

# Marketed Agricultural Surplus and Development

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*The solution to the problem of development, it is argued, is to take steps to increase agricultural productivity rather than get involved in the possibility of the failure of marketed agricultural surplus to grow. Since the peasant has a rather high propensity to save and since a large part of his incremental consumption consists of manufactured goods, the argument runs, it is incorrect and misleading to over-emphasise the problem of marketed surplus.*

*This line of argument, however, only indicates why marketed surplus may not fail to increase with rise in per capita agricultural production. In a predominantly agricultural country, like India, aiming at a high rate of capital formation, it is not enough that marketed surplus should rise with rise in production; the ratio of marketed surplus to production must rise enough to mobilise the savings potential in the agricultural sector to the utmost. It would not do, therefore, to ignore the problem of marketed surplus.*

*An attempt is made below to analyse the problem with a view to distinguishing between cases where raising the marketed proportion of production is as important as raising the level of production and cases where productivity is, or should be, the all-important factor.*

THE flow of marketed surplus of foodgrains is generally recognised as one of the most important limiting factors in the process of economic development which involves the transfer of surplus rural labour to non-agricultural investment projects. Given the imports of foodgrains a country can increase this surplus by

(1) increasing the production of foodgrains per head of agricultural population and

(2) raising the marketed proportion out of a given level of production of foodgrains.

## Hastily Dismissed

While the importance of the first method is beyond dispute, the relative importance of the second has been subject to some discussion. Contrary to a number of economists who have stressed the difficulty of raising marketed surplus of foodgrains in a developing economy with peasant agriculture, V Dubey<sup>1</sup> in a recent paper argues, with the help of "indirect and circumstantial" evidence relating to India, that "the solution (to the problem of development) is to take steps to increase productivity and not to get involved in the possibility of the failure of *marketed* agricultural surplus to grow". Since the peasant has a rather high propensity to save and since a large part of his incremental consumption consists of manufactured consumption goods (because of, among other things, a growing seepage of wants for such goods from the urban to the rural sector), it is, we are told, "incorrect and misleading" to over-emphasise the problem of marketed surplus. But for all their plausibility, Dubey's arguments only indicate why marketed surplus may not fail to increase with rise in per capita agricultural production, whereas in a predominantly agricultural country like India, aiming at a high

rate of capital formation, it is not just enough that marketed surplus should rise with rise in production; it is also necessary that the ratio of marketed surplus to production rises *enough* to mobilise, to the feasible utmost, the savings potential (in terms of foodgrains) in the agricultural sector—and this is the context in which many economists have shown their concern about the problem of marketed surplus. In this sense Dubey has dealt with a very narrow version of what he calls "the doctrine of the *marketed* agricultural surplus" and dismissed a really important problem rather too hastily. In what follows we shall try to analyse the problem a little more carefully and distinguish between cases (with reference to pockets of mobilisable surplus) where raising the marketed proportion of production is as important as raising the level of production and the cases where productivity is, or should be, the all-important factor. Following Dubey, we shall refer to Indian data wherever they are available.

## Demonstration Effect

Estimates from the cross-sectional data revealed by the National Sample Surveys on consumer expenditure in India show<sup>2</sup> that the income-elasticity of demand for foodgrains is higher in the rural<sup>3</sup> sector than in the urban. The consumption surveys also show that the per capita consumption of foodgrains is much greater in the rural than in the urban sector not only for very low income (or expenditure) groups but also for high income-groups<sup>1</sup>: this means that the demand curve" for foodgrains in the rural sector not only lies above that in the urban, it also goes on rising even when the latter has flattened out. On both these counts it can be said that the inter-sectoral demonstration effect and the seepage of wants for commodities other than foodgrains (on which Dubey

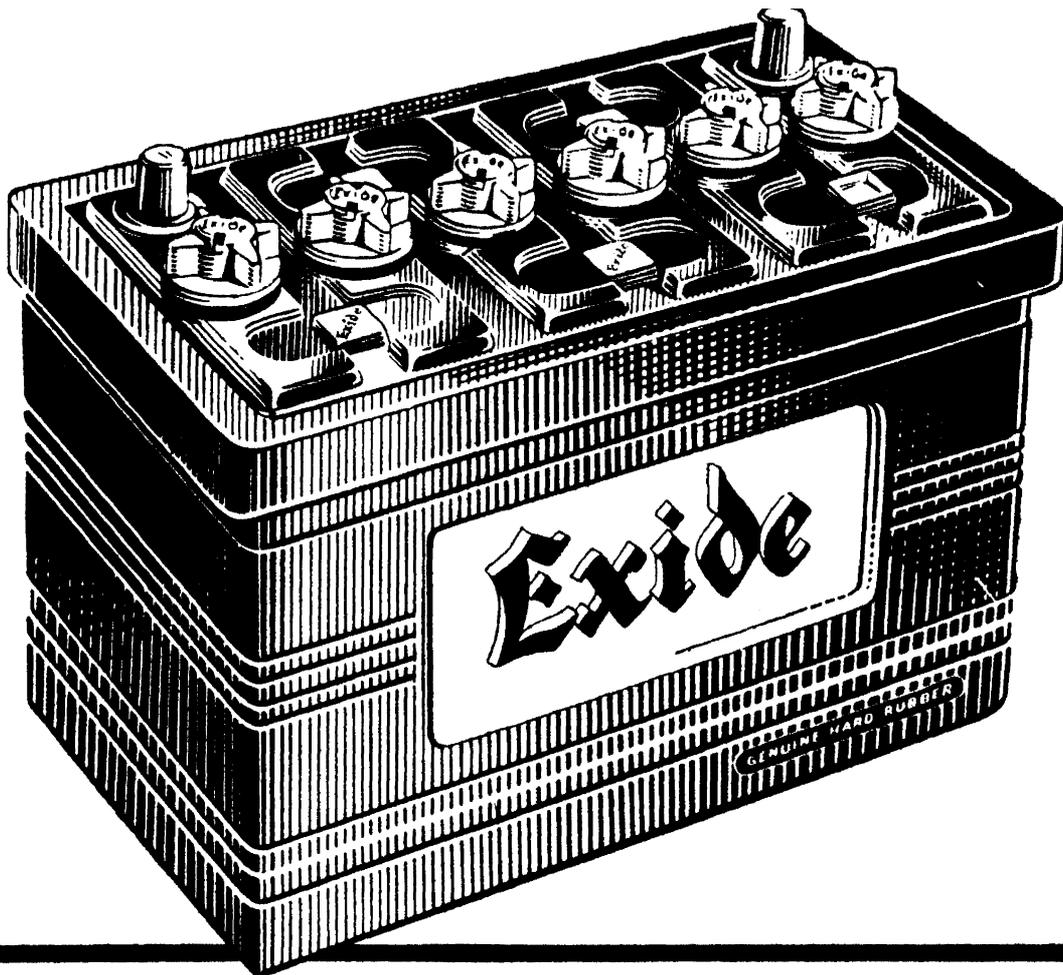
puts much of his faith to ensure a steady flow of marketed surplus) have not as yet been powerful enough, and a considerable fraction (though not all) of any increase in foodgrains production per head of agricultural population is still likely to be absorbed in increased consumption on the part of the peasants themselves (including the richer ones). So Dubey's assurance that the seepage of wants *exists* is not comfort enough for the planner anxious for rapid development.

## Beyond Generalisations

In order to grasp the problem of marketable surplus, it is necessary particularly in a country like India to go beyond generalisations for the country as a whole. In view of substantial regional differences in foodgrains consumption, it is useful to distinguish between 'surplus' and 'deficit' agricultural areas on the basis of some rough but generally accepted criterion of nutritional requirements of per capita consumption of foodgrains.<sup>6</sup>

The farmers in the 'deficit' area will be forced to market some part of their produce in order to obtain some basic necessities not produced by themselves, and thus will be supporting some non-agricultural population. In such areas, obviously, raising productivity is far more important than inducing or coercing the farmers to undertake more 'distress sales'. In 'surplus' areas, on the other hand, there is more scope for raising marketed surplus out of a given production which should be at least as important an objective as that of raising productivity.

In view of the above, it is important to locate the so-called 'surplus' and 'deficit' areas and a more detailed investigation than is available now is necessary. But even from existing data it is possible to give a rough illustration



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of this important distinction of 'surplus' and 'deficit' areas. Some data regarding consumption of cereals per adult consumption unit in the rural sector (at the State levels) are available in the Reports of Agricultural Labour Enquiry. As for the problem of defining nutritional requirements of foodgrains, we can first refer to the (Indian Council of Medical Research) Nutritional Advisory Committee's recommendation of 14 oz of cereals per consumption unit in a *well-balanced diet*. It appears that in most of the States (except in some Southern States) cereals consumption per consumption unit exceeds 14 oz. But in view of the notoriously ill-balanced diet of the Indian farmer (containing very little of non-cereal food), one has to allow for a higher nutritional requirement of cereals. According to F A O nutritional studies<sup>7</sup>, the average calorie requirement" per day per adult weighing 55 kg under 25.5 °C of temperature (which we assume to be roughly representative of East India) is 2040; and if we visualise a situation where nothing but cereals is consumed, this amount of calories can be obtained from about 20 oz of cereals." Referring to the Report of the First Agricultural Labour Enquiry<sup>10</sup> we find for the States in East India that for Assam and Orissa at least actual consumption of cereals per rural consumption unit decidedly exceeds the above maximum limit of 20 oz.<sup>11</sup> Similar attempts to mark off 'surplus' regions might be made with respect to other zones. In these 'surplus' regions raising the marketed proportion of output of cereals should obviously be an important objective.

#### Variations in Consumption

Just as an analysis of regional differences enables us to locate pockets of mobilisable surplus, one can carry out a similar analysis with respect to the enormous inequality in foodgrains consumption among the different income-groups within each region. The following Table may give us an idea about this inequality in the different States in East India. It is clear that in 'surplus' and even in 'deficit' regions, the richer farmers consume foodgrains in amounts far above the nutritional requirements of cereals (as defined above) which points to a source of mobilisable surplus in these regions, so long as the seriously sub-standard cereals consumption levels in the lowest income groups are not corrected through adequate redistributive measures. In other words, as long as the inequality is there, there is no reason why one should not try to tap this potential source of surplus.

Then again, as Dubey recognises, the big farmers as contrasted with the small who are 'forced' to sell immediately after harvest, are in a position to hoard their output and wait for higher prices later in the season. This speculative withholding of stocks by large farmers may not just be a matter of changed seasonal distribution of an unchanged total sales position, but may be expected to reduce the total volume of marketed surplus over the entire season, since a given amount, however large, of cash (required to buy non-agricultural goods, etc) can be earned with lesser amount of total sales later in the season when prices are higher. This phenomenon may have now been a more important feature of agricultural marketing in India since there is some evidence to think that the degree of concentration of marketable surplus of foodgrains in the hands of big and medium cultivators may have increased in recent years.<sup>1</sup> This effect on marketed surplus is reinforced by the fact that large farmers have gained more from the recent upward *trend* in agricultural prices than the small farmers who are generally 'forced' to sell at the seasonal 'trough' which is below the annual average.

#### There are Surpluses

The discussion above shows that despite abysmal poverty and sub-standard consumption in many areas, there exist substantial pockets of mobilisable surplus (on account of inter-regional and intra-regional inequalities) in the Indian economy; and it would be unwise not to be seriously concerned with the problem of raising the marketed surplus (as much as is politically and administratively feasible) as with that of raising productivity. The intersectoral demonstration effect, however real, cannot be trusted to take care of the whole problem. Three general policy lines can be suggested: (1) a more intensive and 'progressive' system of agricultural

taxation, (2) 'doctoring' the terms of trade suitably between the agricultural and the non-agricultural sector, and (3) hastening, by various means, the process of seepage of wants for non-agricultural products into the agricultural sector. It should be noted that while the first two methods, if successful, will raise the savings ratio in the agricultural sector, the third just relies on a reshaping of the existing consumption pattern. The first two methods are politically more difficult to operate, but they are more effective from the point of view of ensuring a rapid rate of capital formation.

#### Notes

- <sup>1</sup> "The Marketed Agricultural Surplus and Economic Growth in Underdeveloped Countries", *Economic Journal*, December 1963.
- <sup>2</sup> Reports on the Pattern of Consumer Expenditure', The National Sample Survey, 2nd to 7th rounds covering April 1951-March 1954; A K Biswas and D K Bose in "Papers on National Income and Allied Topics", Vol II.
- <sup>3</sup> We are assuming that the pattern of consumer expenditure in the agricultural sector is similar to that of the whole rural sector.
- <sup>4</sup> See A Rudra and B Roy in "Studies in Consumer Behaviour", Indian Statistical Series, no 6, p 30 and first graph on p 23.
- <sup>5</sup> The 'demand curve' is obtained by plotting cross-sectional figures of per capita expenditure on foodgrains against those of monthly per capita expenditure classes. See A Rudra and B Roy, *op cit*.
- <sup>6</sup> An area is to be called 'surplus' or 'deficit' according as the actual consumption of foodgrains per head of adult agricultural population is significantly greater than or around (or less than) the nutritional requirement.

Table: Quantity of cereals Consumed Per Day Per Adult Consumption Unit According to Annual Per Capita Expenditure (in oz)

Annual per capita expenditure classes	Assam	Bihar	Orissa	West Bengal
Rs 51 to Rs 100	10.0	13.5	17.5	12.6
Rs 101 to Rs 150	15.1	16.9	25.9	17.7
Rs 151 to Rs 200	24.2	20.2	32.4	19.3
Rs 201 to Rs 250	25.7	23.8	—	10.7
Rs 251 to Rs 300	25.1	28.1	53.1	23.0
Rs 301 and above	36.6	39.5	—	29.5
All classes	22.8	19.5	20.7	20.1

Source: Report of the First Agricultural Labour Enquiry as cited in D Ray, "Food Administration in East India", 1939-54, p 122.

<sup>7</sup> Calorie Requirements', F A O Nutritional Studies, No 15, 1957 and No 5, June 1950.

<sup>8</sup> This is derived by assuming a fairly high proportion of children in the population as is normally the case in a country with high birth and death rates. See Colin Clark, 'Future Sources of Food Supply: Economic Problems', *Journal of Royal Statistical Society*, Series A, 1962.

<sup>9</sup> This figure has been obtained by applying the following conversion factor: 360 calories per 100 gms of cereals. In spite of slight differences, in this respect, between the different cereals and differences arising from the degree of milling, etc, this figure is roughly appropriate. See F A O Nutritional Studies, No 3, 'Food Composition Tables for International Use.'

<sup>10</sup> See Table.

<sup>11</sup> See below.

<sup>11</sup> Carrying out a similar analysis with data regarding this region from the Report of the Second Agricultural Labour Enquiry we find that actual consumption of cereals per adult consuming unit in these two surplus States exceeds 20 oz by even a greater amount.

<sup>12</sup> One can legitimately expect this in view of the facts that (a) large farmers have gained proportionately more from the programmes for providing ampler rural credit (which has added to their liquidity) position and hence their capacity to withhold produce from the market), and (b) they are increasingly getting hold of the marketable supplies of smaller farms in the immediate post-harvest period (in repayment of debts, etc) See J P Bhattacharjee in *Agricultural Situation in India*, January 1960; "The Report of the Team for the Study of Community Projects and National Extension Service; Report on an Enquiry into the Pace and Pattern of Market Arrivals of Foodgrains, 1958-59 Season".



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