

## The Sierra Club Food and Agriculture Landscape Analysis

### **\*\*\*Please take the SURVEY!\*\*\***

We are conducting a simple and quick survey of Sierra Club staff and volunteers to better understand our current assets and to collect input on our food and agriculture work going forward. We encourage all Sierra Club chapter leaders to offer input so that we can best synergize with local chapters:

<https://www.surveymonkey.com/r/SierraFood>

### **Why Food and Agriculture?**

The US food system has strong overlays with the Sierra Club's 3 externally oriented strategic goals:

- **Achieve ambitious and just climate solutions**
  - Agriculture is the third largest contributor of GHG emissions by sector after fossil fuels and transportation (note also that food is the second most transported good in the US)
  - The food and agriculture system contributes 20-30% of global GHG emissions
  - In terms of short-lived climate pollutants, agriculture alone contributes 50% of methane emissions and 60% of nitrous oxide.
  - Just climate solutions: Climate change will impact all four aspects of food security: availability, access, utilization, and stability over time, particularly for low-income families.
- **Explore, enjoy and protect our nation's land, waters, air, and wildlife**
  - In the US, rangeland accounts for 27%, and cropland 18%, of land surface.
  - In 2012, 1.67 billion tons of American topsoil were lost to erosion.
  - Nonpoint source pollution by agriculture is the single largest source of water quality impairment for US rivers and lakes; in the 1990s, NOAA found that 44% of the nation's estuaries exhibited high eutrophication caused in large part by agriculture.
  - Agriculture is the second leading cause of air pollution deaths in the US, after power plants. 4 of the 5 US cities with the worst air pollution are in California's Central Valley.
  - Wildlife and biodiversity seriously impacted by expansion and intensification of agriculture as well as production practices.
- **Engage and support a broad, diverse, powerful, and inclusive movement**
  - Food is a great mobilizer. There is substantial opportunity for Sierra Club food and agriculture work to:
    - Have a positive and magnetic message and feel;
    - Be structured to engage the diversity of food cultures and traditions that are prevalent in the US;
    - Attract a more diverse membership; and
    - Provide a host of social and economic justice co-benefits.

## Background on the Food and Agriculture Landscape Analysis

The Sierra Club is engaging in a thoughtful conversation with our members, supporters and partners to explore the connections between food, agriculture, climate, and the health of our communities and natural world. To support a long-term engagement on food, agriculture and climate issues in the United States, we'll need to creatively show how the choices we make regarding food and agriculture impact our air, water, climate, wildlife, and communities. This is not an armchair exercise - the Sierra Club is about action. As we educate, and learn from, our supporters and allies, the Sierra Club will also identify ways for people to engage to have a real impact on these issues. Central to identifying how we can achieve the most impact is a thorough landscape analysis of what other campaigning organizations are doing and how this issue is resonating with a broadening environmental movement so as to develop a recommendation to our Board for long-term engagement.

The landscape analysis is being carried out by Katy Mamen ([katy@sonic.net](mailto:katy@sonic.net)), who is working with Deputy National Program Director, Michael Bosse ([michael.bosse@sierraclub.org](mailto:michael.bosse@sierraclub.org)). Deputy Executive Director Bruce Hamilton, Vice President Robin Mann and Deputy Chief Advancement Officer Laurin Asdal are helping facilitate connections with internal and external stakeholders. We plan to complete the process and produce a final report for the Conservation Dept co-leads (Robin Mann & Sarah Hodgdon), Executive Team and Board of Directors by Feb 2017.

## What do we hope to achieve through the landscape analysis?

The goal of the landscape analysis is to identify what changes in the world the Sierra Club can most effectively achieve through our work in this area. We will give priority to changes in the United States Food and Agriculture system that will reduce emissions and other environmental impacts. There are a [wide range of issues](#) we could engage in so a clear rationale and strong theory of change will be needed for the prioritized areas of work. We have no guarantee of funding for this work, so funding viability will be important.

We seek to focus on areas of work that most strongly embody these criteria:

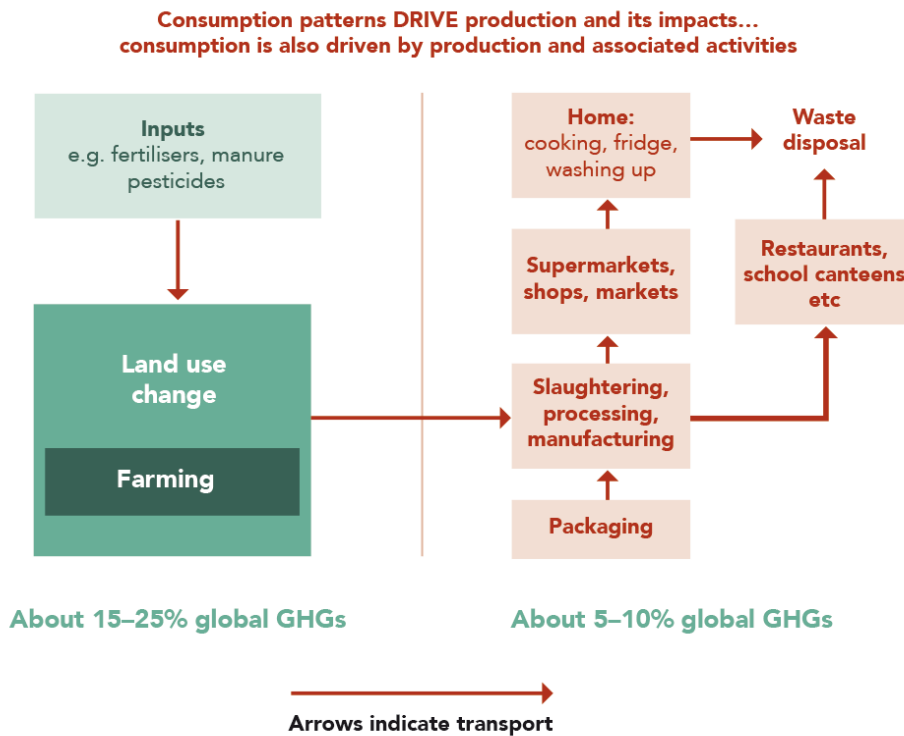
1. Greatest climate and environmental impact;
2. Work that advances Sierra Club's commitment to justice and equity;
3. Changes sought are likely to be achieved via activities Sierra Club can be most effective at;
4. Greatest potential to build and broaden the environmental movement, complement the work of other organizations and engage our base;
5. Timely mid-term opportunities (2-5 years) to influence wide ranging policy or create systemic change;
6. Alignment with our existing campaigns and programs; and
7. High likelihood of funder support.

## Introducing Katy Mamen

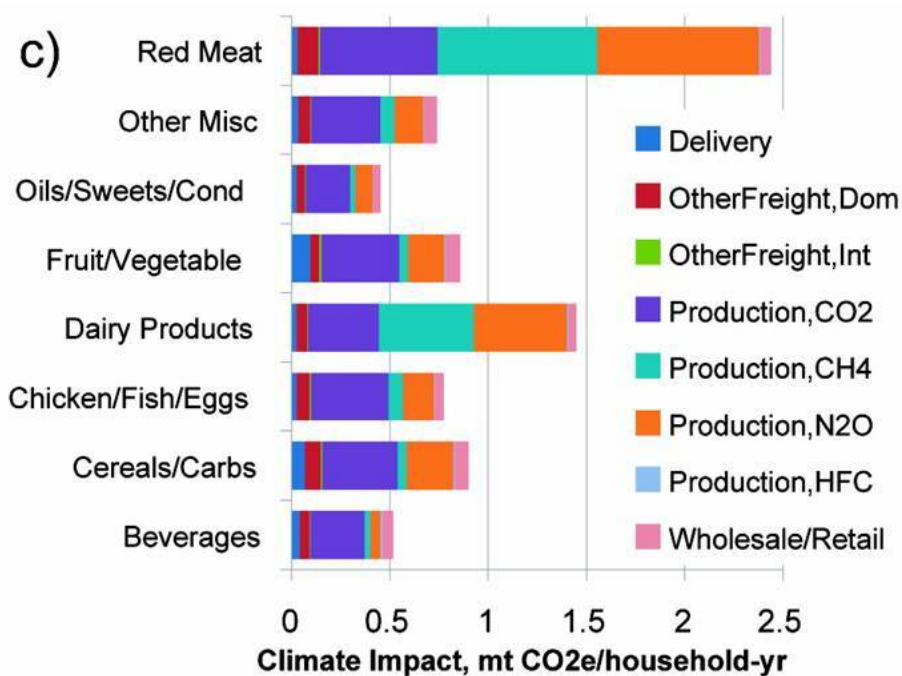
[Katy Mamen](#) is working as a consultant with the Sierra Club to carry out the landscape analysis. Katy is an environmental consultant with experience in food & agriculture, water issues, multi-stakeholder collaboration, and systems change. She has worked with the nonprofit, public, and education sectors to build effective programs and strategy, develop collaborative policy, facilitate decision-making processes and provide expert analysis. Katy previously served as Director of Programs at Ag Innovations and Local Food Program Coordinator at the International Society for Ecology and Culture. She founded the California Agricultural Water Stewardship Initiative, was a Fellow of the Oakland Institute, and co-authored *Ripe for Change: Rethinking California's Food Economy* and numerous articles and public education tools promoting healthy food and agriculture systems.

## The Food System and Climate Change: A Few Facts

1. Food system emissions (Food Climate Research Network, based on Vermeulen et al. 2012)



2. The relative climate impacts of different foods, broken down by parts of the production and distribution chain. From Weber and Matthews 2008 (Environmental Science and Technology 42(10))



3. Summary of emissions by food chain stages (Vermeulen et al., 2012)



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**Table 1** Estimates of the relative contributions of different stages of the food chain to global greenhouse gas emissions

Stage of food chain <sup>a</sup>		Emissions (MtCO <sub>2</sub> e) <sup>b</sup>	Year of estimate	References
Preproduction	Fertilizer manufacture	282–575	2007	24
	Energy use in animal feed production	60	2005	25
	Pesticide production	3–140	2007	24
Production	Direct emissions from agriculture	5,120–6,116	2005	26
	Indirect emissions from agriculture	2,198–6,567	2008	Emissions from the supplementary material for Reference 23 combined with proportion due to agriculture from Reference 28
Postproduction <sup>c</sup>	Primary and secondary processing	192	2007	Calculated from Reference 29
	Storage, packaging, and transport	396	2007	Calculated from Reference 29
	Refrigeration	490	2004	30
	Retail activities	224	2007	Calculated from Reference 29
	Catering and domestic food management	160	2007	Calculated from Reference 29
	Waste disposal	72	2007	Calculated from Reference 29

<sup>a</sup>Note that there may be some overlap among categories (for example, transporting and retailing may both involve refrigeration) and that estimates without ranges have low confidence.

<sup>b</sup>Abbreviation: MtCO<sub>2</sub>e, megatonnes of carbon dioxide equivalent.

<sup>c</sup>The postproduction figures are largely multiplied up from Chinese data on the assumption that as a large middle-income country it is suitably representative of the global level.