

The Guaranteed Price Scheme and Marketed Agricultural Surplus in a Peasant Economy

IT is a commonly held view that in peasant economies there is a perverse relationship between the per capita productivity and the marketed surplus in agriculture. Nurkse, for instance, was of the view that the increase in per capita productivity owing to the removal of the "unemployed in disguise" would be consumed and the marketed surplus would not increase, unless some machinery was employed to prevent a rise in the per capita consumption of the remaining farm population.¹ Dobb also expressed a similar viewpoint.² More recently, Dubey³ has examined the generality of this doctrine. First, Dubey questions the realism of the behaviour assumptions underlying it, and on an alternative set of assumptions, which appear to him more realistic in the context of underdeveloped economies,⁴ argues for the opposite case of a direct relationship between the per capita productivity and the marketed surplus.⁵ Then, he produces some 'indirect' and circumstantial⁶ evidence in order to support his arguments: "Increased productivity, or increased surplus on the farms following transfer of surplus labour to industry, would, he concludes "lead to a rise in the marketed agricultural surplus."⁷

The purpose of this note is to adduce some direct evidence from another typical peasant economy, in order to support the view that the doctrine of an inverse relationship between the agricultural productivity and the marketed surplus or of a backward-bending supply curve, attributed to peasant economies, is not of general validity.

1. Nurkse, R. - *Problems of Capital Formation in Underdeveloped Countries*, Basil Blackwell, Oxford University Press, 1954. Particularly p. 43.

2. Dobb, M. H. - *On Economic Theory and Socialism; Collected Papers*. International Publishers. New York, 1955. p. 152.

3. Dubey, V. - "The Marketed Agricultural Surplus and Economic Growth in Underdeveloped Countries" in the *Economic Journal*, Vol. LXIII, (December 63) No. 292. pp. 689-702.

4. *Ibid.* - Characterized by "interdependence of consumer preferences, the dual structure of the underdeveloped economy and the growing contact between the advanced and the backward sector."

5. *Ibid.* - pp. 690-694.

6. *Ibid.* - pp. 694-701. Such as "the behaviour of rural indebtedness during the recent World War." pp. 698-699.

7. *Ibid.* - p. 700.

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Ceylon is the typical peasant economy that has been chosen in this context. Cultivation of its food crops belongs entirely to a peasant economy. The dominance of small holdings is one of its chief characteristics. For example, the percentage of area with holdings of 5 acres or less is 70.1% of the cultivated area and the percentage of the number of holdings of less than 5 acres constitutes 96.3% of the total number of holdings.⁸ The peasants in most parts of Ceylon are still conservative and illiterate and cultivate food crops on primitive lines. These conditions seem ever more representative of peasant economies than those of Indian agriculture dominated by 'larger holdings' and 'richer peasants.'⁹

As a war-time measure to stabilize the cost of living, Ceylon instituted an Internal Purchase Scheme to buy locally produced paddy and other food crops. This Internal Purchase Scheme was converted into a Guaranteed Price Scheme (G.P.S.) in 1948. Paddy and eighteen minor crops,¹⁰ covering almost the entire list of locally produced foodstuffs of importance, came under the G.P.S. Although the G.P.S. covers paddy and eighteen other food crops, my attention in this note will be directed only to paddy. This is owing to two reasons:— (i) Paddy is by far the most important commodity covered by the scheme and constitutes nearly half of the total output of 'subsistence'¹¹ agriculture. (ii) It is also the only one regarding which sufficient statistical data relevant to this note are available.

Before the G.P.S. came into force, paddy and other food crops were grown for self-consumption of farmers and their families. If there was any surplus over and above their consumption requirements, it was either exchanged with the village boutique keeper for their other material requisites or sold for cash to the itinerant trader. The cultivation of food crops

8. Sessional Paper 13 of 1952: Report of the Survey of Landlessness. Department of Census and Statistics, July, 1952. The position in 1952 would have, if at all, changed for the worse since then.

9. Dubey, *op. cit.* pp. 700-701. On the basis of the data furnished by the First Indian Agricultural Labour Enquiry, Indian Rural Credit Survey and National Sample Survey, Dubey points out "that 14.4% of the households have holdings above 10 acres and operate 63.6% of the land area. "The importance of the larger peasant (or "the richer peasant") and "the dominance of relatively large holdings in area cultivated" "would support the view that increase in agricultural production would probably not be consumed by the farmers in underdeveloped areas, but could be reflected in an expansion of the marketed surplus."

10. For the complete list of articles covered by this scheme and their guaranteed prices see- (1) Statistical Abstracts of Ceylon, Department of Census and Statistics and (2) Fonseka, J. V.—"Guaranteed Price Scheme in Ceylon" in Indian Journal of Agricultural Economics, April/June 1963. (3) Administration Report of the Commissioner of Agrarian Services for 1964-65. p. kk. 60.

11. According to National Income Statistics for years 1959-1964. *c.f.* Annual Report of the Central Bank of Ceylon for the year 1964 and Statistical Abstracts of Ceylon-1964. For the definition of "subsistence" agriculture see the next paragraph.

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in Ceylon thus belonged to a subsistence rather than an exchange or money economy. The G.P.S. gradually changed this picture.

The avowed object of the G.P.S. for paddy has been to provide (i) an incentive to local production and (ii) a measure of income support to producers. The scope of this note precludes me from undertaking here either a critical evaluation of this object or an assessment of the extent of its realization. The scope of the note is limited to an examination of the responsiveness of the marketed surplus of paddy to the upward revision of the guaranteed price and other related incentives of a pecuniary nature, offered for it.

TABLE I
PADDY PRODUCTION AND PURCHASE UNDER THE G. P. S.

YEAR	Guaranteed Price		Production (Mil. Bushels) ^f	Purchase Under G.P.S. (Mil. Bushels) ^f	Marketed Surplus (3)— Percent of (2) of (1)
	Rs.	Cts.			
47/48	8	00	18.7	0.47	2.5
48/49			23.1	0.52	2.2
49/50			22.0	0.42	1.9
50/51	9.00	(Aug.)	22.0	0.52	2.4
51/52	12.00	(Sept.)	28.9	1.32	4.6
52/53	12.00		21.9	0.33	1.5
53/54		"	31.1	3.61	11.6
54/55		"	35.7	13.41	37.5
55/56		"	27.5	9.73	35.4
56/57		"	31.3	13.26	42.4
57/58		"	36.6	16.27	44.4
58/59		"	36.4	16.64	45.7
59/60		"	43.0	20.84	48.5
60/61		"	43.2	22.40	51.9
61/62		"	48.1	27.04	56.2

Note:— *The two paddy seasons run from about November to February (Maha) and from March to August (Yala). Therefore financial years running from 1st October to 30th September are taken here, rather than calendar years.

f.— Bushel of Paddy—approximately 31.3 lbs. of rice.

Source:—Administration Reports of the Commissioner of Agrarian Services.

Table I shows the production and purchase under the G.P.S., of paddy, with its guaranteed price, for the period 1947-'48 to 1961-'62. In this Table the marketed surplus is shown by the percentage of purchase of total production of paddy. The data regarding purchase are accurate since proper records of purchases are maintained at Government Stores. The data of production, however, are not as reliable, because they are not based on direct estimates of production but on sample crop-cutting surveys. Never-

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theless, by and large, they give a rough order of magnitude and suffice to indicate the general trend of production within this period. It is evident from the Table that the average annual increase in total production of paddy has much exceeded the annual rate of population growth of about 2.6% during this period.*

The guaranteed price also has risen from Rs. 8 to Rs. 12 per bushel within the same period. The per capita productivity has thus increased on account of both an increase in the physical production per head as well as a rise in the guaranteed price. How has the marketed surplus responded to this increase in per capita productivity?

From the inception of the G.P.S. until August 1951, the guaranteed price of paddy was kept at Rs. 8 per bushel. This price of Rs. 8/- does not appear to have had any appreciable effect on either farm production or farm income. Consequently there was also no significant increase in the marketed surplus until '50/'51. In '50/'51, as shown in Table I, there was a significant expansion in the marketed surplus, even without any increase in the total production. This could be attributed, at least partly, to the increase of Re. 1/- in the guaranteed price in August, 1951.

The guaranteed price was raised from Rs. 9/- to Rs. 12/- in September, 1962. The production of paddy began to increase rapidly except for a setback in '52/'53 when there was a crop failure owing to a severe drought. The marketed surplus increased nearly twofold in 1951/'52 and had increased nearly fivefold by '53/'54.¹² The substantial price differential was mainly responsible for this increase in the marketed surplus.

The increase in both production and marketed surplus was once again marked in 1954/'55. The Commissioner of Agrarian Services has attributed the increase in the marketed surplus mainly to the improved efficiency in the implementing organisation of the Guaranteed Price Scheme.¹³ In my view, here too the pecuniary incentive was the more predominant. Up to January 1955, ration books were not issued to paddy producers. As from this time, they were issued to all producers, and the price of rationed rice was also reduced from 55 cents to 50 cents per measure¹⁴ soon afterwards, in May, 1955.

* It is assumed that the labour force in paddy cultivation has not grown faster than the total population.

12. The unusual drop in the marketed surplus and the reversal in the expected trend in 52/53 was due to the crop failure and should be treated as extraneous.

13. Fonseka, J. V. op. cit.

14. Price order No. 234 of 20/5/55.

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The paddy producers could now buy the rationed rice at 50 cents, and sell their locally produced rice at 75 cts. per measure (Rs. 12 per bushel of paddy works out to nearly 75 cts. per measure of rice). The creation of the possibility of this new exchange of $1\frac{1}{2}$ measures of imported rice to 1 measure of local rice was tantamount to an increase in the relative price of local paddy. The influence of the change in the relative price is evident from the much more marked increase in the marketed surplus than in the actual production in '54/'55 and '55/'56.

In May, 1956¹⁵ the price of rationed rice was reduced to 40 cents per measure with the Guaranteed Price of local paddy remaining at Rs. 12 per bushel. The relative price of local paddy rose further and the marketed surplus increased from an average of 36% in the previous two years to an average of 42% in the following two years. In June '58, the price of rationed rice was reduced still further to 35 cents per measure.¹⁶ The marketed surplus increased to 45% as a result. The increase in '58/'59 over the previous year was very significant because of the decrease in total production in that year, however slight it might have been.

In June 1960¹⁷ the price of rationed rice was reduced to 25 cents per measure, thereby doubling the 1955 relative price of local paddy. Both production and marketed surplus began to increase once again. The increase in marketed surplus was much faster than that in production, and can be attributed to the rise in the relative price of paddy.

The data presented in this note indicate that the Ceylonese peasant is responsive to price incentives and that there is no evidence of a perverse relationship between per capita productivity and marketed surplus in agriculture, or of a backward-bending supply curve which is often attributed to peasant economies like Ceylon.¹⁸

15. Price order No. 237 of 14/5/56.

16. Price order No. 267 of 2/6/58.

17. Price order No. 299 of 11/4/60.

18. De Silva, S. B. D.—*Investment and Economic Growth in Ceylon*: Thesis approved for the degree of Ph.D. of the London University. According to him "a comparison in respect of 14 major paddy growing districts, of the proportion of output that was sold to Government at the guaranteed price with the trends in yields reveals an inverse relationship between marketed surplus and yield improvements, the coefficient of correlation in 58—59 being -0.1". A correlation coefficient of 0.1 is not significant, and when allowance is made for the exaggeration in yields in particular districts, which is often made in Ceylon estimates, the negative coefficient may even turn positive. In any case, the data regarding the whole island and a number of years, as I have given, are more reliable than the data for one year and for a few districts which may have their own peculiar characteristics.

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The Commissioner of Agrarian Services also has now come round to accept a direct relationship between price and marketed surplus with respect to minor food crops. "The impact of the recent price increases, according to him, "could be seen from the significant increases in the quantities of red onions, potatoes, chillies and bombay onions purchased during the year"¹⁹. There is no reason to doubt this same relationship between per capita productivity and paddy, the most important food crop of Ceylon.

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19. In his Administration Report for 1964-65, published in August, 1966. p.kk. 61.