

CHAPTER 4

THE IMPACT OF THE CEMENT INDUSTRY ON THE LOCAL ECONOMY

Our analysis so far is based on a consideration of private costs and benefits. For policy decision-making, such an analysis is obviously not sufficient, because policy decisions should be based on social rather than private costs and benefits. This serious limitation is recognized, but owing to time and data limitations, it would not be possible to attempt a full-scale study in this thesis. We shall, therefore, try to approach this problem in a limited and partial manner by examining the impact of cement plants on the local and regional economies concerned. The result of the study in this chapter should give some additional insights which may be useful for the determination of industrial development policy in this country.

The analysis will be concerned on the contribution of the cement industry to the regions in which the plants are located. The study will be limited to the following issues:

(1) To take notice of the difference between expenditures of cement industrial household and household expenditures in general, seeing what are the differences in the levels of expenditures in various kinds of consumer goods in each income level and in each range of family member.

(2) When considerations are given to the different regions, what are the differences in expenditures among those regions?

The analysis will be carried out by using the Household Expenditure Survey in 1970 to compare with the figures in 1962-1963.

In comparison with the differences between expenditures of certain industrial labour groups expenditures in general, two periodical figures will be compared with the figures for 1970, i.e., 1962 will be compared to 1970, and 1968 to 1970 figures.

The figures for 1970 are obtained from a survey in a limited area at Saraburi, Ampur Ban Morr, and Nakorn Sawan, Ampur Takli, with 19% and 20% sampling of the cement workers respectively; all regions include the municipal area.

In Table 4-3, the figures on food and beverage outlays are almost the same all over the whole economy; the spending on this particular item at Saraburi (Ban Moor) is almost equal to the average spending in _____

towns in the central region, as well as towns in the Southern Region; and it is also almost equal to Bangkok-Thornburi Municipal Area. The outlay for this item at Nakorn Sawan (Takli) is close to the average figure for the whole Kingdom as well as the Northeast Region, but 5.39% smaller than the figure for Bangkok-Thornburi. The similar items among the figures for expenditures on food and beverage may be attributed to the fact that food and beverage are quite necessary elements of consumer demand; so whatever the regions may be, people still keep the level of food and beverage demand as before. Though the expenditure on this item at Nakorn Sawan is (Takli) comparatively smaller than Bangkok and Thornburi, it is still more or less higher than in towns in the Eastern Region, and towns in Northern Region.

The consumption of clothing and material at Saraburi--Ampur Ban Morr and Nakorn Sawan--Ampur Takli is equal to 5.40% and 7.58% of total spending respectively, smaller than in the of various other regions. This implies that the labours in the cement industry spend a very small proportion on such consumption goods in comparison with general expenditures on the same items. The difference in this matter may be attributed to the occupational requirements of the cement factory's workers.

Item 3, Housing and furnishing, shows a very small amount of expenditure at Saraburi--Ampur Ban Morr, with only 3.24% spent for Housing and furnishing; and 5.13% spent for it at Nakorn Sawan--Ampur Takli. The smallness of the amounts spent for Housing and furnishing results from the fact that the cement factories have provided Housing and furnishing for the workers, so that only a small numbers of workers have to pay for house-rent.

As well as household operation, the expenditure on reading, recreation and education takes a high proportion of the total expenditure of the cement workers; these are also attributable to the level of money received, which is comparatively higher than for the rest of the regions. This item accounts for twice the percentage spent in the whole kingdom and is more than two times greater than the rest.

The expenditure on Tobacco and alcoholic drinks at Saraburi--Ban Morr amounts to a greater percentage than the other regions. It amounts to 5.90%, while it takes only 3.93%, for example, at Nakorn Sawan--Takli.

The expenditure on contribution and gifts seems very high at Saraburi--Ban Morr, where it amounts to 8.40% of total expenditure, as well as at Nakorn Sawan--Takli where it amounts to 6.07; both percentages are greater than the rest of the regions, except Eastern Region, in which the figure is greater than that for Nakorn Sawan--Takli.

In miscellaneous spending, Nakorn Sawan--Takli shows a higher percentage than the rest of the regions--i.e. 4.36%, while the amount of the same item at Saraburi--Ban Morr is almost the same of the rest of the regions, except Bangkok-Thornburi, about 2.30%.

So far, based on the previous analysis, we can possibly draw the following conclusion:

Because of the provision of housing and furnishing, medical and personal care by the cement company, the current workers at Saraburi--Ban Morr and Nakorn Sawan--Takli spent higher percentage of their total expenditure for consumption goods on various items, except clothing and materials, than did household in the other various regions. The

more income the received, the higher their expenditures.

Entirely apart from provision of housing and medical care by the company, items such as "Household operation", "Reading, education and recreation", "Contribution and gifts", and, to a lesser extent "Tobacco and alcoholic drinks", would appear to be discretionary expenditure items with income elasticities greater than one, i.e. as incomes rose, spending on such things as recreation and gifts would rise more than in proportion, while spending on necessities such as food would rise less than in proportion, just because people will devote all of their income to necessities when that income is very low.

Explanation of Items in Tables 4-1 and 4-2

1. Total family expenditure--the amount spent on goods and services including gifts and contribution used by the family in daily living.
2. Food and beverage--in addition to food and non-alcoholic beverages purchased in shops, market and eating places, this includes the value of rice taken from storage for family use, and a small amount spent by some families for room and board.
3. Clothing and materials--includes; ready made clothing, footwear and accessories for all members of the family; cloth and materials purchased to make clothing; tailoring and repair services; and the purchase of sewing machines.
4. Housing and furnishing--includes: rent and repair of dwellings; insurance; interest payment on mortgage loans; furniture, mats,

cooling utensils, electrical and other household equipment; blankets, towels and other household supplies.

5. Household operation--includes: electricity and cooking fuels; matches and candles; water charges and ice; telephone; and wages paid to servants.

6. Medical and personal care--includes: doctor fees, drugs and medicines; toilet soap, cosmetics, combs, brushes and other personal care items; and the services of barbers and beauty parlours.

8. Reading recreation and education--includes: movies and other admissions; radios and T.V. sets; musical and sports equipment; newspapers, books and other reading materials; school fees, books and supplies; purchase and care of pets; lottery tickets and gambling losses.

9. Tobacco and alcoholic drinks--include: cigarettes, tobacco and smoking supplies; alcoholic beverages used at home or purchased in bars, and betel nut.

10. Contribution--includes: money given to religious, medical, education and charitable institutions, food and other items given to priests.

11. Gifts--includes: cash gifts and present expenditures for support of persons outside the family.

12. Miscellaneous household expenses--include: insurance premiums, funeral expenses and wedding ceremonies; legal fees; interest on borrowed money and bank service charges; occupational expenses; and expenses for home-produced food.

13. Transportation--includes: purchase, repair and operation of automobiles, bicycles and other vehicles; local bus, taxi and other fares; and train, plane and other travel outside the city.

The expenditure on household operations of the cement workers at Saraburi--Ban Morr, and Nakorn Sawan--Takli is close to the expenditure on this item spent by consumers in Bangkok and Thornburi i.e. 7.89, 8.53, and 8.7 respectively; it amounts to 2.5 - 3.0 percentage points greater than the spending on the same item by people in towns in the Northeast Region, and greater than the average figure for the same expenditure of the whole Kingdom, as well as the rest. The higher level of household operation expenditure indicate that worker in both regions, Saraburi--Ban Morr and Nakorn Sawan--Takli cement factory, have the ability to make quite higher expenditures for the propose than is the case for the comparative region in general, this may be attributed to the fact that the average monthly income earned by cement worker is quite higher than in the rest of the regions; and due to the fact that household operation expenditure are not necessary expenditure, and so rise more with income than the other items e.g. food.

The amounts spent for medical and personal cares by the cement factory workers both in Saraburi--Ban Morr and in Nakorn Sawan--Takli are not high as they are in the other regions, since the cement companies provide all kinds of medical and personal care to their workers who are currently employed.

The transportation expenditure of the cement workers at both places i.e. Saraburi--Ban Morr and Nakorn Sawan--Takli, are as great as in Bangkok-Thornburi, approximately, since almost 80% of workers provide vehicles e.g. bicycles automobiles and so on, by themselves for their journey to work daily; subsequently this requires spending for repair and operation of automobiles, motor bicycles and other vehicles.

Average and Percentage of Household Expenditure
and Income by Items and by Family Income Class
of Workers in Siam Cement Plant at Saraburi, 1970

	Family annual income class (income after taxes)													
	All Families		Under 10,000		10,000-39,999		40,000-69,999		70,000-99,999		100,000-139,999		140,000 Over	
Average Number of Family Members	5.65		5.20		5.55		6.60		6.67		7.00		1.00	
Average Age of Family Head	38.94		39.80		38.15		44.20		44.00		49.00		29.00	
Items	Average	%	Average	%	Average	%	Average	%	Average	%	Average	%	Average	%
<u>Total Family Expenditure</u>	25,070.74	100	7,555.60	100	20,976.24	100	47,304.40	100	82,800.00	100	119,000.00	100	124,300.00	100
1 Food and beverage	10,904.79	43.50	4,329.60	57.30	9,254.35	44.12	21,400.00	45.24	34,400.00	41.55	38,000.00	31.93	24,100.00	19.3
2 Clothing and materials	1,353.76	5.40	982.00	13.00	1,236.05	5.89	1,740.00	3.68	3,233.33	3.90	4,000.00	3.36	5,000.00	4.0
3 Housing and furnishing	812.05	3.24	310.60	4.11	830.15	3.96	346.00	0.73	1,600.00	1.93	2,000.00	1.68	21,100.00	16.9
4 Household operations	1,978.19	7.89	180.40	2.39	1,462.17	6.97	3,486.00	7.37	8,666.67	10.47	20,000.00	16.81	21,000.00	16.8
5 Medical and personal cares	1,348.74	5.38	328.86	4.35	1,361.31	6.49	669.20	1.41	1,000.00	1.21	10,000.00	8.40	10,000.00	8.0
6 Transportation	1,308.18	5.22	316.80	4.19	1,148.32	5.47	976.00	2.06	6,400.00	7.73	4,000.00	3.36	5,100.00	4.1
7 Reading, recreation, education	3,203.21	12.78	406.00	5.37	2,439.22	11.63	10,051.60	21.25	10,600.00	12.80	15,000.00	12.61	2,300.00	1.8
8 Tobacco & alcoholic drinks	1,479.51	5.90	141.40	1.87	1,398.35	6.66	1,393.60	2.95	5,266.67	6.36	3,000.00	2.52	4,700.00	3.7
9 Contribution	698.59	2.79	310.00	4.10	635.63	3.03	1,640.00	3.47	833.33	1.01	2,000.00	1.68	5,000.00	4.0
0 Gifts	1,406.16	5.61	100.00	1.32	697.11	3.32	3,806.00	8.05	10,166.67	12.28	20,000.00	16.81	5,500.00	4.4
1 Miscellaneous	577.55	2.30	150.00	1.99	513.55	2.45	1,796.00	3.79	633.33	0.67	1,000.00	0.84	20,500.00	16.5
<u>Total Money Income</u>	31,937.53	100	7,500.50	-	22,132.14	-	51,990.46	-	83,114.00	-	134,250.00	-	141,250.00	-

Source: Survey Data

Average and Percentage of Household Expenditure and
Income by Items and by Family Income Classes of
Workers in Jalapraphan Cement Plant, Takli, Nakornsawan, 1970

	Family annual income class (income after taxes)													
	All Families		Under 10,000		10,000-39,999		40,000-69,999		70,000-99,999		100,000-139,999		140,000 Over	
Average Number of Family Members	4.53		3.33		4.64		7.00		5.00		5.00		1.00	
Average Age of Family Head	33.67		28.44		34.25		36.50		29.00		40.00		27.00	
Items	Average	%	Average	%	Average	%	Average	%	Average	%	Average	%	Average	%
<u>Total Family Expenditure</u>	22,186.76	100	8,306.44	100	18,547.45	100	50,886.00	100	75,070.00	100	124,300.00	100	224,100.00	100
1 Food and beverage	8,898.23	40.11	3,840.22	46.23	9,065.65	48.88	21,000.00	41.27	8,220.00	10.95	14,400.00	11.58	12,000.00	5.3
2 Clothing and materials	1,681.40	7.58	1,248.89	15.04	1,594.46	8.60	4,460.00	8.76	6,935.00	9.24	2,000.00	1.61	1,000.00	0.4
3 Housing and furnishing	1,137.65	5.13	445.55	5.36	801.75	4.32	755.00	1.42	1,179.00	1.57	36,000.00	28.96	100.00	0.0
4 Household operations	1,893.25	8.53	740.00	8.91	1,098.32	5.92	14,420.00	28.34	23,000.00	30.60	25,000.00	20.11	6,600.00	2.9
5 Medical and personal cares	1,537.27	6.93	359.67	4.33	655.61	3.53	355.00	0.70	4,102.00	5.47	1,000.00	0.80	83,000.00	37.0
6 Transportation	1,315.82	5.93	153.78	1.85	876.91	4.73	1,625.00	3.19	15,300.00	20.32	30,000.00	24.14	3,600.00	1.6
7 Reading, recreation, education	2,535.76	11.43	636.33	7.66	1,672.08	9.01	2,650.00	5.21	11,368.00	15.14	1,200.00	0.97	81,000.00	36.1
8 Tobacco & alcoholic drinks	872.95	3.93	178.67	2.15	909.22	4.90	436.00	0.86	1,440.00	1.92	1,200.00	0.97	4,200.00	1.8
9 Contribution	565.26	2.55	211.11	2.54	489.44	2.64	550.00	1.08	720.00	0.96	10,000.00	8.04	600.00	0.2
10 Gifts	780.41	3.52	265.55	3.20	744.61	4.01	1,500.00	2.95	1,300.00	1.73	2,000.00	1.61	3,600.00	1.6
11 Miscellaneous	968.72	4.36	226.67	2.73	646.87	3.49	2,935.00	5.77	1,500.00	2.00	1,500.00	1.21	28,400.00	12.6
<u>Total Money Income</u>	20,161.29	100	7,805.74	-	21,037.08	-	52,788.98	-	70,000.00	-	120,300.00	-	202,000.00	-

Source: Survey Data

Household Expenditure Survey 1962-1963 Compare with 1970
 Average Monthly Expenditure of All Families The Whole kingdom
 The Five Regions, BK-Thonburi, Saraburi (Ban Morr), and Nakorn Sawan (Takli)

Year	1963		1963		1963		1963		1963	
Items	The Whole Kingdom		Towns in the Northeast Region		Towns in the Northern Region		Towns in the Southern Region		Towns in the Eastern Region	
Average Number of Family Members	5.3		5.9		5.1		5.6		5.1	
	Average	Pct	Average	Pct	Average	Pct	Average	Pct	Average	Pct
<u>Total Family Expenditure</u>	1009.21	100	1091.93	100	840.25	100	1159.05	100	1132.54	100
1 Food and beverage	416.52	41.3	436.71	40.0	308.42	36.7	512.99	44.3	448.94	39.6
2 Clothing and materials	143.19	14.2	155.58	14.3	143.53	17.1	144.62	12.5	168.50	14.9
3 Housing and furnishing	89.53	8.9	86.75	7.9	91.55	10.9	116.64	10.1	104.18	9.2
4 Household operations	58.13	5.8	62.18	5.7	47.18	5.6	59.46	5.1	66.92	5.9
5 Medical and personal cares	74.16	7.3	72.11	6.6	57.35	6.8	87.71	7.6	103.90	9.2
6 Transportation	44.30	4.4	74.77	6.9	42.90	5.1	41.33	3.6	35.24	3.1
7 Reading, recreations, education	63.00	6.2	90.13	8.3	48.03	5.7	53.92	4.7	61.54	5.4
8 Tobaccos alcoholic drinks	47.50	4.7	56.25	5.2	38.05	4.5	50.81	4.4	45.77	4.0
9 Contribution and gifts	49.59	4.9	34.11	3.1	45.39	5.4	59.16	5.1	72.26	6.4
10 Miscellaneous	23.29	2.3	23.34	2.1	17.86	2.1	32.50	2.8	25.29	2.2
<u>Total Money Income</u>	-	-	1089.04	-	1046.19	-	1205.97	-	612.27	-

Source: The Figure in 1963 are available from Advance Report Household Expenditure Survey

B.E. 2506 (BK: National Statistic Office, 1964); the figure in 1970 an available from Survey Data

1963		1970		1970		1963	
BK-Thornburi Municipal Area		Saraburi Ban.Morr		Nakorn Sawan Takli		Town in The Central Region	
5.5		5.7		4.53		5.4	
Average	Pct	Average	Pct	Average	Pct	Average	Pct
1421.98	100	2089.23	100	1848.90	100	945.47	100
646.42	45.5	908.73	43.50	741.52	40.11	420.43	44.47
128.49	9.0	112.81	5.40	140.12	7.58	122.18	12.92
109.50	7.7	67.67	3.24	94.81	5.13	66.28	7.01
123.93	8.7	164.85	7.89	151.77	8.53	60.69	6.42
95.07	6.7	112.40	5.38	128.11	6.93	71.82	7.60
91.78	6.5	109.02	5.22	109.65	5.93	23.83	2.52
79.07	5.6	266.93	12.78	211.31	11.43	59.59	6.30
66.05	4.6	123.29	5.90	72.75	3.93	46.79	4.95
35.71	2.5	175.40	8.40	112.14	6.07	52.69	5.57
45.96	3.2	48.13	2.30	40.73	4.36	21.17	2.24
1519.27	-	2661.41	-	1680.10	-	1089.86	-

Table 4.4

Household Expenditure Survey 1968-1969 Compare with 1970
Average Monthly Expenditure of All Families, The Whole Kingdom and The Four Regions,
BK-Thonburi, Saraburi (Ban Morr) and Nakorn Sawan (Takli)

Year	1969		1969		1969		1969		1969		1969		1970	
	The Whole Kingdom		Towns in the Northeast Region		Towns in the Northern Region		Towns in the Southern Region		Towns in the Central Region		BK-Thonburi Region		Saraburi Ban Morr	
Average Numbers of Family Members	-		-		-		-		-		-		-	
	Average	Pct	Average	Pct	Average	Pct	Average	Pct	Average	Pct	Average	Pct	Average	Pct
Total Family Expenditure	1996.62	100	1781.86	99.99	1456.75	100	1692.20	97.86	1634.60	99.98	2357.17	100	2089.23	100
Food and beverage	953.04	47.73	992.64	55.71	705.36	48.42	786.21	46.46	838.22	51.28	1090.30	46.25	908.73	43.50
Clothing and Materials	162.05	8.12	135.96	7.63	137.79	9.46	104.64	6.18	145.95	8.93	182.33	7.74	112.81	5.40
Housing and Furnishing	247.51	12.40	171.83	9.64	171.08	11.74	231.00	13.65	158.62	9.70	311.43	13.21	232.52	11.13
Household operation														
Medical and personal cares	108.67	5.44	81.61	4.58	95.31	6.54	100.75	5.95	88.73	5.43	125.23	5.31	112.42	5.38
Transportation	137.69	6.90	86.33	4.84	79.62	5.47	88.66	5.24	108.48	6.63	180.25	7.65	109.02	5.23
Reading, recreation, education	135.02	6.76	84.68	4.75	91.96	6.31	108.29	6.40	86.61	5.30	175.77	7.46	266.93	12.77
Tobacco & alcoholic drinks	103.33	5.18	115.90	6.50	70.05	4.81	82.10	4.85	94.24	5.77	115.29	4.89	132.29	5.90
Contribution and gifts	149.31	7.48	112.91	6.34	105.58	7.25	154.55	9.13	113.39	6.94	176.59	7.49	223.52	10.70
Miscellaneous														

Source: The Figure in 1969 are available from Advance Report Household Expenditure Survey B.E. 2512
(BK: National Statistic Office, 1970 the figure in 1970 are available from Survey Data.)

The next consideration in the context of household expenditure will be diffusion of household expenditure, drawing from the same statistical samplings of the workers in the Siam Cement Plant - Ban Morr, Saraburi Province in 1970, and the workers in Jalaprathan Cement Plant at Takli, Nakornsawan Province in the same period. Tables 4.6 and 4.8 are calculated from the survey data shown in Tables 4.5 and 4.7, respectively.

In Table 4.6, over a half of the total expenditures were made at Ampur Ban Morr, (52.723%) while Ampur Ta Reur, Ampur Muang, Bangkok and others accounted for 8.773%, 16.749%, 4.330%, 10.575%, respectively.

In Table 4.8, the total expenditure at Takli amounted to 95.573% while Chainat, Lopburi, Ampur Muang, Bangkok and others accounted for only 0.073%, 0.101%, 0.101%, 0.121%, 1.398% and 0.695%, respectively.

From the patterns of expenditure in Tables 4.6 and 4.8, these conclusions can be drawn.

(i) A large proportion of expenditure by the workers will be made at the place in which the factory is located.

(ii) The central city will take a greater share of expenditure than the other towns in the rural area, i.e., in Table 4.6, Ampur Muang (the central city of Saraburi Province) takes a greater share than Ta Reur (the rural town close to Ampur Ban Morr), unless the central cities are remote from the consumers area, e.g., in Table 4.8, Ampur Muang (the central city of Nakornsawan Province) takes a smaller share than Takli where the cement plant is located.

(iii) The direct impact on the local economy will depend largely on the size of the urban centers involved and their levels of development. No less than 95.6% of all expenditures were made in Takli where the Jalapathan cement plant was located because Takli was a major urban center with a wide range of goods and services available to employees of the plant. This is in marked contrast to the case of Ban Morr where only 52.7% of the total expenditure was made locally. Ban Morr was only a small up-country town with a relatively limited range of goods and services available.

This finding, while by no means conclusive, is at least suggestive that, for maximum impacts on regional economies, major industrial plants should, whenever possible, be located near large rather than small urban centers.

Table 4.5

Diffusion of Household Expenditure by Household Expenditure
Survey of Workers in Siam Cement Plant, Ban Morr, Saraburi, 1970.

Items	Total Expenditure	Average	%	Area of Diffusion					
				Ban Morr 1	Ta Reur 2	Ampur Muang 3	Bangkok 4	Others 5	Don't Know, No Answers 6
<u>Total Family Expenditure</u>	2,131,013.00	25,070.74	100						
1 Food and beverage	926,907.00	10,904.79	43.50	556,144.29	76,333.53	163,571.85	32,714.37	87,238.32	10,904.79
2 Clothing and materials	115,070.00	1,353.76	5.40	60,919.20	10,830.08	23,013.92	8,122.56	10,830.08	1,353.76
3 Housing and furnishing	69,024.00	812.05	3.24	31,669.95	6,496.40	13,804.85	3,278.20	5,684.35	8,120.50
4 Household operations	168,146.00	1,978.19	7.89	81,105.79	17,803.71	31,651.04	7,912.76	19,781.90	9,890.95
5 Medical and personal care	114,643.00	1,348.74	5.38	57,995.82	8,092.44	18,882.36	6,773.70	16,184.88	6,743.70
6 Transportation	111,195.00	1,308.18	5.22	49,710.84	13,081.80	17,006.34	3,924.54	19,622.70	7,849.08
7 Reading, recreation, education	272,273.00	3,203.21	12.78	128,128.40	32,032.10	51,251.36	22,422.47	22,422.47	10,016.05
8 Tobacco and alcoholic drinks	125,758.00	1,479.51	5.90	69,536.97	7,397.55	14,725.10	4,438.53	10,356.57	12,233.63
9 Contribution	59,380.00	698.59	2.79	27,245.01	5,588.72	9,081.67	1,397.18	7,684.49	8,383.08
10 Gifts	119,525.00	1,406.18	5.60	40,779.22	7,030.90	9,843.26	-	19,686.52	42,185.40
11 Miscellaneous	49,092.00	577.55	3.30	20,214.25	1,732.65	4,042.85	1,155.10	5,775.50	16,171.40
<u>Total Money Income</u>	2,714,689.00	31,937.53	100						

Source: Survey Data



Table 4.6

Percentage in Expenditure (From Table 4.5)

No.	Items	Ban Morr	Ta Reur	Ampur Muang	Bangkok	Others	Don't Know (No Answer)
1	Food and beverage	26.098	3.582	7.676	1.536	4.094	0.512
2	Clothing and materials	2.859	0.509	1.080	0.382	0.509	0.064
3	Housing and furnishing	1.487	0.305	0.648	0.154	0.267	0.381
4	Household operations	3.806	0.836	1.486	0.372	0.929	0.465
5	Medical and personal care	2.722	0.380	0.886	0.318	0.760	0.317
6	Transportation	2.333	0.614	0.998	0.185	0.921	0.369
7	Reading, recreation, education	6.013	1.524	2.405	1.053	1.053	0.470
8	Tobacco and alcoholic drinks	3.263	0.348	0.691	0.209	0.486	0.574
9	Contribution	1.279	0.263	0.427	0.066	0.361	0.394
10	Gifts	1.914	0.330	0.462	-	0.924	1.980
11	Miscellaneous	0.949	0.082	0.190	0.055	0.271	0.959
Total		52.723	8.773	16.749	4.330	10.575	6.285

Table 4.7

Diffusion of Household Expenditure by Household Expenditure
Survey of Workers in Jalapathan Cement Plant at Takli,
Nakornsawan, 1970.

Items	Total	Average	%	Area of Diffusion						
				Takli 1	Chainat 2	Lopburi 3	Ampur Muang 4	Bangkok 5	Others 6	No Answer 7
<u>Total Family Expenditure</u>	2,085,556.00	22,186.76	100							
1 Food and beverage	836,434.00	8,898.23	40.11	827,535.39	-	-	-	8,898.23	-	-
2 Clothing and materials	158,052.00	1,681.40	7.58	154,688.80	-	-	-	3,362.80	-	-
3 Housing and furnishing	106,939.00	1,137.65	5.13	101,250.85	-	-	-	1,137.65	1,137.65	3,412.95
4 Household operations	177,966.00	1,893.25	8.53	162,819.50	-	-	-	1,893.25	3,786.50	9,466.25
5 Medical and personal care	144,504.00	1,537.27	6.93	135,279.76	1,537.27	-	-	1,537.27	3,074.54	3,074.54
6 Transportation	123,687.00	1,315.82	5.93	144,476.34	-	1,315.82	-	3,947.46	-	3,947.46
7 Reading, recreation, education	238,362.00	2,535.76	11.43	225,682.64	-	-	-	5,071.52	5,071.52	2,535.76
8 Tobacco and alcoholic drinks	82,058.00	872.95	3.93	75,946.65	-	-	-	872.95	-	5,237.70
9 Contribution	53,135.00	565.26	2.55	46,916.58	-	-	565.26	565.25	565.26	4,522.88
0 Gifts	73,359.00	780.41	3.52	50,726.65	-	780.41	-	780.41	780.41	20,290.66
1 Miscellaneous	91,060.00	968.72	4.36	67,810.40	-	-	1,937.44	968.72	-	20,343.12
<u>Total Money Income</u>	1,895,162.02	20,161.29								

Source: Survey Data

Table 4.8

Percentage in Expenditure (From Table 4.7)

No.	Items	Takli	Chaiyaphum	Ambur Muang	Ambur Muang	Bangkok	Others	No Answer
1	Food and beverage	39.680	-	-	-	0.427	-	-
2	Clothing and materials	7.418	-	-	-	0.162	-	-
3	Housing and furnishing	4.855	-	-	-	0.055	0.055	0.164
4	Household operations	7.807	-	-	-	0.091	0.182	0.454
5	Medical and personal care	6.487	0.073	-	-	0.074	0.148	0.148
6	Transportation	6.928	-	0.063	-	0.190	-	0.190
7	Reading, recreation, education	10.822	-	-	-	0.244	0.244	0.122
8	Tobacco and alcoholic drinks	3.642	-	-	-	0.042	-	0.252
9	Contribution	2.250	-	-	0.028	0.028	0.028	0.217
10	Gifts	2.433	-	0.038	-	0.038	0.038	0.973
11	Miscellaneous	3.252	-	-	0.093	0.047	-	0.976
Total		95.573	0.073	0.101	0.121	1.398	0.695	3.496