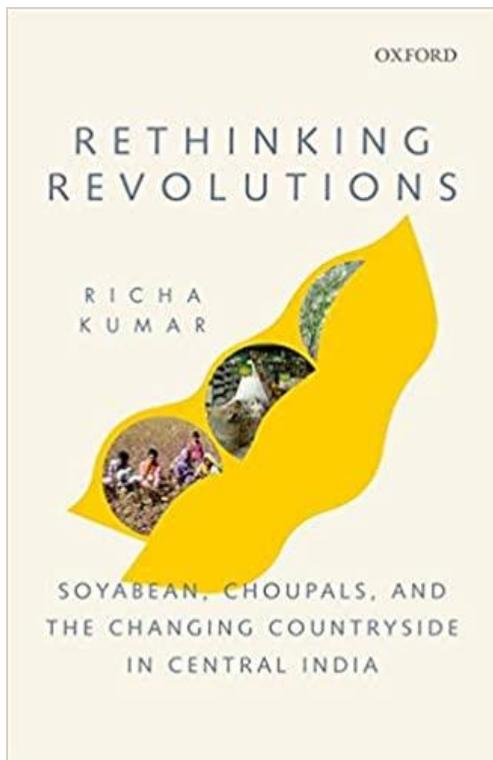


BOOK REVIEW

Deconstructing Agricultural Revolutions

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Richa Kumar, *Rethinking Revolutions: Soyabean, Choupals, and the Changing Countryside in Central India*, New Delhi: Oxford University Press, 2016.



In conventional policy narratives, it is believed that agricultural productivity can be boosted through a mix of technology, irrigation, and de-regulated markets. Richa Kumar, in *Rethinking Revolution*, however, argues otherwise. Through a detailed study of two types of revolutions that were introduced in the Malwa region (Madhya Pradesh, India), Kumar offers a compelling counter-narrative, which effectively argues that radical agricultural transformations are shaped by a range of factors, chance events, and many an unintended consequence rather than through the top-down linear implementation

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of a planned techno-managerial intervention.

The two revolutions that Kumar focuses on are the Yellow Revolution (the cultivation of soyabean, *Glycine max*) and the adoption of the digital eChoupal model (the information revolution), which was initiated by ITC-IBD, which is currently one of the largest multinational companies in India engaged in agri-business. While the spurt in the cultivation of soyabean in the Malwa region began in right earnest in the 1970s, eChoupal—as a digital infrastructure for connectivity—was ambitiously initiated several decades later in 2000. Methodologically, *Rethinking Revolutions* is heavily tilted towards the use of ethnography for describing and analysing how diverse actors—farmers, corporate interests, agri-researchers, and traders—have influenced and consequently been shaped by the processes of rapid agrarian transformation.

In chapters two to six, Kumar unpacks and reconsiders the varying elements that led up to the Yellow Revolution—notably, labour relations, environmental costs, caste, gender, and the nitty-gritty details involved in enabling agricultural production in such a dry and semi-arid environment. The first attempts to cultivate soyabean as a food crop in the Malwa region can be traced back to the 1960s. The effort, however, gained traction only in the 1970s. In part, as Kumar explains, the yellow variety that was initially introduced through the collaborative efforts of the scientific team from the University of Illinois Urbana-Champaign proved to have poor germination rates and was susceptible to the yellow-mosaic virus (p. 49). Following several field and experimental trials, however, soyabean cultivation found a new life, and interest in it surged after it was promoted as a cash crop that could be processed into cattle feed (de-oiled cake – DOC) and edible oil. Moreover, these very same farmers also capitalised on the fact that a range of environmental factors enabled the soyabean to be an excellent “filler” crop for the region. In other words, as Kumar suggests:

non-human factors such as the properties of the soil, the characteristics of the soyabean plant such as duration and tolerance to adverse conditions and the rainfall patterns of Malwa, were critical in providing a niche for soyabean to make itself comfortable. (p. 57)

In the third chapter, the narrative of soyabean’s success is placed in the larger context of India’s widely celebrated Green Revolution, which helped boost rice and wheat production in the great northern flood plains. Here too, Kumar is keen to challenge the dominant narrative that the success of the Green Revolution prevented a Malthusian crisis in 1960s India, where the belief was that population growth was outstripping the ability of Indian agriculture to feed the country’s growing numbers. Through a careful and

systematic review of the literature on the subject, Kumar, in fact, convincingly argues that the impacts of the Green Revolution were rather mixed, with a range of complications brought on by overproduction, soil degradation, fertilizer dependence, farmer's debt and the emergence of a new kind of farmer-centred politics that forced the state to subsidize agriculture. In effect, for Kumar, the Yellow Revolution took the wrong lessons from the Green Revolution in that it framed the problem as one that merely requires a technical solution to address a quantitative shortfall in agricultural production.

Chapters four and five go on to further scrutinize the notion of productivity and how to meaningfully make sense of the phenomenon of soyabean cultivation. For Kumar, the boon of soyabean lay not so much in how scientific and technological inputs boosted yields but in how the crop came to the rescue of small farmers because of the seed's peculiar suitability to the geology and ecology of Malwa. On the other hand, however, the very success of soyabean cultivation increased a range of vulnerabilities for the farmer, with the rising demand for fertilizers and pesticides with remunerative prices besides the increasingly urgent need for irrigation and the loss of common grazing lands. Chapter six rounds up the section by focusing on how the migrant *Adivasi* (tribal) farm labourers were able to drive relatively better wage bargains for themselves because of the peculiarities inherent to the "socio-technical" arrangements that soyabean cultivation required.

Chapters seven to ten switch from focusing on the soyabean revolution to examining the eChoupal initiative of ITC-IBD in the Malwa region. The eChoupal project is modelled after the notion of the traditional village *choupal* (the public meeting place) and aims to provide farmers with real-time price information through digital connectivity. Underpinning this novel initiative of ITC-IBD was their strong belief that the soyabean market in Malwa had turned inefficient because of corrupt intermediaries—village-level traders—who, it was held, acquired unfair rental income by controlling the flow of information on prices. Kumar, however, carefully and through detailed ethnography, unsettles this premise by effectively revealing the eChoupal project as but the reiteration of a steadfast faith in neo-liberal market practices. That is, the real effort of ITC-IBD was aimed at diminishing the regulatory capacity of the Indian government while further formalising existing soyabean market arrangements in favour of large agri-businesses.

Unsurprisingly, village traders or intermediaries were singled out as bad actors within the eChoupal initiative, which pressed forward in not only claiming that market inefficiencies were solely the result of skewed information access but that the latter's solution lay solely in techno-managerial fixes, i.e., by ensuring digital connectivity. Kumar, however, brilliantly counters these claims by showing that the layered relationships between village traders and farmers were not only complicated, involving various levels of give-and-take, but, interestingly enough, the government-regulated *mandi* enabled considerable mutual accountability and even offered better bargaining possibilities for the farmer. In contrast, ironically enough, it was the formal marketing institutions of the cooperatives and private companies that proved neither accessible nor accountable to the poor and low-caste farmers in Malwa. In effect, the eChoupal initiative tended to benefit the upper-caste elite farmers, often at the cost of those socially and politically marginal to village life, and evidently proved that techno-managerial arrangements tended to reinforce inequalities.

In sum, *Rethinking Revolutions* makes a compelling case for us to be sceptical about how conventional policy narratives regarding agrarian transformations through techno-managerial changes in India have thus far been framed. Kumar, in this detailed and well-researched monograph, offers us fresh and original insights not only into the poorly studied Yellow Revolution and the information revolution in Malwa but also critically urges us to revise our understanding of the complexity of causes, effects, and impacts that agrarian transformation involves. *Rethinking Revolutions* is unquestionably a significant contribution to agrarian studies in India and the interdisciplinary field of Science and Technology Studies (STS).