

India, 'Cultural Density' and the Model of Food Transition

FRÉDÉRIC LANDY

"Food Transition" tells us that as development proceeds and incomes rise, individuals first consume more of cereals and then at a later stage less of these and more of meat and expensive foods. In India cereal consumption has been falling even before the first stage. What explains this trend?

The excellent paper authored by Angus Deaton and Jean Drèze, titled "Food and Nutrition in India: Facts and Interpretations" (EPW, 14 February 2009) is fascinating for the key information it provides, for the explanations it suggests, and also for its scientific humility: some facts on Indian food consumption do remain "puzzling", and the paper does not try to hide it.

To put its argument in a nutshell, there is a sustained decline in per capita calorie (and proteins) consumption during the last two decades among all the sections of the Indian population. But it cannot be attributed to declining per capita incomes, nor to relative price increases. It might be largely due to lower levels of physical activity and improvement in health and sanitary environment. But why even the poor reduce their consumption remains to be explained, whereas the level of under-nutrition in India is among the highest in the world.

This comment does not pretend to bring one definitive and illuminating explanation to those facts. This author hopes, however, to suggest a direction of where to look at for new hypotheses, namely, towards social and cultural factors. (Some of the following points are elaborated with figures and maps in my book, *Feeding India: The Spatial Parameters of Foodgrain Policy*, Manohar, New Delhi.)

Food Transition

Deaton and Drèze's paper does not use a popular concept in the world of academics working on food consumption evolution: *food transition*. The model of food transition is based on other transition prototypes such as demographic transition, and follows two successive stages. The first stage of food transition takes place when, in a poor country or region, development brings enough income to people for eating

more in absolute quantity. This usually corresponds to more cereals (and calories) consumed. The second stage starts when development has reached a point allowing the population to shift from cheap calories (e.g., cereals) to more expensive ones, such as meat, milk products, fruits and vegetables. Western countries have all reached this point: most people there consume more than 3,500 calories per day (that is, 75% more than the mere 2,000 calories consumed by Indians nowadays). Furthermore, they eat some bread with their meals, but the quantities of cereals are far below what their great-grandparents were eating – and what Indians today eat. On the other hand, they eat meat or fish every day, and often twice a day.

Food transition is considered as a model corresponding to the trend followed by every country. Sooner or later, every country must go through it. Where is India placed in the transition?

On the one hand, the second stage of food transition seems to have started. Between 1987-88 and 2005-06 (NSSO), direct¹ per capita consumption of foodgrain decreased by 6% and 8% in rural and urban areas. This per capita decrease is much slower than, say, in China, and cannot compensate the overall population growth that explains the increase of the *national* demand of foodgrains. It fits, however, with the theory of food transition, all the more so since the decrease is more visible in highly urbanised regions – that is, in more developed areas. Indians eat less grain than China (yearly 174 kg and 147 kg in rural and urban areas, against 210 kg and 158 kg in China).²

On the other hand, this decrease appears too early for the model. It happened in India while the level of calories available is still low. Whereas the lower consumption of grains should theoretically be compensated by more consumption of meat, milk, fruits, etc, Indians do not fit in with the model. Meat, eggs or fish represent only 6% of their food budget. Indians still eat less than 5 kg of meat yearly,³ 10 times less than the Chinese, whose consumption was the same as that of the Indians in 1961 – about 4 kg. This is

Frédéric Landy (Frederic.landy@wanadoo.fr) is at the University of Paris Ouest-Nanterre.

not properly compensated in terms of proteins by more consumption of milk products. Indians consume 245 g of milk products daily, twice as much as the Chinese, but this figure is still lower than the world average.

This is why calorie consumption is decreasing in India. The lower cereal consumption is not adequately compensated by eating more costly calories in proportion. True, there is a negative correlation linking consumption of milk products and consumption of cereals (that fits with the food transition model). But there is another one, also negative, between milk products and meat-fish-eggs.

To put it briefly, the second stage of food transition seems to have started in India before the first stage has been completed. Socio-economic factors are hardly able to throw some light on the puzzle. NSSO surveys show that the share of cereals in the food budget is decreasing with increasing income: the more you earn, the more you eat non-cereal food. This corresponds to the second stage of food transition. But NSSO data also indicate that per capita consumption of cereals (in kilos) is correlated with income⁴: the more you earn, the more you eat cereals! This rather corresponds to the first stage of food transition. Hence it is impossible to locate India in a precise position within the model. Is not India an important exception to the theory?

Nutritional Norms

Let us incidentally suggest that international and national nutritional norms do not seem adapted to the Indian situation. Following these norms would suggest that India is by and large not only in a situation of malnutrition (because of lack of micro-nutrients, iron, etc), also more basically in a situation of under-nutrition (lack of calories). While malnutrition does not necessarily create a feeling of hunger, under-nutrition most often does. Should we consider that all the Indians consuming less than 2,000 calories (that is, about half of the total population) are suffering from hunger? Of course no. As Dreze and Deaton argue, "there is no tight link between the number of calories consumed and nutritional or health status". Hence the low calorie

consumption in India is (a little) less worrying than it appears at the light of the international and Indian Council of Medical Research norms. The latter indicates that calories requirements for "sedentary activity" of an "average Indian man" are 2,425 calories, that is about 19% more than the present per capita average consumption in India!

This situation can be explained to a large extent by the hypotheses elaborated by Deaton and Dreze, in particular a change in working conditions and active life needing less calories, as well as a better sanitary environment allowing better food assimilation. Here we would like to add two points: a hypothesis regarding the *modes of diffusion* of such food habits; and another possible *factor of change*.

Modes of diffusion have a social and a spatial dimension. Socially, it is remarkable that only the poorest 5% of the population eat slightly more cereals than a decade before (9.7 kg per month in 2004-05). All other sections decreased their cereal consumption. It seems that almost all Indians, whatever their purchasing power, are changing their food habits in similar proportions, at the expense of grain consumption. Is there "contamination" of the poor's food patterns by those of the rich? If so, does it process by trickling down from the

cities to the remote countryside? Possibly. Spatially, indeed the mode of diffusion clearly gives prominence to urban areas, which are "forward" compared with rural areas. The more a state is urbanised, the less cereals are consumed. Nothing surprising. What is more amazing is that, because of spatial "contamination", this rule is also valid for rural areas in the concerned states: rural households in Tamil Nadu or Maharashtra eat less cereals than their counterparts in Bihar.

This spatial and social diffusion was not expected given the slow growth of urbanisation (only 30% of Indian population is officially living in urban areas) and "modernisation". It does not look so surprising, however, if we consider that this figure of 30% underestimates the size and number of towns and cities, and above all their role in shaping new consumption patterns throughout the country. Migrants, television, the internet, circulation of patterns and cultures are probably modifying behaviour more quickly than what official census data show. As a consequence, since rural behaviour is following those in cities in every state, inter-state differences in cereal consumption are maintained along the successive NSSO surveys: grossly opposing the south-west and the north-east halves of the Indian territory, the map of

Review of Labour

Forthcoming (May 30, 2009)

- | | |
|--------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| Power, Inequality and Corporate Social Responsibility: The Politics of Ethical Compliance in the South Indian Garment Industry | – Geert De Neeve |
| Defragmenting 'Global Disintegration of Value Creation' and Labour Relations: From Value Chains to Value Cycles | – G Vijay |
| The Effects of Employment Protection Legislation on Indian Manufacturing | – Aditya Bhattacharjee |
| Revisiting Labour and Gender Issues in Export Processing Zones: The Cases of South Korea, Bangladesh and India | – Mayumi Murayama,
Nobuko Yokota |
| Work and the Idea of Enterprise | – Nandini Gooptu |
| Household as a Site of Production: Informalisation and Fragmentation of the Workforce | – Kalyan Sanyal,
Rajesh Bhattacharyya |

cereal consumption looks like the negative of the map of urbanisation.

Cultural Factors

Finally, a plausible factor of change that should be emphasised is the *cultural* factor. This factor is acknowledged by Deaton and Dreze who suggest a “growing emulation of the consumption patterns of affluent groups, exposure to new food items, influence of advertisement”, etc (p 56). But all these processes have nothing specific to India. All the factors quoted above (more sedentary activities, better sanitary environment, emulation of consumption patterns of richer sections, etc) are common to many other developing countries. Now, these countries are more or less following the food transition model, whereas India does not. Hence factors specific to India have to be brought out.

In the 2004-05 NSS, 42% of the population declared that they had not eaten meat during the last 30 days. Such a massive vegetarianism makes clear both the impact of meat cost (one kilo of chicken may have the value of two agricultural daily wages) as well as the cultural value of meat in the Indian society. Strict vegetarianism of high castes, taboo on beef or pork, fear of “hot” food following the ayurvedic *tridosha* theory, all these cultural traits explain that India consumes much less meat than other countries with similar general levels of development. There is probably some underestimation due to hidden and unstated consumption; but one can see no reason why this underestimation would be more important now than before and hide any steep increase of meat consumption.

Finally, the whole model of food transition must be brought into question. Admittedly, a model is not supposed to strictly correspond to idiosyncratic reality. But can we still consider a model “valid” if a country with more than 1.1 billion inhabitants is an exception to it? In the light of the Indian case, the food transition theory turns to be the mere transcription of a teleological vision leading to one way only, in this matter very similar to the debatable notion of “development”. Just as it is not sure whether the paths of China or Burkina Faso shall eventually find the

track followed by the political and socio-economical development of “the west”, one must wonder whether everybody on earth shall eventually eat like a French or a us consumer.

Cultural Density

Take India. Almost one human being out of five lives in this country. It has now the fourth GDP in the world at purchasing power parity. Its culture is very diverse and lively, and even the “westernised” upper classes keep a strong attachment to many Indian values. Far from being a developing country invaded by foreign cultures and ways of thinking, India is also exporting its culture through films, literature, medicine, etc. India has a heavy population weight, a rapid economic growth, a strong identity as well as an efficient international “soft power” (through cinema, the diaspora and a positive image of India abroad): the addition of these four indicators constitutes an index that we propose to name “cultural density”. Countries with high cultural density such as India and China (or the us) have characteristics allowing them to resist many foreign influences and to build their own models of development. This is valid for economic patterns as well as social values, that cannot be too deeply modified by foreign factors of change because “cultural density” makes penetration superficial and less influential. This is valid for food also. Food habits are not changing in the way followed by other countries and expected. Probably the Indian case should make experts admit that *other* models of food transition must be elaborated.

NOTES

- 1 Grain consumption can be indirect (through feeding of cattle that are later slaughtered for human consumption) or direct.
- 2 For the sake of comparison, estimation of “foodgrains” here includes paddy instead of rice.
- 3 In the NSS survey, meals taken out of home are mixed up with beverages under the over-inclusive item “beverages, refreshments and processed food”. This contributes to underestimate meat consumption. Actual quantities are nevertheless quite low.
- 4 At least for rural areas and for the first five deciles in urban areas. The consumption of the urban last five deciles follows the Bennett law, according to which more income makes a shift towards more costly food to the expenses of cereals and tubers. This illustrates the “advance” of urban patterns of food consumption.

MANOHAR

NEW ARRIVALS

PATHWAY TO INDIA'S PARTITION Volume Three

The March to Pakistan 1937-47

Bimal Prasad

81-7304-250-0, 2009, 645p. Rs. 1250
(Earlier volumes are also available)

THE COLLECTED WORKS OF LALA LAJPAT RAI

VOLUME TWELVE

B.R. Nanda (ed)

978-81-7304-822-7, 2009, 608p. Rs. 700
(Earlier volumes are also available)

JAYAPRAKASH NARAYAN

Selected Works Volume Ten

(1972-1979)

Bimal Prasad (ed)

978-81-7304-772-5, 2009, 1012p. Rs. 1595
(Earlier volumes are also available)

UNITED PROVINCES POLITICS, 1938 Congress in Mid-Term

Governors' Fortnightly Reports and other Key Documents

Lionel Carter (ed)

978-81-7304-810-4, 2009, 420p. Rs. 1045
(Earlier volume is also available)

ISLAM IN SOUTH ASIA VOL. IV THE REALM OF THE SECULAR

Mushirul Hasan (ed)

978-81-7304-744-4, 2009, 393p. Rs. 995
(Earlier volumes are also available)

THE BENGAL ARMY AND THE OUTBREAK OF THE INDIAN MUTINY

Saul David

978-81-7304-780-0, 2009, 399p. Rs. 995

EXPANDING PORTUGUESE EMPIRE AND THE TAMIL ECONOMY (Sixteenth-Eighteenth Centuries)

S. Jeyaseela Stephen

978-81-7304-802-9, 2009, 360p. Rs. 895

COLONIALISM AND URBANIZATION IN INDIA

The Punjab Region

Reeta Grewal

81-7304-619-0, 2009, 256p. Rs. 645

MEDICINE, DISEASE AND ECOLOGY IN COLONIAL INDIA

Laxman D. Satya

81-7304-314-0, 2009, 310p. Rs. 775

for our complete catalogue please write to us at:

MANOHAR PUBLISHERS & DISTRIBUTORS

4753/23, Ansari Road, Daryaganj, New Delhi-2

Phones: 2328 4848, 2328 9100, 2327 5162

Fax: (011) 2326 5162 email: sales@manoharbooks.com

Website: www.manoharbooks.com