

### **Book Review**

Uma Lele, Manmohan Agarwal, Sambuddha Goswami, *Patterns of Structural Transformation and Agricultural Productivity Growth*, Gokhale Institute of Politics and Economics, Pune, 2018, pp. 295, Price ₹ 500/-.

This is an interesting little book for researchers. It has a 119 page Text and 150 page section on Statistics, both raw and processed and References. It gives information on Brazil, China, Indonesia and India; more on India and China. The short text shows the authors' admiration for China (largely pre 2018), and India gets the short change. But that is not the merit of the Book. That lies in its extensive data coverage. It was a background study for a World Bank study on Indian Agriculture done in 2011 and so the data is largely upto 2011, updated for India till 2013. The FAO's, FAOSTAT is a mine of agricultural data. It is organised and cleaned for all Countries. The present reviewer was a part of the Core Modelling team of Agriculture Towards 2000, together with a colleague from Harvard and Oxford's Institute of Economics and Statistics, which prepared a grand Global Model of World Agriculture for 90 Countries done in the Seventies of the last century called AT 2000. It was flatteringly repeated and now there is Agriculture towards 2030, led by FAO's. Senior modeller, Jelle Bruinsma, then a young colleague who assisted us. At that time data for 90 Countries was compered together and it was updated by FAOSTAT. It had Production, Supply and Consumption Accounts as also Population and what would be called Work Force Accounts. The author brings out that FAO will now stop the estimates of Economic Active Population in Agriculture and in my mind that gives their book a lot of importance for young researchers, because once the FAO stops publishing it will be an invaluable source.

It is not possible to review the data part of the book and so we only annotate it. The Text builds up estimates of Structural Transformation of Agriculture in the Economy for 109 Countries from 1980 to 2009. Second they analyse land productivity with a focus on India. Third there is analysis of Factor Productivity in Agriculture. A Rich Menu.

As regards intersectoral terms of trade according to the studies the authors have covered, the movement has been in favour of agriculture,' slower in India, when compared to China in the post 2000 period.' Rapid growth in labour productivity 'has resulted in a rapid decline in poverty in China as also in Indonesia, a record that has not been achieved in India.' They also dismiss India's land reform programme, as compared to Brazil. As far as TFP studies are concerned and diversification, China, Brazil and Indonesia do well as compared to India. There are then' lessons' for India.

Now a discussion. They start after all these ad hominums with the Statement that 'Currently, close to 59 per cent of China's population is reported to be

Economically Active in Agriculture, compared to India's 53 per cent (FAOSTAT 2011). How Come? India was not diversifying and most of the migration is of a pull variety as demographic studies show. And yet its work force has structurally changed more? In fact the 53 per cent number is an overestimate as detailed studies show and migration in India has been higher than the studies they quote show, as we will see later.

They discuss poverty and go on to say that 'The percentage share of undernourished population has declined in India but it is less rapid than in East and South-East Asian countries'. Now this is contrasted apparently by the World Bank recently. It has been argued that 'on the basis of a Brooking Institute's brief to the Government of India that there has been a large decreases in poverty in India according to World Bank studies. These are supposed to be in contrast to Indian studies which do not show such a large decline in poverty (See Alagh, Yoginder K. 2018). Since our authors have World Bank antecedents they can sort out such conundrums. I find PPP comparisons not very illuminating. As a professional Economist, I think this issue is important in terms of growth and redistribution strategies. The findings that the Brooking Institute has placed before the Government are based on World Bank Poverty Norms stated as 'X Dollars per Person per Day in Purchasing Power Parity Prices in A Particular Year'. There is an interesting history to the origin and use of these estimates.

Indian estimates of poverty are based Minimum Nutritional Requirements in terms of Calorie Intake per Person per Day based on what are called Akroyd Scales. This goes back to estimates presented in the Seventies of the last Century, by a Task Force that I chaired and lasted for a long time. More recently, an attempt has been made to add on Social needs to such requirements. The whole issue is now being examined afresh by the Niti Aayog. The World Bank announced its first estimate of poverty with A Dollar One per Person per Day Norm applied across Countries, it used Purchasing Power Parity Rates rather than exchange rates, Interestingly at that time one of the arguments the Bank used to justify this Norm was that the Dollar One Requirement was equal to the Indian Minimum Nutritional Calorie Requirement Norms. Even then some of us pointed out that if Purchase Power Parity was worked out at American prices, Indian Urban Poverty for example was estimated at a very high figure. I remember commenting half in jest that I was a highly paid professional in India, but was below the World Bank Poverty Line. In fact, Indian representatives at the World Bank Boards had also pointed out this problem. Purchasing Power Parity prices create a very special problem because they are based on market exchange rate calculation and this in turn is based on weights between countries, estimated by their trade structure in terms of the commodity spread of exports and imports. This of course has nothing to do with the consumption pattern of poor people. This creates considerable difficulties of a conceptual nature. We know that trade in Harvey Davidson Motorcycle's and Steel alloys is in controversies in tariff policy. Trade weights are not the weights of the consumption pattern of poor people and as such purchase parity norms can give

weird results. At one stage, they were showing that more than two third of the Indian in urban areas were poor and today they are showing that there is little poverty in India. They were wrong then and they may be wrong now. Poverty in India has been going down according to all estimates and this has been happening gradually over the last four decades. But only the very brave, make conclusive statements while the Niti Aayog is examining the problem. Anyway the authors can sort out their differences with the World bank specialists at present before making conclusive statements on results using the same concepts.

The authors go on to say that on 'MDGs, such as literacy, access to primary education, sanitation and drop in infant mortality, it (India) is lagging not just behind China but also Indonesia.' (portion in parenthesis added). Again the authors could have taken care of a problem that my friend Mahabul Haq had sorted out at my request and that is to separate levels from change. The following table shows the problems arise if you do not. Apparently the Japanese were better imperialists than the British. This author had shown the need to be careful in separating levels from change in Indicators (Table1).

Table 1: Change in Selected Social Indicators in Asian Countries: 1960-1990

Country	Life Expectancy (Additional years)	Adult Illiteracy (Reduction in %)	Population per Physician		
			1960	1984	change1960/84
Phillipines	11	18	NA	NA	
Malaysia	16	20	7020	6090	1930
Thailand	14	25	7950	1660	6290
South Korea	17	25	3540	2380	1160
India	16	20	4850	2330	2520

Source: Y.K. Alagh, Some Issues in Health Financing, International Seminar on Emerging Public Health Issues in South Asia, Achutha Menon Centre for Health Science, Sri Chitra Trinul Institute for Medical Sciences and Technology, Trivandrum, Kerala.

In fact the authors' estimate that inequality in India is much lower than other countries and has not changed much (p. 61) but they do not comment on that. They point out in passing that India's grain production diversifies more than the other countries but that is not given much emphasis (p. 67). They point out that the share of agriculture falls in India in gross capital formation but that is a fact of structural change in economic growth. Distinct trends are not analysed. It fell in the nineties and then went up in this decade but is gain constant in the last four years. The issue is that with a gross rate of capital formation of around 20 per cent why has the growth rate not gone up and trends in ICOR are not discussed (See Alagh, Y.K. 2012, Ch. 3).

As regards the diversification of the Indian economy, international comparisons must take into account the different classifications of population data by countries. For example if we take the Brazilian definition of urbanisation India is 90 per cent urbanised (See Alagh, Yogindr K. 2012, Ch. 3). In fact the shift away from agriculture is much sharper than the estimates in the book,

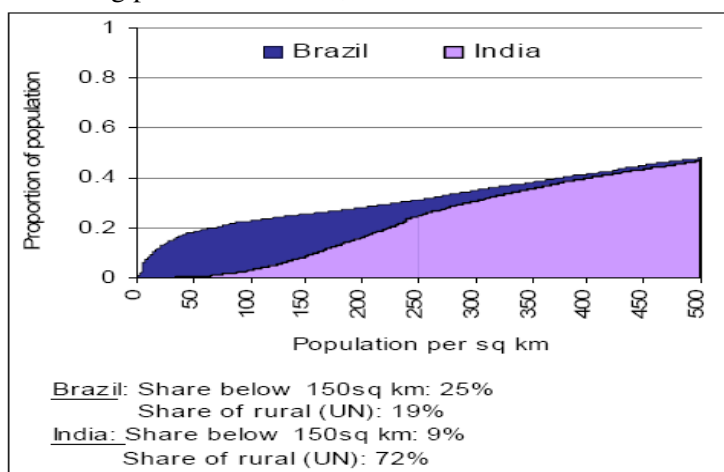
because Census Towns are not counted as Urban areas by official statistics which the authors use. This was remedied in the Twelfth Plan but now planning has been abolished and The RGs Expert Group has still to submit his Report. When this was brought to the attention of the authors they said they went by FAO estimates. But FAO itself had noted this aspect of India's rural economy in a well-known special report they had written for the Government of India. And so:

The FAO brought out that in a global comparison and analysis. FAO and World Bank “distinguish three categories of countries: agriculture-based, transforming and urbanized. India is found in the transforming country category, with a clear historical trajectory of moving from being agricultural-based” (FAO, 2008, p.4)

The FAO noted that according to popular statistics India is less urbanized, but they pointed out that:

*“On the other hand, what constitutes “rural” is in fact somewhat subjective and what is considered urban or rural varies considerably among countries. The Brazilian definition, which is currently a political controversy, is partly based on administrative divisions, and shows a rural population of 19 percent. The OECD on the other hand, uses a simple measure of population density of over 150 people per square kilometer, which, for Brazil would give a figure of 25 percent. If we apply this to India, where only a small proportion people live in areas below this density, it would give a rural population of only nine percent—quite a contrast to the normal Indian view of being 70 percent rural. Although as we have seen, Brazil is much more urbanised, 20 percent of the population lives in areas with fewer than 50 inhabitants per square kilometer; in India less than one percent do.”* (FAO, 2008, p. 5)

The following picture illustrated;



Source: Center for International Earth Science Informa (2004).

The FAO goes on to add:

*“This is particularly important, discussed in more below, when we look at the village-level economies. If we measure how isolated the rural population is in terms of market access, using a definition of more than five hours of travel time to reach a market town of more than 5,000 people, only five percent of South Asians live in “remote areas” whereas more than 30 percent of Africans are in this situation. Similar characteristics hold true for the percent of the population living in higher potential agricultural areas, as shown below.”* (FAO, 2008, p. 4).

Structural Change is an important feature of economic growth and one would have expected a somewhat detailed discussion. The Authors in many cases use literature based papers to buttress their arguments but in this important issue FAO studies were also ignored.

Their analysis of Factor Productivity in Indian agriculture and comparisons with other countries using global studies by other authors show poor Indian performance but rely on different results than from serious Indian studies that could have been consulted. The authors quote a global study by Fuglie, which estimates TFP growth of 1.37 per cent for India in the decade 81/90. But a very careful study of sources of growth in India using double deflation methods by Rabin Mukherji and his associates at The Indian Statistical Institute estimates this number at 3.06 per cent the following results (Table 2):

Table 2: Growth of Output, Factors of Production and TFP for Selected Sectors in India: 1980-1990

Period	(Percentage)			
	GDP	Capital	Labour	TFP
Agriculture				
1980-90	4.26	2.22	0.26	3.96

Source: Mukherji, R., Manabendhu Chattopadhyay and Chiranjib Neogi, 2001.

All in all a must read book, which you must buy and keep on your desk for reference purposes.

## References

- Alagh, Yoginder K. (2012), *The Future of Indian Agriculture*, Delhi, National Book Trust.  
 Alagh, Yoginder K. (2018), *Poverty Then and Now*, *Indian Express*, July.  
 F.A.O. (2008), *Accelerating Agricultural Growth in India*, New Delhi, MOA, GOI.  
 Mukherji, R., Manabendhu Chattopadhyay and Chiranjib Neogi (2001), *Productivity, Human Development and Basic Needs in India*, Calcutta, Indian Statistical Institute.

Sardar Patel Institute of Economic and Social Research  
 Ahmedabad 380054

Yoginder K. Alagh