

Industrial VS. Sustainable Agriculture



Jules Pretty, professor and director of the Centre for Environment and Society at the University of Essex in England, has been studying the true costs and benefits of industrial and sustainable models of agriculture.

by *Thayne Cozart*

The proclaimed economic and societal benefits of a worldwide industrial agriculture system wouldn't measure up when compared to a sustainable system if an evaluation honestly measured all of the "external costs" against claimed benefits.

That is the primary point driven home by Jules Pretty, professor and director of the Centre for Environment and Society at the University of Essex in England. Pretty, who also is editor of the *Journal of Sustainability*, contends that "those who support industrialized agriculture measure its success in narrow economic terms of food price and availability and tend to ignore its costly unintended consequences to society and the environment."

He adds, "They are not being seriously challenged to give a full accounting. We are trying at the center to change that by scientifically measuring or estimating in Britain what we call the 'externalities' of industrialized agriculture and also the full benefits of a sustainable ag system."

In his study, some of the industrial agriculture externalities evaluated were: water pollution from farm waste, soil nutrients, erosion and pesticides; loss of landscape and biodiversity; food-borne diseases; air pollution from gaseous emissions; unnecessary transportation costs of food; human dislocation from rural to urban areas; rural community decline; poor human diets and obesity; and the cost of direct government subsidies.

The study found that annual costs of these externalities during the 1990s totaled 1.54 billion pounds (approximately U.S. \$2.6 billion). "Britain had to spend this to deal with the effects of industrial ag, so this cost is a hidden subsidy from the public to polluters," Pretty asserted.

Some of the sustainable agriculture benefits he tried to evaluate were: landscape aesthetics, biodiversity, clean water, flood protection, carbon sequestration, rural economy and community cohesion.

The largest value ascribed to a positive benefits from sustainable agriculture practices was 14 billion pounds (U.S. \$23.7 billion) for rural landscape services (tourism). In

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Britain, the annual value for rural tourism outstripped the total value of all food produced nearly tenfold.

Harder to measure, but valuable nonetheless, according to Pretty, were wetland benefits for flood protection, waste treatment and wildlife habitats; energy savings on transportation; and carbon sequestration to reduce global warming.

“In determining future world agriculture policies, the keys,” says Pretty, “are finding ways to encourage polluters to reduce or pay for the costs of the negative aspects of their system, while also finding ways to reward farmers for the positive aspects of a sustainable system. I think a carrot may work better than a stick in many cases.”

Pretty sees hope for a gradually shifting world food-production system, from industrialized to sustainable and multi-functional. “It’s a myth that the world can’t produce enough food from sustainable, local food systems for its population — just like it’s a myth that hunger and starvation are based on world food shortages, when the truth is hunger is based on poverty and the inequities and economies of food distribution,” he says.

He bases his hope on his group’s study of 208 sustainable ag projects in 52 nations

around the globe. He said nearly 9 million farmers — most in Africa, Asia and Latin America — have adopted sustainable ag practices and technologies on nearly 30 million hectares (70 million acres), an increase of 56 percent in three years. He claimed that in most of these projects, both the quantity and quality of food increased, as well as local economies.

To keep increasing sustainable food systems around the world, Pretty listed five key principles: substituting management skills and knowledge for costly inputs; building on-farm biodiversity and soil health; organizing into like-minded groups; adding value to commodities; and selling directly to consumers.

“We also need to re-establish our connections to the land and between producers and consumers,” he summarizes. “We need to rebuild a land and food ethic. And, remember, our choices as consumers make differences to people, nature and communities. The most political decision you make as a consumer is not how you vote, but how and where you buy food.”

He concluded by stating that so-called “cheap food” is actually very expensive because it’s price includes many hidden costs, including: taxes for subsidies; environmental cleanup costs; treatments for diet-based human health concerns; and

economically diminished rural communities.

Thayne Cozart is a freelance writer who lives near Madrid, Iowa. He raises a large non-commercial organic garden and a small free-range flock of chickens. He is also a member of the National Organization for Raw Materials.

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