

BACKGROUND

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Indian Farmer Suicides:

A Lesson for Africa's Farmers

by Bryan Newman

India's tremendous middle class growth and the much-celebrated boom of its IT sector overshadows the dark despair of debt-driven farmer suicides in the countryside. Between 1993 and 2003, as many as 100,000 indebted Indian farmers took their own lives.¹ Many of these farmers died consuming the very same pesticides they used on their fields.

This shocking message was carried to an audience of several thousands at the January 2007 World Social Forum in Nairobi, Kenya by Dr. Vandana Shiva, Director of the Research Foundation for Science, Technology and Natural Resource Policy which is based in New Delhi. Dr. Shiva stressed that there are very clear lessons that Africa can learn from India's problematic Green Revolution experience. She challenged the new Alliance for a Green Revolution in Africa (AGRA), stating that the Green Revolution, coupled with trade liberalization, would negatively impact both farmers and agro-biodiversity on the African continent. She claimed that this initiative, funded by the Rockefeller and Bill and Melinda Gates Foundations, "[I]s a strategy for dispossessing Africa of food sovereignty and bio-diversity." Why are so many of India's farmers committing suicide even as rice and wheat are being stockpiled in national storage facilities?

The cradle of India's Green Revolution is the Punjab state. As India teetered on the brink of famine and rural chaos in the late 1960s, Punjab was singled out as ground zero for the largest agricultural experiment in the country's history. This experiment, designed to radically increase food production for the newly independent nation, came to be known as the "Green Revolution." As the mythic story goes, by the end of this Green Revolution, the state of Punjab had not only filled India's empty granaries, but had achieved a level of modernity and economic prosperity far exceeding its rural counterparts elsewhere in the nation.

In fact, the relative success or failure of the Green Revolution is fiercely debated in Punjab today by peasant tillers, large farmers, activists, economists, state planners and environmentalists. These actors see radically different patterns of "progress" and "crisis," "success" and "failure" (and sometimes both at the same time), depending largely on what criteria they include in their analysis of the Green Revolution.

The Limitations of the Green Revolution in Punjab

The image of Punjab's proud, strong Sikh people and its rich, fertile plains, irrigated by vigorous Himalayan streams seems completely inconsistent with the dark despair of the state's current agrarian crisis. This discrepancy is all the more shocking in light of Punjab's celebrated place in agricultural history.



Shiny Rajan relates how her husband committed suicide after he could not repay loans.

Photo by V. V. Krishnan

Those who speak of the Green Revolution's success look largely to the huge yield increases of rice and wheat that accompanied the introduction of "high yielding" seeds in Punjab in the 1960s and 70s. Green Revolution critics do not dispute that rice and wheat yields have been increased through its implementation. What they do dispute is the extreme fixation on yields of these two crops, to the detriment of a more all-encompassing economic and social analysis of the impact of the Green Revolution.

The argument these critics make is that the Green Revolution's architects were inherently incapable of dealing with issues other than yields of wheat and rice. The planners ignored issues as wide-reaching as land distribution, ecological sustainability, and the long-term economic costs of an input-intensive agriculture. "Alternative" methods of increasing yields were not considered. Thus, as the argument goes, the introduction of Green Revolution technologies into Punjab, while succeeding in its original mission of growing significantly more food for the rest of India, has brought about economic, environmental, and social disasters in Punjab that were unforeseen or overlooked by the Green Revolution's original architects. Many observers, both beyond Punjab and within, claim the present rash of suicides committed by deeply indebted farmers across the state is the result of two decades of recurring socioeconomic and environmental disaster.

Punjab's agrarian crisis can be roughly divided into three separate, but intimately interconnected, areas: 1) rampant and widespread debt among farmers due to shrinking markets, stagnating state-set support prices, crop yields, and increasing production costs; 2) social inequalities exacerbated by the exclusionary policies of the Green Revolution; and 3) ecological breakdown in both soil and water systems.

Introduction of the Green Revolution into Punjab

The Green Revolution arose out of the Cold War era during a time of agrarian unrest throughout Asia. Well into the 1960s, the U.S. was concerned that a communist revolution could succeed

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in India as it had in China, for India's massive peasant population was hungry, disillusioned and angry, much like the peasantry of its neighbor to the north had been before the rise of Mao Zedong. Terrified over the prospect of a "Red India," Washington soon adopted the Green Revolution strategy of increasing food-grain yields as a way of pacifying India's fiery countryside.

The epicenter of this emerging agrotechnological Green Revolution was not in the U.S., but halfway across the world, in the Philippines where scientists at the Ford and Rockefeller Foundation-funded International Rice Research Institute (IRRI) developed a package of new synthetic fertilizers and what they called "high yielding varieties" of rice and wheat; seeds that increased yields under intensive irrigation with these new fertilizers. Indian activist, Dr. Vandana Shiva explains that, "it was not that native crop varieties were low yielding inherently. The problem with indigenous seeds was that they could not be used to consume high doses of chemicals. The Green Revolution seeds were designed to overcome the limits placed on chemically intensive agriculture by the indigenous seeds."²

The seeds of the Green Revolution had an intensely symbiotic relationship with the new fertilizers. When used together, along with increased irrigation, the results were certainly impressive. Yet to actually achieve these results in rural India, a "selective" approach to development "among farmers and among districts" proposed by a delegation of American

agronomists in 1959 was solidified by their successors into the model of "building on the strong," or "building on the best."³ In this case, the "best" meant that the largest farmers in terms of acreage, in the most well-endowed agricultural regions would be trained and supported in the Green Revolution package. Punjab, despite being a relatively dry state overall, had a network of irrigation canals and enough larger-scale farmers to be chosen as a test case.

It did not take long for the new technologies to catch on in Punjab. Between 1960 and 1979, total statewide yields in wheat increased by 124 percent, while rice yields shot up by 175 percent.⁴ India's grain storage facilities began to fill up with Punjabi grains. In the central Ludhiana district, Punjab's "showcase" zone of Green Revolution successes, new high yielding varieties (HYV) farmers almost immediately saw higher incomes from the new seeds, earning about 1240 rupees/acre compared to the roughly 750 rupees/acre they were earning previously with traditional varieties, an increase that stood even after taking into account the much higher input costs of the new varieties.⁵

However, total statewide yield does not reflect the yields of the majority of Punjab's farmers. For those with marginal, small and medium-sized land holdings, the costly new inputs—fertilizers, pesticides, tubewell irrigation, etc.—priced the Green Revolution far beyond their means. A survey conducted in 1967 revealed that 65 percent of Punjabi farmers owned fifteen acres or less, yet their holdings accounted for only 34 percent of the total farmed land in the state. The minority large farmers—those holding twenty acres or more—owned the rest. And while the majority of Punjab's farmers worked only ten acres or less, the economics of the Green Revolution were such that only those farmers owning at least twenty acres were in a position to purchase the new inputs.⁶

As the Green Revolution evolved, cotton was incorporated, as were new developments in biotechnology and larger trends in global agro-business. Nevertheless, top-down, technologically focused development remained. Yield became the primary, even exclusive method of

judging the Green Revolution's success. "Yield" could be increased cleanly and simply, without addressing social or environmental spheres at all. Furthermore, it was precisely because "yield" on its own does not address these spheres, that the Green Revolution was unable to see its own dark side.

Today, the question that must be asked is whether or not feeding India is even an issue of increasing yield. India now stores a 38 million ton food grain surplus.⁷ India stands, along with China, as one of the world's two largest markets for biotechnologies aimed at increasing production. This paradox is perhaps most striking when one looks at the infamous events of 2001. In that year starvation deaths were reported in more than a dozen Indian states, a tragedy unheard of since the 1960s,⁸ and yet this occurred at the same time that the government proposed dumping its mammoth surplus into the sea to make room for the next year's surplus.⁹

Simple arithmetic shows that despite an overwhelming 320 million malnourished or hungry citizens, with a 38 million ton surplus of grain, India currently has within her grasp the resources to feed all of her billion plus people. Nevertheless, as the events of 2001 show, a surplus is of little use without the infrastructure and political will to distribute it.

The Debt Trap and Social Inequality

The Public Distribution System (PDS) was launched in the early 1960s as a means to prevent the famines that had long decimated India. Yet, today the PDS is more than a stopgap against famine; it provides regular food grain assistance to over eighty million families in India, and accounts for one third of the nation's food grain trade.¹⁰ Despite its continuing relevance, the Indian government is currently in the process of dismantling the PDS as part of an ever more liberalized agricultural economy that is reducing tariffs on imports, promoting genetically engineered seeds, and embracing transnational agro-business.

These structural adjustments exacerbate access to affordable food by the people who need it. And they do not acknowledge that nearly three in every four Indians

is a farmer. World Trade Organization pressure to accept—free of tariffs—imports of food-grains and edible oils from countries including the U.S., undercuts the price that small and mid-size marginal Indian farmers receive for their crops. Further, bio-engineered seeds require that ever more costly inputs be purchased by already debt-ridden farmers.

With the severely weakened PDS buying less and less subsidized domestic food grains, the nationalized Food Corporation of India (FCI) has lost its biggest customer. For Punjabi farmers, this has meant that their biggest customer, the FCI, is often no longer interested in buying their crops. Prices are often too low to offset the cost of inputs that went into producing it; the high production costs that initially priced small and medium farmers out of industrial agriculture are now overwhelming larger ones as well.

These low prices are in many ways the result of the low, Minimum Support Price (MSP) set by the government. Other factors also contribute to the debt crisis. Some argue that Punjab's excess production has led to a glut which deflates the grain prices paid to farmers. Others argue that falling yields, due to soils damaged by years of chemical fertilizer and pesticide use, have meant that farmers' incomes can not keep up with input costs.¹¹ The majority of available evidence points to smaller Punjabi farmers being proportionally more affected by debt woes than larger ones, which exposes an undeniable connection between social inequality and debt accumulation in rural Punjab.

Given that today's agricultural economy favors large producers, small farmers have almost no ability to secure credit through conventional banks, allowing usury moneylenders to step in. High interest rates, combined with the low annual income of the small farmer, has created a vicious "debt trap." Once caught in this trap, the small farmer must sell or mortgage his land; an "extreme" step taken by about fourteen percent of small farmers as well as a few entire villages.

Green Revolution Ecological Disaster

Traditional and sustainable agricultural knowledge was abandoned with the

introduction of the Green Revolution. Instead of intercropping nitrogen-fixing legumes with cereals, synthetic fertilizers and pesticides are applied to monocrops of high yielding varieties (HYVs) of rice and wheat. In addition to high levels of synthetic inputs, these HYVs also required dramatically more water inputs to actually produce greater yields.

Increased yields came at the expense of heavy pesticide use and excessive irrigation, soil infertility, and HYV pest and disease susceptibility. And there are associated health problems and increased financial costs of even further inputs to maintain high yields.

Debt and Despair Lead to Farmer Suicides

A cursory glance might make it difficult to see the direct links between the Green Revolution and this epidemic of farmer suicides. Suicide can be viewed as an individual decision made by a single person driven to despair out of a complex web of motivations. Direct connections between that decision and a specific, historical moment are often difficult to make. Yet seen in another light, the issue of farmer suicide is indivisible from each and every one of Punjab's current environmental, economic and social crises. The particulars of these crises—the "specific ecological moments" of falling water tables or dying soils for example—are then crucial points for understanding the interconnections. The totality of Punjab's agricultural crises can be seen in its true magnitude by linking water shortages, high input costs, crushing debt, and finally farmer suicide.

Farmer suicide in the Punjab is by no means a completely understood or well-documented phenomenon. However there is strong reason to believe that farmer suicide is a far wider problem than the Punjab government formally acknowledges. As one of the few outsiders to study this problem at length, Dutch researcher Tom Deiters explains, "considering [that] the official government data on suicides is collected from criminal records, this gives reason to believe that the

government figures are grossly underestimated.”¹² Deiters notes that suicide goes on the books as a felony in India. This fact has led many to argue that most suicides in the state go unreported simply because doing so would implicate the deceased as a criminal for all time. Therefore little is known about the thoughts and voices of many of Punjab’s individual suicide victims. However the deceased have, with the collective weight of their final acts on earth, issued an audible challenge to the way in which Punjab’s agriculture is being industrialized. It is a challenge to the wisdom of the free market. And ultimately, it is a challenge to the very notion of “development” itself.

India's Lessons for Africa's Small Farmers

In October 2006, shortly after the Rockefeller and Gates Foundations announced their \$150 million Alliance for a Green Revolution in Africa (AGRA), Food First challenged the feasibility of their plan with the release of *Ten Reasons Why the Rockefeller and the Bill and Melinda Gates Foundations' Alliance for Another Green Revolution Will Not Solve the Problems of Poverty and Hunger in Sub-Saharan Africa*. <http://www.foodfirst.org/files/pdf/policybriefs/pb12.pdf>

The experience of India and other countries throughout Asia and Latin America demonstrate that while increasing yields could help bring an end to

hunger (though presently there is more than enough food produced in the world to make everyone fat), this will not happen until national governments and multinational agencies implement systems that allow every citizen of every nation to buy or grow sufficient food for themselves and their families. The tendency of foundation-initiated “Green Revolutions” to undermine people’s right to feed themselves—their food sovereignty—also undermines each nation’s responsibility to ensure that their citizens are free from hunger. This is the painful lesson so vividly drawn each time a desperate Indian farmer downs a can of Green Revolution pesticide. Vandana Shiva asks “Is that how Africa wants to go?”

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