

Appendix Table 2.1
Rice Milling Rates (Rough Rice to Milled Rice)

Country	Rate
World	0.65
Asia	0.67
South America	0.65
North America	0.65
Africa	0.65
Europe	0.64
Bangladesh	0.67
Burma	0.63
China Mainland	0.70
India	0.67
Indonesia	0.68
Japan	0.73
Korea Rep	0.72
Korea DPR	0.68
Pakistan	0.67
Philippines	0.65
Thailand	0.66
Vietnam	0.65

Source: *World Rice Statistics*, International
Rice Research Institute, 1995.

Appendix Table 2.2: Rice Crop Calendar Year, By Country

	Planting	Harvest Season	Bulk of Harvest
Bangladesh			
Aus	Apr	Jul-Sep	July-Aug
T. aman	Jul-Aug	Nov-Jan	Dec
B. aman	Apr	Late Oct-Dec	
Boro	Dec	Apr-May	
Myanmar			
Main	Jun	Nov-Jan	Dec
Second	Nov	Mar-May	Apr
China			
Early Crop	Feb-May	Jun-Jul	Jul
Intermediate	Mar-May	Aug-Oct	Sep
Late Rice	Jun-Jul	Oct-Nov	
Northern	Mid Apr- Mid-Jun		Sep
India			
Kharif:			
Early	Mar-May	Jun-Dec	Aug-Sep
Main	Nov-Apr	Nov-Apr	Nov-Jan
Rabi	Mar-Jun	Mar-Jun	Apr-May
Indonesia			
Main:			
Java	Oct-Mar	Feb-Jun	Mar-May
S. Sulawesi	May-Jun	Aug-Oct	Aug-Sep
N. Sumatra	Jul-Nov	Dec-Mar	Jan-Mar
S. Sumatra	Oct-Jan	Jan-Jun	Apr-Jun
Second			
Java	Apr-Jun	Jul-Oct	Jul-Sep
S. Sulawesi	Nov-Feb	Apr-Jun	May
N. Sumatra	May-Jun	Aug-Sep	Aug-Sep
S. Sumatra	Jun-Jul	Sep-Oct	Sep-Oct
Japan	Apr-May	Sep-Nov	Oct
Pakistan	Mid-Apr to		
Philippines			
Main	Jul-Sep	Nov-Jan	Dec
Second	Jan-Feb	Apr-Jun	May
Third	May-Jun	Sep-Nov	
Thailand			
Main			
North	May-Jun	Nov-Jan	Nov-Jan
Northeast	Jun-Aug	Nov-Jan	
Central	Jun-Jul	Nov-Feb	
South	Sep-Nov	Mar-May	
Second	Jan-May	Jun-Aug	
Vietnam			
North	May to Early Sep	Late Sep to Nov	
Central	May-Sep	Sep to Mid-Dec	
South	May-Early Oct	Late Nov to Feb	
Winter-spring			
North	Jan to Early Mar	May-Jun	
Central	Jan to Early Mar	Apr-May	Mar-May
South	Mid-Dec to		
5th month spring	Oct-Nov	May-Jun	
Summer-fall			
North	Apr-May	Aug-Sep	
Central	Apr-May	Late Jul to Sep	
South	Apr-Jun	Jul-Oct	

Source: World Rice Statistics, International Rice Research Institute, 1995.

Appendix Table 2.3: Paddy Production By Continent

Year	World	Asia	South America	North America	Africa	Europe
1950	163.19	151.32	4.14	2.40	3.74	1.29
1951	170.53	158.52	4.25	2.77	3.22	1.48
1952	181.17	170.72	4.20	2.87	3.38	1.72
1953	197.91	184.77	4.39	3.17	3.45	1.80
1954	194.24	179.87	4.71	3.64	3.97	1.73
1955	209.79	195.02	5.08	3.33	4.25	1.74
1956	219.70	205.48	4.75	3.16	4.38	1.56
1957	216.54	201.37	5.50	2.83	4.94	1.58
1958	224.09	209.61	5.32	2.90	4.27	1.65
1959	219.90	208.99	5.57	3.41	4.86	1.71
1960	218.87	202.02	6.51	3.53	4.98	1.48
1961	215.81	198.92	7.14	3.44	4.32	1.62
1962	226.66	207.52	7.51	3.97	5.68	1.55
1963	247.12	227.52	7.53	4.20	5.83	1.50
1964	262.93	242.05	8.47	4.26	5.93	1.59
1965	254.30	232.36	9.87	4.50	5.50	1.34
1966	261.24	240.23	8.10	4.93	5.58	1.50
1967	277.77	253.84	9.21	5.23	6.70	1.67
1968	289.05	262.25	8.93	5.96	7.06	1.52
1969	295.60	270.69	9.98	5.48	7.21	1.86
1970	316.68	290.30	10.44	5.26	7.33	1.79
1971	318.11	292.43	9.36	5.34	7.41	1.81
1972	308.26	282.57	9.56	5.30	7.34	1.59
1973	336.41	308.89	10.26	5.79	7.41	1.96
1974	333.34	304.01	10.48	6.89	7.74	1.89
1975	359.12	326.78	11.93	7.94	8.15	1.90
1976	350.15	317.44	13.51	7.08	8.05	1.64
1977	371.81	339.89	13.23	6.48	7.96	1.48
1978	387.74	355.53	11.52	7.94	8.14	1.81
1979	377.37	343.55	12.37	8.06	8.35	2.02
1980	399.20	362.27	14.35	8.75	8.62	1.84
1981	412.01	374.42	13.28	10.63	8.56	1.77
1982	423.94	385.23	15.29	9.21	8.98	1.89
1983	451.49	418.25	12.41	6.85	9.08	1.74
1984	469.43	431.90	14.50	8.68	8.96	1.97
1985	472.12	433.86	14.42	8.80	9.43	2.18
1986	471.33	434.37	15.54	8.39	10.12	2.30
1987	464.42	424.85	16.04	8.21	10.12	2.18
1988	492.14	449.25	17.74	9.51	10.42	2.21
1989	512.73	469.85	17.08	9.47	12.69	2.23
1990	518.82	478.57	14.27	9.17	10.67	2.41
1991	517.41	474.13	15.34	9.15	13.72	2.31
1992	527.91	481.94	16.34	10.19	14.21	2.32
1993	527.41	482.55	16.41	8.97	14.80	2.06

Source: *Production Year Book*, Food and Agriculture Organisation
Rome, Various Issues

Appendix Table 2.4: Rice Yield Per Hectare By Continent (Tonne/HA)

Year	World	Asia	South America	North America	Africa	Europe
1951	1.64	1.64	1.74	2.24	1.20	4.34
1952	1.75	1.74	1.75	2.37	1.23	4.57
1953	1.82	1.82	1.68	2.35	1.24	4.72
1954	1.78	1.78	1.58	2.46	1.41	4.29
1955	1.89	1.89	1.63	2.68	1.46	4.32
1956	1.87	1.88	1.53	2.64	1.47	4.31
1957	1.87	1.87	1.78	2.68	1.58	4.56
1958	1.92	1.92	1.71	2.62	1.42	4.72
1959	1.89	1.89	1.68	2.79	1.57	4.64
1960	1.85	1.83	1.78	2.83	1.67	4.31
1961	1.87	1.86	1.82	2.78	1.49	4.90
1962	1.90	1.88	1.80	3.01	1.77	4.94
1963	2.06	2.05	1.68	3.30	1.85	4.72
1964	2.10	2.11	1.66	3.37	1.78	4.73
1965	2.04	2.03	1.76	3.56	1.67	4.04
1966	2.08	2.08	1.62	3.66	1.64	4.53
1967	2.18	2.18	1.76	3.76	1.80	4.83
1968	2.23	2.24	1.66	3.77	1.84	4.17
1969	2.25	2.26	1.62	3.58	1.86	4.76
1970	2.38	2.40	1.74	3.77	1.84	4.50
1971	2.36	2.38	1.64	3.92	1.80	4.57
1972	2.33	2.34	1.76	3.85	1.80	3.97
1973	2.46	2.48	1.78	3.77	1.72	4.88
1974	2.43	2.45	1.82	3.87	1.80	4.75
1975	2.53	2.55	1.84	3.96	1.81	5.09
1976	2.46	2.49	1.75	4.00	1.78	4.38
1977	2.58	2.62	1.82	3.90	1.72	3.74
1978	2.69	2.74	1.68	4.22	1.74	4.56
1979	2.67	2.71	1.83	4.26	1.78	5.27
1980	2.77	2.81	1.90	4.29	1.78	5.01
1981	2.84	2.89	1.78	4.64	1.72	5.11
1982	2.99	3.05	2.04	4.50	1.77	5.21
1983	3.13	3.22	1.95	4.28	1.76	5.09
1984	3.23	3.32	2.14	4.58	1.71	5.13
1985	3.28	3.35	2.32	4.93	1.80	5.53
1986	3.27	3.34	2.23	5.07	1.89	5.40
1987	3.28	3.37	2.15	4.96	1.86	5.36
1988	3.37	3.46	2.37	5.10	1.82	5.14
1989	3.48	3.56	2.50	5.09	1.95	5.35
1990	3.56	3.61	2.42	5.09	1.93	5.35
1991	3.50	3.61	2.71	5.19	1.95	5.51
1992	3.56	3.66	2.60	5.32	1.97	5.85
1993	3.58	3.66	2.78	5.27	2.07	5.63

Source: Production Year Book, Food and Agriculture Organisation
Rome, Various Issues

Appendix Table 2.5: Rice Statistics in China

Year	Production (MT)	Area (Ha)	Yield (MT/Ha)	Fertiliser Consumption (Tonnes)	HYV Area (Ha)	Share of HYV Area in Total (%)
1951	62.51	27.72	2.25			
1952	70.48	29.17	2.42			
1953	73.43	29.10	2.52			
1954	73.07	29.50	2.48			
1955	80.15	29.92	2.68			
1956	84.83	34.10	2.49			
1957	89.18	33.02	2.70			
1958	83.33	32.69	2.55			
1959	71.80	29.81	2.41			
1960	62.24	30.37	2.05			
1961	56.28	27.03	2.08	0.73	0.00	0.00
1962	65.75	27.70	2.37	0.99	0.00	0.00
1963	76.53	28.44	2.69	1.25	0.00	0.00
1964	85.94	30.34	2.83	1.68	0.00	0.00
1965	90.80	30.57	2.97	2.60	0.00	0.00
1966	98.51	31.29	3.15	3.72	0.00	0.00
1967	96.85	31.19	3.10	2.70	0.00	0.00
1968	97.83	30.65	3.19	2.70	0.00	0.00
1969	98.11	31.19	3.15	3.47	0.00	0.00
1970	113.22	33.10	3.42	4.41	0.00	0.00
1971	118.24	35.64	3.32	4.57	0.00	0.00
1972	116.55	35.85	3.25	5.25	0.00	0.00
1973	124.69	35.77	3.49	6.44	0.00	0.00
1974	127.12	36.25	3.51	5.58	0.00	0.00
1975	128.83	36.48	3.53	6.85	0.14	0.38
1976	129.36	36.97	3.50	6.42	2.13	5.76
1977	132.04	36.27	3.64	9.13	4.26	11.75
1978	140.13	35.17	3.98	10.86	4.97	14.13
1979	146.96	34.56	4.25	13.08	4.79	13.86
1980	142.99	34.48	4.15	15.34	5.11	14.82
1981	147.04	33.93	4.33	15.15	5.62	16.56
1982	164.85	33.70	4.89	16.04	6.75	20.03
1983	172.10	33.78	5.10	18.22	8.85	26.20
1984	181.19	33.77	5.37	19.78	8.61	25.50
1985	171.42	32.63	5.25	16.85	9.56	29.30
1986	174.79	32.92	5.31	17.32	10.97	33.32
1987	176.95	32.85	5.44	22.69	13.33	40.58
1988	171.52	32.46	5.35	25.32	13.33	41.07
1989	182.53	33.20	5.50	25.43	16.65	50.15
1990	188.30	32.90	5.72	27.03	17.64	53.62
1991	186.09	33.02	5.64	24.75	17.58	53.24
1992	188.26	32.40	5.81	24.16	17.02	52.53

Source: *Production Year Book*, Food and Agriculture Organisation
Rome, Various Issues

**Appendix Table 3.1: Wheat Production and Share in World
Wheat Production By Continent: Million Tonnes**

Year	World	Asia	North America	South America	Africa	Europe
1981	453.80	140.40 (30.94)	104.20 (22.96)	11.90 (2.62)	9.10 (2.01)	91.50 (20.16)
1982	485.20	150.60 (31.04)	106.60 (21.97)	18.20 (3.75)	10.40 (2.14)	103.00 (21.23)
1983	494.70	169.70 (34.30)	95.90 (19.39)	15.90 (3.21)	8.70 (1.76)	103.80 (20.98)
1984	516.50	176.90 (34.25)	96.40 (18.66)	16.90 (3.27)	9.40 (1.82)	129.50 (25.07)
1985	505.70	178.00 (35.20)	95.50 (18.88)	14.90 (2.95)	10.20 (2.02)	112.50 (22.25)
1986	536.70	190.30 (35.46)	93.10 (17.35)	17.00 (3.17)	11.90 (2.22)	116.30 (21.67)
1987	510.50	180.40 35.34	87.80 (17.20)	17.80 (3.49)	12.70 (2.49)	115.70 (22.66)
1988	506.90	184.50 (36.40)	69.00 (13.61)	17.00 (3.35)	13.30 (2.62)	124.30 (24.52)
1989	541.80	192.10 (35.46)	84.40 (15.58)	18.80 (3.47)	12.50 (2.31)	127.40 (23.51)
1990	595.10	198.70 (33.39)	110.30 (18.53)	16.80 (2.82)	14.00 (2.35)	131.30 (22.06)

Source: *Bulletin on Food Statistics*, Ministry of Food and Agriculture, GOI, Various Issues.

Figures in the parentheses are shares in world wheat production by continent (per cent)

Appendix Table 3.2:Wheat Production and Share in World Wheat Production By Country

Year	Production (Million Tonnes)									UK
	China	USA	India	France	Canada	Turkey	Austra- lia	Pakis tan	Germany	
1981	59.6	76.2	36.3	22.9	24.8	17.0	16.4	11.5		8.7
1982	68.5	75.3	37.5	25.4	26.7	17.5	8.9	11.3	8.6	10.3
1983	81.4	65.9	42.8	24.8	26.5	16.4	22.0	12.4	9.0	10.8
1984	87.8	70.6	45.5	33.0	21.2	17.2	18.7	10.9	24.4	15.0
1985	85.8	66.0	44.1	28.8	24.3	17.0	16.0	11.7	23.7	12.1
1986	90.0	56.9	47.0	26.5	31.4	19.0	16.1	13.9	25.0	13.9
1987	85.9	57.4	44.3	27.4	26.0	18.9	12.3	12.0	23.9	11.9
1988	85.4	49.3	46.2	29.0	16.0	20.5	13.9	12.7	27.5	11.7
1989	90.8	55.4	54.1	31.8	24.8	16.2	14.2	14.4	25.5	14.0
1990	98.2	74.5	49.9	33.4	32.1	20.0	15.1	14.3	26.3	14.0
1991	95.9	53.9	55.1	34.4	32.0	20.4	10.6	14.6	16.6	14.4
1992	101.6	66.9	55.7	32.5	29.9	19.3	14.7	15.7	15.5	14.1
1993	106.4	65.4	56.8	29.3	27.2	21.0	17.9	16.2	15.8	12.9
Shares (Per cent)										
1981	13.1	16.8	8.0	5.1	5.5	3.8	3.6	2.5		1.9
1982	14.2	15.6	7.8	5.3	5.6	3.6	1.8	2.4	1.8	2.1
1983	15.8	12.8	8.3	4.8	5.1	3.2	4.3	2.4	1.7	2.1
1984	16.7	13.4	8.6	6.3	4.0	3.3	3.6	2.1	4.6	2.8
1985	16.7	12.8	8.6	5.6	4.7	3.3	3.1	2.3	4.6	2.3
1986	16.6	10.5	8.7	4.9	5.8	3.5	3.0	2.6	4.6	2.6
1987	16.5	11.0	8.5	5.3	5.0	3.6	2.4	2.3	4.6	2.3
1988	16.5	9.5	8.9	5.6	3.1	4.0	2.7	2.5	5.3	2.3
1989	16.4	10.0	9.8	5.8	4.5	2.9	2.6	2.6	4.6	2.5
1990	16.1	12.3	8.2	5.5	5.3	3.3	2.5	2.4	4.3	2.3
1991	17.5	9.9	10.1	6.3	5.8	3.7	1.9	2.7	3.0	2.6
1992	18.0	11.8	9.9	5.8	5.3	3.4	2.6	2.8	2.8	2.5
1993	18.9	11.6	10.1	5.2	4.8	3.7	3.2	2.9	2.8	2.3

Source: *Production Year Book*, Food and Agricultural Organisation, Rome Various Issues.

Appendix Table 3.3:Wheat Exports and Share in World Wheat Exports By Country

Year	Exports (Million Tonnes)					
	USA	France	Canada	Australia	Argentina	Germany
1980	41.50	11.97	17.10	10.60	4.00	1.78
1981	48.60	14.83	17.70	10.50	4.30	1.46
1982	39.70	12.69	21.20	8.50	7.50	1.73
1983	38.30	14.23	21.00	10.50	9.60	1.57
1984	37.80	14.00	19.40	15.80	8.00	1.70
1985	24.80	15.00	16.70	16.10	6.10	2.00
1986	28.30	15.41	20.80	14.80	4.30	2.62
1987	43.40	16.48	23.70	12.20	3.80	2.74
1988	37.60	16.98	13.50	10.70	3.50	3.83
1989	33.50	17.08	17.00	11.90	5.60	4.63
1990	28.30	19.34	20.80	12.30	4.70	2.82
1991	32.48	19.73	23.51	12.02	5.78	3.47
1992	35.21	19.76	23.88	8.20	6.28	5.75
1993	37.14	20.99	18.41	9.58	6.02	4.51

Year	Export Shares (Per cent)				
	Asia	USA	France	Canada	Australia
1981	1.03	46.11	14.07	16.79	9.96
1982	1.10	40.97	13.09	21.87	8.77
1983	1.25	36.74	13.16	19.87	7.43
1984	1.20	37.41	13.54	18.56	9.13
1985	1.18	24.86	18.10	16.53	15.01
1986	1.15	27.44	26.36	16.98	16.77
1987	2.20	29.47	14.89	20.44	13.44
1988	4.11	35.49	14.25	17.06	10.31
1989	2.63	35.65	15.91	10.70	9.86
1990	1.78	26.56	17.86	16.78	10.74
1991	5.24	26.85	16.31	19.43	9.93
1992	5.65	28.63	16.07	19.42	6.67
1993	3.56	31.97	18.06	15.84	8.24

Source: *Trade Year Book*, Food and Agriculture Organisation, Rome various Issues.

Appendix Table 3.5:Wheat Production and Consumption for Major Wheat Producers (Million Tonnes)

	1969-71	1979-81	1990	1991
Production				
USA	40.04	66.23	74.53	54.77
Canada	13.09	20.43	32.71	32.50
Australia	9.01	14.47	15.40	11.50
France	14.29	22.04	33.70	34.80
Japan	0.56	0.57	0.95	0.86
India	20.86	34.55	49.65	50.00
China	29.68	59.19	98.23	94.00
Pakistan	6.80	10.76	14.32	14.50
Europe	127.73	134.28	166.71	144.99
World	323.75	440.14	594.59	536.20
Consumption				
USA	21.72	21.89	37.50	34.43
Canada	4.67	5.29	6.71	6.90
Australia	2.69	3.16	4.10	3.50
France	9.70	10.72	13.30	13.60
Japan	5.25	6.09	6.10	6.10
India	22.44	35.55	49.10	52.30
China	32.93	73.81	106.03	107.50
Pakistan	7.83	11.06	15.85	16.45
Indonesia	0.55	1.35	1.92	2.16
Europe	134.75	158.63	175.82	165.53
World	333.16	445.30	566.68	546.80

Source: *Foreign Agriculture Service, United States Department of Agriculture, Various Issues.*

Appendix Table 3.6: Rice Production and Consumption for Major Producers (Million Tonnes)

	1969-71	1979-81	1990	1991
<u>Production</u>				
USA	3.95	6.97	7.03	7.53
Japan	15.66	13.32	13.12	12.91
India	62.93	74.68	112.51	106.86
China	99.86	140.20	180.13	189.33
Pakistan	3.42	4.89	5.02	5.34
Indonesia	19.17	29.57	45.18	42.19
Thailand	12.47	16.87	20.18	17.30
Europe	1.84	3.15	3.26	2.59
World	300.05	300.87	512.44	507.54
<u>Consumption</u>				
USA	1.28	2.05	2.99	2.63
Japan	11.54	10.28	9.60	9.65
India	42.12	51.10	72.98	72.28
China	67.49	95.95	123.06	127.60
Pakistan	2.11	2.25	2.10	2.22
Indonesia	13.72	21.23	29.87	29.48
Thailand	6.93	8.07	8.60	8.30
Europe	1.72	3.11	2.87	2.74
World	203.00	266.33	343.35	346.75

Source: Foreign Agriculture Service, United States Department of Agriculture, Various Issues.

Appendix Table 3.7: Growth Rates (%) of Rice and Wheat Production and Consumption (1970-90)

Wheat Production		Rice Production	
USA	2.1	USA	2.8
Canada	4.0	Japan	-0.9
Australia	3.2	India	3.0
France	4.4	China	3.0
Japan	7.9	Pakistan	2.1
Asia	5.6	Indonesia	4.9
India	4.8	Thailand	2.5
China	6.3	Europe	0.7
Pakistan	0.5	World	2.8
Europe	2.6		
World	2.8		
Wheat Consumption		Rice Consumption	
USA	2.5	USA	4.3
Canada	1.8	Canada	5.3
France	1.8	France	3.3
Japan	0.8	Japan	-1.0
Asia	5.5	India	2.9
India	4.2	China	2.8
China	6.9	Pakistan	0.7
Pakistan	3.6	Indonesia	4.2
Indonesia	6.6	Thailand	0.6
Thailand	8.3	Europe	3.2
Europe	0.8	World	2.8
World	2.7		

Source: *Foreign Agriculture Service, United States Department of Agriculture, Various Issues.*

Appendix Table 5.1: Tariff and Non-Tariff Measures on Rice Imports in Importing Countries

Importing Countries	Duty and/or Tax				Levy and/Cess				Others			
	1975	1980	1982	1984	1975	1980	1982	1984	1975	1980	1982	1984
Asia												
Afghanistan	-	-	\$1.5/t	-	-	-	-	-\$1.53/t	\$1/t	\$1/t	-	-
Bangladesh	F	-	-	-	F	-	-	-	F	-	-	-
Cyprus	N	N	N	6%	N	N	N	N	N	N	N	N
India	F	B	-	-	F	N	-	-	F	N	-	-
Indonesia	F	F	-	-	F	F	-	-	F	F	-	-
Iran	*	5%	N	N	N	\$52.8/t	N	N	N	-	N	N
	**	5%	N	N	N	-	N	N	N	-	N	N
	***	N	-	\$149/t	-	N	\$170.8/t	-	\$134/t	N	-	-
Iraq	5%	5%	1%	1%	-	-	-	-	-	-	-	-
Japan	F	F	F	-	F	F	-	-	F	F	-	-
Kampuchea	F	N	N	N	-	N	N	N	-	N	N	N
Korea Rep	F	5%	5%	5%	-	-	2.5%	-	-	-	-	-
Kuwait	N	F	N	-	N	F	N	-	N	F	N	N
Laos	F	F	N	-	F	F	N	-	F	F	N	N
Malaysia	F	F	-	-	F	F	F	-	F	F	-	-
Philippines	70%	70%	-	50%	V	V	-	-	-	N	-	N
Saudi Arabia	F	F	F	-	F	F	F	-	F	F	F	-
Singapore	F	F	-	-	F	F	-	-	F	F	-	-
Sri Lanka	F	F	-	5%	F	F	-	4%	F	F	-	-
Syria	N	N	\$13/t	\$9.4/t	N	N	-	\$4.3/t	N	N	-	-
			+11%					+11%				
Turkey	F	F	-	N	F	F	-	N	F	F	-	-
UAE	N	F	N	-	F	F	N	-	F	F	-	-
Yemen Rep	N	5%	-	5%	N	-	-	-	N	-	-	-
South America												
Bolivia	10%	10%	-	-	8%	8%	-	-	-	-	-	-
Chile	30%	10%	10%	20%	-	-	-	-	-	-	-	-
Peru	30%	F	-	15%	\$77.5/t	F	-	-	-	F	-	-
N & C America												
Cuba	#	\$83.5	\$76.8	N	\$76.8	-	-	N	-	-	-	N
	##	\$96.5	\$88.2	N	\$88.8	-	-	N	\$63+6%	-	-	N
		+\$68.4	+\$30.7									
		+6%	+6%									
	###	\$34.8	\$32	N	\$32	-	-	N	-	-	-	N
		\$40.2	\$37	N	\$37	-	-	N	\$63+6%	-	-	N
		+\$68.4	+\$30.7									
		+6%	+6%									
	####	N	N	\$108.8	N	N	N	\$63+6%	N	N	N	N
	#####	N	N	\$125.0	N	N	N	\$63+6%	N	N	N	N

Contd.....

Africa												
Algeria	.25%	.25%	.25%	-	-	-	-	-	-	-	-	-
Benin	N	N	2%	2%	N	N	\$28.4	\$198.4	N	N	-	-
Burundi	F	F	5%	-	5%	5%	5%	5%	-	-	-	-
Cameron	N	20.7%	20.7%	20.7%	N	-	-	-	N	-	-	-
Gambia	N	\$67.2	\$57.3	\$43.4	N	-	-	-	N	-	-	-
Ghana	\$56.2	N	35%	35%	35%	50%	N	10%+5%	-	N	-	N
Ivory												
Coast	N	N	-	0.75%	N	N	-	-	N	N	-	-
Kenya	N	F	\$.3/t	N	\$.3/t	N	\$.3/t	-	N	N	-	-
Mali	F	F	-	-	F	F	-	-	F	F	-	-
Mauritius												
	@ \$1.3/t	\$0.8/t	N	N	-	-	N	N	-	-	-	N
	@@ \$1.3/t	\$1.0/t	N	N	\$2.0/t	-	N	N	-	-	-	N
Nigeria	40%	-	\$245/t	20%	-	-	-	-	-	-	-	-

Appendix Table 5.2: Tariff and Non-Tariff Measures on Rice Exports in Exporting Countries

Exporting Countries	Duty &/or tax				Levy &/or Cess				Others			
	1975	1980	1982	1984	1975	1980	1982	1984	1975	1980	1982	1984
India	F	F	-	N	F	F	-	N	F	F	-	N
#	N	N	N	-	N	N	N	-	N	N	-	-
##	N	N	N	B	N	N	N	N	N	N	N	N
Japan	F	F	-	-	F	F	-	-	F	F	-	-
Pakistan												
@	\$60.8/t	F	-	-	-	-	-	-	-	-	-	-
@@	30%	F	-	-	-	-	-	-	-	-	-	-
Thailand	3%	\$54.7/t	5%	N	V	V	-	-	-	-	-	N
*	N	N	N	2.5%	N	N	N	\$88.7/t	N	N	N	N
**	N	N	N	2.5%	N	N	N	\$5.4/t	N	N	N	N
United States	F	F	F	-	F	F	F	-	F	F	F	-

Tariff and Non-Tariff measures for all rice types unless and other wise stated.

F = Free; N=Non Available; V= Variable;

Basmati rice

Other types

@ Superior

@@ Coarse/Medium

* White 5% long grain Broken

** Broken A, special

Appendix Table 7.1.: Variety-Wise Rice Exports From India to Various Destinations:1992-93

Variety/ Destination	Quantity (000 Tonnes)	Value (Crore Rs)	Unit Value (Rs/Kg)
<u>Polished Parboiled Rice</u>	81.10	57.74	7.12
C.I.S	2.99	1.65	5.51
Kenya	2.73	2.26	8.29
Malaysia	31.26	21.64	6.92
Poland	2.00	1.61	8.06
Romania	4.00	3.12	7.80
Saudi Arabia	2.99	2.26	7.56
Sri Lanka	29.98	20.91	6.97
U Arab Emts	2.01	1.64	8.18
<u>Basmati Rice</u>	324.90	800.64	24.64
Bahrain I.S	3.87	11.09	28.69
Belgium	1.12	3.25	28.91
Burundi	3.86	11.79	30.52
France	5.43	13.31	24.53
German F Rep	1.69	5.32	31.49
Kuwait	18.84	61.25	32.52
Malaysia	2.10	4.00	19.06
Netherlands	1.78	4.05	22.75
Oman	2.58	7.86	30.45
Qatar	1.61	4.79	29.71
Saudi Arabia	202.44	452.09	22.33
U Arab Emts	29.84	79.39	26.61
UK	32.17	83.19	25.86
USA	13.45	46.49	34.56
<u>Rice Parboiled</u>	579.84	974.99	16.81
Angola	5.00	5.35	10.71
Bahrain IS	1.10	0.88	7.98
Cameron	29.52	14.53	4.92
Czechoslovakia	10.50	7.14	6.80
Iran	10.80	6.80	6.30
Jordan	1.21	1.04	8.57
Kuwait	3.08	2.47	8.04
Malaysia	7.70	5.84	7.59
Mozambique	14.77	8.40	5.66
Oman	1.18	0.91	7.71
Saudi Arabia	22.10	17.68	8.00
Senegal	12.06	7.39	6.13
Sierra Leone	1.50	0.98	6.50
Tanzania Rep	14.70	9.56	6.50
Turkey	4.97	3.30	6.65
U Arab Emts	16.11	12.99	8.06
Zambia	12.95	7.37	5.66

Variety-Wise Rice Exports From India to Various Destinations:1993-94

Variety/ Destination	Quantity (000 Tonnes)	Value (Rs Crore)	Unit Value (Rs/Kg)
<u>Polished Rice</u>	45.57	41.08	9.02
Hongkong	1.01	0.70	6.85
Nepal	5.19	3.67	7.08
Oman	1.02	0.92	9.02
Saudia Arabia	4.86	5.84	12.03
Singapore	7.24	7.18	9.91
Sri Lanka	16.61	13.55	8.16
U Arab Emts	4.85	4.69	9.68
<u>Basmati Rice</u>	527.23		
Angola	2.79	3.37	12.07
Bahrain I.S	7.03	15.17	21.59
Belgium	1.21	2.56	21.16
Canada	5.44	14.80	27.22
France	4.36	9.11	20.89
German F Rep	1.93	4.81	24.98
Iran	2.10	1.97	9.40
Kuwait	30.01	73.74	24.58
Mauritious	1.51	2.76	18.27
Netherlands	1.57	2.98	18.99
Oman	6.12	12.14	19.82

Qatar	2.42	5.93	24.50
Saudi	335.64	638.58	19.02
Sri Lanka	12.45	13.06	10.49
U Arab Emts	44.33	101.55	22.91
UK	46.86	97.38	20.78
USA	13.54	40.91	30.22
<u>Rice Parboiled</u>	194.86	180.43	9.45
Bahrain IS	7.13	8.05	11.29
Iran	45.37	40.72	8.97
Kuwait	11.16	11.36	10.18
Nepal	9.39	6.53	6.95
Oman	10.20	11.45	11.23
Qatar	1.72	1.95	11.37
Reunion	3.00	2.31	7.71
Saudi	56.92	50.02	8.79
Sri Lanka	9.17	9.71	10.59
U Arab Emts	36.77	38.89	10.58

1994-95

Variety/ Destination	Quantity (000 Tonnes)	Value (Rs Crore)	Unit Value (Rs/Kg)
<u>Polished Rice</u>	167.47	132.71	7.92
Behrain	1.03	1.01	9.81
Bangladesh	52.07	37.20	7.15
Indonesia	3.61	2.45	6.79
Iran	2.50	2.54	10.17
Kenya	33.56	23.10	6.88
Kuwait	2.88	3.68	12.76
Oman	2.21	2.02	9.13
Saudi	29.31	32.53	11.10
Sierra Leone	13.00	7.95	6.12
Sri Lanka	3.06	2.11	6.90
U Arab Emts	8.33	8.01	9.62
Togo	12.40	7.02	5.66
<u>Basmati Rice</u>	442.17	865.39	19.57
Bahrain I.S	9.19	18.68	20.33
Belgium	2.86	5.86	20.49
Canada	4.74	12.18	25.72
France	6.93	13.56	19.57
German F Rep	2.50	6.33	25.37
Iran	2.29	5.44	23.72
Kuwait	61.03	117.07	19.18
Oman	7.65	14.97	19.56
Philp	1.40	2.65	18.90
Qatar	2.26	5.21	23.09
Russia	1.43	3.17	22.11
Saudi Arabia	238.28	428.23	17.97

U Arab Emts	37.36	90.23	24.15
UK	42.02	83.13	19.78
USA	14.62	39.52	27.03
<u>Parboiled Rice</u>			
Bahrain IS	2.38	2.13	8.95
Bangladesh	73.46	514.09	7.00
Indonesia	16.92	11.43	6.76
Iran	3.80	3.36	8.85
Jordan	2.42	2.08	8.57
Kenya	24.56	16.64	6.77
Kuwait	6.96	6.87	9.87
Maldives	1.05	0.80	7.58
Mauritius	4.66	4.69	10.05
Oman	1.22	1.12	9.16
Saudi	65.41	58.32	8.92
Senegal	6.60	4.20	6.36
Singpor	21.16	9.25	4.37
Somalia	1.30	1.04	7.99
S.Africa	1.65	1.24	7.51
Togo	28.67	18.35	6.40
Turkey	2.09	1.54	7.37
U Arab Emts	6.20	5.34	8.61
UK	1.05	0.61	5.79

April 1995-March 1996

Variety/ Destination	Quantity (000 Tonnes)	Value (Crore Rs)	Unit Value (Rs/Tonne)
<u>Rice in Husk</u>	2.44	1.84	7.55
Bangladesh	2.30	1.73	7.53
<u>Polished Rice</u>	14290.57	1155.46	8.01
Angola	9.61	7.80	8.11
Bahrain	1.34	1.21	9.02
Bangladesh	877.77	677.01	7.71
Djibouti	1.30	1.23	9.48
France	14.62	11.01	7.52
German F Rep	2.52	2.61	10.38
Guinea	11.00	12.07	10.97
Indonesia	138.49	110.26	7.96
Iran	10.13	11.14	10.99
Italy	2.55	3.45	13.55
Jordan	4.21	3.53	8.39
Kenya	46.82	35.79	7.64
Kuwait	1.62	1.68	10.37
Liberia	1.00	1.27	12.67
Maldives	1.42	1.30	9.11
Mongolia	3.03	2.54	8.39
Nepal	1.55	1.21	7.80
Netherland	3.12	3.21	10.30
Oman	3.16	3.05	9.66
Poland	7.25	7.41	10.22
Russia	24.15	27.27	11.29
Saudi	38.51	32.86	8.53
Senegal	13.00	9.11	7.00

Seychelles	2.36	2.59	10.96
Sierra Leone	7.00	7.17	10.24
Singapore	4.88	4.55	9.33
Sonalia	4.06	3.55	8.74
S.Africa	77.68	64.43	8.29
Swaziland	6.84	6.45	9.42
Switzerland	8.53	8.28	9.71
Turkey	11.52	10.39	9.01
U Arab Emts	50.33	44.58	8.85
UK	1.34	1.26	9.40
USA	12.29	11.84	9.63
Yemen Rep	17.48	15.93	9.11
<u>Basmati Rice</u>	1429.06	1155.46	8.08
Bahrain I.S	8.24	17.93	21.74
Belgium	3.57	7.71	21.58
Canada	5.26	13.01	24.70
Denmark	1.34	3.55	26.39
France	6.60	14.40	21.81
German F Rep	3.62	9.06	25.06
Italy	1.09	27.55	25.24
Kuwait	34.99	78.41	22.40
Oman	4.51	10.85	24.04
Qatar	1.41	3.68	25.99
Russia	3.64	9.45	25.96
Saudi	179.61	376.67	20.97
Seychelles	2.42	5.57	22.95
U Arab Emts	28.35	73.05	25.76
UK	46.63	116.57	25.00
USA	30.96	81.23	26.23

<u>Rice Parboiled</u>	3091.60	2547.84	8.24
Ameri Samoa	5.50	5.79	10.52
Angola	15.30	11.78	7.70
Bahrain IS	4.71	4.47	9.48
Bangladesh	375.70	271.48	7.22
Benin	11.20	9.38	8.37
Cameron	3.30	2.62	7.93
China P RP	18.78	19.38	10.31
Gambia	2.00	1.36	6.82
German F REP	4.25	4.59	10.81
Ghana	4.50	3.69	8.21
Hungary	1.07	1.09	10.17
Indonesia	897.23	721.06	8.03
Iran	88.15	88.51	10.04
Israel	1.54	1.64	10.62
Ivory Coast	123.06	98.47	8.00
Japan	4.09	2.95	7.22
Jordan	3.76	3.35	8.89
Kenya	334.44	263.88	7.89
Kor RP	53.32	54.08	10.14
Kuwait	7.75	9.41	12.13
Liberia	2.46	3.07	12.45
Libya	12.72	15.88	12.48
Maldives	3.01	2.50	8.27
Mali	13.20	11.86	8.98
Mauritious	12.03	8.93	7.41
Morocco	3.49	2.87	8.22
Mozambique	28.77	20.74	7.20
Nepal	28.66	21.30	7.42

Netherlands	7.43	7.12	9.56
Oman	3.93	3.72	9.46
Peru	40.46	42.37	10.46
Philp	52.23	48.05	9.20
Poland	11.02	11.29	10.24
Qatar	2.33	2.27	9.75
Reunion	2.60	2.76	10.63
Russia	76.44	78.31	10.24
Saudi	84.48	82.47	9.76
Senegal	123.81	83.74	6.76
Sierra Leone	79.94	6.06	7.58
Singapore	1.45	1.38	9.50
Sloventa	7.91	8.15	10.30
Somalia	3.84	3.47	9.02
S.Africa	292.49	239.47	8.18
Sudan	2.01	1.80	8.96
Swaziland	11.82	9.63	8.15
Syria	12.60	137.63	10.92
Tanzania Rep	26.23	21.34	8.13
Togo	62.34	43.24	6.93
Tunisia	4.20	4.24	10.08
Turkey	7.86	7.02	8.93
U Arab Emts	67.22	63.74	9.48
UK	1.73	1.72	9.91
Ukraine	11.24	11.03	9.80
USA	8.38	8.86	10.57
Yemen Rep	11.03	11.46	10.38
Zaire Rep	5.48	4.09	7.46

Broken Rice

Angola	2.00	1.52	7.58
Kenya	10.00	6.10	6.09
Switzer	1.00	0.76	7.58
U Arab EMTS	1.70	1.32	7.79

Source: Monthly Statistics of the Foreign Trade of India,
Director General of Commercial Intelligence and Statistics,
Ministry of Commerce, GOI, Calcutta.

Appendix Table 8.1: Average Area of Foodgrains in Selected States (Million Hectares)

State	1962-65	1970-73	1980-83	1990-93
Haryana	3.60	3.93	4.04	3.88
Himachala Pradesh	0.77	0.82	0.86	0.86
Jammu & Kashmir	0.77	0.78	0.84	0.90
Punjab	3.20	3.95	4.95	5.67
Uttar Pradesh	18.30	19.45	20.24	20.26
North-western Region	26.64	29.93	30.93	31.57
Assam	2.02	2.17	2.53	2.73
Bihar	9.80	9.93	9.41	8.91
Orissa	5.44	5.88	6.66	7.10
West Bengal	5.47	6.13	5.89	6.45
Eastern Region	22.73	24.10	24.49	25.18
Gujarat	4.72	4.79	4.65	4.28
Madhya Pradesh	15.62	16.98	17.92	17.22
Maharashtra	12.85	11.86	13.96	13.80
Rajasthan	11.33	12.57	12.70	12.26
Central Region	44.52	46.20	49.23	47.55
Andhra Pradesh	9.57	8.99	8.92	7.41
Karnataka	7.55	6.79	7.10	7.12
kerala	0.86	0.92	0.83	0.58
Tamil Nadu	5.10	5.20	4.26	4.10
southern Region	23.08	21.91	21.11	19.21
All India	117.62	122.07	126.80	124.76

Source: Taken from Bhalla, 1995 which in turn based on Government of India, Area and Production of Principal Crops in India, Directorate of Economics and Statistics, Dept of Agriculture and Co-operation, Ministry of Agriculture, New Delhi.

Appendix Table 8.2: Average Production of Foodgrains in Selected States (Million Tonnes)

	1962-65	1970-73	1980-83	1990-93
Haryana	2.47	4.46	6.24	9.65
Himachala Pradesh	0.71	0.94	1.07	1.39
Jammu & Kashmir	0.62	0.95	1.28	1.38
Punjab	3.57	7.64	13.12	19.63
Uttar Pradesh	13.54	18.48	25.24	35.79
North-western Region	20.91	32.47	46.96	67.85
Assam	1.85	2.14	2.63	3.42
Bihar	7.46	8.76	8.53	10.69
Orissa	4.71	4.77	5.33	7.40
West Bengal	5.65	7.37	6.90	12.27
Eastern Region	19.67	23.04	23.37	33.78
Gujarat	2.62	3.61	4.64	4.55
Madhya Pradesh	9.38	11.06	12.61	16.81
Maharashtra	6.72	4.53	9.85	11.54
Rajasthan	4.79	6.78	7.33	10.10
Central Region	23.51	25.98	34.43	43.00
Andhra Pradesh	7.35	7.13	10.86	11.79
Karnataka	4.53	5.54	6.40	7.60
Kerala	1.14	1.36	1.33	1.10
Tamil Nadu	5.69	7.03	5.94	8.04
Southern Region	18.71	21.07	24.53	28.53
All India	83.27	103.54	131.65	174.90

Source: As in Table 8.2.2

Appendix Table 9.1: Methods of Procurement for Rice in 1991-92

AP	50% levy on millers & dealers
Assam	do
Bihar	40% levy on millers, 30% on dealers during 1988-89. No levy from 13-4-1989.
Gujarat	2% on millers/dealers
Haryana	75% on millers/dealers
Karnataka	33.3% on millers/dealers
Kerala	No levy
MP	50% on millers/dealers
Maharashtra	30% on millers/dealers
Orissa	50% on millers
Punjab	75% on millers/dealers
Tamil Nadu	50% on millers/dealers
UP	60% on millers/dealers
West Bengal	50% on millers

Source: *Bulletin on Food Statistics*, Department of Food and Agriculture, GOI, 1991.