

## CHAPTER 4

### Structure of Cost of Cultivation

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The various costs of cultivation of Paddy per hectare along with their relative shares for the 9 states, namely, AP, Assam, Bihar, Haryana, MP, Orissa, Punjab, UP and West Bengal are given for the years 1996-97 and 2008-09 in table 4.1. Andhra Pradesh records an increase in the share of fixed cost from 35.45% in 1996-97 to increase about 39% in 2008-09 while variable cost share declined from about 65% to 61% in the same period of the share of variable cost, about 34% is accounted for by human labour. The share of machine labour increased from about 5% to 9.7% while that of fertilizer and manure declined from about 12% to 7% in the same period. In Assam, the fixed cost share slightly decreased while that of variable cost increased slightly from about 64.6% in 1996-97 to about 66.8% in 2008-09 of which human labour accounted for about 42% and bullock labour accounted for about 16% on the average.

In case of Bihar, the fixed cost declined from 38% in 1996-97 to about 32% in 2008-09 while, the share of variable cost increased from about 62% to about 68% in the given time period. The major constituents of variable cost are human labour which increased from 32.5% to 40.76%, bullock labour decreased from 9.2% to about 4% and machine labour increased from 2.8% to 7.3% which shows that there is technological change from bullock to mechanized agriculture in Bihar during the period from 1996-97 to 2008-09. In Haryana state which experienced the effect of green revolution, the variable cost share declined from about 61.4% in 1996-97 to about 54% in 2008-09 of which about 26.54% was accounted for by Human labour, 8% by machine labour and about 9% by fertilizer and manure on the average. The share of human labour is lower in Haryana in comparison to A.P., Assam and Bihar. In case of M.P., the share of fixed cost from about 39% to 46% while that of variable cost declined from 61% to 54% during the sample period. The major share in the variable cost is of human labour (30%), bullock labour (13%) fertilizer & manure (10%). A note-worthy feature is that bullock labour share decreased from about 14% in 1996-97 to about 8% in 2008-09 while that of machine labour increased from 2.23% to 4.82% which signifies that bullocks are replaced by machines in M.P. agriculture. In Orissa state, there is a slight decrease in the share of fixed cost and

increase in the share of variable cost. The variable cost share is mainly accounted for by human labour (38.43%), bullock labour (11%) and fertilizer and manure (9.78%). In Punjab, like Haryana state the share of fixed cost increased (43% to 53.7%) while that of variable cost decreased (56.7% to 46.3%). The major sources of variable cost share are human labour (17.25% average), machine labour (about 11% average), fertilizer and manure (8.7% average) and irrigation (7.64% average) over the sample period. It can be seen that the share of human labour and bullock labour is lowest what that of machine labour is highest which shows that paddy cultivation in Punjab like Haryana, is highly mechanized. The fixed costs share of cultivation of paddy in UP also recorded a increase in the share of fixed cost and a decrease in the share of variable cost. The relative cost share of human labour decreased from about 32% in 1996-97 to about 27 % in 2008-09. The share of bullock labour decreased from about 5.3% in 1996-97 to 2.6% in 2008-09 while that of machine labour increased from about 4.48% to 8.87% in 2008-09. The cost share of irrigation also increased from 2.74% to about 4% in the sample period on the contrary, West Bengal has recorded a decline in the percentage share of fixed cost and an increase in the cost share of variable cost. The higher cost share of variable cost is accounted for mainly by human labour (increased from 37% to 42%), bullock labour (about 9% an average of sample period) and about 9.3% by fertilizer and manure on the average of the sample period.

#### **Variations in Structure of Cost of Cultivation of Moong**

The higher cost share of variable cost is accounted for mainly by human labour (increased from 37% to 42%), bullock labour (about 9% an average of sample period) and about 9.3% by fertilizer and manure on the average of the sample period.

The amount of different types of cost and their relative shares in the total cost in the cultivation of Moong per hectare has been shown in table 4.2. Moong crop is mainly cultivated in the states of Andhra Pradesh (AP), Maharashtra and Orissa. In A.P. the share of fixed cost increased from about 41% in 1996-97 to about 50% in the year 2008-09 while the share of variable cost declined from about 59% to 50% in the same period. The average share of variable cost is mainly due to 'Human Labour' (about 29%), 'Bullock Labour (9.75%) and fertilizer and manure (7%) during the sample period.

In case of Maharashtra state, the average shares of fixed cost (27%) and variable cost (73%) are accounted for mainly by 'Human Labour' (30%) and 'Bullock Labour' (23%) during the sample period. Fertilizer & manure and seed account for about 8% and 6% respectively. In Orissa, the shares of fixed cost and variable cost seem to have remained stable at about 35% and 65% respectively over the sample period. Again the major constituents, of the variable cost are 'Human Labour' (34%), 'Bullock Labour' (15%) and seed (11.4%) during the sample period.

#### **Variations in Structure of Cost of Cultivation of Urad**

The estimates of different types of costs along with their relative shares in the total cost are shown in table 4.3. Urad is mainly cultivated in 5 states, viz, A.P., Maharashtra, M.P., Orissa and U.P. In M.P. the fixed cost share decreased from about 37% to about 33% while that of variable cost increased from about 63% to 67%. The increase in the variable cost was accounted for by the increase in the relative shares of Human labour, Machine labour and Fertilizer and Manure. The relative share of Bullock labour decreased from about 22% to 10% which means that in the cultivation of Urad the Bullock labour has been replaced by Machine labours.

In Orissa, on the other hand, the share of fixed cost decreased slightly while that of variable cost slightly decreased. The variable cost is mainly accounted for by Human labour (35%), Bullock labour (12%) and seed (11%) on the basis of average relative shares during the sample period, cultivation of Urad in Orissa differs from M.P. is that there is no evidence of replacement of Bullock labour by Machine labour as was evident in the state of M.P.

In case of U.P., the fixed cost and variable cost shares are, by and large are stable over the sample period. But there is a clear evidence of replacement of Bullock labour, which decreased from about 14.5% to 6% by Machine labour which increased from about 4% to 12% over the sample period other major cost is of seed whose share increased from 4% to 7% over the sample period. In A.P. the share of fixed cost increased from 37% to 51% while that of variable cost declined from about 63% to 49% during study period. The main components of variable cost are Human labour which decreased from 37% to 22% and Machine labour increased from 5% to

11% and seed accounting for about 8% on the average of sample period. In Maharashtra, like U.P. relative shares of fixed and variable cost shares did not change over the sample years. The relative shares of Bullock labour and Machine shares increased at the cost of Human labour which decreased from about 37% to about 22% during the sample period. There is massive decline in the share of irrigation cost from 8% to .03% in 2008-09.

#### **Variations in Structure of Cost of Cultivation of Jowar**

The estimates of various types of cost and their relative shares in the cultivation of Jowar in the states of A.P., M.P. and Tamilnadu are presented in table 4.4. Over the study years, the relative share of fixed cost increased from 37% to 40% while that of variable cost decreased from 63% to about 60% over the sample period. The major constituents of the variable cost are Human labour (29.8%), Bullock labour (16%) and Fertilizer and Manure (about 11%). Bullock labour appears to be replaced by Machine labour as the Bullock labour decreased from about 15% to 11% while that of Machine labour increased from about 1% to 4% over the sample years.

Madhya Pradesh, on the other hand shows a decline in the relative share of cost and increase in the relative share variable cost. The major items of variable cost share are Human labour (about 30%) Bullock labour(about 16%) and Fertilizer and Manure (about 7%). The third state where Jowar is cultivated in Tamilnadu. In Tamilnadu the fixed cost share declined from 33% to 23% while that of variable cost increased from about 67% to 77% over the sample period. The variable cost share is mainly accounted for by Human labour whose share increased from 41% to about 50% followed by Machine labour which increased from 12% to about 14%. Each of the Bullock labour, Machine labour and Fertilizer and Manure account in between 4% to 5%.

#### **Variations in Structure of Cost of Cultivation of Bajra**

The relative cost shares of different types of costs along with cost estimates are given for the years 1996-97 and 2008-09 and their average estimates for the entire sample period are shown in table 4.5. The information is given for 5 states where the crop of Bajra is cultivated. There are Karnataka, Haryana, Maharashtra, Rajasthan and Uttar Pradesh. Among all the states, Karnataka shows the highest relative share of fixed cost about 74% as an average over the sample period. Variable cost share is about 26% only. The cost share of variable cost is mainly accounted for by Human labour

(32%) Bullock labour(17%) and Fertilizer and Manure (12%). The relative share of cost of Fertilizer and Manure has rapidly declined while that of Machine labour has increased over the sample period.

In Haryana, the fixed cost accounts for, on the average, about 32% while that of variable cost accounts for about 67% of the total variable cost 'Human labour' and 'Machine labour' are the major items accounting for about 38% and 12% respectively. Maharashtra, on the other hand, shows highest share of variable cost among the states cultivating Bajra crop. The share of variable cost is about 75% and of fixed cost is about 25% on the average. The main types of cost which account for the variable cost that are 'Human labour' (29%), Bullock labour (22%), Machine labour (9%) and Fertilizer & Manure (9%).

Rajasthan also shows higher share of variable cost in comparison to that of fixed cost. The variable cost accounts for about 67% while fixed cost accounts for about 32% on the average for the entire sample period. Human labour is the main item of cost in the variable cost which accounts for about 44.4% as an average of the sample period.

In contrast to Maharashtra and Rajasthan states, Uttar Pradesh shows that the fixed cost accounts for about 60% and variable cost accounts for about 40% of the total cost of cultivating Bajra. The relative share of the variable cost is mainly accounted for by Human labour and Machine labour with about 34% and 12% shares of variable cost respectively.

### **Variations in Structure of Cost of Cultivation of Maize**

The estimates of different costs along with their relative cost shares for the years 1996-97 and 2008-09 and average over the entire sample period are given in table 4.6. Among the major Maize cultivating states are A.P., Bihar, H.P., M.P., U.P. and Rajasthan: on the average, the shares of fixed and variable costs are stable at 65% and 35% respectively. Clearly, the proportion of fixed cost is higher as compared to the variable cost. Human labour, Fertilizer & Manure and Bullock labour constitute the lion's share with 29%, 13% and about 9% respectively. There seems to be a technological change in the cultivation of Maize in A.P. which is evident from the decline in relative share of Bullock labour (from 7% to 4%) and a rise in the relative share of Machine labour (from 7.4% to 4%).

In Bihar the situation is reversed as the relative share of fixed cost is stable at about 32% and that of variable cost is stable at about 68% as averages of the same shares. Human labour, Bullock labour, Machine labour, Seed, Fertilizer & Manure, Irrigation account for approximately 29%, 9%, 5%, 5%, 13% and 2% respectively. As far as Himachal Pradesh is concerned, the share of variable cost declined from about 68% to 65% while the share of fixed cost increased from 32% to 35%. The major constituents of the variable cost are Human labour which decreased from 46% in 1996-97 to 35% in 2008-09 and Fertilizer & Manure which accounted for 12.5% in 1996-97 and 11.7% in 2008-09.

In Madhya Pradesh the share of fixed cost decreased from about 32.5% in 1996-97 to 27% in 2008-09 while the relative share of variable cost increased from 67.5% in 1996-97 to about 73% in 2008-09. Both in Uttar Pradesh and Rajasthan the relative shares of fixed cost is smaller than those of variable costs. In Uttar Pradesh, on an average, the Human labour, Bullock labour, Machine labour, Seed, Fertilizer & Manure and Irrigation account for about 42.7%, 5.4%, 8%, 1.76%, 8% and 4.6% respectively. In Rajasthan the main constituents of the relative share of variable cost are Human labour (34.5%), Bullock labour (13.6%), Machine labour (4.4%), Seed (2.8%), Fertilizer and Manure (12%) and Irrigation (1.6%) on an average of the sample period.

### **Variation in the Cost Structure of Cultivation of Wheat**

The estimates of different costs of cultivation of Wheat Crop along with their shares for the years 1996-97 and 2008-09 are shown in table 4.7. The wheat crop is mainly cultivated in the states of Bihar, Gujarat, Haryana, Himachal Pradesh, Madhya Pradesh, Punjab, Rajasthan and Uttar Pradesh. The table reveals that except Punjab and Haryana states, in all the states, the relative share of fixed cost is higher than the share of variable cost in the years 1996-97 and 2008-09 as well as the average of the sample period. In Punjab however, the share of variable cost is higher than that of fixed cost in the years 1996-97 and 2008-09 including average of the sample years. As far as Haryana is concerned fixed cost share (57%) is higher than the variable cost share (43%) in the year while variable cost share (about 52%) is higher than the fixed cost share (48%) in the year 2008-09. The average of the fixed cost shares is more than the average of variable cost shares. The table also reveals that in all the states

there is a trend of replacing Bullock labour by Machine labour as evident from the higher and increasing shares of Machine labour cost in comparison to the Bullock labour cost share.

In Bihar the variable cost share is mainly due to cost shares of Human labour (18.76%) Bullock labour (4.75%), Machine labour (12.45%), Seed (7.4%), Fertilizer and Manure (11.8%) and Irrigation (9.1%). In Gujarat, the variable cost share is mainly due to Human labour (21%), Machine labour (10%), Seed (9%) and Fertilizer and Manure (11.5%) and irrigation (14%).

In Haryana state, the main constituents of variable cost in the cultivation of Wheat crop are Human labour (18.7%), Machine labour (14%) and Fertilizer and Manure (10%) and Irrigation (7%) as an average of the sample period. The increase in the relative share of variable cost is attributable to the increase in the relative shares of Human labour, Machine labour, Seed and that of irrigation.

In Himachal Pradesh, the increase in the share of variable cost is due to increase in the share of Machine labour cost and cost share of irrigation. In Madhya Pradesh, the relative cost shares of Human labour (17%), Bullock labour(5%), Machine labour(9.8%), Seed (7.5%), Fertilizer and Manure (8%) and Irrigation (9%) account for the cost share of variable cost as average of the sample years. The increase in the share of the variable cost in the total cost of cultivation of wheat can be attributed to the increase in the cost of Machine labour and cost of irrigation.

In the state of Punjab, average cost share of variable cost is mainly made up of Human labour (12%), Machine labour (13.5%) and Fertilizer and Manure (11%). And the increase in the share of variable cost from (52%) to (56%) is mainly due to increase in the cost share of Machine labour from about 9% in 1996-97 to about 15% in 2008-09. As far as the cost structure in the state of Rajasthan is concerned the increase in the share of variable cost from about 36% to about 40% can be attributed mainly due to an increase in the cost shares of Machine labour from 9.9% to 11% and that of irrigation from 7.6 to 11.3%. The contribution of Human labour, Machine labour, Seed, Fertilizer and Manure and Irrigation to share of variable cost is about 24% , 10%,7%,8%, and 11% respectively. In Uttar Pradesh also the share of variable cost increased from about 39% to 43% and this increase can be due to the increase in

the cost share of Machine labour from 10% to 13% and that of irrigation from 7% to 10%.

### **Variations in Structure of Cost of Cultivation of Gram**

The cultivation of Gram is carried out mainly in 5 states of India, namely Bihar, Haryana, Madhya Pradesh, Rajasthan and Uttar Pradesh. The estimates of different costs of cultivating Gram along with different cost share for 1996-97 and 2008-09 and averages of the sample period are shown in the table 4.8. The table shows that the relative shares of fixed cost in all the states except in Haryana state, where variable cost share is higher than that of fixed cost. Another important feature of cultivation of Gram which is exhibited by the table is that a technology change is taking place where Bullock labour is being replaced by Machine labour. This is evident from the decline in the relative shares of Machine labour in all the states under consideration.



**Table 4.1**  
**Variations in Structure of Cost of Cultivation of Paddy**

Year	(Rs/hectare)								
	Human Labour	Bullock Labour	Machine Labour	Seed	Fertiliser & Manure	Irrigation	Variable Cost	Fixed Cost	Total Cost
<b>Andhra Pradesh</b>									
1996-97	7133.55	698.99	1064.91	603.76	2526.41	690.13	13514.09	7423.00	20937.09
	(34.07)	(3.33)	(5.08)	(2.88)	(12.06)	(3.29)	(64.55)	(35.45)	
2008-09	15800.33	563.86	4514.69	1128.92	3411.34	545.94	28284.94	18165.26	46450.20
	(34.01)	(1.21)	(9.71)	(2.43)	(7.34)	(1.17)	(60.89)	(39.11)	
Average (1996-97 to 2008 -09)	9297.11	780.80	1999.29	807.48	2902.78	877.58	18039.95	10718.65	28758.60
	(32.32)	(2.83)	(6.68)	(2.84)	(10.36)	(3.24)	(62.99)	(37.01)	
<b>Assam</b>									
1996-97	3787.48	1183.78	65.74	402.72	48.40	0.03	5565.53	3051.32	8616.85
	(43.95)	(13.73)	(0.76)	(4.67)	(0.56)	(0.00)	(64.58)	(35.42)	
2008-09	8652.81	3043.26	739.61	672.59	383.58	88.03	13825.73	6887.27	20713.00
	(41.77)	(14.69)	(3.57)	(3.24)	(1.85)	(0.42)	(66.75)	(33.25)	
Average (1996-97 to 2008-09)	5712.85	2212.50	196.49	524.19	300.47	39.96	9141.37	4392.48	13533.85
	(42.29)	(16.15)	(1.33)	(3.96)	(2.13)	(0.26)	(67.28)	(32.72)	

Note: Figures in the brackets are the percentage to total cost.

Continue...Table 4.1

Variations in Structure of Cost of Cultivation of Paddy

(Rs/hectare)

Year	Human Labour	Bullock Labour	Machine Labour	Seed	Fertiliser & Manure	Irrigation	Variable Cost	Fixed Cost	Total Cost
<b>Bihar</b>									
1996-97	3057.05 (32.53)	865.83 (9.21)	264.77 (2.81)	677.87 (7.21)	805.07 (8.56)	14.09 (0.14)	5818.66 (61.94)	3576.37 (38.06)	9395.03
2008-09	7422.85 (40.76)	761.38 (4.18)	1334.14 (7.32)	1192.33 (6.54)	1291.17 (7.09)	8.25 (0.04)	12350.08 (67.83)	5859.73 (32.17)	18209.81
Average (1996-97 to 2008-09)	4848.40 (36.76)	763.97 (6.19)	875.99 (6.36)	789.67 (6.11)	986.04 (7.57)	185.26 (1.28)	8663.99 (65.87)	4419.28 (34.13)	13083.30
<b>Haryana</b>									
1996-97	4840.68 (25.99)	197.66 (1.06)	1427.05 (7.66)	276.08 (0.14)	1782.72 (9.57)	1782.72 (9.57)	11434.73 (61.41)	7187.61 (38.59)	18622.34
2008-09	10703.26 (24.53)	27.47 (0.06)	3839.04 (8.80)	906.57 (2.07)	2698.32 (6.18)	3164.36 (7.25)	23545.32 (53.97)	20077.45 (46.03)	43622.77
Average (1996-97 to 2008-09)	7225.56 (26.54)	100.61 (0.42)	2264.55 (8.07)	516.47 (1.89)	2374.12 (8.86)	2599.95 (9.58)	16578.19 (60.76)	10937.22 (39.24)	27515.41

Note: Figures in the brackets are the percentage to total cost.

Continue....Table 4.1

Variations in Structure of Cost of Cultivation of Paddy

(Rs\hectare)

Year	Human Labour	Bullock Labour	Machine Labour	Seed	Fertiliser & Manure	Irrigation	Variable Cost	Fixed Cost	Total Cost
<b>Madhya Pradesh</b>									
1996-97	2873.08 (28.76)	1381.92 (13.83)	223.21 (2.23)	510.88 (5.11)	846.72 (8.47)	114.87 (1.15)	6125.61 (61.33)	3862.99 (38.67)	9988.60
2008-09	5562.44 (25.33)	1746.6 (7.95)	1059.27 (4.82)	1160.33 (5.28)	1568.78 (7.14)	187.62 (0.85)	11836.31 (53.92)	10118.19 (46.08)	21954.50
Average (1996-97 to 2008-09)	3982.96 (29.81)	1563.79 (12.90)	480.03 (3.68)	736.79 (5.91)	1214.72 (9.90)	193.18 (1.59)	8112.36 (65.61)	4376.40 (34.39)	12488.76
<b>Orissa</b>									
1996-97	3893.63 (37.76)	958.24 (9.29)	62.47 (0.60)	429.53 (4.16)	1067.39 (10.35)	27.17 (0.26)	6597.66 (63.99)	3712.3 (36.01)	10309.96
2008-09	10026.40 (38.70)	2476.38 (9.56)	756.76 (2.92)	764.56 (2.95)	2197.42 (8.48)	116.57 (0.45)	16842.25 (65.01)	9066.80 (34.99)	25909.05
Average (1996-97 to 2008-09)	6609.54 (38.43)	1918.11 (11.11)	387.35 (2.08)	585.54 (3.48)	1666.99 (9.78)	86.30 (0.49)	11608.55 (67.40)	5614.49 (32.60)	17223.04

Note: Note: Figures in the brackets are the percentage to total cost.

**Continue... Table 4.1**  
**Variations in Structure of Cost of Cultivation of Paddy**

(Rs/hectare)

Year	Human Labour	Bullock Labour	Machine Labour	Seed	Fertiliser & Manure	Irrigation	Variable Cost	Fixed Cost	Total Cost
<b>Punjab</b>									
1996-97	3407.69 (18.96)	34.00 (0.18)	1789.07 (9.95)	354.81 (1.97)	1959.53 (10.90)	1549.00 (8.62)	10194.66 (56.74)	7772.19 (43.26)	17966.85
2008-09	8369.91 (18.48)	162.19 (0.36)	4510.37 (9.96)	901.84 (1.99)	3063.68 (6.76)	1406.30 (3.11)	20970.90 (46.30)	24320.30 (53.70)	45291.24
Average (1996-97 to 2008-09)	4660.68 (17.25)	57.99 (0.19)	2889.80 (10.66)	574.88 (2.14)	2299.65 (8.72)	2036.64 (7.64)	14134.4 (52.56)	13065.47 (47.44)	27199.84
<b>Uttar Pradesh</b>									
1996-97	3652.34 (32.31)	596.68 (5.27)	506.93 (4.48)	630.86 (5.58)	1115.97 (9.87)	309.85 (2.74)	7044.55 (62.34)	4256.44 (37.66)	11300.99
2008-09	7607.05 (27.02)	735.82 (2.61)	2499.18 (8.87)	1603.8 (5.69)	2241.6 (7.96)	1153.87 (4.09)	16460.18 (58.48)	11684.32 (41.52)	28144.50
Average (1996-97 to 2008-09)	5420.98 (31.72)	654.64 (3.80)	1224.56 (6.80)	1085.08 (6.22)	1540.91 (8.96)	1006.61 (5.52)	11263.87 (64.90)	6130.71 (35.10)	17394.58

Note: Figures in the brackets are the percentage to total cost.

**Continue...Table 4.1**

**Variations in Structure of Cost of Cultivation of Paddy**

(Rs\hectare)

Year	Human Labour	Bullock Labour	Machine Labour	Seed	Fertiliser & Manure	Irrigation	Variable Cost	Fixed Cost	Total Cost
<b>West Bengal</b>									
1996-97	6248.29 (36.91)	1276.39 (7.54)	258.87 (1.53)	441.08 (2.61)	1532.95 (9.05)	750.11 (4.43)	10890.40 (64.33)	6039.26 (35.67)	16929.63
2008-09	14034.54 (42.47)	1636.15 (4.95)	1312.29 (3.97)	889.44 (2.69)	2798.31 (8.47)	1617.01 (4.89)	23139.60 (70.02)	9906.54 (29.98)	33046.12
Average (1996-97 to 2008-09)	9369.77 (40.04)	2068.09 (8.92)	611.81 (2.51)	665.19 (2.87)	1925.32 (8.29)	1079.23 (4.66)	16326.81 (69.90)	6983.44 (30.10)	23310.25

Note: Figures in the brackets are the percentage to total cost.

**Table 4.2**  
**Variations in Structure of Cost of Cultivation of Moong**

Year	(Rs\hectare)								
	Human Labour	Bullock Labour	Machine Labour	Seed	Fertiliser & Manure	Irrigation	Variable Cost	Fixed Cost	Total Cost
<b>Andhra Pradesh</b>									
1996-97	1802.56 (30.92)	378.73 (6.50)	218.64 (3.75)	317.55 (5.45)	287.57 (4.93)	78.05 (1.34)	3434.12 (58.91)	2395.48 (41.09)	5829.60
2008-09	3854.79 (29.18)	1153.86 (8.74)	407.99 (3.09)	492.22 (3.73)	404.12 (3.06)	0 (0.00)	6571.25 (49.75)	6638.07 (50.25)	13209.32
Average (1996-97 to 2008 -09)	2538.48 (28.57)	871.32 (9.75)	352.18 (4.07)	492.13 (5.63)	635.71 (7.22)	23.34 (0.31)	5294.18 (59.97)	3553.13 (40.03)	8847.307
<b>Maharashtra</b>									
1996-97	1518.37 (30.02)	905.97 (17.91)	120.57 (2.38)	357.63 (7.07)	427.31 (8.45)	0 (0.00)	3453.81 (68.29)	1603.88 (31.71)	5057.69
2008-09	4276.72 (27.82)	2680.03 (17.44)	1292.22 (8.41)	769.62 (5.01)	1009.78 (6.57)	13.03 (0.08)	10450.88 (67.99)	4920.57 (32.01)	15371.45
Average (1996-97 to 2008 -09)	2696.00 (30.00)	2204.21 (23.66)	474.09 (4.56)	529.69 (5.96)	698.48 (7.81)	31.68 (0.29)	6855.13 (73.26)	2404.10 (26.74)	9259.237

Note: Figures in the brackets are the percentage to total cost.

Continue.... Table 4.2

Variations in Structure of Cost of Cultivation of Moong

(Rs/hectare)

Year	Human Labour	Bullock Labour	Machine Labour	Seed	Fertiliser & Manure	Irrigation	Variable Cost	Fixed Cost	Total Cost
<b>Orissa</b>									
1996-97	1432.6 (36.48)	486.57 (12.39)	7.47 (0.19)	508.36 (12.94)	6.78 (0.17)	2.67 (0.07)	2493.01 (63.48)	1434.44 (36.52)	3927.46
2008-09	2928.25 (35.42)	1116.27 (13.50)	119.63 (1.45)	947.59 (11.46)	15.65 (0.19)	1.50 (0.02)	5221.50 (63.16)	3045.48 (36.84)	8266.98
Average (1996-97 to 2008 -09)	2094.81 (33.94)	929.53 (15.01)	145.37 (2.17)	695.57 (11.43)	33.01 (0.51)	10.02 (0.16)	3988.40 (64.51)	2213.28 (35.49)	6201.68

Note: Figures in the brackets are the percentage to total cost.

**Table 4.3**  
**Variations in Structure of Cost of Cultivation of Urad**

Year	(Rs\hectare)								
	Human Labour	Bullock Labour	Machine Labour	Seed	Fertiliser & Manure	Irrigation	Variable Cost	Fixed Cost	Total Cost
<b>Andhra Pradesh</b>									
1996-97	2116.74 (37.22)	168.43 (2.96)	285.38 (5.02)	464.4 (8.17)	131.57 (2.31)	464.4 (8.17)	3557.37 (62.55)	2129.48 (37.45)	5686.85
2008-09	3175.24 (21.95)	467.44 (3.23)	1531.32 (10.58)	1005.29 (6.95)	105.19 (0.73)	3.84 (0.03)	7091.75 (49.01)	7376.95 (50.99)	14468.70
Average (1996-97 to 2008 -09)	221.91 (25.86)	17.83 (2.09)	76.71 (7.94)	73.27 (7.73)	13.79 (1.81)	34.09 (4.75)	522.22 (56.47)	468.64 (43.53)	9569.88
<b>Maharashtra</b>									
1996-97	1898.45 (32.11)	912.21 (15.43)	248.46 (4.20)	421.93 (7.14)	664.65 (11.24)	1.03 (0.02)	4335.12 (73.32)	1577.81 (26.68)	5912.93
2008-09	3596.44 (24.37)	3252.15 (22.03)	1338.62 (9.07)	840.31 (5.69)	1332.92 (9.03)	0 (0.00)	10837.80 (73.43)	3922.28 (26.57)	14760.10
Average (1996-97 to 2008 -09)	2608.53 (27.78)	2451.02 (24.17)	536.19 (4.89)	602.73 (6.29)	872.85 (9.22)	0.43 (0.01)	7336.64 (74.99)	2470.64 (25.01)	9807.28

Note: Figures in the brackets are the percentage to total cost.



**Continue...Table 4.3**  
**Variations in Structure of Cost of Cultivation of Urad**

(Rs/hectare)

Year	Human Labour	Bullock Labour	Machine Labour	Seed	Fertiliser & Manure	Irrigation	Variable Cost	Fixed Cost	Total Cost
<b>Madhya Pradesh</b>									
1996-97	1559.18 (27.96)	1208.2 (21.66)	43.62 (0.78)	422.52 (7.58)	223.69 (4.01)	0 (0.00)	3533.36 (63.35)	2043.97 (36.65)	5577.33
2008-09	3802.65 (29.54)	1308.06 (10.16)	1536.42 (11.94)	759.19 (5.90)	1009.40 (7.84)	0 (0.00)	8653.26 (67.22)	4219.84 (32.78)	12873.10
Average (1996-97 to 2008 -09)	2422.93 (32.81)	868.00 (12.43)	646.14 (7.36)	535.69 (7.07)	416.11 (5.22)	44.98 (0.59)	5040.61 (66.81)	2547.92 (33.19)	7588.53
<b>Orissa</b>									
1996-97	1416.29 (34.51)	448.92 (10.94)	2.81 (0.07)	539.43 (13.15)	24.53 (0.60)	0.51 (0.01)	2477.53 (60.37)	1626.15 (39.63)	4103.68
2008-09	3160.17 (34.85)	872.00 (9.62)	55.14 (0.61)	955.59 (10.54)	107.57 (1.19)	1.53 (0.02)	5356.62 (59.08)	3710.12 (40.92)	9066.74
Average (1996-97 to 2008 -09)	2199.74 (35.15)	722.38 (11.69)	71.69 (1.11)	688.24 (11.07)	67.61 (0.97)	1.17 (0.02)	3830.65 (61.24)	2456.74 (38.76)	6287.39

Note: Figures in the brackets are the percentage to total cost.

Continue....Table 4.3

Variations in Structure of Cost of Cultivation of Urad

Year	(Rs/hectare)								
	Human Labour	Bullock Labour	Machine Labour	Seed	Fertiliser & Manure	Irrigation	Variable Cost	Fixed Cost	Total Cost
<b>Uttar Pradesh</b>									
1996-97	1991.05 (35.57)	809.48 (14.46)	242.01 (4.32)	229.19 (4.09)	8.45 (0.15)	15.64 (0.28)	3364.18 (60.10)	2233.76 (39.90)	5597.94
2008-09	3611.03 (33.32)	634.56 (5.85)	1342.49 (12.39)	771.18 (7.11)	18.24 (0.17)	23.52 (90.22)	6512.67 (60.10)	4326.22 (39.90)	10838.90
Average (1996-97 to 2008 -09)	2235.79 (32.70)	497.320 (7.61)	769.47 (10.86)	373.10 (5.31)	12.87 (0.20)	32.78 (0.48)	4003.24 (58.38)	2873.09 (41.62)	6876.32

Note: Figures in the brackets are the percentage to total cost.

**Table 4.4**  
**Variations in Structure of Cost of Cultivation of Jowar**

Year	(Rs/hectare)								
	Human Labour	Bullock Labour	Machine Labour	Seed	Fertiliser & Manure	Irrigation	Variable Cost	Fixed Cost	Total Cost
<b>Andhra Pradesh</b>									
1996-97	2043.23 (30.22)	1027.42 (15.20)	76.74 (1.13)	159.55 (2.36)	719.52 (10.64)	4.34 (0.06)	4279.57 (63.29)	2481.75 (36.71)	6761.32
2008-09	8294.32 (34.27)	2656.44 (10.98)	1018.12 (4.21)	418.39 (1.73)	1577.89 (6.52)	106.83 (0.44)	14464.10 (59.77)	9736.34 (40.23)	24200.40
Average (1996-97 to 2008 -09)	3596.92 (29.83)	1810.73 (15.59)	433.41 (3.34)	281.76 (2.42)	1206.29 (10.56)	133.80 (1.11)	7716.84 (65.05)	4217.32 (34.95)	11934.16
<b>Madhya Pradesh</b>									
1996-97	2167.72 (35.79)	933.59 (15.41)	282.40 (4.66)	157.64 (2.60)	420.11 (6.94)	0 (0.00)	4045.99 (66.79)	2011.44 (33.21)	6057.43
2008-09	3916.51 (33.33)	1979.29 (16.84)	783.68 (6.67)	288.30 (2.45)	1089.75 (9.27)	0 (0.00)	8359.71 (71.14)	3390.77 (28.86)	11750.48
Average (1996-97 to 2008 -09)	2768.72 (33.39)	1388.29 (16.33)	427.07 (4.98)	216.40 (2.52)	635.37 (7.20)	7.59 (0.11)	5567.59 (65.97)	2814.46 (34.03)	8382.05

Note: Figures in the brackets are the percentage to total cost.

Continue.... Table 4.4

Variations in Structure of Cost of Cultivation of Jowar

(Rs/hectare)

Year	Human Labour	Bullock Labour	Machine Labour	Seed	Fertiliser & Manure	Irrigation	Variable Cost	Fixed Cost	Total Cost
<b>Tamilnadu</b>									
1996-97	2522.21 (40.77)	179.49 (2.90)	714.69 (11.55)	174.92 (2.83)	395.71 (6.40)	54.01 (0.87)	4150.86 (67.10)	2035.00 (32.90)	6185.86
2008-09	5382.63 (49.86)	53.71 (0.50)	1458.02 (13.51)	508.42 (4.71)	679.53 (6.29)	8.48 (0.08)	8283.49 (76.73)	2512.08 (23.27)	10795.57
Average (1996-97 to 2008 -09)	3963.41 (40.72)	510.63 (4.78)	1031.77 (10.66)	323.96 (4.54)	443.90 (4.53)	156.45 (1.44)	6595.49 (67.07)	3315.95 (32.93)	9911.44

Note: Figures in the brackets are the percentage to total cost.

**Table 4.5**  
**Variations in Structure of Cost of Cultivation of Bajra**

(Rs\hectare)

Year	Human Labour	Bullock Labour	Machine Labour	Seed	Fertiliser & Manure	Irrigation	Variable Cost	Fixed Cost	Total Cost
<b>Karnataka</b>									
1996-97	1601.21 (27.82)	797.22 (13.85)	153.89 (2.67)	185.59 (3.22)	1315.90 (22.86)	0 (0.00)	1434.58 (24.94)	4319.44 (75.06)	5754.02
2008-09	2701.51 (37.27)	1137.33 (15.69)	797.88 (11.00)	403.49 (5.56)	408.26 (5.63)	0 (0.00)	1668.2 (23.01)	5579.29 (76.89)	7247.49
Average (1996-97 to 2008 -09)	2025.78 (32.37)	1038.07 (17.22)	333.34 (5.38)	334.10 (5.38)	728.41 (12.20)	0.38 (0.01)	1589.51 (25.69)	4615.05 (74.31)	6204.56
<b>Haryana</b>									
1996-97	3102.95 (42.60)	330.05 (4.53)	716.03 (9.83)	124.99 (1.71)	289.26 (3.97)	182.82 (2.51)	4806.93 (66.01)	2476.27 (33.99)	7283.20
2008-09	6405.31 (34.23)	578.08 (3.08)	2574.81 (13.75)	507.47 (2.71)	931.37 (4.97)	181.31 (0.96)	11385.79 (60.84)	7330.54 (39.16)	18716.33
Average (1996-97 to 2008 -09)	4239.91 (38.32)	471.62 (4.24)	1403.76 (12.20)	309.10 (2.67)	512.61 (4.51)	381.71 (3.30)	7437.49 (66.69)	3659.00 (32.31)	11292.49

Note: Figures in the brackets are the percentage to total cost.

Continue....Table 4.5

Variations in Structure of Cost of Cultivation of Bajra

(Rs/hectare)

Year	Human Labour	Bullock Labour	Machine Labour	Seed	Fertiliser & Manure	Irrigation	Variable Cost	Fixed Cost	Total Cost
<b>Maharashtra</b>									
1996-97	1913.54 (31.93)	1038.20 (17.32)	491.24 (8.19)	165.57 (2.76)	479.60 (8.00)	22.93 (0.38)	4218.25 (76.39)	107.17 (23.61)	5992.48
2008-09	6084.28 (27.30)	4563.02 (20.47)	2604.20 (11.68)	650.37 (2.91)	2627.47 (11.79)	165.8 (0.74)	17103.64 (76.76)	5176.99 (23.24)	22280.63
Average (1996-97 to 2008 -09)	3412.76 (28.76)	2691.75 (21.86)	1215.07 (9.35)	378.03 (3.06)	1059.56 (8.71)	154.30 (1.24)	9140.73 (74.88)	1771.26 (25.12)	12150.02
<b>Rajasthan</b>									
1996-97	1937.95 (48.98)	95.04 (2.40)	404.05 (10.21)	62.42 (1.57)	64.25 (1.62)	56.00 (1.41)	2653.07 (67.06)	1303.14 (32.94)	3956.21
2008-09	4754.62 (46.01)	110.07 (1.06)	1422.1 (13.76)	339.56 (3.28)	505.77 (4.89)	52.66 (0.50)	7285.59 (70.52)	3046.10 (29.48)	10331.70
Average (1996-97 to 2008 -09)	2914.18 (44.43)	78.43 (1.26)	896.90 (13.23)	182.65 (2.64)	243.12 (3.40)	127.89 (1.90)	4505.59 (67.48)	2091.88 (32.52)	6680.80

Note: Figures in the brackets are the percentage to total cost.

Continue.....Table 4.5

Variations in Structure of Cost of Cultivation of Bajra

(Rs/hectare)

Year	Human Labour	Bullock Labour	Machine Labour	Seed	Fertiliser & Manure	Irrigation	Variable Cost	Fixed Cost	Total Cost
<b>Uttar Pradesh</b>									
1996-97	2257.17 (36.20)	396.41 (6.35)	515.9 (8.27)	78.48 (1.25)	296.04 (4.74)	2.63 (0.04)	2622.68 (42.07)	3611.19 (57.93)	6233.87
2008-09	5997.53 (33.65)	1238.97 (6.95)	2307.48 (12.94)	515.73 (2.89)	708.07 (3.97)	39.19 (0.21)	6830.2 (38.33)	10990.87 (61.67)	17821.07
Average (1996-97 to 2008 -09)	3651.82 (34.40)	411.70 (3.69)	1359.00 (12.30)	314.76 (2.80)	477.21 (4.49)	102.50 (0.83)	4382.77 (40.43)	6431.19 (59.57)	10813.96

Note: Figures in the brackets are the percentage to total cost.

**Table 4.6**  
**Variations in Structure of Cost of Cultivation of Maize**

Year	(Rs\hectare)								
	Human Labour	Bullock Labour	Machine Labour	Seed	Fertiliser & Manure	Irrigation	Variable Cost	Fixed Cost	Total Cost
<b>Andhra Pradesh</b>									
1996-97	4294.22 (34.28)	924.57 (7.38)	552.61 (4.41)	476.96 (3.80)	1638.24 (13.08)	159.19 (1.27)	4196.39 (33.51)	8327.39 (66.49)	12523.78
2008-09	12612.04 (33.36)	1555.73 (4.11)	2139.68 (5.66)	2094.57 (5.54)	3595.86 (9.51)	1957.82 (5.17)	12495.28 (33.06)	25306.57 (66.94)	37801.85
Average (1996-97 to 2008 -09)	5451.83 (29.08)	1556.20 (8.85)	964.70 (4.82)	905.37 (4.86)	2366.89 (13.25)	368.94 (1.69)	6445.73 (34.76)	12135.15 (65.24)	18580.88
<b>Bihar</b>									
1996-97	2565.9 (29.53)	571.69 (6.58)	402.51 (4.63)	373.48 (4.29)	1201.15 (13.82)	482.03 (5.54)	5748.92 (66.17)	2938.90 (33.83)	8687.92
2008-09	4726.2 (23.80)	147.22 (0.74)	1640.68 (8.26)	1399.15 (7.04)	2290.66 (11.53)	2734.87 (13.77)	13294.20 (66.95)	6563.50 (33.05)	19857.70
Average (1996-97 to 2008 -09)	3794.22 (27.35)	505.52 (4.03)	1051.89 (7.16)	801.46 (5.47)	1792.23 (13.05)	1282.42 (8.30)	9464.29 (67.56)	4504.42 (32.44)	14257.44

Note: Figures in the brackets are the percentage to total cost.



Continue.... Table 4.6

## Variations in Structure of Cost of Cultivation of Maize

(Rs/hectare)

Year	Human Labour	Bullock Labour	Machine Labour	Seed	Fertiliser & Manure	Irrigation	Variable Cost	Fixed Cost	Total Cost
<b>Himachal Pradesh</b>									
1996-97	3350.46 (46.34)	327.61 (4.53)	108.47 (1.50)	153.28 (2.12)	904.82 (12.51)	0 (0.00)	4920.28 (68.06)	2308.77 (31.94)	7229.05
2008-09	5050.73 (35.39)	389.55 (2.72)	1141.95 (8.00)	602.46 (4.22)	1671.79 (11.71)	137.96 (0.96)	9212.65 (64.56)	5058.97 (35.44)	14271.62
Average (1996-97 to 2008 -09)	4297.13 (39.17)	352.40 (3.21)	515.00 (4.69)	356.00 (3.24)	1477.00 (13.46)	40.23 (0.37)	3766.01 (34.33)	7204.00 (65.67)	10970.00
<b>Madhya Pradesh</b>									
1996-97	2182.34 (37.01)	108.68 (1.84)	158.39 (2.68)	136.13 (2.30)	365.26 (6.19)	0.63 (0.01)	3982.41 (67.54)	1914.04 (32.46)	5896.45
2008-09	5229.76 (40.05)	1776.49 (13.60)	635.88 (4.87)	695.26 (5.32)	862.97 (6.61)	50.89 (0.38)	9520.57 (72.93)	3534.93 (27.07)	13055.50
Average (1996-97 to 2008 -09)	3222.40 (36.26)	1379.62 (15.43)	337.17 (3.64)	291.86 (3.14)	752.42 (8.16)	38.97 (0.32)	6237.52 (69.71)	2642.39 (30.29)	8879.91

Note: Figures in the brackets are the percentage to total cost

Continue.... Table 4.6

Variations in Structure of Cost of Cultivation of Maize

(Rs\hectare)

Year	Human Labour	Bullock Labour	Machine Labour	Seed	Fertiliser & Manure	Irrigation	Variable Cost	Fixed Cost	Total Cost
<b>Uttar Pradesh</b>									
1996-97	3422.06 (44.61)	422.81 (5.51)	481.59 (6.28)	111.00 (1.45)	535.17 (6.98)	104.86 (1.37)	5148.82 (67.12)	2522.24 (32.88)	7671.06
2008-09	7418.21 (32.25)	3952.48 (18.78)	1719.73 (8.17)	348.28 (1.65)	1303.48 (6.19)	90.62 (0.43)	15114.40 (71.82)	5930.74 (28.18)	21045.11
Average (1996-97 to 2008 -09)	5099.81 (42.66)	749.54 (5.41)	1001.26 (8.02)	215.88 (1.76)	970.74 (8.08)	611.39 (4.63)	8487.53 (69.48)	3717.34 (30.52)	12204.88
<b>Rajasthan</b>									
1996-97	NA	1042.42 (12.17)	129.87 (1.52)	172.70 (2.02)	1092.41 (12.75)	15.17 (0.18)	6486.53 (75.73)	2079.33 (24.27)	8565.86
2008-09	6370.2 (32.16)	1752.84 (8.85)	2002.14 (10.11)	1554.70 (7.85)	1598.97 (8.07)	35.64 (0.18)	13576.80 (68.53)	6233.48 (31.47)	19810.29
Average (1996-97 to 2008 -09)	5329.13 (34.48)	1787.22 (13.58)	641.63 (4.36)	416.29 (2.84)	1580.34 (11.98)	213.53 (1.61)	9799.83 (73.85)	3532.96 (26.15)	13332.79

Note: Figures in the brackets are the percentage to total cost.

**Table 4.7**  
**Variations in Structure of Cost of Cultivation of Wheat**

Year	(Rs/hectare)								
	Human Labour	Bullock Labour	Machine Labour	Seed	Fertiliser & Manure	Irrigation	Variable Cost	Fixed Cost	Total Cost
<b>Bihar</b>									
1996-97	2083.65 (19.13)	834.49 (7.66)	653.21 (6.00)	768.97 (7.06)	1372.19 (12.60)	830.89 (7.63)	4180.21 (38.37)	6713.32 (61.63)	10893.53
2008-09	4230.77 (21.38)	713.61 (3.61)	2919.75 (14.75)	1634.70 (8.26)	1930.94 (9.76)	1925.97 (9.73)	6080.07 (30.72)	13709.40 (69.28)	19789.42
Average (1996-97 to 2008 -09)	2718.79 (18.76)	653.47 (4.75)	1872.45 (12.45)	1084.37 (7.41)	1673.71 (11.76)	1356.85 (9.16)	4897.94 (34.01)	9607.28 (65.99)	14505.22
<b>Gujarat</b>									
1996-97	2657.53 (21.82)	345.73 (2.84)	1053.08 (8.65)	1063.87 (8.74)	1264.25 (10.38)	1762.21 (14.47)	3770.57 (30.96)	8406.31 (69.04)	12176.88
2008-09	4131.26 (18.07)	533.25 (2.33)	2806.55 (12.27)	2123.49 (9.29)	2209.86 (9.66)	3415.49 (14.94)	7070.29 (30.92)	15798.40 (69.08)	22868.73
Average (1996-97 to 2008 -09)	3697.29 (21.38)	479.86 (2.75)	1869.26 (10.44)	1613.18 (9.11)	1839.29 (10.54)	2501.99 (14.31)	5154.79 (29.22)	12397.84 (70.78)	17552.60

Note: Figures in the brackets are the percentage to total cost

**Continue.....Table 4.7**  
**Variations in Structure of Cost of Cultivation of Wheat**

Year	(Rs\hectare)								
	Human Labour	Bullock Labour	Machine Labour	Seed	Fertiliser & Manure	Irrigation	Variable Cost	Fixed Cost	Total Cost
<b>Haryana</b>									
1996-97	3046.40 (18.91)	243.70 (1.51)	1681.76 (10.44)	837.66 (5.20)	1843.01 (11.44)	1240.74 (7.70)	6925.51 (42.99)	9183.89 (57.01)	16109.40
2008-09	6846.83 (33.60)	189.93 (0.93)	4911.31 (24.10)	1536.10 (7.54)	2582.05 (12.67)	2369.66 (11.63)	19648.39 (52.46)	17802.36 (47.54)	37450.75
Average (1996-97 to 2008 -09)	4157.19 (18.66)	247.22 (1.09)	3217.43 (14.03)	1053.33 (4.72)	2240.62 (10.08)	1597.47 (7.09)	10565.19 (40.67)	13352.22 (59.33)	22604.27
<b>Himachal Pradesh</b>									
1996-97	2326.92 (30.60)	261.54 (3.44)	578.44 (7.61)	609.60 (8.02)	847.41 (11.14)	5.90 (0.08)	2897.33 (38.10)	4706.52 (61.90)	7603.85
2008-09	2951.76 (20.26)	322.86 (2.22)	2222.71 (15.26)	1165.26 (8.00)	1398.31 (9.60)	316.75 (2.17)	5998.64 (41.17)	8571.14 (58.83)	14569.78
Average (1996-97 to 2008 -09)	3031.28 (24.62)	270.74 (2.31)	1588.37 (11.16)	977.65 (7.74)	1569.56 (11.77)	213.46 (1.12)	5505.75 (40.12)	7810.03 (59.88)	13315.78

Note: Figures in the brackets are the percentage to total cost.

.Continue...Table 4.7

**Variations in Structure of Cost of Cultivation of Wheat**

Year	(Rs\hectare)								
	Human Labour	Bullock Labour	Machine Labour	Seed	Fertiliser & Manure	Irrigation	Variable Cost	Fixed Cost	Total Cost
<b>Madhya Pradesh</b>									
1996-97	1900.99 (18.02)	601.64 (5.70)	946.51 (8.97)	911.43 (8.64)	1003.54 (9.51)	602.68 (5.71)	4434.75 (42.03)	6116.22 (57.97)	10550.97
2008-09	3545.89 (15.77)	665.31 (2.96)	2631.19 (11.70)	1693.95 (7.53)	1347.75 (5.49)	1858.48 (8.26)	10407.40 (46.28)	12082.38 (53.72)	22489.75
Average (1996-97 to 2008 -09)	2467.63 (17.14)	699.28 (5.01)	1475.36 (9.75)	1094.57 (7.51)	1153.07 (8.15)	1389.80 (9.20)	6225.53 (41.77)	8498.01 (58.23)	14723.53
<b>Punjab</b>									
1996-97	2892.53 (16.08)	44.34 (0.25)	1586.40 (8.82)	647.31 (3.60)	2346.96 (13.04)	341.70 (1.90)	9465.95 (52.61)	8526.05 (47.39)	17992.00
2008-09	4034.63 (11.39)	78.01 (0.22)	5271.94 (14.88)	1371.10 (3.87)	2924.12 (8.25)	296.75 (0.84)	19859.25 (56.06)	15564.23 (43.94)	35423.48
Average (1996-97 to 2008 -09)	2854.32 (12.11)	72.79 (0.31)	3378.37 (13.51)	816.28 (3.34)	2635.36 (11.13)	393.07 (1.63)	12850.57 (52.56)	11464.19 (47.44)	24314.76

Note: Figures in the brackets are the percentage to total cost.

**Continue...Table 4.7**  
**Variations in Structure of Cost of Cultivation of Wheat**

(Rs\hectare)

Year	Human Labour	Bullock Labour	Machine Labour	Seed	Fertiliser & Manure	Irrigation	Variable Cost	Fixed Cost	Total Cost
<b>Rajasthan</b>									
1996-97	3835.56 (25.78)	422.77 (2.84)	1470.26 (9.88)	1090.27 (7.33)	1418.96 (9.54)	1131.13 (7.60)	5312.33 (35.70)	9566.68 (64.30)	14879.21
2008-09	6311.65 (21.13)	351.12 (1.18)	3305.16 (11.06)	2060.88 (6.90)	2106.87 (7.05)	3381.68 (11.32)	11857.98 (39.69)	18018.38 (60.31)	29876.36
Average (1996-97 to 2008 -09)	4764.54 (24.11)	458.57 (2.39)	2109.30 (10.36)	1415.71 (7.00)	1648.56 (8.27)	2261.37 (10.89)	7246.66 (35.46)	12973.88 (64.54)	20220.56
<b>Uttar Pradesh</b>									
1996-97	2651.28 (18.98)	670.74 (4.80)	1389.82 (9.95)	984.01 (7.04)	1555.52 (11.13)	989.12 (7.08)	5505.69 (39.41)	8465.09 (60.59)	13970.78
2008-09	5440.19 (17.05)	652.28 (2.04)	4097.13 (12.84)	1929.81 (6.05)	2453.58 (7.69)	3244.65 (10.17)	13586.88 (42.59)	18315.86 (57.41)	31902.74
Average (1996-97 to 2008 -09)	13569.50 (18.49)	547.77 (2.93)	2593.72 (12.97)	1253.82 (6.40)	1914.17 (10.07)	1892.28 (9.26)	7489.01 (38.23)	12092.90 (61.77)	19584.68

Note: Figures in the brackets are the percentage to total cost.

**Table 4.8**  
**Variations in Structure of Cost of Cultivation of Gram**

Year	Human Labour	Bullock Labour	Machinery Labour	Seed	Fertiliser & Manure	Irrigation	Variable Cost	Fixed Cost	Total Cost
<b>Bihar</b>									
1996-97	1404.67	444.31	660.49	1015.32	350.03	60.26	3414.23	4039.37	7453.60
	(18.85)	(5.96)	(8.86)	(13.62)	(4.70)	(0.81)	(45.81)	(54.19)	
2008-09	2778.48	74.48	1273.22	2102.48	470.26	1117.62	5618.81	8046.80	13665.61
	(20.33)	(0.55)	(9.32)	(15.39)	(3.44)	(8.18)	(41.12)	(58.88)	
Average (1996-97 to 2008-09)	1799.79	271.35	996.07	1478.37	516.60	170.18	4557.51	5443.05	10000.56
	(18.10)	(3.02)	(9.82)	(14.68)	(5.19)	(1.47)	(45.67)	(54.33)	

**Haryana**

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1996-97	1933.08	347.18	633.85	464.21	89.33	129.22	4203.54	3660.82	7864.36
	(24.58)	(4.41)	(8.06)	(5.90)	(1.14)	(1.64)	(53.45)	(46.55)	
2008-09	2980.66	270.3	1828.67	1023.40	9.96	122.66	6704.94	6357.08	13062.02
		(2.07)			(0.08)	(0.94)			

	(22.8 2)	(14.00 )	(7.84)			(51.33 )	(48.6 7)	
Average	2053	307.7	1361.6	881.6	157.00	163.32	4342.28	5059.28
(1996-97 to 2008-09)	(22.0 2)	(3.43 1)	(14.34 )	(9.36 0)	(1.73)	(1.77)	(45.87 )	(54.1 3)

Note: Figures in the brackets are the percentage to total cost.

**Continue....Table 4.8**  
**Variations in Structure of Cost of Cultivation of Gram**

Year	(Rs/hectare)							
	Human Labour	Bullock Labour	Machine Labour	Seed	Fertiliser & Manure	Irrigation	Variable Cost	Fixed Cost
<b>Madhya Pradesh</b>								
1996-97	1468.12 (16.93)	619.57 (7.14)	748.36 (8.63)	1030.60 (11.88)	425.11 (4.90)	250.11 (2.88)	3910.70 (45.09)	4700.00 (54.91)
2008-09	2598.82 (15.40)	452.72 (2.68)	2149.82 (12.74)	2361.16 (13.99)	522.06 (3.09)	858.58 (5.09)	7451.86 (44.16)	9400.00 (55.84)
Average (1996-97 to 2008 -09)	1867.47 (16.28)	600.85 (5.39)	1156.61 (9.60)	1589.40 (13.33)	479.30 (4.20)	522.34 (4.21)	5287.05 (44.72)	6400.00 (55.28)
<b>Rajasthan</b>								
1996-97	1502.94 (28.89)	283.33 (5.45)	481.41 (9.26)	595.73 (11.45)	97.54 (1.88)	125.23 (2.41)	2036.96 (39.16)	3100.00 (60.84)
2008-09	2979.12 (23.62)	408.86 (3.24)	1608.57 (12.76)	1552.30 (12.31)	296.44 (2.35)	1242.07 (9.80)	4209.73 (33.38)	8400.00 (66.62)
Average (1996-97 to 2008 -09)	2391.49 (26.29)	425.95 (4.60)	967.35 (10.30)	1086.08 (11.64)	138.86 (1.42)	802.51 (7.30)	3557.47 (36.91)	5900.00 (63.09)

Note: Figures in the brackets are the percentage to total cost.



Continue....Table 4.8

Variations in Structure of Cost of Cultivation of Gram

Year	(Rs\hectare)							
	Human Labour	Bullock Labour	Machine Labour	Seed	Fertiliser & Manure	Irrigation	Variable Cost	Fixed Cost
<b>Uttar Pradesh</b>								
1996-97	1684.27 (18.89)	769.79 (8.64)	310.8 (3.49)	987.93 (11.08)	265.22 (2.98)	112.83 (1.27)	4691.52 (52.63)	4223.1 (47.37)
2008-09	4872.64 (22.54)	558.98 (2.59)	2547.55 (11.78)	2572.71 (11.90)	620.46 (2.87)	1049.53 (4.85)	9102.34 (42.10)	12516.9 (57.90)
Average (1996-97 to 2008 -09)	2612.04 (19.92)	603.41 (5.10)	1210.81 (8.61)	1732.51 (13.36)	345.41 (2.52)	459.55 (3.23)	5886.29 (45.97)	7134.4 (54.03)

Note: Figures in the brackets are the percentage to total cost.