

Comments from Elizabeth Henderson

Organic farmer

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First - two overall comments:

When you are digging yourself into a hole, the first thing to do is STOP.-The Scoping Plan needs to require a swift halt to greenhouse gas emissions, starting with a ban on new fossil fuel uses, infrastructure, and pipelines, and a timeline for each existing fossil fuel facility in the state to be rapidly phased out, including nuclear power plants.

The CLCPA established a goal of providing 35% of the “new” climate funding to benefit disadvantaged communities. But that is not enough since the Climate Justice Working Group has determined that at least 50% of the state’s residents meet the definition of being disadvantaged.

The recommendations from the Ag. and Forestry Panel are limited to making small tweaks in the existing systems of industrial-scale farming enterprises with the rationalization that you can do more to reduce GHG emissions through small improvements on big acreage produce and grain farms and the largest CAFOs. **However, adding good practices to a bad system does not result in long term solutions.** When you include out-of-state production of synthetic nitrogen fertilizers in the greenhouse gas inventory of NY farms¹, it becomes clear how much higher the emissions from conventional agriculture really are than the Scoping Plan estimate, and what the plan should target for change.

When we make policy grounded in Full Cost Accounting, including environmental and also social costs, this planning process gives us the opportunity to initiate the transformation of NYS agriculture to strengthen the economic, social and environmental viability of local, organic and agroecological family-scale farming and increase social justice and racial equity by making sure that 40% of those farms are owned and managed by people of color.

The plan should call for legislation for investments in certified organic and

¹ Institute for Agriculture and Trade Policy, GRAIN, Greenpeace International (2021). New Research Shows 50 Year Binge on Chemical Fertilisers Must End to Address the Climate Crisis. [https:// www.iatp.org/new-research-chemical-fertilisers](https://www.iatp.org/new-research-chemical-fertilisers).

agroecological farms that need not be certified organic with the goal to convert 25% of NY farmland to organic by 2030 through massively scaled-up technical assistance programs, tax subsidies, and grant funding so that the huge NY market for organic food is supplied by NY organic farms. The Climate Justice Working Group recommends funding and programs for farms to transition to organic systems and also recommends a tax on fertilizers that could fund this transformation.²

Please note that organic farms do not use synthetic nitrogen fertilizers which are derived from natural gas. Research shows that organic farming increases soil carbon levels, soil stability and fertility, on-farm biodiversity, crop resilience, and reduces energy use by at least 30% through reduced tractor usage, on-farm emissions and especially by avoidance of synthetic nitrogen fertilizers.³ By design, organic agriculture builds resilience into the system of food production. A recent report from the Organic Farm Research Foundation states: "The survey results confirm that organic producers lead the nation in adoption of resource and climate stewardship practices and corroborate earlier findings that organic systems can enhance resilience, carbon sequestration, and GHG mitigation (Schonbeck et al., 2018)."⁴

The CLCPA includes a strong mandate for *permanence*. However, in biological systems the only permanent thing is change. When farms are going out of business, practices like adding covers and flares to manure pits are no more or less permanent than increasing the use of cover crops and composting. To ensure that improvements to soil health endure for the foreseeable future and that public investments will be worthwhile, the farmers of this state need to join with all land managers in a **culture of soil care** with public recognition and support for the many ecosystem services soil health provides: increased soil carbon, reduced net greenhouse gas emissions, improved water quality and water use conservation, improved crop yields, nutrient density and shelf-life, and greater farm resilience in the face of the accelerating climate emergency. A culture of soil care means that farmers, their customers, and our policy makers value soil as a paramount resource.

² "Impose a fee on fertilizers that funds a transition to organic farming. This would meaningfully reduce GHGs and protect precious public waterways and private water wells from runoff " B- 15

³ Peter H. Lehner & Nathan A. Rosenberg, *Farming for Our Future: The Science, Law and Policy of Climate-Neutral Agriculture*. Environmental Law Institute, 2021, pp. 73 - 7.

⁴ https://ofrf.org/wp-content/uploads/2022/03/OFRF_National-Organic-Research-Agenda-NORA_2022.pdf

Along with a goal for converting to organic farming, the plan should set statewide soil health goals to track progress, increase accountability, and ensure the permanence of soil-sequestered carbon.

In 2009, there were 5,475 dairy farmers in NYS averaging \$314.5 thousand in gross income per year; in 2019, that number had dropped to 3,893 dairy farmers with average income of \$741.3 thousand. ([New York State Dairy Statistics](#)). Many of the dairies that are not qualified as CAFOs have nevertheless constructed manure pits or lagoons. Since it has largely been due to state and federal funding that these livestock farms have invested in manure pits or lagoons, it is only fair to provide public funding to help them convert to alternative manure systems that are pasture-based, separate liquids and solids, and produce compost.

All agriculture and forestry projects that receive public funding must be required to qualify by using soil health practices as defined in the NYS Agriculture and Markets Law as amended by the 2022 Soil Health and Climate Resiliency Act that was passed unanimously in both houses. [Agriculture & Markets \(AGM\) Chapter 69, Article 11-B, § 151-1](#).

The plan must address inequities and barriers to success in farming that result from the systemic racism that pervades our society. In Commissioner Richard Ball’s letter introducing the 2021 [Diversity and Racial Equity Working Group Report](#), he underscored the NYS Department of Agriculture’s commitment to building a “stronger, more resilient, and more equitable agricultural community in New York

Black Farmers United NYS Platform

- Create opportunities for Black farmworkers to become business owners,
- Fund black farm and food start ups,
- Supply 1,490 acres of affordable land for farmers of color through the Northeast Farmers of Color Land Trust
- Provide exceptional education delivered by experienced black farmers that compensates the farmers for this service,
- Support urban farms by easing access to land in cities,
- Commit to inclusion of farmers of color in agricultural programs starting with Farmland for a New Generation,
- Award full scholarships to SUNY for agricultural degrees for Black people,
- Capture and provide meaningful data on the needs and locations of Black farmers.

State.”

This plan must do more to enable NYSDAM to actualize this commitment. At least 40% of all funds expended by the state under this plan must be invested in underserved communities. Members of all underserved communities must be represented and able to participate in the design and implementation of all new initiatives.

Climate justice and racial justice are mutually reinforcing – to reduce GHG emissions in agriculture, NYS must turn more of the land over to Native American, Black, and other farmers of color. Agroecological systems originated in indigenous cultures, including Native American, Asian and African.⁵ These systems must be coupled with optimal use of the latest social and technological innovations to bring greater health to both the farmers and workers who produce food and the eaters who benefit from fresh, local, nutrient-dense food grown in healthy soils.

To make it economically feasible for organic and agroecological farms to survive in the highly concentrated marketplace where farmers are usually price takers, NYS must implement a Payment for Ecosystems Service program that provides income to farmers who regenerate soil while producing food, fiber, building materials, and medicine. A PES would compensate farmers for the many interrelated and essential ecosystem services that their farms provide and that result in positive outcomes for the climate. There is no agreement yet on how to measure, monitor and verify increases in soil carbon. To ensure more than minimal performance of incentivized practices, we recommend payments to farmers based on outcomes: lower temperatures that result from soil that is covered instead of bare, minimizing leaching of minerals into waterways, reducing odors, cleaner air, shade from trees, the agritourism value of the beauty of a diverse working landscape. Cleaner water, air and increased tourism are all verifiable. The degree of soil coverage can be measured from satellite images. Diversifying a farm's landscape makes a big difference in ecosystem services. Trees/windbreaks/ponds etc. reduce temperatures, slow winds, filter/infiltrate water, and mitigate climate extremes. Increasing cover cropping and double cropping has a big impact on soil carbon but also on crop yields and quality.

⁵ Liz Carlisle, *Healing Grounds: Climate, Justice, and the Deep Roots of Regenerative Farming*. (Island Press, 2022).

To ensure that NY farms of all sizes can reach economic viability, purchases for state institutions must be in alignment with the standards of the Good Food Purchasing Program that provides a comprehensive set of tools, technical support, and resources to support public institutions shifting to a values-based procurement model. It centers five food system values in equal measure – local economies, animal welfare, environmental sustainability, nutrition, and valued workforce. The program simultaneously aims to hold large vendors accountable to better practices and to increase opportunities for small and historically marginalized vendors and organic farms to contract with public agencies. Public institutions in NYC and Buffalo are already participating.

To qualify to sell to institutions, farms will need state assistance in meeting the stringent and paperwork heavy requirements of the Food Safety Modernization Act (FSMA).

AF9 and10

And finally, it is time to end public funding for the liquid manure handling systems that make really large CAFOs possible. In 2017 out of over 4600 dairy farms in New York, only 561 farms had herd sizes over 200 milk cows and only 142 farms had herd sizes over 1000 milk cows. Just 12% of New York dairies account for nearly 70% of New York’s dairy cow population and are responsible for the vast majority of associated methane emissions from both enteric fermentation and manure management. (United States Department of Agriculture, National Agricultural Statistics Service. Census of Agriculture New York, 2017). A CAFO has more than 1000 animal units – over 700 cows. A disproportionate share of the money for soil conservation in NYS has been used in building liquid manure systems. Even small dairy farms are encouraged to build anaerobic pits. **More than half of the methane from cows in CAFOs is generated in the anaerobic manure systems that the Draft Scoping Plan promotes as a climate solution.**

As the Climate Justice Working Group identifies in their 2021 response, there are much better alternatives to this type of manure storage and handling. We join their call to **“Fund transformative practices upstream of manure storage and towards practices that smaller producers can adopt.”**⁶

⁶ See [here](#), p. 16, for full suggestions from CJWG

Anaerobic manure systems also generate a significant amount of nitrous oxide (NO_x), which has roughly 300 times as much global warming potential (GWP) as CO₂. [According to the EPA](#), NO_x emissions from soils comprise 50.4% of all domestic agricultural emissions. The Climate Action Council must account for the amount of NO_x that anaerobic manure systems generate, calculating the total global warming potential of the system instead of just the amount of methane.

Manure from *pastured* cows generates less than 2% of the methane from anaerobic liquid manure and ‘dry’ *aerobically managed* manure only generates about 7% as much methane as anaerobic liquid manure.⁷

According to Lehner and Rosenberg, “Digesters reduce methane emissions when compared to unregulated liquid manure management systems, but liquid manure management systems have the highest per-head methane emission rates among all methods of manure management ... It is not only the most expensive method for reducing manure emissions, but it is also among the least effective.” (p. 99, emphasis added.)

The investments that result from the CLCPA scoping plan should accelerate the conversion of NYS to a localized food production/distribution system grounded in family-scale farms. The wins pile up when we improve food security, reduce GHG emissions, increase climate resilience, improve food quality, strengthen the state’s rural economy, increase farming opportunities by enabling new farmers, and particularly farmers of color, to gain access to the resources needed to farm, and protect farmland all in one set of policies. Let us learn from the food chain disasters of the Covid-19 crisis and not simply add good practices to the bad existing system. That will not result in long term solutions that meet the ambitious and socially just goals of the CLCPA. By supporting a greater diversity of farms and farmers, we’ll have more carbon in our soil and healthier, fresher food on our tables.

⁷ In *Farming for Our Future*, Lehner and Rosenberg point out that “[C]AFO manure management systems produce much more methane than pasture-based livestock operations. When manure is left as a solid (as naturally happens on grazing lands and pasturelands), it typically decomposes aerobically and produces little to no methane. However, when it is stored or handled in a system that creates an anaerobic environment, such as a lagoon, it releases large amounts of methane. Storage in uncovered lagoons can result in methane conversion rates over 100 times as high as those in pasture and range.”

