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## Sustainable agriculture key in developing a green economy, both at home and abroad

By Danielle Nierenberg and Haibing Ma, Special to The Vancouver Sun August 11, 2011



Small-scale, sustainable farming encourages job creation and reduces the environmental impact associated with energy intensive industrial farming. Photograph by: Marcin Szczepanski, MCT files

Vancouver is one of the greenest cities in North America, ranking second out of 27 major cities in the U.S. and Canada Green City Index report. As the world's largest burner of coal and emitter of industrial carbon dioxide (CO<sub>2</sub>), China, on the other hand, may not be the greenest of countries.

A constant layer of smog in Beijing is a stark reminder that carbon emissions are affecting air quality. This is largely due to the fact that coal accounts for nearly 70 per cent of China's total energy consumption. But efforts are underway to lessen the environmental impacts of China's rapid industrialization and shift the economy towards one that favours sustainable 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 in 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.

Because this type of farming is meant to be small in scale, it can be practised even in crowded cities where space is limited. Here in Vancouver, several urban farming projects are working to provide the community with fresh, local food by growing vegetables in backyard gardens. Kitsilano Farms, for example, converts unused backyard space around the Kitsilano neighborhood into productive vegetable gardens.

Inner City Farms is also focused on bringing urban agriculture to the city of Vancouver. Like Kitsilano Farms, Inner City Farms offers the community access to fresh, locally-grown produce through participation in a summer community supported agriculture (CSA) program. Fresh Roots Farm operates a CSA program as well, providing east Vancouver residents with local, healthy, organic food. Fresh Roots additionally offers educational opportunities through urban farming internships and workshops.

Then there's SOLEfood, an enterprising non-profit organization that is providing employment opportunities as well as fresh produce. SOLEfood is an urban farm located in Vancouver's downtown eastside neighbourhood. By providing residents with job training and employment, SOLEfood is directly contributing to the economic revitalization of this inner-city neighbourhood. Local residents are hired and trained to build, plant, maintain and harvest the farm, which sells its produce to local restaurants and community organizations and at farmers' markets, thereby strengthening neighbourhood food security.

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 transform agriculture from being a major emitter of greenhouse gases (GHG) to possibly being a GHG sink. According to the United Nations Environment Program (UNEP), green agriculture has the potential to substantially reduce agricultural GHG emissions by annually sequestering nearly six billion tons of atmospheric CO<sub>2</sub>.

In addition to providing environmental benefits such as carbon sequestration, 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 US\$1 per day. According to UNEP, evidence shows that sustainable or green farming practices could increase yields between 54 and 179 per cent. Increased crop yields mean that farmers not only have enough food to feed themselves and their families, but they also have a surplus that they can sell at local markets. Estimates indicate that for every 10 per cent increase in farm yields, poverty has been reduced by seven per cent percent in Africa and by more than five per cent in Asia.

Agriculture should be part of the equation in developing a new, green economy, both here at home as well as in China. As urban farms begin to emerge in Vancouver, so too do new opportunities for employment. And while China is starting to transition to a green economy, particularly in the areas of energy, transportation, and forestry, green agriculture also has enormous potential to create jobs, reduce poverty and protect the environment.

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