



RIPE FOR CHANGE

RETHINKING CALIFORNIA'S FOOD ECONOMY



REPORT SUMMARY

INTERNATIONAL SOCIETY FOR ECOLOGY AND CULTURE



California once conjured up visions of abundance, productivity, and prosperity. Blessed with a mild climate and fertile soils, it was the envy of farmers around the world. Today, however, the picture is very different. For the last few decades it has become increasingly apparent that the state's agricultural economy is fundamentally flawed. In 1983, for example, a study by the Cornucopia Project concluded with a dire warning:

California's present method of producing and distributing food—the present path from field to table—is, in the long term, unsustainable.... The drain on water, soil, mineral and energy resources, the dependence on synthetic fertilizers, pesticides, a small genetic seed base, large government subsidies, and the concentration of ownership and control at all levels are fostering conditions which threaten the long-term viability of the entire food system.

The list of problems is a long one. It includes toxic agrochemicals that pollute the environment and poison our food, an obesity epidemic amid widespread food insecurity and hunger, low pay and appalling conditions for farmworkers, the disappearance of small and mid-size family farms, rising rates of food-borne illness, and the presence of inadequately tested, unlabeled genetically engineered foods on supermarket shelves.

Most of these problems are widely recognized, and have been the subject of exhaustive research and keen attention by academics, environmental activists, food and farming organizations, and government agencies. Yet we seem to be no closer to solving them. On the contrary, the situation is getting progressively worse.

One reason for this lack of progress is the belief that the food system's problems all result from different causes—that there is no connection between, say, the loss of rural jobs and an ever-increasing dependence on agricultural chemicals. Another, interrelated, reason is that there has been insufficient attention paid to the impact of the *economy*—in particular, the role of globalization. This report describes how economic globalization is at the heart of almost every problem facing the food system. Discerning this common root cause, in turn, reveals strategies to solve all those problems at once, by creating and supporting food systems that are more diverse, smaller in scale, and more localized.





California: cultivating the global food model

From the time of California's earliest European settlers, the region's food economy has exhibited many of the traits of the modern global system. Large farms, for example, have long been the norm in California. By 1870, the state was home to more than twice as many 1,000-acre farms as any other, while the proportion of farms larger than 100 acres was nearly three times the national average. Most of those farms focused not on foods for local consumption, but on specialized crops for distant markets.

There are other similarities. As in the modern global food system, the state's big, monocultural farms were made possible by plentiful supplies of cheap labor and eventually a heavy reliance on mechanization, agrochemicals, and fossil fuels. As in every

other food-exporting region today, the export economy in California also depended on significant government subsidies—particularly for transport and irrigation infrastructures.

In these ways, California was largely responsible for creating an industrial style of farming suited to large-scale distribution and long-distance transport. This is a major reason why the state's biggest farms and agribusinesses are now at the top of the global food economy. That status may be short-lived, however. Other nations and regions have adopted the same formula, and "free trade" is forcing California agribusinesses to compete with food producers in countries where energy and transport are also subsidized, but regulations are weaker and labor costs are far lower.

The corporate squeeze

Like clean air and water, food is something people everywhere need every day; it is therefore not only an important part of the economy, but, as many have argued, a human right. Yet Americans now depend on profit-driven corporations for 95 percent of their food, setting up a fundamental conflict between the needs of people and the goals of corporations.

In California today, large agribusinesses dominate every sector of the food economy. Vertical and horizontal integra-

tion, as well as strategic alliances among input suppliers, large-scale producers, food processors, manufacturers, wholesalers, and retailers, have created corporate oligarchies with immense and growing power. Today, just one percent of California producers supplies 38 percent of the state's total agricultural production; just three companies control 57 percent of the huge food retail market in California. Similarly high levels of consolidation are now found throughout California's food system.



Photo: Alex Jensen



Needless trade

As the global food system becomes more centralized, food trade and transport are booming. The lifting of trade barriers, along with public subsidies for energy and long-distance transport, have contributed to rising “food miles”—the distance food travels from producer to consumer. The system is now so focused on trade that the value of food shipped to, from, and within California—\$124 billion in 1998—is expected to more than triple, and to exceed the value of all other transported goods, by 2020.

Despite California’s status as one of the world’s leading agricultural economies, more raw farm products are shipped *into* California (67 million tons) than are shipped out (37 million tons), making the state a net importer of food. By weight, 59 percent of California’s demand for raw farm products comes from outside its borders. When processed foods are included, California relies on out-of-state products for 40 percent, by weight, of its total food needs.

Even though California is importing large quantities of raw farm products, 43 percent of the state’s harvest is being

exported out of state, nearly half of it internationally. This would be reasonable if food imports were products that couldn’t be grown in California, and exports were surpluses beyond what the state’s residents consume. But this is not the case: much of California’s food trade is simply redundant—involving the simultaneous import and export of the same food products, regardless of the season. For example, California exports brussels sprouts to Canada at the same time that it imports brussels sprouts from Belgium. New York ships California nuts to Italy while importing the same nuts from Italy—the boats effectively crossing paths in the Atlantic.

These examples are not anomalies but part of a growing trend: food, treated as a speculative commodity in an era of increasingly liberalized trade, is being transported back and forth across the world—not to meet people’s food needs, but to increase the profits of corporate agribusinesses. In the 10 years since the implementation of the North American Free Trade Agreement (NAFTA), for example, the transport of food between the US and Mexico has doubled in both directions.

Californians pay the price

The globalized food system exacts a heavy price from all Californians. For one, it requires industrial-style monocultural farming methods, which have high environmental costs:

- Per-acre pesticide use in California is almost *ten times* the national average.
- Between 1990 and 1995, 38 million tons of toxic waste were spread as fertilizer on California fields.
- Pesticides, fertilizers, sediment, and livestock waste have damaged 81 percent of the state’s lake area, 75 percent of its estuary and wetland areas, and 23 percent of its rivers.
- Industrial farms are heavy air polluters as well: since 2001 the agricultural San Joaquin Valley has been home to the nation’s dirtiest air.

The costs of these agricultural methods are borne not only by nature, but by all of us, including generations to come. The health of Californians is being seriously impacted. For example:

- More than 90 percent of the pesticides used in California each year are prone to drift, meaning that hundreds of thousands of Californians—including urban and suburban residents—face pesticide exposure.

- Wells contaminated with the carcinogenic pesticide Dibromochloropropane (DBCP) put the health of more than 875,000 people in California at risk.
- The health of farmers and farmworkers is heavily compromised by industrial agriculture. Because of pesticide exposure, California’s farmworkers are 59 to 70 percent more likely to develop various forms of cancer than the rest of the population.
- Agrochemicals are also linked to asthma. The childhood asthma rate in Fresno, California’s leading agricultural county, is three times the national average.
- Manure waste from California industrial dairy farms threatens the drinking water of 65 percent of Californians.

Health impacts from the global food system are not solely due to industrial agricultural practices. For example:

- Food from the global system is not only subject to more chemical applications, it is transported farther, processed more, contains more additives, and sits in trucks and on supermarket shelves longer—all of which compromise its taste, nutritional value, and safety.



- With industrial food processors speeding up the assembly line, the total number of confirmed and suspected food poisoning cases in the state has nearly tripled since 1989.
- More than half of California's adult population is overweight or obese. Obesity increases the risk of 30 serious health conditions, including diabetes, heart disease, cancer, and stroke. It is the second leading cause of preventable death in the country.

In the global food system, most of the public's food dollar goes to corporate agribusinesses. Little is left for farmers, farmworkers, and their rural communities. The result is the disappearance of small- and medium-sized farms, the elimination of farm-related jobs, and a gutting of local economies and rural communities. For example:

- On average, farmers linked to the global system keep only 9 cents out of every food dollar.
- The smallest 50 percent of California's farms capture less than 1 percent of total agricultural revenue.
- The total number of farms in California declined by 10 percent between 1982 and 1997, with the smallest farms declining by more than 20 percent.
- Three-quarters of California farmworkers earn less than \$10,000 a year. Fewer than 10 percent receive health benefits. As globalization widens the rich-poor gap, drains rural economies, and puts control over food in the hands of corporate agribusinesses, hunger is increasing and food security is being undermined:
- Over 5 million Californians are "food insecure," which means they must do without such basic needs as utilities and medical care in order to put food on the table. For at least 1.25 million of those, it also means going hungry.

- The two California counties with the worst food security, Fresno and Tulare, are among the country's leading global food producers.
- Despite the key role they play in supplying the nation with food, farmworkers have the highest rate of malnutrition of any sub-population in the country.
- Long-term food security is also being compromised, in part by the erosion of agricultural diversity in the global economy: for example, 95 percent of California's half-million acres of rice is confined to the Sacramento Valley, and roughly half of that is planted in a single variety.

With California agribusinesses supplying food for much of the country and exporting food all over the world, local food systems elsewhere are being undermined as well:

- In 1920, Iowa was nearly self-sufficient in food production, with 34 different fruit, vegetable, meat, and dairy products produced commercially on the state's farms. Today almost all of those foods come from California rather than local farms.
- Rising food imports from California have exacerbated the decline of Mexico's small-scale farm economy: for example, before NAFTA was implemented, Mexico's top market for tomatoes was the US; now the balance has reversed and Mexico has become one of the top recipients of US tomatoes, primarily from California.
- Thanks in part to federal subsidies to promote US food products abroad, India now imports most of its almonds from California, pushing Afghani almonds out of the market. Many Afghani farmers have resorted to opium poppy production instead.





Supporting the global at the expense of the local

Even among those who acknowledge these and other problems emanating from the global food system, many argue that they are an unfortunate but unavoidable price to provide consumers with cheap food. But global food isn't really cheap: it is heavily underwritten by hidden subsidies and ignored social and environmental costs, ultimately paid for by the same consumers who ostensibly benefit from lower prices.

A wide range of direct subsidies props up the global food system. In California, as in the US as a whole, the biggest farms reap the lion's share of USDA farm subsidies. From 1995 to 2002, the top 1 percent of California recipients took in one-quarter of the subsidies, with an average payment of \$2.3 million per farm. Most subsidies go to agribusinesses producing monocrops for export, with dairy, cotton, and rice growers receiving the most assistance. Farmers practicing sus-

tainable agriculture and those marketing locally get almost no support.

Many indirect subsidies also promote global agribusinesses: subsidies for water, for a trade-based transport infrastructure, and for publicly-funded research into industrial, high-tech food production all support large-scale producers and marketers at the expense of those that are smaller and more localized. Substantial subsidies also go toward programs like the federal government's Market Access Program, which spends \$100 million per year to promote California agribusiness products overseas.

In addition, many health, safety, and environmental regulations—most of them needed because of the hazards of large-scale production—are too expensive for small-scale farmers and businesses to implement, forcing many of them out of business.

Shifting from global to local

Understanding that the problems facing California's food system have common roots in the globalization of the economy helps point the way to a powerful systemic solution: *localization*.

Localization means shortening the distance between producer and consumer—simultaneously benefiting farmers, farmworkers, and consumers, protecting the environment, and improving the quality of food while lowering its cost. It means a shift in direction away

from the global food system toward smaller-scale food systems that are more localized, diverse, democratically accountable, and ecologically-based. It does not mean a cessation of all trade but a gradual striking of a better balance between trade and local production, with people everywhere meeting as many of their food needs as close to home as possible. Localization is not synonymous with "protectionism," nor does it imply ignoring the needs of those whose economies are currently trade-dependent. Localization is not a solution for California alone, nor just for the countries of the North. Every country and every region, North and South, would benefit from a greater degree of food sovereignty—the ability to control its own food supply.



Photo: Doug Gosling

Shifting toward the local is a strategic solution-multiplier with significant potential to improve many of the social, economic, and environmental problems we face. Bringing that shift about will require two complementary steps: those that *resist* and reverse the process of globalization and corporate control, and those that *renew* local food economies from the ground up. Through resistance and renewal, a local food movement is already taking shape worldwide. Within this promising movement, California is well-situated to lead the way. It is not only one of the world's largest food economies, it is home to a thriving sustainable agriculture movement. Because the state's agricultural economy is being emulated by other states and nations, a shift toward the local in California can have widespread repercussions.



Local food for a sustainable future

A shift toward local food means more than encouraging everyone to buy food that was grown within some prescribed distance. It is a broader, deeper change that involves placing a higher emphasis on diverse modes of food production that reflect the planet's cultural, geographic, and climatic diversity. A conscious shift toward more localized food systems is a strategic move that would encourage the following:

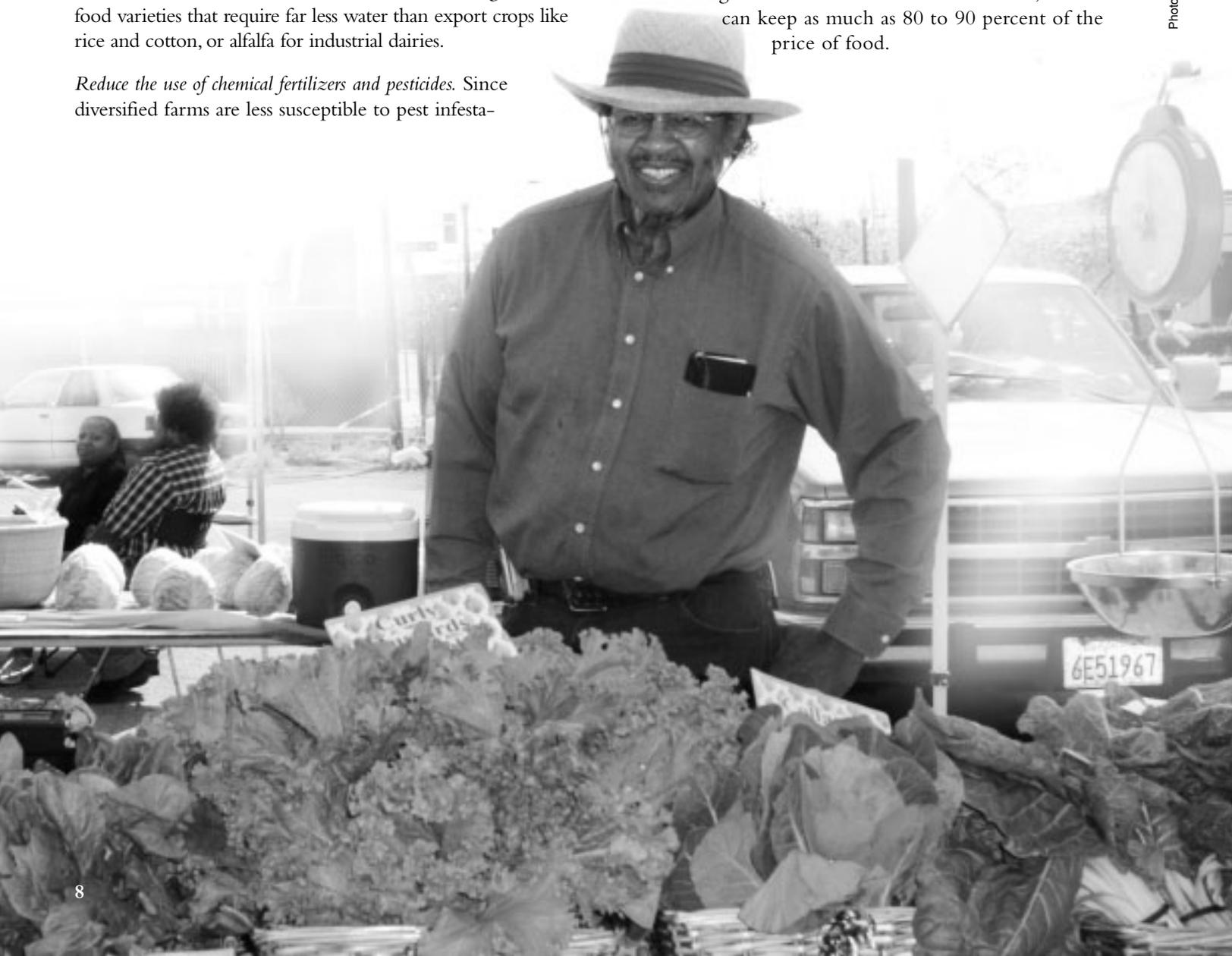
Support smaller, more diversified farms. Local food economies encourage farms to become more diversified to meet local demands. This in turn supports an increase in agricultural biodiversity: rather than tailoring their production to the demands of global markets, farmers would be able to choose varieties suited to their particular farm's conditions. The amount of water needed for agriculture in California would also be reduced, since a shift toward the local would create markets for drought-tolerant food varieties that require far less water than export crops like rice and cotton, or alfalfa for industrial dairies.

Reduce the use of chemical fertilizers and pesticides. Since diversified farms are less susceptible to pest infesta-

tions and disease outbreaks, they are more conducive to organic and other ecologically-based farm practices. Rather than being segregated into factory farms, livestock can be integrated into the farm system, providing a source of fertility that builds soil and eliminates the need for chemical fertilizers. Diversified organic farms also provide niches for many wild species—including beneficial insects, birds, reptiles, and others—that are eliminated from chemical-intensive monocultural farmland.

Give small farms a bigger share of every food dollar. Farmers hooked to the global system keep a tiny and shrinking portion of the public's food dollar, with corporate marketers and input suppliers taking the lion's share. By selling to local shops and restaurants or directly to consumers through farmers' markets or CSA schemes, farmers can keep as much as 80 to 90 percent of the price of food.

Photo: Alex Jensen





Revitalize the state's rural economies and communities. In more localized food economies, the money spent on food supports the local economy rather than being siphoned into the bank accounts of corporate middlemen. A greater number of farmers would be needed, displacing the relative handful of large-scale farms. With better incomes for farmers, pay and working conditions for farmworkers would improve as well. More farms and more locally-owned food businesses would all boost the local economy, helping to revitalize California's communities.

Add substantially to the state's overall economy. If just 10 percent (\$85 per person per year) of Californians' food expenditures were redirected toward food produced within the state, an estimated \$848 million in additional income would flow to the state's farmers, \$1.38 billion would be injected into California's overall economy, \$188 million in tax revenue would be generated, and 5,565 jobs would be created. Higher proportions of local food consumed would generate even larger economic benefits.

Reverse the trend toward concentrated control of California's food system. In localized food systems, food is not only grown locally, but processing facilities, distribution networks, and retail marketing are also geared to local markets. This means a substantial increase in the number of small businesses, and a reduction in the power of corporate agribusinesses.

Reduce fossil fuel use and CO₂ emissions from food transport. The distance between producers and consumers would be greatly shortened with a shift toward the local, thereby reducing the use of petroleum products for food transport, and cutting air pollution and greenhouse gas emissions.

Provide Californians with healthier, fresher food. Since production for local food systems is conducive to organic or low-input methods, the pesticide residues found on many foods from the global system would be cut significantly. Since local foods are not intended to be transported thousands of miles or sit in warehouses and on supermarket shelves for extended periods, many of the processing and packaging requirements for global foods could be reduced or eliminated, and varieties could be grown that maximize nutritional value and taste, rather than transportability and shelf life.

Make healthy food more affordable. Most of the social, health, and environmental costs of food from the global system never appear on the price tag, making it seem far cheaper than it really is. Even without accounting for those "externalities," local food would still be far less expensive if the many direct and hidden subsidies that now support the global food system were instead shifted to support local food. By making healthy food more available and accessible, local food systems can improve food security and alleviate the problem of hunger.

Support rural economies in the global South. Policies aimed at reorienting agriculture toward exports have been devastating for rural communities throughout the South. The highly competitive and volatile global market demands "efficiency"—which means consolidating land into large plantations, replacing farmers with agrochemicals and heavy equipment, and piling up huge debts to build trade-based transport and energy infrastructures. Shifting the focus back to the local—with farmers primarily growing food for themselves and local markets—would greatly strengthen those rural communities, create more jobs, and help to stem the tide of urbanization.

The difference between "global food" and "local food"

The *global food system* is characterized by large-scale, highly mechanized, monocultural and chemical-intensive methods, with production oriented toward distant, and increasingly global, markets. Production and distribution of global foods requires abundant use of external inputs, large machinery, and long-distance transport and communications infrastructures, and relies heavily on the knowledge and technology generated by a small number of Western-style institutions. The goal is ever-increasing agricultural "efficiency," defined as maximizing the yield of a narrow range of globally traded commodities, while minimizing human labor—thereby eliminating millions of agricultural jobs. Although variants are to be found within the global food system, its fundamental characteristics, largely determined by technology and international market forces, are the same everywhere.

Local food systems are typically oriented toward local and regional consumption, with "food miles"—the distance between producers and consumers—being relatively short, sometimes with direct links between the two. Local food systems differ from place to place, since most have evolved within a particular social, economic, and environmental context. Though most existing local food systems are in the global South, people around the world are combining recent advances in small-scale organic agriculture with the remnants of their own farming heritage in order to shift away from the global food system and back to the local.



Making the shift

People in communities across the state have already begun to bring about a shift toward the local: they are joining CSAs, planting urban gardens, and starting farmers' markets, farm-to-school programs, and edible schoolyard projects.

In order to make a lasting shift possible, however, government policy also needs to be changed. Since our tax dollars so heavily favor global food, it can be sold below the price of fresh local food. At the same time, regulations make it all but impossible for smaller local farms and businesses to compete with large corporations.

Reorienting policy

One of the biggest challenges is to roll back the wave of international treaties supporting the corporate "free trade" agenda. Halting and reversing the deregulation of trade and finance would keep food economies from being further monopolized by global agribusinesses and create space for policy initiatives that don't discriminate against local food. With so many corporate interests lined up to promote deregulation, intense pressure from below is needed to force national governments back to the negotiating table to hammer out trade agreements that respect the needs and wishes of the majority. Educational campaigns are therefore urgently needed to inform the public and policymakers about the many costs of global food, and the multiple benefits of a shift toward the local.

Shifts are needed not only in international trade agreements, but in national and local policies as well. Policy areas of urgent priority for regenerating local food economies include:

Farm subsidies. Eliminating the heavy bias toward agribusiness and redirecting public funds toward smaller-scale, diversified family farms would be immensely beneficial.

Indirect farm supports. Redirecting many other supports that are currently devoted to large export-oriented farms is also important. The state's "Buy California" campaign, for instance, is now largely aimed at promoting the state's food products overseas, rather than building support for stronger regional food economies at home.

Transportation and energy policy. Instead of continuing to fund transportation projects tailored to the demands of international trade, steps could be taken to level the playing field for producers and processors marketing more locally. For

To make the shift, a powerful movement is therefore needed that can resist and reverse the globalization of the food economy while simultaneously promoting more localized food systems. This is a difficult challenge, but it is not impossible. In fact, the efforts of activists and ordinary citizens around the world have already dispelled the notion of globalization's "inevitability." Even the *Financial Times* acknowledges that "the protesters are winning. They are winning in the streets. Before too long they will be winning the argument. Globalization is fast becoming a cause without credible champions."

instance, California could tax the transportation of goods in the state to account for environmental externalities, thereby favoring shorter hauls.

Research and development. A shift in the focus of R&D subsidies is also needed. Substantial funding is currently available for technology-intensive industrial agriculture, while almost nothing is devoted to research into sustainable agriculture and the needs of small-scale producers and local processors.

Regulations. Many health, safety, and environmental regulations are required because of the hazards of large-scale operations, but meeting them makes it difficult for smaller businesses to survive. One solution is a tiered regulatory system, with strict national regulations on global-scale producers, processors, and marketers, and locally-determined rules for smaller-scale enterprises marketing locally. This would allow restrictions on the increasingly deregulated global food system to be tightened, while local businesses could be regulated in ways that reflect local conditions and needs.

Antitrust laws. While antitrust laws were never designed to deal effectively with mobile transnational corporations, trade liberalization has weakened even the laws already on the books. Stronger, better-enforced antitrust laws are therefore urgently needed.

Tax reform. Today, a wide range of tax credits are available for the energy-intensive technologies used by large-scale producers, while smaller, more labor-intensive businesses are burdened with heavy payroll taxes. Ecological tax reform—which puts the burden of taxation on activities that destroy natural resources—would support the growth of local food systems.



Taking action

Everyone participates in the food system in one way or another, and there are concrete steps we all can take to support the growth of local food systems in California:

Citizens and communities. Citizens are also consumers, and their actions in the marketplace can make a big difference. Purchasing food from local sustainable producers wherever possible is an obvious first step, one made relatively easy if there is a nearby farmers' market or CSA. (If not, the next step is to help start one.)

Asking local retailers and restaurants to carry local foods sends a clear message that people care where their food comes from. Other citizen actions might include boycotting big food corporations and supermarket chains, joining or organizing a consumer cooperative that purchases local food, starting an "edible schoolyard" project, publishing a list of local growers, starting a local labeling initiative, and educating the public through letters-to-the-editor and op-ed pieces.

Farmers. Farmers can diversify their production and switch to selling more locally—by using local distributors or marketing directly to consumers via farmers' markets, roadside stands, or CSAs. Local value-added initiatives have long been recognized as a way for farmers to add to their incomes, but in most California communities the infrastructure needed to implement such efforts has been eradicated. This problem can be overcome by joining forces with other farmers—for example by building community food processing facilities or abattoirs. Farmers are also in an excellent position to educate consumers, policymakers, and other farmers about the real costs of the global food system and the benefits of marketing locally.



Photo: Tyler/Center for Ecoliteracy

Processors, distributors, and retailers. By purchasing from sustainable local producers and making local food available to other businesses and the public, small-scale independent processors, distributors, and retailers provide crucial links within the overall food system. Collaborating with other businesses by forming

cooperatives can make the entire system function more smoothly, and spread the benefits more evenly. Retailers can educate consumers through posters and displays, and by organizing events about the importance of local food.

Restaurants. With so much of the US food dollar devoted to eating away from home, restaurants can be valuable markets for local farmers, as well as for processors and distributors that source from them. Many restaurant owners already recognize the benefits for their business of local food: the food is fresher, the quality higher, and customers enjoy knowing that their food came from nearby farmers. Like shopkeepers, restaurateurs can educate their customers about what grows locally, what is in season, and why local foods are better.

Although thousands of people are already involved in many of the steps outlined above, it will take a great many more to create the "critical mass" needed to transform California's food system. If enough people take concrete action both to rebuild local food systems and to reorient government policy, there is every reason to believe that California can become home to more socially just and economically viable food systems that are healthier for people and the planet.

There is significant public support for fresh, healthy, local food in California, and a wide range of positive initiatives are already underway. With a systemic shift to local food economies as a unifying priority, California could become a leader in the movement toward truly sustainable and equitable food systems worldwide.

May 2004 © International Society for Ecology and Culture
Executive Editors: Helena Norberg-Hodge and Steven Gorelick
Authors: Katy Mamen, Steven Gorelick, Helena Norberg-Hodge, and Diana Deumling

Cover Photos:
"Girl with Strawberries" by Tyler/Center for Ecoliteracy
"Landscape" by Lynn Betts, USDA

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INTERNATIONAL
SOCIETY FOR
ECOLOGY AND
CULTURE

US office:

PO Box 9475, Berkeley, CA 94709, USA

Tel: (510) 548-4915

Fax: (510) 548-4916

california@isec.org.uk

UK office:

Foxhole, Dartington, Devon TQ9 6EB, UK

Tel: (01803) 868650

Fax: (01803) 868651

E-mail: isecuk@gn.apc.org

www.isec.org.uk