

Book Review

Uma Lele, Manmohan Agarwal & Sambuddha Goswami (2018). *Patterns of Structural Transformation and Agricultural Productivity Growth*. Pune: Gokhale Institute of Politics and Economics. pp. 295, Price Rs. 500/-. ISBN: 978-81-930376-4-5.

The process of structural transformation has constantly interested economic systems, as it manifested itself the shift from agriculture to non-agriculture activities and subsequently from manufacturing to service activities. Structural change of an economy is both cause and a determinant of restless economic growth (Metcalf, 2002). But this does not mean that the agriculture being a low productive sector will eventually vanish from the system. On the contrary, productivity in agriculture should increase over a period as technological advancements spreads to the agricultural sector, and yield per hectare would surly then rise along with labour efficiency.

Based on this structural change in the economy and growth of agricultural productivity, a study was carried out as background for the World Bank (2014) report, which got converted into a book later, titled as, "*Patterns of Structural Transformation and Agricultural Productivity Growth with special focus on Brazil, China, Indonesia and India (BCII)*", is written by Uma Lele, Manmohan Agarwal and Sambuddha Goswami. This book is published by Gokhale Institute of Politics and Economics (GIPE, Publication No. 75), Pune in 2018. As per the original study, to examine and understand the structural transformation patterns for developed and developing countries/regions, authors drew on data for 109 countries (88 developing and 21 developed countries) over the 1980-2009 period. From the year 1980, FAO began to publish data on labour employed in agriculture and based on that data authors conducted analytical study of various parameters with the help of regression and other mathematical tools. They have also built their analysis particularly on Timmer and Akku's (2008) work on structural transformation. Authors' focus was on calculating the number of years to reach the turning point for the above mentioned four developing countries and accordingly they have analysed the performance of major indicators contributing to their economic convergence.

It is noted that today's developing countries in Asia are taking longer to reach the turning point than the historical experience of industrial countries. A comparative analysis of large Asian countries such as Brazil, China, Indonesia and India has been done to facilitate operational lessons for policies and priorities for a large and complex country such as India. After the Introduction, this book is divided in four sections followed by references and annexure. In Section-I, authors have proposed triangulation of evidence from a variety of sources in a comparative context to develop insights into determinants of factor productivity growth and their implications for policies, investments and institutions, which will promote rapid structural transformation in a long-term development context. Section-II analyses the structural transformation of BCII and behavioural patterns of agricultural Terms of Trade. Section-III is about the land productivity which includes irrigation and water related issues. Section-IV is on country-wise detailing of Total Factor Productivity (TFP). Authors conducted a meta-analysis of the substantial literature on TFP growth in agriculture.

After checking the patterns of structural transformation and agricultural productivity growth, this book has confronted that India is clearly behind China and Indonesia in the process of structural transformation. India has the highest share of agricultural value added in GDP among the three countries, a higher share of labour force in agriculture than Indonesia but lower than China, the lowest value added per worker, and lower total value added in agriculture than China, though higher than Indonesia. The study has also referred to the highest birth and death rates in India among the three Asian countries and overviewed the incidence of high rate of under nutrition and child malnutrition in India, noted as 'Indian Enigma' (Deaton & Dreze, 2009; 2010).

Despite an impressive growth in the total value added in agriculture in China, the per capita value added has shown insignificant rise because of the large amount of labour in agriculture and its

continued relatively high share in Agriculture. This is in contrast with Brazil, which has seen a rapid and consistent increase in per capita value added in agriculture. India and Indonesia are twiddling in positive and negative values.

In India and China, intensifying production on existing land is the only way to increase agricultural productivity, as well as create productive employment. Irrigation, multiple cropping and creating on and off farm employment are some of the important factors for intensification.

Irrigation efficiency (referring to effective irrigated water resource management in Gujarat), water and soil conservation, land reforms have been the core issues for raising the land productivity. Authors have tried to extract the best farm practices carried out in these four countries. They referred to the required policy changes, changes in organizational and institutional framework, sustainable ways to use water and land, presence of infrastructure, access to market, and timely availability of quality inputs. Analytical data of yield levels and differences in yield growth across Brazil, China, India and Indonesia for the period 1961 to 2011 for different crops gives us the real performance picture. Yields per hectare have been three to five times as high on irrigated lands, as those in rain-fed farming, depending on the area and crops. In Authors' view, reasons for the slow yield growth are lacking technological capital and investment in agriculture. They suggest the scope for applied and adaptive research to close the yield gap under diverse conditions specifically in India.

Enough literature references have been placed in the book to prove the inverse relationship between farm size and productivity. Large farms can actually raise land productivity, create on and off- farm employment and income for small and marginal farmers but large farms tend to have a strong political constituency and their vested interest. Overall sectoral performance and detail featuring of it would differ from country to country. Several other factors would be contributing to it. For example, agriculture, like water, being a state subject, seems to limit the ability of the central government to address number of issues confronting India, more authoritarian unitary system of government in China apparently proved to have best results.

“Technology capital” is the essential price of admission to a “Growth Club” (Evenson & Fuglie, 2010). China and Brazil show a substantial increase in TFP, followed by Indonesia, with India being a distant fourth during this study period. While considering the cost-benefit of crop production, authors have also taken the environmental costs and socio-political costs, human capital through education, social safety, fiscal sustainability, etc. into consideration. This book is very good for researchers. The take away for researchers is the well referred literature and the use of statistical techniques to do the comparative analysis.

There are some abrupt stoppages in all four sections of the book; it means abrupt ending of the one subtopic and start of new subtopic which has got no link to the previously ended subtopic. Readers are going to miss the continuity of book over there. Considering the time span mentioned in the book and the year in which we are reading it creates a need for an updating of the book. Nevertheless, their overall conclusions are worth summarising to place the Indian agricultural growth performance in a global perspective and in view of other country specific evidence.

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