

Viewpoints: Small-scale farming holds key to cleaner future

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By Danielle Nierenberg and Haibing Ma
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China and Northern California would seem to share little in common, other than having the vast Pacific Ocean lapping on their shores.

Yet as these two regions seek to grow their economies in a sustainable way, both have similar opportunities in agriculture and forestry. Just as Sacramento is starting to go green through initiatives that encourage local food production, efforts are under way to reduce the environmental impacts of China's rapid industrialization and shift the economy toward cleaner development.

According to a new Worldwatch Institute report, "Green Economy and Green Jobs in China," the three sectors of energy, transportation, and forestry could provide at least 4.5 million green jobs in China by 2020. China's wind power industry alone created an average of 40,000 direct green jobs annually from 2006 to 2010. But, according to the report, "greening can and should occur in all sectors of the economy."

Agriculture, for example, can contribute significantly to the green economy. Small-scale, sustainable farming encourages job creation and reduces the environmental impact associated with energy-intensive industrial farming.

In Sacramento, one local organization is providing employment opportunities as well as fresh produce. Soil Born Farms operates an urban farm at two sites, growing fresh vegetables that are sold at urban produce stands, farmers markets, and through a community-supported agriculture program.

In addition to providing access to fresh, locally grown food, Soil Born Farms offers youth education, apprenticeship and volunteer opportunities, as well as employment for Sacramento youth through a Green Corps Jobs Program.

Another local urban agriculture project is Alchemist Community Development Corp.'s Urban Farm Stand project, which brings fresh, locally grown produce to low-income communities that have little to no access to nutritious, affordable food.

The Urban Farm Stand also offers a youth internship program. Community youths who volunteer through this program gain useful job skills and training in farm stand operation and community leadership.

New forestry in China, according to the Worldwatch report, absorbed as much as 3.1 billion tons of [carbon dioxide](#) between 1980 and 2005. Here in Sacramento, the Sacramento Tree Foundation is working to expand the capital's urban forest by empowering people to plant, protect, and learn about trees. The foundation has established a goal of planting 5 million trees in the Sacramento region by the year 2025.

And while trees do provide important ecosystem services, such as carbon dioxide absorption, they also can provide access to fresh fruit to those who need it most. Harvest Sacramento, for example, a project of Soil Born Farms, harvests unwanted fruit from neighborhood trees for donation to local [food banks](#).

Although agriculture contributes as much as one-third of global [greenhouse gas emissions](#), greening agriculture – by maintaining soil fertility and reducing soil erosion, increasing water use efficiency and decreasing deforestation, for example – could possibly transform agriculture from a major emitter of [greenhouse gases](#) to a sink for these gases. According to the U.N. Environment Program, green agriculture has the potential to substantially reduce agricultural greenhouse gas emissions by annually sequestering nearly 6 billion tons of atmospheric CO₂.

In addition to providing environmental benefits, sustainable agriculture can provide significant economic opportunities and help reduce rural poverty.

A vast majority of the 2.6 billion people worldwide who depend on agriculture for their livelihoods live in rural areas on less than a dollar per day. According to U.N. Environment Program, evidence shows that sustainable, or green, farming practices could increase yields between 54 percent and 179 percent.

Increased crop yields mean that farmers not only have enough food to feed themselves and their families but also have a surplus that they can sell at local markets. Estimates indicate

that for every 10 percent increase in farm yields, poverty has been reduced by 7 percent in Africa and more than 5 percent in Asia.

Agriculture should be part of the equation in developing a new, green economy, both in California and in China. While large-scale development of wind, solar and geothermal will grow jobs in both places, green agriculture offers enormous potential to create jobs, reduce poverty and protect the environment.