strategy 23a: Leverage, expand, and adapt **existing State of Vermont programs** that support the agricultural sector's mitigation of climate change. [details in previous slide]
- Strategy 23b: Create a system for tracking and **accounting metrics** and indicators for natural and working lands.
- Strategy 23c: Implement a **Payment for Ecosystem Services** (PES) program for natural and working lands.
- Strategy 23d: Address upstream waste and downstream emissions from **food waste** and **synthetic fossil-fuel based inputs**.
- Support farmers to recover from climate disaster through indemnity programs which will enable farms to continue to provide the multifaceted ecosystem services derived from agriculture.



Support adaptation, viability, recovery, economies, and workforce

Pathway: Adaptation – Sustain, restore, and enhance the health and function of Vermont's lands and water to help both natural and human communities adapt to climate change

- Increase technical assistance, capacity, education, and resources to support private and municipal farm and forestland owners, planners, and managers for climate change adaptation.

Pathway: Viability – Support and empower Vermont's natural and working lands owners, managers, and caretakers to enhance farm and forest viability and to make informed decisions to increase resilience and adaptation to climate change.

- Support and enhance local food markets for greater viability, mitigation, and resilience benefits.
- Foster partnerships at all levels (state, federal, nonprofit, and private sector): essential to recognizing, capacitating, and building strategies for landowners to address climate change and enhance community resilience.
- Expand funding for existing programs dedicated to farmland access, forestland ownership, and conservation, and leverage this funding to increase land access through flexible and new ownership financing mechanisms, policies, and models.

Support adaptation, viability, recovery, economies, and workforce

Pathway: Economies – Grow and connect local and sustainable natural and working lands' economies, markets, and food systems while ensuring and providing equitable access to said economies, markets, and food systems for Vermont's people.

- Develop, expand, and sustain local markets specifically for food, agricultural, and forest products in ways that ensure food sovereignty and security and provide for all Vermont's peoples.
- Strengthen all aspects of working lands' supply chains and the associated infrastructure to support them.
- Ensure equitable access to local foods, culturally relevant foods, land, funds, grants, and technical assistance for people who have been historically marginalized and come from impacted communities.
- Develop a Vermont food security and sovereignty plan, centered around a thriving food system, and inspired by community-based responses to food insecurity and disruptive events.

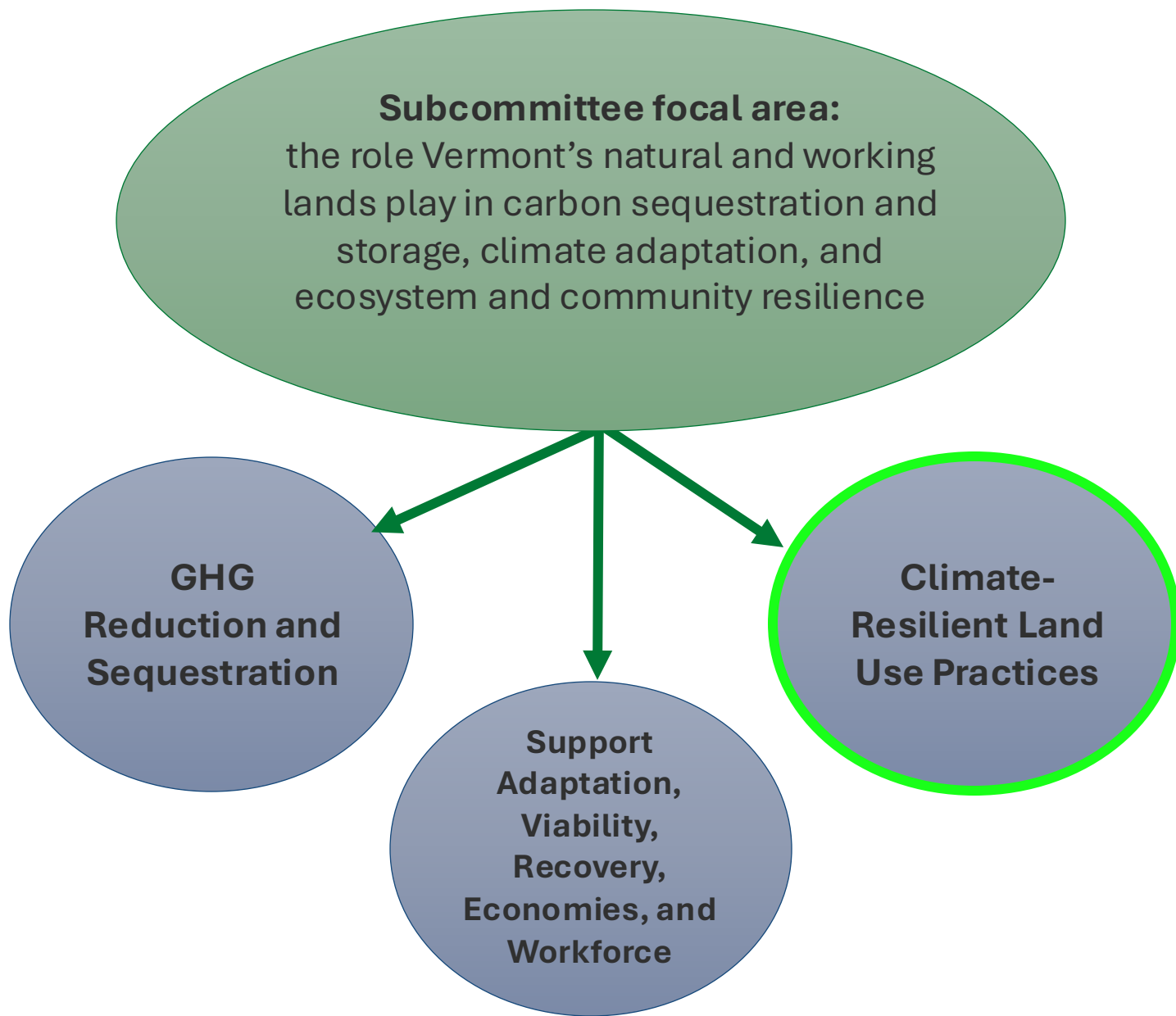
Pathway: Support and empower Vermont's farmers, foresters, and land workers to capacitate renewable energy and building product transitions.

- Promote and incentivize use of local wood and agricultural products to reduce embodied carbon footprint.

Support adaptation, viability, recovery, economies, and workforce

Pathway: Education – Create accessible, equitable research, partnerships, and education; promote shared understanding; and invest in sustainable workforce development for the natural and working lands sector.

- Provide funding for climate-related education at all levels, outreach, research, and technical assistance programs.
- Develop and promote climate-related educational materials for private landowners to empower them to make climate-informed decisions about their land and waters.
- The language in Vermont agencies must be reviewed and updated to be more equitable.



Climate Resilient Land Use Practices

Increase technical assistance, capacity, education, and resources to support private and municipal farm and forestland owners, planners, and land and water caretakers for climate change adaptation; promote and incentivize Climate Adaptation forest management practices.

Example Action:

Enhance and support funding for technical assistance, educational materials, and outreach to farmers, foresters, and land and water caretakers (e.g., fully fund partners and higher education to support climate adaptation training)), municipalities, **and other landowners** (e.g., fully implement Act 171). **Technical assistance should include a diversity of perspectives. Monitor effectiveness of the technical assistance on a regular basis.**

Promote funding for nature-based solutions (NBS) and traditional ecological knowledge (TEK)/indigenous knowledge (IK) efforts and incorporate NBS and TEK/IK into state planning efforts.

Example Action:

Elevate the role traditional ecological knowledge and indigenous knowledge (TEK/IK) plays in climate adaptation and resilience and **braid TEK/IK and other approaches** into state- led climate assessments, planning efforts, and prioritization frameworks.

Climate Resilient Land Use Practices

Manage natural and working lands and waters for biodiversity, forest health, water quality and climate resilience.

Example Action:

Through direction to VT Fish & Wildlife and VT Forests, Parks and Recreation, establish primary land management objectives of protecting and improving forest health, **water quality** and biodiversity on state lands **and waters**, and private lands enrolled in Use Value Appraisal; and promote adoption of these objectives through outreach to regional and municipal planners. **Objectives shall be informed by traditional ecological knowledge.**

Utilize nature-based solutions to increase flood resilience of the natural and built environments, reduce future development in floodplains and floodways and educate state and municipal planners. Promote healthy, connected river corridors, floodplains, and wetlands.

Example Action:

Expand support **and education** for riparian buffer **and floodplain** enhancements to easements with a goal of increasing the amount of vegetation and biodiversity in riparian areas **and floodplains.**

Climate Resilient Land Use Practices

Invest in strategic and equitable conservation in order to increase the pace of permanent conservation towards 30x30 targets (described in the federal report “Conserving and Restoring America the Beautiful”), with Vermont Conservation Design acting as the guiding plan for prioritization of efforts.

Example Action:

Use the best available data and mapping, **braiding in TEK/IK**, to analyze the existing portfolio of conserved agricultural lands to identify forest, wetland, or natural community restoration opportunities and prioritize funding for these projects.

Avoid, minimize, and mitigate the negative impacts of renewable energy generation on natural and working lands.

Example Action:

Incentivize and consider mandating solar and wind capacity on new buildings as well as in previously disturbed or developed areas and avoid and minimize forest clearing for renewables through incentives and other siting policies, rules, and regulations



Group Discussion

- What resonates most?
- What might be missing?
- What are some important details that shouldn't be neglected?
- Who (else) should we hear from?

Next Steps

Stay involved!

- Sign up for the [Climate Action Office's newsletter](#) (link in chat)
- Attend a subcommittee meeting or another input session: climatechange.vermont.gov/calendar
- Share your thoughts!
 - [Climate Action Plan public comment form](#) (link in chat)
 - Leave a voice message at 802-404-2729