



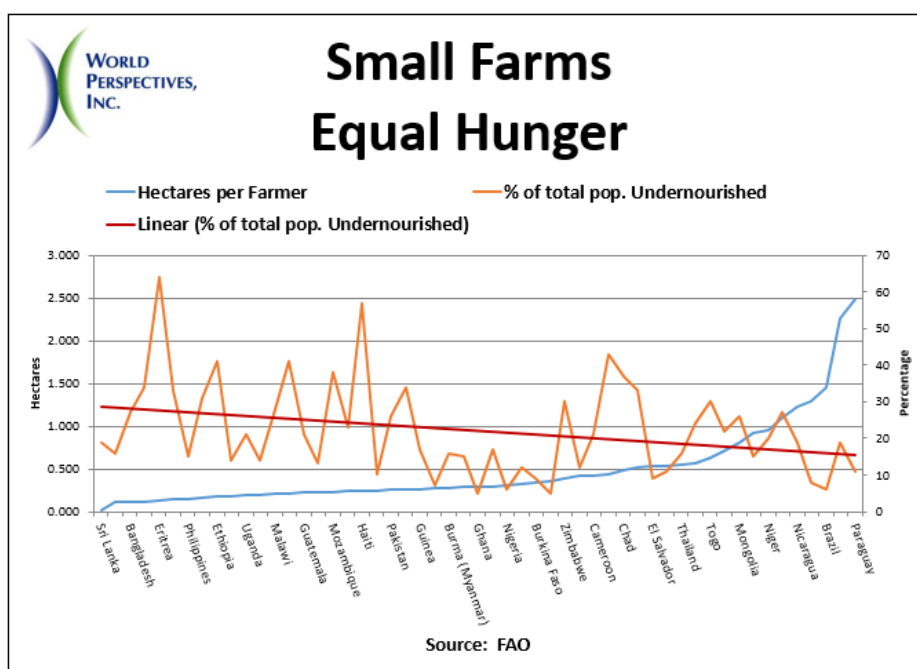
Defining Sustainability

By Gary R. Blumenthal

Problem of Definition

Sustainability is most acutely described as the ability to continue a defined behavior indefinitely. However, moving beyond that sweeping statement and finding agreement on what is sustainable when it comes to producing and distributing food has proven more problematic. Indeed, one complaint is that a plethora of eco-branding certification bodies use disparate metrics, likely leading to confusion by consumers. For years, there has been criticism by companies of greenmail initiated by environmental groups, and now there are complaints that groups initiate ecolabelling offerings with laudable moral ambitions, but eventually the reality of competition causes them to devolve into an economic “stay alive” approach to their craft.

Activists initially took a blunt approach to sustainability – they simply declared “industrial” (e.g., scale or extensive) agriculture as unsustainable. Their purely intuitive preference called for small and local to be the standard-bearers of the sustainability label. While small and local may have a place in the larger food chain, this oversimplification led to concerns about food security, especially from development specialists in poor countries with first-hand knowledge of extensive agriculture’s limits (see graph below). Understanding the socio-political constraints that compel small farms and concurrently the need to increase the use of inputs, development specialists instead proclaimed the pursuit of “sustainable intensification.” This has now morphed into “agro-ecology,” or the goal to make agriculture more environmentally friendly.



Whether large or small, inputs from soil to water to seed and fertilizer produce wastage that is a loss both to the farmer and the environment. Since agriculture has yet to perfect the science of optimal disbursement and plant uptake, the current focus for achieving greater sustainability involves a two-pronged approach:

1. **Land Management:** laser leveling, tiling for ground water management, drip irrigation, buffer and vegetative filter strips for soil management and runoff protection.
2. **Technology:** data collection and software application management coupled with advanced guidance telemetry for more optimal resource utilization, and where that fails, excess nutrient recovery and reuse.

Retail Demand

There is ample retail demand for the “sustainable” moniker, as evidenced by the success of companies such as Whole Foods and Chipotle. Whether they are better at it than other firms or approaches is another matter, but they have forced companies as large as Walmart to reconsider their approaches to the market. Investor interest in companies pledging sustainability goals has picked up, particularly in Europe, but also in other developed countries. Of course, popular trends and profits do not necessarily perfectly align, and so the actual financial return of so-called “ethical investing” varies with each underlying asset.

Government Rights and Wrongs

Sustainability is not a new 21st century concept. Conservation was a key U.S. government response to the 1930s Dust Bowl, and a great expansion in programs to assist farmers was codified in the 1985 Farm Bill. So-called cross-compliance, whereby farmers must commit to sustainability practices in exchange for the benefits they receive from government crop support programs remains a contentious issue for farm groups. There is exceptionally strong pushback from farmers when there are government environmental mandates without the quid pro quo of economic support.

Agricultural producers are now turning lemons into lemonade by marketing their regulatory obligations as a reason why consumers, particularly the eco-conscious in Europe, should be buying American. This shift is against the backdrop of farmers in South America who are rapidly expanding their production into new, previously unplowed land. Indeed, given the over \$60 billion worth of investment planned for Brazilian highways, railways and ports in the coming years, higher-cost producers in the U.S. will need some kind of advantage if they are going to compete.

American Prairie Reserve

The recent bull market has been blamed for increased sodbusting (first-time plowing of natural upper Great Plains grasslands) for increased crop production. The American Prairie Reserve is a project intended to restore the grasslands of Northeast Montana to their original plant and animal populations. The Reserve will rival Africa’s Serengeti in scale, though likely not in unique animal species.

By contrast, European “greening measures” for agriculture may have overshot their political sustainability. With the best of intentions, Brussels has sought to condition its economic support for the sector on better conservation practices, including the imposition of “Ecological Focus Areas.” In essence, a share of each

farm (rising to 7 percent in 2016) must be chemical-free and focused on environmental benefits, including biological diversity. Farmers, and consequently many of their political representatives complain that this is too blunt of an instrument, delivering little benefit on some farm types but at great cost to the farmer, including large amounts of paperwork and fear of penalty due to noncompliance. Brussels is now trying to find a better balance between the demands of European environmental activists and the ability of farmers to profitability deliver “sustainably” produced food.