August 1, 2008

Mary Nichols
California Air Resources Board
1001 "I" Street
PO Box 2817
Sacramento, Ca 95812

RE: AB 32 Scoping Plan: Sustainable and local food systems reduce carbon emissions

Dear Chairperson Nichols and Members of the California Air Resources Board,

We are writing to urge you to address the role of sustainable agriculture and local food systems in the State's strategy to reduce greenhouse gas emissions, which we believe is a critical component of a comprehensive and effective climate protection plan. Despite several submissions on the subject, the draft scoping paper failed to include proposals that will significantly reduce carbon emissions from our food and agriculture sector.

The lack of attention to this issue is a serious oversight given the estimates that greenhouse gas emissions from the food and agriculture sector constitute as high as 30 percent of annual total emissions globally. While the scoping paper identified agriculture as contributing 6% of the state's greenhouse gas (GHG) emissions, the state's figure does not count the energy used for inputs in agricultural production (e.g. fertilizer, electricity for water pumping, etc). Equally important, it does not include food-related emissions generated from other sectors of the economy, including transportation, storing, processing, and waste. Without an explicit and comprehensive focus on the energy component of food in these sectors, California will miss a major opportunity to significantly reduce the carbon footprint of our food system.

We call on the California Air Resources Board, the California Department of Food and Agriculture, and state, city and county governments to adopt a wide range of policy, regulatory, research, and funding measures across a wide range of sectors outlined in the scoping document. We urge you to consider the following principles in guiding future implementation plans:

- **Support for organic and water- and energy-efficient sustainable farming practices**
  The State of California should support to the fullest extent possible the transition away from conventional agriculture to the production of organic, water-efficient and sustainable farming practices that have been proven to reduce carbon emissions. Strategies should include: prioritizing GHG reduction and water conservation as a priority in the Environmental Quality Incentives Program (EQIP) and the Conservation Security Program (CSP); including reductions of GHG emissions as a key criteria for projects supported by Specialty Crop Block Grants; and supporting existing and new farmers that are practicing and/or transitioning to organic agriculture.

  Numerous studies have demonstrated that organic and sustainable farming practices use dramatically lower rates of fossil fuel inputs per acre than conventional systems, which translates into carbon emissions as much as 48 to 66 percent lower, according to one FAO study.[1] This is primarily due to the high energy requirements of manufacturing synthetic nitrogen fertilizer and pesticides, which according to a University of Michigan study, accounts for almost 40 percent of the energy used in U.S.

[1] El-Hage Scialabba, N. and C. Hattam (eds.). 2002. *Organic Agriculture, Environment, and Food Security*. Rome: UN Food and Agriculture Organization (Environment and Natural Resources Service, Sustainable Development Department).

agriculture.[2]. The Rodale Institutes trials in the U.S. found that energy use for conventional agricultural was 200 percent higher than organic. The multiple benefits of sustainable farming are numerous, including: safer working conditions for farm laborers; cleaner watersheds; price premiums for farmers; and less toxic residue in food. The scoping plan also fails to mention the agriculture sector specifically when addressing emissions reductions from water efficiency measures. This is a major oversight given that four percent of California's electricity is used to pump irrigation water (plus 88 million gallons of diesel and 18 million therms of natural gas) [3]; and 90% of the agricultural sector's electricity use is for water pumping.[4]

- **Investment and support for local food production, distribution and consumption, especially to meet the needs of under-served low-income communities.**
  The State of California should support to the fullest extent possible a reduction in the distance our food travels to reach our plate, which could include: supporting strategies to increase access to land for food production, particularly in urban and near urban areas; requiring public and publicly supported institutions to buy a percentage of their food from local sources; providing technical assistance and funding to cities and counties to include food system planning in their climate action plans and land use planning processes; and supporting the development of regionally oriented food processing and distribution facilities.

  The scoping paper failed to identify food transport as a significant contributor to GHG emissions, despite the fact that food is one of the most widely transported products in the state. Local food travels far less - and thus results in lower emissions - than non-local food. According to a WorldWatch Institute study, a typical meal bought from a conventional supermarket consumes four to 17 times more petroleum for transport than the same meal using local ingredients.[5] Despite California's massive production capacity, we import 40% of our food,[6] which translates into at least 250,000 tons of GHGs.[7] In addition to reducing GHG emissions, increasing the purchase of local and/or California-produced food would generate significant economic benefits for farmers and local governments. According to a study commissioned by the state's Buy California Initiative, "a 10% shift in annual purchases, or about $85 dollars per year, would generate $848 million in increased revenues to farms" with significant economic multiplier effects, including 3,478 more jobs in the agricultural industry, and about $188 million in taxes for local and state governments. [8]

- **On-farm production of wind and solar energy.**
  Given the vast potential in this area, we propose that the State of California support to the fullest extent possible efforts to increase the production of wind and solar energy on farmland. Strategies could include: implementing research programs to identify the barriers and solutions to solar and wind farming opportunities on California farms; requiring the Public Utilities Commission, state government and CDFA to collaborate to identify and implement policies and programs that expand solar and wind generation on farmland; and requiring CDFA to conduct outreach and provide technical assistance so farmers can access new Federal dollars available in the 2008 Farm Bill that will be available for solar- and wind-based renewable energy.

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[2] Heller, M.C. and G.A. Keoleian. 2000. *Life Cycle Based Sustainability Indicators for Assessment of the U.S. Food System.* Ann Arbor, MI: University of Michigan, Center for Sustainable Systems.

[3] Klein, G., M. Kregs, V. Hall, T. O'Brien, B. Blevins. (2005, November) California's Water-Energy Relationship. California Energy Commission Report CEC-700-2005-011-SF. AND Navigant Consulting (2006, December). Refining estimates of water-related energy use in California. Prepared for California Energy Commission . CEC-500-2006-118.

[4] Klein, G., M. Kregs, V. Hall, T. O'Brien, B. Blevins. (2005, November) California's Water-Energy Relationship. California Energy Commission Report CEC-700-2005-011-SF

[5] Brian Halweil, "Home Grown: The Case for Local Food In A Global Food Market" 2002, Worldwatch Institute.

[6] Mamen, K., S. Gorelick, H. Norberg-Hodge, D. Deumling (2004). *Ripe for Change: Rethinking California's Food Economy*. Berkeley, CA: ISEC.

[7] NRDC Policy Fact Sheet, "Food Miles: How far your food travels has serious consequences on your health", Page 2, NRDC, 2007

[8] Tootelian, Dennis H (2003/, The Economic impact of shifts in consumer purchasing patterns to more California grown agricultural commodities. Available from the Buy California Initiative, CDFA

Rural land has unique contributions to offer, such as: it is relatively cheap land, has high- intensity sun conditions for solar panels, and lacks ,much of the urban residential concerns about visual presence of wind turbines. In countries such as Germany, climate policies include incentives for farmers to install solar and wind capacity to generate local renewable energy, and 'solar farming' is now a very profitable and booming industry.

These practices will reduce greenhouse gas emissions and provide many additional benefits, including increased tax revenue for cities and counties, better air and water quality, improved farm worker and public health, reduced medical costs, and the creation of local green collar jobs. Further, one recent paper concluded that "Organic, sustainable agriculture that localizes food systems has the potential to mitigate nearly thirty percent of global greenhouse gas emissions and save one-sixth of global energy use."[9]

We understand that there are a range of regulatory and market-based options available to the State government to curb greenhouse gas emissions. We share the concerns expressed by many in California's environmental justice community, who are opposed to market-based cap-and-trade systems. Instead, we are supportive of approaches that:

- **Effectively, rapidly and efficiently reduce GHG emissions in the timeframe outlined by law;**
- **Do not increase the emission of other health-harming pollutants;**
- **Have strong enforcement mechanisms, including criminal and civil consequences for entities that violate regulations, as well as large emitters of carbon pollution;**
- **Help us transition away from a fossil fuel-based economy, which disproportionately harms low-income communities and communities of color, to one that is energy- and resource-efficient and based on sustainable energy technologies;**
- **Are democratic and transparent so that Californians can effectively participate in all major decisions about and efforts to reduce carbon emissions;**
- **Support early and current adopters of low-carbon practices, such as today's organic farmers and cities and counties enacting climate action plans and purchasing policies that promote the procurement of locally sourced and sustainably food products as well as other climate-friendly goods and services; and**
- **Do not give away free or drastically cost-reduced polluting rights to big polluters.**

We look forward to working with CARB, CDFA, NRCS, ICLEI and other stakeholders to further define specific implementation measures centered around the aforementioned principles and practices, and collaborate on implementing these programs to reduce carbon emissions and create a sustainable and just food system.

Yours Sincerely,

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[9] Mitigating Climate Change through Organic Agriculture and Localized Food Systems, Dr. Mae-Wan Ho and Lim Li Ching, Institute for Science and Society, January 31, 2008 www.i-sis.org.uk/mitigatingClimateChange.php