

Book Review - 2

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Agricultural Growth, Productivity and Regional Change in India:

Challenges of Globalisation, Liberalisation and Food Insecurity, London and New York, Routledge, pp.xv+291.

The book is devoted to Agricultural Growth in India with a sustained focus on regional characteristics and contrasts as these have evolved over time. The growth or the non-growth has been evaluated on a binary of time and space, the former an indispensable element in any growth study, and the latter, representing, in case of India, a vast expanse marked by regional variations that demand a spatial analysis. It has to be emphasized that the volume forms part of the series in 'Routledge Studies in the Modern World Economy'. Running into 300 pages and divided into 10 chapters, including introduction and conclusion, the book is profusely illustrated (70 illustrations and over 50 tables) and is adequately equipped with statistics on agricultural productivity and its various determinants, that form the basis for discussion in the book. A significant geographical aspect in the book is the adoption 'Agro-Climatic Regions of India' as well the 'Agricultural Planning Regions of India' as proposed by the Planning Commission of India.

The book begins with Introduction, which doesn't say what one would find in the book, but it summarizes the burning issues related to Indian agriculture to initiate further debate on Indian agriculture. Evolution of Agriculture Development in India, (Ch-2) traces the development of

Indian agriculture from pre-historic times, beginning from Harappan culture, running through successive periods of history, including the progress of agriculture in post-Independence India, and the contemporary post-liberalization phase. The chapter has some instructive sketches of irrigation systems, including leather bucket and Persian wheels. Agricultural Growth Process, the longest chapter in the book, starts with a comparative view of socio-economic development in South Asian countries. None of these countries, however, sets a benchmark, the comparison only shows how these low-income countries are struggling to achieve high growth trajectory. The evaluation of growth is based on Net Sown Area (NSA), Gross Cropped Area (GCA), crop intensity and the production of food grains, over four decades from 1970 to 2010, each of these decades linked to different phases of growth in Indian Agriculture, as Green Revolution period (1970-80), Pre-liberalization period,(1980-90) Liberalization period (1990-2000) and the Post- liberalization period (2000-2010) and the average value of each of these aspects is further supplemented with standard deviation, co-efficient of variation at one and five percent level of significance, an appendage that appears redundant.

Under a sub-title Agriculture and Economic Development, the contribution of agriculture to GDP is examined, and the exercise is spiced up by quoting Kuznet's model to evaluate the 'contribution Agriculture sector to GDP', though it is obvious that there is no linear relationship between the two as the two grow at different rates seen in the two graphs (3.7 and 3.8). Agriculture, its potential being limited by the availability of land, cannot compete with other sectors of the economy. The table compiling the ratio between the agriculture and GDP for India for every year from 1950 to 2013, though informative, is cumbersome and could have been shortened by quoting a few years selectively.

Land and labour productivity are examined on the basis of district-wise data for productivity, categorized into eight classes (1. extremely high, 2. exceptionally high, 3. very high, 4. high, 5. medium, 6. low, 7. very low and 8. extremely low), the first one (extremely high) representing a productivity level showing Rs 80,000/ha, and the 8th one (extremely low) showing the productivity value of Rs 10,000 or less/ha. Each category is Rs 10,000/- lower than the preceding one. The productivity changes are evaluated only over a period of six years from 2000 to 2006, the consequence is that in most categories of productivity is negative, barring the low and extremely low productivity categories. A period of five to six years is utterly inadequate, and if, per chance, one of these years is an year of an abnormally deficit rainfall year, the entire result will be quite off the mark. In the opinion of the author a five year

average compared after a gap of at least a decade would provide a more reliable trend. The two sets of maps, one measuring land productivity and the other showing labour productivity, with districts as the level of aggregation, are clean and instructive, except for the fact that the legend in both cases requires a magnifying glass to read. The same exercise showing changes in productivity is repeated by taking into account the XV agro-climatic regions, not only over a period of five years (2001-6) but showing even the inter-regional changes.

Regional Convergence defined as 'a process through which the gap between the developed and the under-developed areas decreases', in other words, poor and deprived regions grow faster than their richer counterparts and the entire nation starts to converge towards a regional parity. The premise encapsulates an objective and doesn't represent national reality. The elaboration of this premise in the text is preceded by lengthy discussion touching several theories of economic growth including some with a spatial focus - (Rostow, Perroux, Friedman, Marshall, Myrdal, and the list goes on) in support of convergence, more specifically in support of beta convergence, which suggests an inverse relationship between per capita growth rate in income and the initial level of individual's income. A simulation in agriculture would imply that the regions with initial low productivity would grow at a faster rate than the agriculturally more productive regions. But, would this lead to convergence is the un-answered question. The three indices used in this context, viz. the potential, actual yield and production

efficiency, the efficiency expressed as a quotient of efficiency, apparently logical, rests on the highly flexible character of potential yield; yet for a specific period it may be valid depending on the assessment of individual research of many variables like a different breed of crop or sudden availability of a moisture source. The three maps (6-3/a & b and 6-4) each beautifully depicting the spatial contrast, though instructive in themselves, their value will depend on the assumed status of potential. All these indices, like land productivity, crop intensity, potential productivity and production efficiency have been tabulated, with their mean, standard deviation and coefficient of variation, for the 15 agro-economic regions of the country, with district-level data.

The idea of a 'regional convergence' in productivity promoted by the authors, could at best be an effort to catching up with the most productive regions of the country. Could there be an inevitable converge, is a debatable question.

An exercise in further regionalization has taken the authors to delineate sub-regions, which they call OTUs (Operational Taxonomic Units), defined on the basis of 'the degree of spatial variance' in each of the Agriculture Planning Regions. Thus, the reader encounters a multiplicity of genre and number of regions, as if, the well-defined agro-climatic regions, referred to earlier were unsuitable for planning. The entire chapter appears to be dedicated to regionalization agricultural region, followed, in the appendix, a listing of 88 NSS regions. One wonders, if the inclusion of all these regionalization exercises is plausible.

Food Production, Consumption and Insecurity (why not security?) is a straightforward account of agricultural growth, assessed by an increase in the production of food grains over a period of sixty years (1950-2010) and its per capita availability. To judge the sufficiency or otherwise, data from the National Sample Survey Organization (NSSO) about the food consumption pattern of people from the rural as well as urban areas has been adopted. Obviously, beyond certain level of income, the per capita consumption food remains virtually constant. It may have proved more relevant to express the food surplus and food deficient areas in simple percentage term instead of food production surplus or deficit in terms the per hectare agricultural productivity expressed in monetary value term. To the reviewer, it appears a very convoluted way of showing surplus or deficit in food grain availability. The resulting maps (9-11 and 9-13) appear, therefore, desultory and un-instructive.

The summary of the book can be read in Conclusion, the last chapter of the book.

The book *Agricultural Growth, Productivity and Regional Change in India: Challenges of Globalisation, Liberalisation and Food Insecurity* examines and evaluates the story of India's agricultural growth and productivity in entirety, as well in a spatial context, aggregating data at the level of district and different agro-economic regions. In this task, they have succeeded by presenting to the readers a well organized and well written text, highlighting the regional characteristics and variations in growth. They have focused equally on

several aspects of India's food security, regional productivity and an elaboration of food-surplus and food-deficit regions of India. All through the book, spatial context of growth and productivity have been kept in view, as seen in the region-based analysis and interpretation of different aspects of Indian agriculture. The volume is data-rich, and purposefully illustrated. A summary of the book in the last chapter is a help to the readers, and adds to the merit of the book.

The book elaborately traces region wise growth of agricultural productivity in India. It would prove a very relevant text

for students of Indian agriculture, especially those who are interested in looking at the pattern of growth in the multifaceted regions of India. In the opinion of the reviewer, the book would be a welcome addition to the catalogue of most of the college and university libraries in India and abroad.

To enhance affordability, it would be worthwhile bringing a South Asian edition of the book.

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