BOOK REVIEW

Sustainable Agriculture and Family Farmers

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Wise, Timothy A. (2018), *Eating Tomorrow: Agribusiness, Family Farmers, and the Battle for the Future of Food*, The New Press, New York, 256 pages, Rs 2575.

We live in a world of food and nutrition insecurity. In 2017, the number of undernourished people on our planet was estimated to be 821 million, one out of every nine persons. Meeting goal 2 of the Sustainable Development Goals set by the United Nations – that is, to end hunger and all forms of malnutrition by 2030 – thus requires innovations and new development in respect of food production and consumption. Changing land use patterns and growing urbanisation add to the pressure on land for agriculture and food crops. The phenomenon of climate change is another challenge to crop production, and its impact on yields and the quantity of land available for farming is still very uncertain.

There have been a series of publications in recent years that propose new directions for global agricultural production. Two recent publications are the 14th Report of the High-Level Panel of Experts on Food Security and Nutrition (HLPE 2019), which discusses innovative approaches including agroecology to enhance food security and nutrition, and the Special Report on Climate Change and Land by the United Nations' Intergovernmental Panel on Climate Change (IPCC 2019), which discusses the effects of climate change on hunger and starvation. Notwithstanding the specific concerns of each of these reports, both regard sustainability as a critical aspect of the future of agricultural production systems. Another common thread is a critique of the system of corporate-controlled industrial agriculture and a proposal to shift to more localised production led by small-scale farmers.

Ensuring Food Security: Family Farmers versus Agribusiness

In the book under review, *Eating Tomorrow: Agribusiness, Family Farmers, and the Battle for the Future of Food*, Timothy A. Wise examines the problem of ensuring

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sustainable agricultural development. He argues that corporate or industrial farming led by multinational agribusinesses based in the developed world is the cause of and not a solution to the problem of food security. Citing data from Africa, India, Mexico, and the United States, the book examines the control exercised by large agribusinesses and trade over different aspects of domestic food policy. The author highlights the problem of land grab in parts of Africa; the control exercised by big corporate interests over agricultural and food policies in different parts of the world (where they decide what and how to produce without paying due consideration to the needs of farmers and the hungry); and the global trade regime that allows multinational agribusiness firms to expand their reach and power in developing economies. This is the business-as-usual approach that prevails today, and it is, the book concludes, no longer a viable option for the future.

Having diagnosed in this way the role played by multinational agribusinesses in deepening the global food crisis, Wise goes on to promote a new "zero hunger" approach to ensure "the future of food." He argues that yields have always been at the centre of a corporate-dominated vision for agricultural development and food systems. By contrast, this right-to-food-based approach emphasises ecological agricultural development driven by small-scale workers, particularly women. It envisions poor farmers as not just "victims of a violation of their economic and social rights," but also as "agents of change who could claim those rights, eating today and confronting the obstacles that were keeping them from eating tomorrow" (p. 270). Thus, smallholder farming is viewed as a sustainable alternative to agribusiness corporations, an alternative that would encourage: (i) the use of drought-tolerant, replantable seeds rather than hybrids or genetically modified seeds that have to be bought every year; (ii) the use of soil-building, home-grown compost, as against synthetic fertilizers; and (iii) intercropping a variety of food crops to diversify and improve nutrient-poor diets, rebuild soils, and reduce dependence on synthetic fertilizers, as against encouraging monocultures that use more chemical inputs (p. 271). For Wise, small farmers are the vanguard of sustainable agriculture.

Consider this example in the book of a 7,000-member farmer association from Mozambique that had

> their own climate adaptation strategies, [which] did not involve using more fossil fuels or growing monocultures of commercial seeds. They had improved their own preferred vitamin-rich, drought-tolerant maize variety. They had created seed banks that saved the day when climate calamities wiped out many farmers' maize and with it the next year's seeds. Their steady intercropping, with diverse food crops growing within the same field, was improving their soils as it fed their families, with drought-tolerant crops – cassava, cowpeas, sweet potatoes, okra – preventing a food crisis when the maize crop failed. Their rich soil now retained moisture when rains were poor and better absorbed the downpours. These farm families were eating today, despite the damaging climate, and they were steadily improving their chances of

> eating tomorrow by enriching rather than depleting the resource base that gives them their sustenance. (p. 2)

And this feat, it is reported, was achieved without any support from government or international agencies. From such experiences from the field the author concludes that allowing poor farmers from developing economies to cultivate and produce in their traditional ways using local knowledge will promote sustainable agricultural practices, and ensure food security and sovereignty for today and for tomorrow. In his words,

> Allowing them [the small farmers] to eat today, from a rich diversity of intercropped food, is the very thing that can help them – and all of us – eat tomorrow from their restored, resilient soil. (p. 276)

Small farmers or family farmers, the author states, have the potential and the agency to form communities that will demand and ensure food security and sovereignty, fight for land rights (against land grab), resist genetically modified crops, and implement and scale up agroecology. They also have the capacity to "recapture democracies from corporate influence." In this approach, the burden of imagining and constructing the framework for sustainable agriculture is placed squarely on the shoulders of small farmers.

Evidence from Village Studies in India

In other words, *Eating Tomorrow* often claims that the practices of small farmers are more sustainable than those of large-scale corporate farms. Small or family farms are more efficient than corporate farms in terms of resource use, and are engaged in farming practices that are not intensive in terms of requirement of inputs – for example, they use home-produced manure rather than synthetic fertilizers and maintain seed banks rather than relying on purchased seeds. They are also portrayed as preferring cultivation for their own consumption. They practice intercropping and tend to maintain food and nutrition diversity (pp. 22–25, 41–44, 47, 66–68).

Evidence from intensive village studies undertaken by the Foundation for Agrarian Studies (FAS) in more than 17 villages located in different agro-ecological zones of India, and brought together in the book titled *How Do Small Farmers Fare? Evidence from Village Studies in India*, suggests that small farmers were not necessarily different from large farmers in terms of patterns of input use, choice of crops, yields, etc. When compared to other sections of farmers, small farmers did not show any significant difference in terms of fertilizer use or efficiency of fertilizer use (Murari and Jayaraman 2017, pp. 201–29). With respect to seed usage, again, the results were mixed, and one can conclude that a fairly significant proportion of seeds used by small farmers in Indian villages were purchased from the market (Das *et al.* 2017, pp. 184–85). While the proportion of food crops in gross cropped area was higher for

small farmers than for large farmers, there was little or no evidence of non-market subsistence production among small farmers (Das and Swaminathan 2017, pp. 96–100). Most small farmers were involved in the cultivation of region-specific commercial crops. The cultivation of food crops and intercropping by small farmers is not necessarily a consequence of preference or class interest, but of their economic insecurity and lack of capacity to shift to more profitable crops or even to shift out of farming altogether. Current data clearly indicate that farming is increasingly becoming unprofitable for small farmers. For many of them, wages from manual labour and incomes from non-agricultural sources contribute significantly towards maintaining their basic needs (Bakshi 2017, pp. 126–66). A not-insignificant proportion of small farmers work as wage-workers while continuing to cultivate family farms (Ramachandran 2019, pp. 69-81; Dhar 2017, pp. 62–94).

In India, small farmers have clear linkages with and dependencies on input markets, product markets, and labour markets. These markets are invariably biased against them, and are more often than not under the control of large capitalist farmers, landlords, and traders. Well-designed market intervention policy measures that ensure procurement and better prices for the produce, lower input costs, and higher wage rates can certainly be of great assistance to small farmers. Such a policy framework, with all its flaws, was already somewhat functional in India, though it is systematically being weakened under the current regime of neoliberalism. Timothy Wise does touch upon such programmes, which have a proven track record, but only in passing; he argues that they are not sensitive to the concerns of sustainability.[1]

Trapped in Localism

My first major objection to the argument of the book is its exaltation of the local. The book argues that small farmers as a group are conscious and appreciative of the value of sustainable practices, and therefore prefer such practices over more conventional methods of farming. Such a claim requires research on perceptions and preferences.

"Giving all the land back to the [local farmer] communities," and letting them grow their own food appear to be the answers to the grave challenges faced by agriculture today. Remarkably, the local community is seen as an undifferentiated homogeneous group – with no real contradictory interests – that can easily cooperate and work towards a common objective of sustainable agriculture (pp. 81–82). The author promotes what he characterises as

[1] See, for instance, the criticism of the "One Acre Fund" initiative in Malawi. Such programmes, Wise argues, "seemed to be getting the productivity and income gains for the farmers they worked with." However, Wise critiques that they "do little for long-term soil health . . . don't promote intercropping . . . do not encourage composted manure, through the addition of goats and other small livestock . . . don't teach no-till agriculture or how to leave residues in the field to improve the organic content of the soil," etc. (pp. 274–75).

> an expansive understanding of crop diversity, taking an approach that emphasises the preservation not only of distinct crop varieties but of the ecosystem and human cultures that developed and maintain them.[2] (p. 225)

In India, "human cultures" in village societies, particularly traditional village societies, are characterised by the worst forms of caste and gender discrimination and exclusion. Dr Ambedkar once wrote that

> the love of the intellectual Indian for the village community is of course infinite . . . What is a village but a sink of localism, a den of ignorance, narrow-mindedness and communalism? (Moon 1994, pp. 61–62)

While one has of course to study the local to identify that which is of value, and worthy of dissemination and replication, the fact remains that any agro-ecological change will have to begin by rejecting and destroying parts of the local. Indeed, an uncritical promotion of the "local" will undoubtedly prove contradictory to the foundations of sustainability itself.

Missing Institutions

My second major objection to the argument of the book is that it does not recognise the role that modern science and technology, particularly modern biotechnology, will have to play in meeting the food and agricultural needs of the future. In his foreword to the book, the environmentalist Raj Patel, while criticising the pathways recommended by industrial agriculture to feed the world in a sustainable fashion, concludes that ". . . such a path requires not the great minds of agricultural science and commerce, but the combined entrepreneurship and democracy of social movements." This statement is indicative of the problem with the approach of the book to an extremely serious and worrying issue, namely, the dangers of corporate-controlled industrial agriculture.

While the book aims to restore the balance between family farmers and agribusinesses (in favour of the former), it does so by ignoring the role of modern science and the state. It pitches small farmers not just against big business, but also against science and commerce, as if the latter two are inseparably conflated with agribusiness. It therefore does not envision a significant role for the state as a player that, through appropriate steering of modern science – including research and development, regulation, and extension – can promote sustainable agriculture.

Most strikingly, the book does not seem to at all recognise the crucial role of modern agricultural science and technology in ensuring universal, sustainable food and nutrition security. Sustainable agricultural advancement, the book seems to suggest, can be achieved in spite of modern science, not by it.

[2] Wise attributes this "expansive understanding" to agro-ecologist Miguel Altieri (Altieri, Anderson, and Merrick 1987).

My third major objection to the argument of the book is linked to the first two. It is that the argument does not sufficiently recognise the importance of scale in production, yields, and farmers' incomes in agriculture. Petty production and the absence of access to economies of scale stand as obstacles to the well-being of a significant part of the working people in the countryside, that is, the poorer sections of the peasantry and agricultural workers. An interesting essay on attempts to overcome constraints of scale in rural China while also taking considerations of equity into account is Cheng and Ding (2012), published in this journal.

I agree with Wise's characterisation of the objective of sustainable agriculture:

> . . . to grow more and better food in a way that doesn't destroy the natural resources that we need. Not just to eat today but to eat tomorrow, when a changing climate will present far more challenges than we face now. (p. 146)

However, in its zeal to identify agri-business as the main barrier to sustainable agriculture, the book ends up exalting the local and confusing questions of scientific and technological advance with issues of corporate control. Agricultural advance requires an emphasis on productivity, farmers' and workers' incomes, and sustainability. Science and public intervention, including intervention by the state, are necessary conditions for the achievement of these objectives.

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