Comments on SD County Climate Action Plan
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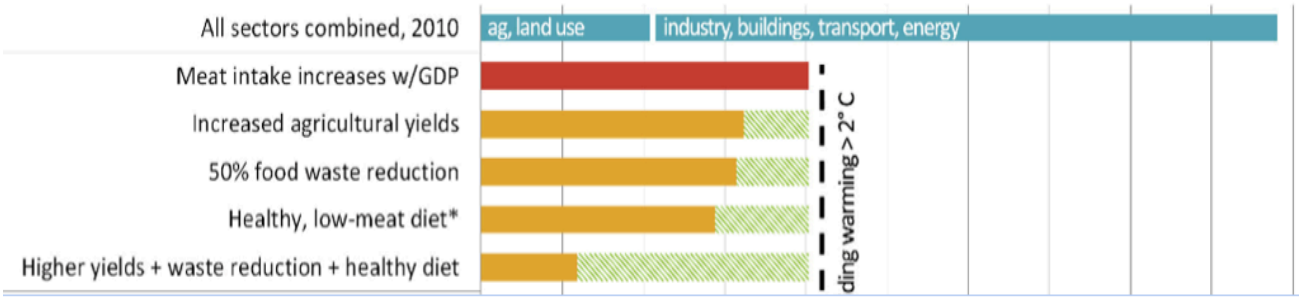
Friends of the Earth submits these comments on behalf of more than 7,000 members and supporters who live in San Diego County. Friends of the Earth is the U.S. voice of the world's largest federation of grassroots environmental groups, with a presence in 75 countries. Friends of the Earth works to defend the environment and champion a more healthy and just world, working at the nexus of environmental protection, economic policy and social justice to fundamentally transform the way our country and the world value people and the environment. We are supported in this work by more than one million members, online supporters and activists. Friends of the Earth's Food and Technology program works to rapidly transition our food system to one that is sustainable, healthy and just, through educational, market and policy campaigns. Our aim is to reduce the harmful impacts of industrial, chemical-intensive farming and increase support for regenerative organic and agroecological farming systems.

We offer comments specifically on how San Diego County can more effectively achieve its goals for reducing its overall climate impact by more comprehensively addressing the impact of its food-related greenhouse gas emissions.

Research shows the world **cannot meet greenhouse gas reduction targets without slashing emissions associated with meat and dairy intensive diets.**[1] Evidence shows that dietary shifts toward plant-based proteins are critical to meet the historic 2016 Paris Climate Accord.[2] Most importantly, failure to address the greenhouse gas (GHG) emissions from food production and animal agriculture will undermine all other efforts to keep average global temperatures from increasing more than two degrees Celsius above pre-industrial levels. As documented in this University of Minnesota report, "even if all sectors other than agriculture reduce their emissions to the maximum, we will not be able to meet the goals of limiting a global average temperature increase below 2 degrees celsius. An estimated target for all the mitigation needed in agriculture is 1GT CO2eq/yr by 2030, which is roughly equivalent to the emissions from all cars on the road in the U.S. today."[3]



Source: Bajzelj et al, 2014[4]

[1] Brent, K., Neff, R., Santo, R., Vigorito, J. (2015, December). *The importance of reducing animal product consumption and wasted food in mitigating catastrophic climate change*. Johns Hopkins Center for A Livable Future. Retrieved from https://www.jhsph.edu/research/centers-and-institutes/johns-hopkins-center-for-a-livable-future/_pdf/research/clf_reports/2015-12-07e-role-of-diet-food-waste-in-cc-targets.pdf
[2] Ibid.
[3] http://www.environmentreports.com/how-does-agriculture-change/
[4] Note: the black dotted line represents the emissions threshold (21± 3Gt CO2e) for at least a 66% chance of keeping global warming below 2 degrees C; the blue bar shows emissions from all sectors (49 Gt)

Given this indisputable evidence, it is clear that in order for municipalities to seek effective solutions to health and climate crises, they must incorporate strategies for reducing meat and dairy consumption into climate action plans.

All Climate Action Plan's should, at a minimum, acknowledge that food related (GHG) emissions represent a significant portion of total global emissions. We found at least 15 municipal Climate Action Plans that recognize the essential role of dietary choices by including efforts to reduce meat and dairy consumption.[5] Livestock production alone contributes about 14.5 percent of global GHG emissions, which is more than the tailpipe emissions from all the cars, trucks, trains, buses, boats, and planes across the globe.[6] While San Diego County's local agricultural production may only be directly responsible for a tiny fraction of these emissions, its 7 million residents—and the county's food purchases are indirectly responsible for a larger portion of those emissions. It is important for San Diego's Climate Action Plan to acknowledge and identify strategies for reducing these indirect emissions by not only improving local agricultural practices (as documented in your plan), but also by promoting strategies that reduce the indirect emissions associated with the consumption of animal foods.

We highlight two key strategies in our comments: climate-friendly food purchasing and consumer education. As large purchasers of goods, municipalities across the nation are using their purchasing power and authority to fight climate change and improve public health. Over the past two decades, local governments have helped reduce direct and indirect emission by adopting policies and action plans requiring the purchase of locally produced food, recycled-content products, energy-efficient equipment, and other environmentally preferable goods and services. As documented in this West Coast Climate and Material Management Forum's Climate-Friendly Purchasing report, green purchasing is an important strategy for reducing greenhouse gas emissions (GHGs) that are associated with the municipal operations—including indirect supply-chain GHG emissions.[7] This Climate Friendly Purchasing Toolkit provides helpful guidance, key strategies, and excellent resources to assist San Diego County in its efforts to reduce the GHG emissions through their supply chain.

As the nation's 7th largest county, San Diego's adoption of the Eat Well Practices make it a national leader in encouraging healthier, climate-friendly foodservice through its recommendations around promoting local and organic food---as well as its encouragement of plant-based foods and smaller portions of animal foods. Serving less and better meat is a strategy that has been cost-effective and successful in reducing the carbon footprint of institutional foodservice. In buying less meat, foodservice alleviate pressure from tight budgets and enable the purchasing of higher-quality, regenerative, organic and community-based animal products that support local economies and environments. San Diego's Climate Action Plan should support strong implementation and tracking of these practices and set specific targets for reducing the purchases of animal foods by county agencies or for food service that operates on county property. It can also promote and encourage shifts and tracking of food procurement by large institutions that serve food in San Diego, like the San Diego Unified School District. In addition, it can develop strategies aimed at educating residents about the importance of reducing the carbon footprint of their food choices.

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*The "healthy diet" limits intake of red meat (max of two 3 oz. portions (e.g. 2 burgers per week), poultry (max of one 85 g / 3 oz. portion per day), dairy, eggs, sugars, and oils to levels recommended by health organizations (e.g., WHO, FAO, American Heart Association, Harvard Medical School), and sets a minimum for fruit and vegetable intake.

5: Albany, CA. Berkeley, CA. Cupertino, CA. Davis, CA*. Oakland, CA. Santa Monica, CA. Ann Arbor, MI. Cincinnati, OH. Eugene, OR. Portland, OR. Pittsburg, PA. King County, WA. Seattle, WA. Shoreline, WA. Austin, TX

6 Bailey, R., Froggatt, A., & Wellesley, L. (2014). Livestock–Climate Change's Forgotten Sector. *Global Public Opinion on Meat and Dairy Consumption*. Chatham House, The Royal Institute of International Affairs, London.

7 West Coast Climate and Material Management Forum, Climate Friendly Purchasing Toolkit

These shifts will also promote public health. There is ample scientific evidence that a diet with less meat and more plant-based foods is better for our health.[8,9,10] Excessive consumption of red and processed meats is associated with increased risks of heart disease, diabetes and some cancers,[11,12] while plant-based diets can help decrease the risks of all three.[13]

At a minimum, climate action plans should make residents aware of these food-related emissions, which are neither accounted for, nor mentioned, within the current SD CAP (GHG Inventory and other sections).

We offer the following comments and recommendations for how San Diego County's Climate Action Plan can more effectively address food-related emissions associated with food purchases by county agencies or for food served on county property.

Summary of Key recommendations: *Each of the following recommendations will be contextualized and substantiated in later sections.*

- **In Chapter 1, Introduction**
  - Add a clause that highlights the importance of the Eat Well Practices, and their emphasis on healthy, climate-friendly foodservice as a way to reduce Scope 3 carbon emissions.
- **In Chapter 2, Greenhouse Gas Emissions Inventory, Projections and Reduction Targets**
  - Although outside the scope of current GHG measures, provide an explanation of indirect Scope 3 emissions and information on the significant climate impacts from food & livestock production, which procurement officers and residents should be aware of as consumers.
- **In Chapter 3, Strategies and Measures**
  - Consider adding into the Supporting Efforts section (page 13), mention of the Eat Well Practices and specifically the on going efforts to promote healthy, low-carbon proteins, and plant-forward menus.
  - Consider adding the following clause as a recommendation for public food service: By replacing some meat and dairy products with plant-based alternatives, municipal food service operations and restaurants operating on public property can significantly cut their carbon and water footprint, while also reducing their negative health and environmental impacts—all while saving valuable tax dollars.
    Note: These public sector shifts and awareness will likely percolate into private businesses (restaurants/foodservice) and amplify climate-health co-benefits.
- **In Chapter 4, Vulnerability, Resiliency and Adaptation**
  - Add: In order to encourage community resilience, the County should emphasize local and regional food purchasing, including local meat and fish—as well as helping make residents of San Diego County more aware of the sources of their sustenance, including imported food and related emissions and water use.
- **In Chapter 5, Implementation and Monitoring**

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[8]Micha, R., Wallace, S. K., & Mozaffarian, D. (2010). Red and processed meat consumption and risk of incident coronary heart disease, stroke, and diabetes: A systematic review and meta-analysis. *Circulation, 121*(21), 2271–2283. doi:10.1161/ CIRCULATIONAHA.109.924977

[9]Cross AJ, Leitzmann MF, Gail MH, Hollenbeck AR, Schatzkin A, Sinha R (2007) A Prospective Study of Red and Processed Meat Intake in Relation to Cancer Risk. *PLoS Med 4*(12): e325. doi:10.1371/journal.pmed.0040325

[10] Union of Concerned Scientists. (2013, August). *The $11 trillion reward: How simple dietary changes can save lives and money, and how we get there.* (p2). Retrieved from http://www.ucsusa.org/sites/default/files/legacy/assets/documents/food_and_agriculture/11-trillion-reward.pdf

[11] Micha, R., Wallace, S. K., & Mozaffarian, D. (2010). Red and processed meat consumption and risk of incident coronary heart disease, stroke, and diabetes: A systematic review and meta-analysis. Circulation, 121(21), 2271–2283. http://doi.org/10.1161/ CIRCULATIONAHA.109.924977

[12]Cross AJ, Leitzmann MF, Gail MH, Hollenbeck AR, Schatzkin A, Sinha R (2007) A Prospective Study of Red and Processed Meat Intake in Relation to Cancer Risk. PLoS Med 4(12): e325. doi:10.1371/journal.pmed.0040325

[13] http://www.eatrightpro.org/resource/practice/position-and-practice-papers/position-papers/vegetarian-diets

    - Consider adding a protocol for tracking the food related GHG emissions within public institutional foodservice and within facilities that are leased on public lands. Tools for this exist and are described below.
    - Consider adopting the Good Food Purchasing Policy, which stipulates measurement and reduction of GHG emissions from food.
- **In Chapter 6, Outreach and Engagement**
    - Incorporate language that explains the cost-effectiveness of healthy, climate-friendly foodservice on public facing documents and notices, to increase awareness and community support of climate-friendly foodservice

Chapter 1, Introduction

Within *Chapter 1, Introduction,* the CAP does mention notable programs related to healthy diets and lifestyle choices. Programs such as, Live Well San Diego, and the associated, Food Systems Initiative, which is focused on:

- "Working with stakeholders to create a biennial State of the Food System in San Diego County Report to identify and track comprehensive metrics for progress in improving the food system countywide."
- "Collaborate with local food system stakeholders to increase food donation to help address food insecurity countywide and reduce food waste."
- "Provide technical assistance for small-to-medium sized markets to offer access to affordable, healthful, local, and culturally desirable food items in underserved neighborhoods."
- "Implement **Eat Well Practices** to expand healthy and sustainable food and beverage options offered by the County."

Despite this mention of certain diet and lifestyle programs, there is no explicit mention of the important intersection of diet, climate, and public health. We believe that it is critically important to acknowledge the significant emissions that come from food, to build an ethos and awareness that will support policies and standards. We encourage the CAP to highlight the importance of implementing the specific climate friendly elements of the Eat Well Practices that were adopted by the San Diego County's board of supervisors in December 2016 including recommendations for serving less and better meat within foodservice operations at county facilities and leased sites with county jurisdiction. They recommend the following:

- "Prioritize plant-based foods including protein and dairy alternatives,"
- "Consider alternatives to red meats *and avoid processed meats (e.g. hot dogs, bacon, sausage, deli meats);and "if offered, strive to serve* "infrequently and in small portions." and
- *"Offer plant-based foods and dishes and vegetarian meals".*

These food standards—along with other recommendations for local and organic food—acknowledge the synergy of climate-sustainability goals and public health goals. If these Eat Well Practices are properly implemented and fortified by the counties Climate Action Plan, they will help significantly reduce the climate impact of the 7 million meals served by San Diego County each year. These impacts can easily be tracked using carbon footprint and procurement data (see more in section 5, monitoring). As the nation's 7th largest county, San Diego can provide an important model, inspiring other large municipalities to become a national leader in healthy, climate-friendly foodservice.

Chapter 2, Greenhouse Gas Emissions Inventory, Projections and Reduction Targets

Within Chapter 2, the CAP explains that the Greenhouse Gas (GHG) inventory "is limited to GHGs that

are generated by activities in the county from a defined set of sources (e.g., on-road transportation, electricity use, and waste) that can be readily monitored and reduced through county actions." We urge the county to recognize the importance of acknowledging Scope 3 emissions—particularly diet-related emissions—that must be addressed within CAPs to reach climate targets.

As noted in our comments on Chapter 5, shifting large institutional food procurement systems toward climate-friendly foodservice can in fact be tracked and reduced through purchasing policies and food standards. In the first case study of its kind – "Shrinking the Carbon and Water Footprint of School Food," – the Oakland Unified School District (OUSD) slashed the carbon footprint of its foodservice by 14 percent by reducing its purchases of animal products (meat, poultry and dairy) by 30 percent. This study illustrates that it is feasible to both track and significantly reduce emissions within institutional food service. There is an affordable service available by Intolife to help municipalities track emission reduction benefits of shifting food purchases. Friends of the Earth is also available to help the County establish effective tracking and monitoring systems.[14]

Recommendation:

- When explaining the process of GHG Inventory it is important to mention the significant Scope 3 emissions generated by food consumption, in the form of agricultural production outside of the region. These emissions are inextricably linked to consumption habits & dietary choices within a city & metro-region. Most of these agricultural emissions are unaccounted for in national or even global strategies to address climate change.
- Even if these Scope 3 emission are not accounted for in the GHG Inventory, it is still important to mention their significance, and the role that individual consumers and institutions (both public and private) can play in reducing emissions through strategic food shifts.
- There are methods for monitoring and calculating emissions from food consumption using life-cycle assessment (LCA) data. Eventually San Diego County should incorporate these methods into the standard protocol for GHG Inventory. These emissions can be readily "monitored reduced through county actions" (Ch. 2, Pg. 2)[15], so they fit within the current definition.

Chapter 3, Strategies and Measures

Within *Chapter 3, Strategies and Measures,* the CAP does well to acknowledge the importance of protecting regional agricultural lands. The CAP outlines important strategies for preserving land through easements and county initiatives[16]. This chapter also highlights the importance of supporting efforts to promote consumption of locally grown and raised food products, which provides further economic support for local farming & ranching. While there are a number of strategies outlined in this CAP to mitigate agricultural emissions, it fails to mention of the cost-effective and multi-benefit strategy of shifting municipal foodservice toward climate-friendly menus. There should also be mention of strategies to reduce food waste, which is a major source of greenhouse gas emissions.[17] Of the top 100 most effective solutions to mitigate carbon emissions Paul Hawken's recent Project Drawdown report identifies reduced food waste, and plant-rich diets as 3rd and 4th most effective strategy respectively on the

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14 Contact Jkraus-polk@foe.org, for inquires about food-related carbon & water footprinting.

15 "The emissions inventory is limited to GHGs that are generated by activities in the county from a defined set of sources (e.g., on-road transportation, electricity use, and waste) that can be readily monitored and reduced through county actions." (SD CAP Ch. 2, Pg. 2)

16 Purchase of Agriculture Conservation Easements (PACE) program promotes long-term preservation of agriculture lands, while simultaneously supporting the local farming and ranch in community by offer compensation for the easement title. (Ch. 3, Pg. 13)

17 Natural Resource Defense Counsel 2012 Wasted Report: https://www.nrdc.org/sites/default/files/wasted-food-IP.pdf

Drawdown list.[18] As top solutions, both of which are extremely cost-effective, the San Diego Climate Action Plan should at a minimum consider ways to incorporate strategies for promoting climate-friendly foodservice that both reduces food waste and prioritizes lower-carbon plant-based proteins.

Recommendations:

- Consider adding into the Supporting Efforts section (page 13), mention of the Eat Well Practices and specifically the on going efforts to promote healthy, low-carbon proteins, and plant-forward menus.
- Consider adding the following clause as a recommendation for public food service: By replacing some meat and dairy products with plant-based alternatives, municipal food service operations and restaurants operating on public property can significantly cut their carbon and water footprint, while also reducing their negative health and environmental impacts—all while potentially saving valuable tax dollars.
- Promoting smaller portion sizes of animal products, municipal food service can improve health outcomes, while also reducing indirect emissions of the food--and food waste, a major contributor to global warming. This cost savings can enable dining operations to purchase better quality meat and dairy products, which are healthier and better for the environment.
- Encourage other large institutions, such as San Diego Unified School District to adopt and track climate-friendly food procurement as part of its efforts to implement healthier school food and climate mitigation strategies.

Note: *These public sector food shifts and awareness would likely percolate into private businesses and amplify climate-health co-benefits.*

Chapter 4, Climate Change Vulnerability, Resiliency and Adaptation

Chapter 4 does well to raise the aspiration of building resilient communities. However this chapter could do more to discuss the role of the County in supporting local, regional and regenerative agriculture—as well as more plant based food consumption as part of the county's work to foster more resilient communities. Emphasizing purchases of local, regional and sustainable food—including locally sourced animal products and seafood will help strengthen local and regional food systems and resiliency. And if the county purchases less meat, it can afford better meat and seafood from local producers that are building resiliency through agro-ecological and sustainable practices. Purchasing even a small portion of less and *better* meat and dairy – raised on local and regional organic and pasture-based farms – can yield crucial environmental and health benefits. While net climate emission reduction benefits from pastured animal systems are unclear, well managed pasture-based animal production systems can generate other critical environmental, animal welfare and climate resiliency benefits including healthy soils, plant growth, and habitats that support bees, butterflies and other beneficial insects and animals. In addition, by limiting vast concentration of animals, and creating healthier soils that improve water absorption and holding capacity, pasture based systems can bolster resilience to the severe droughts and flooding marked by climate change. In stark contrast to confined feedlots that crowd animals in close quarters--generating massive carbon and water pollution from feed production and waste (made even worse during climate extremes), well-managed pastures and rangeland can turn animal waste into organic nourishment for soils and crops, while also storing large amounts of carbon that can partially offset the emissions from cattle raised on pasture. [19]

[18] Hawken, Paul. "Summary of Solutions by Overall Rank." Drawdown, Penguin Press, 18 Apr. 2017, www.drawdown.org/solutions-summary-by-rank.

[19] Liebig MA, Morgan JA, Reeder JD, Ellert BH, Gollany HT, Schuman GE. Greenhouse gas contributions and mitigation potential of agricultural practices in northwestern USA and western Canada. Soil & Tillage Research. 2005;83:25-52.

Recommendations:

- Add an explanation of climate-friendly foodservice, as a way to reduce community water consumption and greenhouse gas emissions.
- Add: In order to generate community resilience, residents of San Diego County must be aware of the sources of their sustenance, and seek to reduce food imported from great distances and related emissions and water use.
- Add a recommendation to public institutions to purchase less and better animal products, and in so doing, support more resilient and regenerative farming systems.

Chapter 5, Implementation & Monitoring

The implementation of PACE & related programs for maintaining metro-region agriculture and incentivizing lower-carbon and sustainable farming practices is an important strategy for increasing resiliency and reducing San Diego's direct carbon emissions from agriculture. Beyond these important programs, we hope that San Diego will consider ways in which to incentivize and monitor sustainable food shifts within institutional food service under San Diego County jurisdiction. Public & private institutions across the globe have begun to incorporate food-related GHG emissions as part of their measures of environmental sustainability.

To effectively track the carbon footprint, water use, and cost-savings within municipal food procurement systems it is important to collect baseline data in advance, before any substantial food shifts take place. By collecting baseline data, a city can compare both environmental impact and total expenditures before and after implementing climate-friendly food shifts to illustrate climate benefits and cost-savings, and substantiate future food shifts, and/or reproduce climate-friendly food shifts in different sectors of municipal food procurement. Low-cost technical assistance is available through entities like Intolife and Friends of the Earth to help municipalities establish effective tracking systems.

However, calculating cost-savings between years can be complex, so it is important to have a sample (transect) of purchasing data that is commensurate from year to year, and is not too large and unwieldy.

A menu-based approach can also be a simple but effective method for comparing carbon and water footprints and cost-savings. In this approach one compares the data from a traditional menu with that of a menu that has implemented certain shifts toward more climate-friendly foods, (i.e. incorporating more less & better meat). This menu-based analysis can save time, while still providing a strong economic argument for these food shifts.

Recommendations:

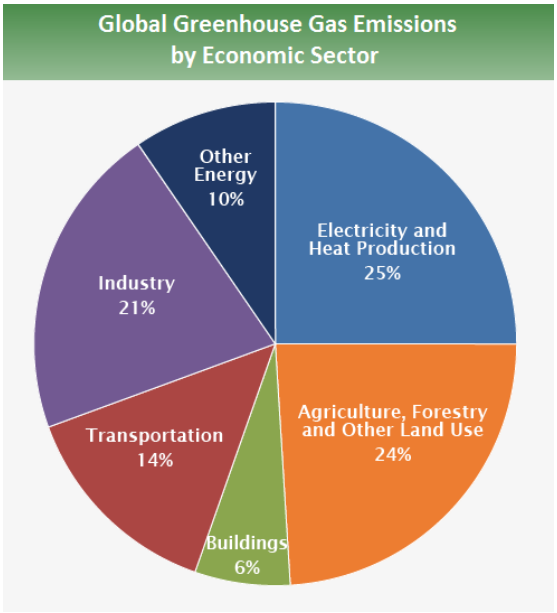
- Consider adding a protocol for tracking the food related GHG emissions within public institutional foodservice and within facilities that are leased on public land. Below we have a list of resources and reports that illustrate methodology and examples:
    - See Friends of the Earth's report "Shrinking the Carbon and Water Footprint of School Food," for an example of tracking GHG emissions within Oakland Unified School Districts foodservice.
    - See Friends of the Earth's forth coming *Municipal Guide to Healthy, Climate-Friendly Foodservice* (to be released December 2017).
    - Consider adopting the Good Food Purchasing Policy, which stipulates and provides technical assistance around measurement and reduction of GHG emissions from food.
    - Consider hiring Intolife, a Norwegian based company that offers comprehensive food footprinting.

Chapter 6, Outreach and Engagement

For any climate action strategy, community education, awareness and buy-in are critical. The stated goals of the Outreach and Engagement Plan are as follows:

> "(1) raise awareness of the CAP; (2) educate the public and other organizations about the CAP; (3) provide opportunities for input at the various steps of CAP development as discussed in Section 1.3.1.; (4) provide opportunities to influence decision-making on the CAP; and (5) provide a public process that meets the California Environmental Quality Act (CEQA) Guidelines."

Accomplishing these goals is essential to effective, community-based, implementation of the SD CAP. However, it is important, as a part of the awareness building, that constituents receive a comprehensive understanding of how San Diego County's Climate Action Plant fits into the global effort to mitigate climate change. Residents should understand how SD County's GHG Inventory differs from global GHG Inventories, and analyses of significant carbon sources. For example, where Agriculture, Forestry and Other Land-Use makes up 24% of global GHGs, San Diego's GHG Inventory attributes only 5% of emissions to Agriculture. However, this fails to acknowledge the indirect impacts that San Diego County and its residents have on greenhouse gas emissions. As both institutional and individual consumers, residents of San Diego County play a role in these "externalized" or indirect (Scope 3) emissions, and hence should be aware of them.



Recommendations:

- Incorporate language that explains the cost-effectiveness of healthy, climate-friendly foodservice on public facing documents and notices, to increase awareness and community support of climate-friendly foodservice.
- Provide resource and educational materials to community members about the differential climate and water footprint impact of different kinds of foods—and encourage adoption diets with lower carbon and water footprints.

For more information, please contact Kari Hamerschlag at khamerschlag@foe.org.