

THE INLAND EMPIRE BUSINESS REVIEW™

War on Homelessness, Hunger & Poverty Skid Row to GreenRow Urban Farm Initiative

By
Les Hamasaki, Green Technology Editor



Rooftop vertical aeroponic farms

The Skid Row to GreenRow Urban Farm Initiative is about the future of healthcare, food, water, energy and jobs in urban communities. To win this War on Homelessness, Hunger & Poverty will require learning much more about nature's pharmacy and innovations in growing, preparing and eating our own medicine. Water-wise and energy-smart vertical tower garden systems present a solution with promise. Powered by solar energy, they can be installed on rooftops, balconies, walls, and in parking lots. Distributed green energy generation and urban farms can transform our urban landscape while generating nutritious food, cleaner air, and an environmentally sustainable future.

In addition to these measures, a collaboration is forming to advocate launching the Skid Row to GreenRow Urban Farm Initiative. This plan would require every new multi-unit housing construction project for the homeless to set aside 10% of its buildable area for vertical produce growing structures. The organizations advocating to implement this plan by the city are: Tom Bradley Legacy Foundation @ UCLA, L.A. Kitchen, GIVE Urban Farms, Inc., LA Urban Farms, and the USC Institute for Genetic Medicine Art Gallery.

Homelessness, hunger and poverty are major national crises, especially in dense urban areas including New York and Los Angeles. Los Angeles Mayor Eric Garcetti launched a "War on Homelessness" allocating \$100 million to begin addressing the city's homeless and health crises. He has proposed a \$1.85 billion bond to finance the construction of affordable homeless housing over the next decade. Each residential building would benefit from an urban farm, a

community kitchen for group dining and a multipurpose center devoted to educating tenants about growing and eating healthy foods.

The Urban Farm Initiative will empower Skid Row's homeless men and women to become urban farmers and "green chefs" and teach their children to grow and eat healthy whole foods. "Give a man a fish; he will live for a day. Teach him how to fish and he will live a lifetime."

Los Angeles' enormous and growing population of some 35,000 to 45,000 homeless men, battered women, families with children, teenagers, and veterans live on its sidewalks, under its freeway underpasses, in alleys and in cars. Between 4,000 to 5,000 live in the city's heart, an area adjacent to the Civic Center known as Skid Row in ZIP code 90013, according to the U.S. Census.

GIVE Urban Farms, located at Union Church of L.A. in Little Tokyo, adjacent to Skid Row, operates ten automated vertical Tower Garden systems, solar powered and nourished by water and air. GIVE Urban Farms (www.GIVEUrbanfarms.org), in collaboration with LA Urban Farms, L.A. Kitchen and USC IGM Art Gallery, will educate and train veterans, seniors, and unemployed homeless persons to become urban farmers and green chefs. "These urban entrepreneurs would establish their own locally grown "beyond organic" crops as part of the Urban Farmers Collaborative Commons," according to Pastor Tim Yee of Union Church LA.

The unique aspects of the vertical urban farm are:

- It occupies only a tenth of the space required by soil farming;
- It produces the same output of food while using 90% less water and fertilizer;
- It's entirely sun powered;
- It requires less maintenance; and
- Irrigation and nutrient systems are automated and integrated into each of the towers.

Turning healthy produce into healthy meals is as important as sustainably growing it. Robert Egger, president of L.A. Kitchen (www.lakitchen.org) has stated, "We've developed a 'food incubator' in Los Angeles to deal with the hunger and food surplus resulting from the current farming and distribution system. Locally grown food, together with our culinary apprentice training program and healthy meals the apprentices prepare for the city's seniors and families, good in themselves, also create jobs and a foundation for a healthy and resilient community."

As human populations grow; greenhouse gas emissions grow. Droughts in California and many other locales worsen, and suburban development consumes precious farmland. We need to rethink and re-plan national food security, the quality and health value of our food, the environmental impacts of today's industrial food production, and our central farm-to-market distribution system.

The aeroponic greenhouse technology addresses not only our food security challenges, but also the inherent dysfunctions and inefficiencies in our food production and delivery system which cause a massive waste and pollution of air, soil, surface water, and groundwater. The continuing reliance on pesticides is devastating the nation's and the world's fragile ecosystems - - virtually the entire biosphere – endangering the future food supply and causing extinction of many of the world's natural species.

NASA originally developed the aeroponic agricultural technology to grow food on its future moon bases. This technology has since been adapted to land-based facilities. There is much waste and inefficiency in the current farming and distribution system. Small-scale urban and suburban high-tech agriculture greenhouse facilities, and even urban micro farms are part of the answer to America's quality-of-life and economy issues at the same time they generate profit. Tomorrow's sophisticated urban farmers will not be as fully dependent on weather, seasons, or supermarkets. The "farmer in the city" will be responsive, to the needs of urban consumers, from local restaurants to local housewives, and even the local McDonald's.

From family farms to corporate industrial farm and now distributed urban farms will become the Third Agriculture Revolution. These urban farms are central to future food production and will be computer-managed solar-powered urban and suburban organic greenhouses constructed within large commercial and industrial buildings. They will grow crops from asparagus to zucchini day and night, year-round. Scientifically and technologically designed, these "solar smart-farms" will operate according to constantly-updated online information directing farmer-managers what to grow, how much to grow, and when to grow to maximize profits and reduce spoilage. The NASA-approved aeroponic agricultural technology employed in these facilities will use less land, water, fertilizer, energy, and pesticides than the traditional rural industrial agriculture. The "just-in-time" fruits and vegetables grown in these urban-ag facilities will be produced with technologies and techniques that minimize waste and maximize flavor and quality.

According to futurists Alvin and Heidi Toffler, we are experiencing a 'demassification' of our society from mass production to specialty and custom production. No longer will mass production, mass media, mass communications, mass education, centralized power, and industrial centralized transportation networks be society's only set of solutions. The 21st century will be green and digital, running on satellite and wireless broadband communications, onsite wireless solar-electric generation, distance learning, and telecommuting.

The Third Agricultural Revolution will be a "distributed agriculture" -- high-tech, solar-powered, organic, and local. Distributed food production is eminently practical. Today, farmers must rely on refrigerated transportation to deliver their produce to customers in metropolitan areas. In California nearly 50 percent of the fresh food never reaches market because of defect, spoilage, or oversupply. Transportation costs and spoilage losses account for up to 75 percent of the cost of food production.

Lester Brown, president of the Earth Policy Institute, goes so far as to define a "food bubble" economy -- created by over-pumping aquifers, overflowing and overgrazing land, and overloading the atmosphere with carbon dioxide. Like the U.S.-born housing bubble before it, Brown predicts the bursting of the food bubble will ricochet worldwide with dire consequences, including "survival itself" at stake for people living on the lower rungs of the global economic ladder.

If we are to create a sustainable future, we must learn how Mother Nature creates balance and harmony in the global ecosystem. In our natural environment, one creature's waste is another creature's food supply. Mother Nature continually recycles, reengineers, redesigns, and reuses waste products. The only external input nature requires is solar energy, the source of all life. In our economic system, one person's waste is another person's problem. Eventually it becomes a major problem for all living creatures. We pollute the air we breathe, poison the soil that grows our food, contaminate seas with sewage, and genetically modify food we consume. Our

economic system model is based on overconsumption, waste, and greed, as opposed to harmony and balance.

America's and the world's future farmers will be a new breed of technologically-oriented social entrepreneurs, living and working down on the "Farm in the City" to combat hunger, pollution, and water shortages and to create a sustainable local and global food production future. The War on Homelessness, Hunger & Poverty Urban Farm Initiative is the first step to help those most vulnerable in our social commons that will be the beginning of the Third Agricultural Revolution.

Les Hamasaki is an urban and regional sustainable development planner. He served on the Los Angeles City Planning Commission under Mayor Richard Riordan and the Los Angeles Airport Commission under Mayor Tom Bradley. He is the former Executive Director of the Green Institute for Village Empowerment, Inc. (GIVE) that launched the Green Valley Initiative and its vision of the Inland Empire as a global green technology and information science center to combat climate change and to create a jobs-and-housing balance in that region. He is the founding member of GIVE Urban Farms at Union Church LA.