

A Note on Farmer Response to Price in East Pakistan

by

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INTRODUCTION

During the past decade, increasing attention has been given to the role of agriculture in the process of economic development. One aspect of the discussion has concerned the significance of relative prices for farmer in decision-making. Recent studies have yielded estimates of supply elasticities for jute in East Pakistan, and for cotton, wheat, and several other crops in West Pakistan, so that a basic body of information is beginning to emerge. The main purpose of this note is to supplement these studies by presenting estimates of the price elasticity of supply for rice in East Pakistan. However, since rice and jute are the main alternate crops in East Pakistan, supply elasticities for jute will also be presented.

Because of fluctuations in agricultural yields due to variations in weather conditions, the *acreage* response to price has generally been estimated rather than the output response. Significant changes in the size and timing of the monsoon rains in East Pakistan make it particularly important in this case to use acreage changes as a measure of farmer response to price. Inputs other than land, such as fertilizers, better seeds, and plant-protection measures are not widely used in East Pakistan; and apparently, these measures are not very responsive to price changes. At least, no statistically significant relationship exists between the relative price of rice (to jute) in one year and rice yields in the next year¹ (An increased price for rice results in an extension of rice acreage) but it does not result in significantly more intensive cultivation. Under these conditions, the price elasticity of acreage closely approximates the elasticity of planned output².

* The author is a Research Economist at the Institute of Development Economics. He is deeply indebted to Dr. Philip S. Thomas, a Research Adviser at the Institute, for helping him in the preparation of this paper. He also wishes to thank Dr. Stephen R. Lewis, Jr., and Mr. Ghulam Mohammad, Research Adviser and Senior Research Economist respectively at the Institute, for making helpful suggestions on an earlier draft. Thanks are also due to Mr. Ahmad Zia, Staff Economist, who checked some of the computations. The author of course accepts responsibility for any errors that remain.

¹ Similarly, Walter P. Falcon found no relationship between cotton yields in West Pakistan and the relative price of cotton in the preceding year. (W. P. Falcon, *Farmer Response to Price in An Underdeveloped Area: A Case Study of West Pakistan*. unpublished Ph.D. thesis, Harvard University, 1962, pp. 76-81).

² For a more detailed explanation of the relationship between acreage elasticity and the planned output elasticity, see, Marc Nerlove, *Dynamics of Supply*. (Baltimore: Johns Hopkins Press, 1958), pp. 67-68.

II: RICE IN THE EAST PAKISTAN ECONOMY

Rice is the main subsistence crop in East Pakistan; and is, virtually, the only foodgrain produced. During the three-year period, 1959/60 to 1961/62, it accounted for 86 per cent of the area under all crops and 99 per cent of the area under foodgrains. Rice cultivation is so important in this province that it makes Pakistan, in acreage, the third largest rice-growing country in the world.

There are basically three distinct growing and harvesting seasons during the year, and rice is grown in all three. The main rice crops, in order of increasing importance, are *Boro* (spring), *Aus* (summer), and *Aman* (winter)³. (See, Table I.)

Boro rice is sown in seed-bed during October-November, transplanted in December-January, and harvested in March-April. Since there is very little rain in this season, *Boro* rice is generally grown on river beds and areas with irrigation water. If there is some rainfall in March, it usually results in a bumper crop.

Aus rice is sown mostly broad-cast in high and medium lands from March to May and harvested from July to September. This paddy has a comparatively short maturing-period (3 to 4 months) and low yields. However, it makes use of the premonsoon rains and makes an important contribution to the food supply in the province.

Aman rice is usually sown in seed-bed in May-June, transplanted in July-August in puddled fields and harvested in November to January. An early *Aus* crop can be followed by a late *Aman* crop, so there is a substantial amount of double-cropping. For water, the *Aman* crop depends almost entirely on monsoon rains.

The present study concentrates on the *Aus* and *Aman* crops, which constitute over 95 per cent of the total rice acreage, as shown in Table I.

TABLE I
DISTRIBUTION OF RICE ACREAGE BY CROP

	1959/60	1960/61	1961/62	1962/63
	(.....in per cent.....)			
<i>Boro</i>	4.4	4.6	4.8	5.0
<i>Aus</i>	28.1	28.8	28.0	28.8
<i>Aman</i>	67.5	66.6	67.2	66.2

Source: Same as Appendix Table A-I.

³ The crops are designated by their time of harvest. The information in this and the following three paragraphs is based on A. Alim, *Rice Cultivation in East Pakistan*. (Ministry of Food and Agriculture, Government of Pakistan).

Because of their growing seasons noted above, these two crops compete with jute, which is planted from February to April and harvested from July to September. This competitive relationship has long been recognized and, from the standpoint of jute, has been subjected to analysis by several economists⁴. One of these, Ralph Clark, concluded:

"An increase in rice prices, of course, discourages the planting of jute: an increase of 50 per cent in rice prices was, on the average, associated with a decline of 180,000 hectares in the jute area in the following season With a change between two successive seasons of jute prices upto 50 per cent and rice prices down 50 per cent, the effect would be an increase in the jute area of about 340,000 hectares, on the average"⁵.

He found the relative price (jute to rice) elasticity of supply for jute to be 0.6.

Clearly, the price of rice in relation to the price of jute plays a decisive role in determining the acreage under jute and rice in the next season. This relationship, for the past 14 years, is shown graphically in Figure I, in which the ratio of price of rice to the price of jute is plotted on the right vertical axis and the rice acreage under both the *Aman* crop and *Aus* crop is plotted on the left vertical axis. A comparison of the changes in the relative price of rice in any year, with the changes in the rice acreage in the following year, shows a direct correlation between the two variables with the exception of two years, 1951/52 and 1960/61.

III: THE PRICE ELASTICITY OF RICE AND JUTE ACREAGE

The price elasticity of acreage is, in theory, a measure of the response of farmers to *expected* prices. Although many possible models exist for estimating this elasticity⁶, the common one of correlating, by means of a linear regression, each year's acreage with the relative price in the preceding season was employed.

The specific relationships that could be tested were limited by the data available. Acreage statistics for both rice and jute are available for all 17 districts for the period 1948/49 to 1962/63. In the case of prices, however, only following series were complete for this entire period: *i*) the average harvest

⁴ A. R. Sinha, "A Preliminary Note on the Effect of Price on Future Supply of Raw Jute", *Sankhya*, Vol. 5, Part 4, December 1941.

F. C. Shorter, "Jute Production Policies of India and Pakistan", *Indian Economic Journal*, Vol. III, No. 1, July 1955.

Ralph Clark, "The Economic Determinants of Jute Production", *FAO Monthly Bulletin of Agricultural Economics and Statistics*, Vol. III, No. 9, September 1957, pp. 1—10.

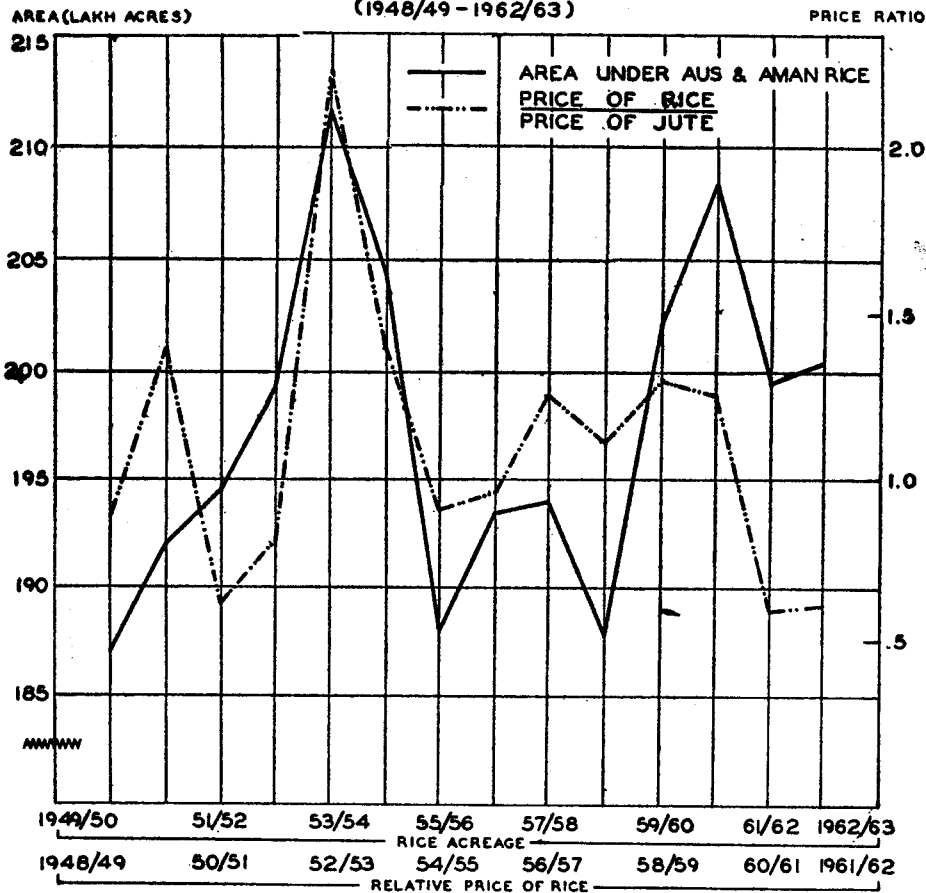
L. C. Venkataraman, *A Statistical Study of Indian Jute Production and Marketing with Special Reference to Foreign Demand*. (unpublished Ph.D. thesis, University of Chicago,

Clark, *op. cit.*, pp. 4-5. (1 Hectare = 2.47105 acres).

Nerlove, *op. cit.*

FIGURE 1

RELATION BETWEEN AREA AND PRICE OF RICE AND JUTE IN
EAST PAKISTAN
(1948/49 - 1962/63)



SOURCE: TABLE A-11

price of jute in rural areas (July-September); *ii*) the average harvest price of *Aus* (July-September), for both Dacca and Mymensingh; and *iii*) the average harvest price of *Aman* (December-February) for both Dacca and Mymensingh. (Acreage and price data are given in the Appendix Tables A-II and A-III).

The rice acreage response to three different relative prices was tested (all three with the harvest price of jute in the denominator): *i*) the *Aman* price; *ii*) an average of the *Aman* and the *Aus* prices; and *iii*) the *Aus* price. The *Aus* and *Aman* acreage in any given year, such as 1962/63, refers to the acreage planted during 1962, but harvested after 1st July, which is the beginning of the 1962/63 fiscal year. Each year's acreage was correlated with the price of rice prevailing in the preceding fiscal year. The 1962/63 acreage, for example, was correlated with the 1961/62 prices (the average *Aus* price during July-September 1961, and the average *Aman* price during December 1961—February 1962).

Because the *Aman* harvest is nearer in time to the planting of the *Aus* and the following *Aman* crop, it might be expected that the acreage response to changes in the relative *Aman* price would be the greatest and statistically the most significant of the three. Similarly, the average of the *Aus* and *Aman* prices might be expected to be closely correlated with acreage in the following year. However, in the former case no significant correlation could be found; and in the case of the *Aus-Aman* average price, the correlation is less significant than when the relative *Aus* price alone is used. Therefore, in the following analysis of the price elasticity of rice acreage, the relative price of rice is the average *Aus* harvest price divided by the average jute harvest price (both relating to the same three-month period)⁷. In all cases, this price variable is significant at 1-per-cent level.

The first relationship tested was:

$$R_t = a + b X_{t-1}$$

where R_t is the rice acreage under both *Aus* and *Aman* in all of East Pakistan, and X_{t-1} is the relative price of rice in the preceding year. The results are shown in Table II, Row (1). The elasticity of this function at the average price and acreage is 0.043. However, it should be noted that the variance explained is low ($R^2 = 0.18$), due primarily to the fact that the acreage under rice, and other crops as well, changed from year to year as a result of varying-weather conditions (principally rainfall).

⁷ The Dacca and Mymensingh *Aus* prices moved together so the Dacca price series alone has been used.

TABLE II

A: ACREAGE RESPONSE FUNCTIONS FOR RICE (EAST PAKISTAN)

Row No.	Area	Regression equation ^a	Number of observations	R ²
(1)	Province ^b	$R_t = 1890.570 + 79.490 X_{t-1}$ (1.378)*	14	0.18
(2)	Province ^b	$\left(\frac{R}{R+J}\right)_t = 0.900 + 0.024 X_{t-1}$ (0.008)*	14	0.64
(3)	9 Districts ^c	$\left(\frac{R}{R+J}\right)_t = 0.855 + 0.039 X_{t-1}$ (.011)*	14	0.65
(4)	Dacca Division ^d	$\left(\frac{R}{R+J}\right)_t = 0.835 + 0.036 X_{t-1}$ (.013)*	14	0.54
(5)	Province ^b	$\left(\frac{A}{A+J}\right)_t = 0.716 + 0.065 X_{t-1}$ (.017)*	14	0.54
(6)	9 Districts ^c	$\left(\frac{A}{A+J}\right)_t = 0.655 + 0.083 X_{t-1}$ (.017)*	14	0.60
(7)	Dacca Division ^d	$\left(\frac{A}{A+J}\right)_t = 0.602 + 0.083 X_{t-1}$ (.020)*	14	0.51

B: ESTIMATED PRICE ELASTICITY OF RICE ACREAGE (EAST PAKISTAN)

Row No.	Area	Average acreage (000 acres)	Price elasticity of acreage
(1)	Province ^b	19,770	0.043
(2)	Province ^b	19,770	0.030
(3)	9 Districts ^c	12,070	0.047
(4)	Dacca Division ^d	5,032	0.045
(5)	Province ^b	5,382	0.09
(6)	9 Districts ^c	4,032	0.12
(7)	Dacca Division ^d	1,611	0.13

Notes:

 X_{t-1} = Price of rice relative to jute in year t-1. R_t = Area under *Aus* and *Aman* rice crops (lakh acres) in year t.
$$\left(\frac{R}{R+J}\right)_t = \text{Rice acreage (Aus and Aman) as a proportion of the total rice and jute acreage in year t.}$$

$$\left(\frac{A}{A+J}\right)_t = \text{Aus rice acreage as a proportion of the total acreage under Aus and jute in year t.}$$

* Significant at 1-per-cent level.

a) The figures in the parentheses are the standard errors of the regression coefficients.

b) Acreage used is the provincial total.

c) Acreage used is the total for the nine important jute-growing districts: Dacca, Mymensing, Faridpur, Comilla, Rajshahi, Rangpur, Bogra, Pabna and Jessore.

d) Acreage used is the total for the three largest jute-growing districts: Dacca, Mymensing and Faridpur.

Source: Table A-II.

To eliminate the effects of weather and other factors on the total area planted to rice (*Aus* plus *Aman*) and jute, we fitted a linear equation of the proportion of rice in the total area $\left(\frac{R}{R+J}\right)_t$ as a function of the relative price of rice (X_{t-1}). The results are shown in Table II, Row (2). This linear equation explains a higher proportion of the variance ($R^2=0.64$) than the previous one. The price elasticity of rice acreage was calculated to be 0.030 on the average⁸. This means that a 50-per-cent increase in the relative price of rice was associated, on the average, with an increase of approximately 300,000 acres under rice (and a decrease of 300,000 acres under jute).

In certain areas of East Pakistan, rice and jute do not compete for the same land due to climatic and physical limitations. Over 90 per cent of the total area under jute is in 9 districts; Dacca, Mymensingh, Faridpur, Comilla, Rajshahi, Rangpur, Bogra, Pabna and Jessore⁹. It is of interest to estimate the acreage response to price changes in these districts, in which the substitution between rice and jute is technically more feasible.

A linear regression of the proportion of rice acreage (*Aus* plus *Aman*) in the total area under rice and jute $\left(\frac{R}{R+J}\right)_t$ as a function of the relative price of rice (X_{t-1}) was fitted for the nine districts. The results are shown in Table II, Row (3). The proportion of variance explained is 65 per cent, essentially the same as in the previous case. The price elasticity is 0.047, which is substantially higher than for East Pakistan as a whole. A 50-per-cent increase in the relative price of rice was associated, on the average, with about a 280,000-acre shift from jute to rice. As was expected, almost all (28/30) of the *Aus* and *Aman* response to changes in the relative price of rice was in these nine jute-growing districts.

The final price elasticity of *Aus* and *Aman* rice acreage that we estimated was for the three largest jute-growing districts: Dacca, Mymensingh, and Faridpur. These make up Dacca Division, and include about 50 per cent of the total jute acreage. Since the available series of rice prices all related to this division, it was expected that the acreage response would be greatest in this case.

⁸ It should be noted that this elasticity is actually the price elasticity of the *ratio* of rice acreage to total acreage. However, the variation in total area is sufficiently small that the price elasticity of this ratio may be taken as a good approximation of the price elasticity of rice acreage.

⁹ The proportion of jute acreage in these 9 districts to the total jute acreage in the province was:

1959/60	1960/61	1961/62	1962/63
94.6%	92.4%	89.9%	98.4%

The results of the regression analysis are shown in Table II, Row (4), and do not support our initial expectation. The proportion of variance explained and the price elasticity of rice acreage (0.045) are not significantly different from that for the nine districts. The probable reason for this result is that, just as certain areas are not suitable for jute growing due to lack of water, certain other areas in the heart of the jute-growing region are not suitable for rice cultivation¹⁰. In such areas, the acreage response to price changes would not be high.

Although the *Aus-plus-Aman* acreage response to the relative price of rice to jute is significant, the *Aus* crop competes with jute more directly (since its planting and harvesting seasons more closely approximate those of jute), and thus the price elasticity of *Aus* acreage would be expected to be higher than the elasticity for *Aus* and *Aman* together. This expectation was confirmed by our study, the results of which are shown in Table II, Rows (5-7). For East Pakistan as a whole, the price elasticity of *Aus* acreage was 0.09; for the nine jute-growing districts and for the three largest jute districts, the elasticities were higher and essentially the same, 0.12 and 0.13. In the nine districts alone, a 50-per-cent increase in the relative price of rice was associated with approximately a 240,000-acre shift from jute to *Aus*. Thus, not only is the rice acreage response to the relative price of rice to jute largely confined to the nine districts, but, within these, the major part of the response is in the *Aus* crop.

Jute elasticities, paralleling the rice elasticities, are presented in Table III. In these cases, the reciprocal of the relative *Aus* price was used (*i.e.*, the jute harvest price divided by the *Aus* harvest price), and in all cases but one this price variable is significant at 1-per-cent level. (The exception is regression equation 4 in Table III, in which the price variable is significant at 5-per-cent level). As would be expected, the jute elasticities are higher than for rice, and with the exception of Dacca Division, they all approximate 0.4. In the three districts of this division, the elasticity is lower (0.29) because these districts contain areas where rice cannot be substituted for jute (for reasons noted above).

IV. CONCLUSION

The price elasticities of rice and jute acreage presented above can be compared with the elasticities estimated in recent studies, of other Pakistani crops which are given in Table IV. The elasticities of the cash crops range from 0.31 and 0.34 for rice (undivided Punjab) and sugarcane to 0.6 for jute and 0.72 for cotton (American). The price elasticity of acreage for subsistence crops is

¹⁰ "In char and bil areas, jute is generally sown instead of paddy as the latter would be washed away or blown away". Government of Pakistan, Ministry of Commerce, *Report of the Jute Enquiry Commission*. (Karachi: Manager of Publications, 1960), p. 38.

TABLE III

A: ACREAGE RESPONSE FUNCTIONS FOR JUTE (EAST PAKISTAN)

Row No.	Area	Regression equation ^a	Number of observations	R ²
(1)	Province ^b	$J_t = 966.900 + \underset{(1.475)}{*} 56.070Z_{t-1}$	14	0.59
(2)	Province ^b	$\left(\frac{J}{R+J}\right)_t = 0.047 + \underset{(0.011)}{*} 0.042 Z_{t-1}$	14	0.54
(3)	9 Districts ^c	$\left(\frac{J}{R+J}\right)_t = 0.060 + \underset{(0.011)}{*} 0.042 Z_{t-1}$	14	0.65
(4)	Dacca Division ^d	$\left(\frac{J}{R+J}\right)_t = 0.087 + \underset{(0.016)}{**} 0.036 Z_{t-1}$	14	0.43
(5)	9 Districts ^c	$\left(\frac{J}{A+J}\right)_t = 0.1630 + \underset{(0.020)}{*} 0.087 Z_{t-1}$	14	0.54

B: ESTIMATED PRICE ELASTICITY OF JUTE ACREAGE (EAST PAKISTAN)

Row No.	Area	Average acreage (000 acres)	Price elasticity of acreage
(1)	Province ^b	1,556	0.38
(2)	Province ^b	1,556	0.36
(3)	9 Districts ^c	1,373	0.42
(4)	Dacca Division ^d	718	0.29
(5)	9 Districts ^c	1,373	0.35

Notes:

Source: Table A-II.

 Z_{t-1} = Price of jute relative to rice in year t-1. J_t = Area under *Aus* and *Aman* rice crops (lakh acres) in year t. $\left(\frac{J}{R+J}\right)_t$ = Jute acreage as a proportion of the total rice and jute acreage in year t. $\left(\frac{J}{A+J}\right)_t$ = Jute acreage as a proportion of the total *Aus* and jute acreage in year t.

* Significant at 1-per-cent level.

** Significant at 5-per-cent level.

a) The figures in the parentheses are the standard errors of the regression coefficients.

b) Acreage used is the provincial total.

c) Acreage used is the total for the nine important jute-growing districts: Dacca, Mymensingh, Faridpur, Comilla, Rajshahi, Rangpur, Bogra, Pabna and Jessore.

d) Acreage used is the total for the three largest jute-growing districts: Dacca, Mymensingh and Faridpur.

TABLE IV
PRICE ELASTICITIES OF ACREAGE IN PAKISTAN

Commodity	Period	Short-run elasticity
Krishna^a		
Cotton (American)	1922-41	0.72
Cotton (<i>desi</i>)	1922-43	0.59
Sugarcane	1915-43	0.34
Rice (Punjab)	1914-45	0.31
Maize	1915-43	0.23
Wheat (irrigated)	1914-43	0.08
Wheat (unirrigated)	1914-45	nil
Bajra	1914-45	0.09
Gram	1914-45	nil
Jowar	1914-43	nil
Falcon^b		
Cotton		0.42
Wheat (irrigated)		0.2
Wheat (unirrigated)		nil
Ghulam Mohammad^c		
Cotton	1935/36—1962/63	0.5
Clark^d		
Jute	1931/32—1954/55	0.6
Venkataraman^e		
Jute	1911—38	0.46
Our Results (nine districts in East Pakistan)		
Rice (<i>Aus</i> and <i>Aman</i>)	1948—1963	0.05
Rice (<i>Aus</i> only)		0.12
Jute	1948—1963	0.4

Source: a) R. Krishna, "Farm Supply Response in India-Pakistan: A Case Study of the Punjab Region", *Economic Journal*, September 1963, p. 485.

b) Walter P. Falcon, *op. cit.*, pp. 67, 130 and 144.

c) Ghulam Mohammad, "Some Physical and Economic Determinants of Cotton Production in West Pakistan", *Pakistan Development Review*, Winter 1963, p. 509.

d) Clark, *op. cit.*, p. 7.

e) Venkataraman, *op. cit.*

lower, though it is significantly positive for irrigated wheat (estimated at 0.08 by Krishna and 0.2 by Falcon) and Bajra (0.09). For unirrigated wheat, gram and jowar, constituting about 30 per cent of the total cropped area in West Pakistan, there is no significant response to price changes.

Also included in Table IV are our results for the nine important jute-growing districts: jute elasticity, 0.4 and rice elasticities, 0.05 and 0.12. The elasticity of 0.4 for jute is comparable with that of the other cash crops listed and, in particular, is quite close to Venkataraman's jute estimate. The rice elasticities of 0.05 and 0.12 are very low compared with Krishna's estimate of 0.31 for rice in the Punjab, but they are quite comparable with his estimated elasticities for wheat, the comparable subsistence cereal in the Punjab.

Since large variations in the relative price of rice are common in East Pakistan (*see*, Figure I and Table A-II), annual changes in acreage and output may be substantial, even though the acreage elasticity is low. For example, a 50-per-cent increase in the relative price of rice has been associated, on the average, with an increase in rice area of about 2,80,000 acres in the nine districts and about 3,00,000 acres in East Pakistan as a whole; this means an increase in output in excess of 100,000 tons at the average yields prevailing in recent years. While this is a very small proportion of total output, it approximates from one-fourth to one-third of the provincial rice deficit.

Although these studies cover different periods and employ different methods of analysis, the results are roughly comparable and warrant the conclusion that Pakistani farmers growing cash crops are quite responsive to price changes. The responsiveness in the case of subsistence crops is less; since farmers employ most of their land to produce rice (East Pakistan) or wheat (undivided Punjab) for their own consumption, little land is left for making a choice among the various crops on the basis of relative prices. Nevertheless, it is an important conclusion of this study that, although the price elasticity of rice acreage in East Pakistan is low, it is significantly positive.

Appendix A

TABLE A-I
ACREAGE, PRODUCTION AND YIELD OF RICE IN EAST PAKISTAN
1947/48 to 1962/63

Year	Area (000 acres)	Production (000 tons)	Yield (Maunds per acre)	Area	Production	Yield
(Index 1947/48 = 100)						
1947/48	19,007	6,736	9.6	100	100	100
1948/49	19,424	7,673	10.8	102	113	112
1949/50	19,528	7,337	10.3	102	109	107
1950/51	20,007	7,343	10.0	105	109	104
1951/52	20,300	7,034	9.0	106	104	97
1952/53	20,778	7,335	9.6	109	108	100
1953/54	22,010	8,245	10.1	115	122	105
1954/55	21,336	7,589	9.7	112	112	101
1955/56	19,486	6,384	8.9	102	94	92
1956/57	20,055	8,185	11.1	105	121	115
1957/58	20,235	7,598	10.2	106	112	106
1958/59	19,643	6,921	9.6	103	102	106
1959/60	21,151	8,484	10.9	111	125	113
1960/61	21,886	9,519	11.7	115	141	121
1961/62	20,963	9,466	12.2	110	140	127
1962/63	21,484	8,730	11.0	113	129	114

Source: 1) Figures for the period 1947/48 to 1959/60 are from *Agricultural Production Levels in East Pakistan, 1947-60*, (Dacca: Directorate of Agriculture).

2) Figures for 1960/61 to 1962/63 are unpublished estimates issued by the Department of Marketing Intelligence and Agricultural Statistics, Ministry of Food and Agriculture, Rawalpindi.

TABLE A-II

RELATION BETWEEN AREA AND PRICE OF RICE AND JUTE IN EAST PAKISTAN : 1948/49 to 1962/63

Year	Aus Prov.	Rice acreage (<i>Aus and Aman</i>)			Jute acreage		Price of rice Price of jute	Price of rice Price of jute	
		Provincial	9 Districts	Dacca Division	Provincial	9 Districts			Dacca Division
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1948/49	4,753	18,612	11,196	4,812	1,877	1,607	827	0.89	1.11
1949/50	4,673	18,686	11,272	4,770	1,561	1,321	650	1.40	0.71
1950/51	5,259	19,206	11,613	4,808	1,701	1,460	749	0.67	1.48
1951/52	5,448	19,475	11,913	5,086	1,779	1,576	758	0.79	1.25
1952/53	5,499	19,941	12,155	5,170	1,907	1,620	838	2.20	0.45
1953/54	6,324	21,169	13,100	5,547	965	832	435	1.39	0.71
1954/55	6,033	20,478	12,410	5,096	1,243	1,076	608	0.89	1.11
1955/56	5,820	18,798	11,626	4,712	1,634	1,393	729	0.95	1.05
1956/57	5,992	19,369	12,158	4,917	1,230	1,037	540	1.27	0.78
1957/58	5,787	19,419	11,867	4,873	1,563	1,340	678	1.11	0.89
1958/59	5,646	18,792	11,272	4,658	1,528	1,326	692	1.30	0.76
1959/60	5,945	20,234	12,436	5,257	1,375	1,301	760	1.25	0.79
1960/61	6,300	20,878	12,904	5,317	1,518	1,402	826	0.56	1.78
1961/62	5,874	19,956	12,008	5,044	2,061	1,852	989	0.60	1.64
1962/63	6,192	20,413	12,264	5,192	1,723	1,696	804	—	—

(.....in thousand acres.....)

Sources: Column (2) to Column (8): Same as Table A-I.
Column (8) and Column (9): Table A-III.

TABLE A-III
PRICES OF RICE AND JUTE
(EAST PAKISTAN)

Year	Average harvest price of jute in rural areas	Average harvest price of <i>Aus</i> rice (medium quality) at Dacca	Average harvest price of <i>Aman</i> rice at Dacca and Mymensingh	Average harvest price of <i>Aus</i> and <i>Aman</i> rice at Dacca and Mymensingh
(1)	(2)	(3)	(4)	(5)
(.....in rupees per maund.....)				
1948/49	32.31	29.01	25.62	27.31
1949/50	22.12	31.13	17.20	24.16
1950/51	28.69	19.37	13.85	16.61
1951/52	27.37	21.87	18.30	20.08
1952/53	10.69	23.62	15.95	19.78
1953/54	15.44	21.50	10.65	16.07
1954/55	16.02	14.37	9.00	9.00
1955/56	18.84	17.94	15.50	15.40
1956/57	26.36	33.62	21.00	20.25
1957/58	27.48	30.56	22.50	21.50
1958/59	21.70	28.37	21.00	23.00
1959/60	20.72	26.03	20.90	22.56
1960/61	41.00	23.00	22.91	23.40
1961/62	37.44	22.75	22.75	23.12

Sources: Cols. (2) and (3): Except 1961/62, the prices are from *Jute Situation* (issued by Department of Agricultural Economics and Statistics, Ministry of Food and Agriculture, Rawalpindi), October 1961, p. 20. Average harvest price of rice for 1961/62 is from the National Income Division, Central Statistical Office, Karachi, and the harvest price of jute for 1961/62 is from *Markets and Prices* (issued by the Agricultural Marketing Adviser to the Government of Pakistan, Karachi). (Since the jute price given was wholesale, 10 per cent has been deducted to approximate marketing charges). Cols. (4) and 5: National Income Division, Central Statistical Office, Karachi.

Maund = 82.23 lbs.