CHAPTER - IV

RESULTS AND DISCUSSION

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Results of the investigation are described in the present chapter under the following sections.

1. Background information of the respondents.
2. Use of sources of information.
3. The environmental awareness of homemakers.
4. Knowledge regarding environmental organizations, Ecomark and harmful effect created by certain goods on environment.
5. Attitude of respondents towards Environmental Responsibilities as consumers.
6. Environment Friendly behaviour and environmental concern in buying selected goods.
7. Environment Friendly behaviour and environmental concern in consumption of selected goods/services.
8. Environment Friendly behaviour and environmental concern in disposal of selected waste materials.
9. Testing of hypotheses.
10. Discussion of findings.

1. Background Information of the Respondents

The information regarding age, education, employment and family income of the respondents is described in this section.

Age : Age of the respondents ranged from 23 to 59 years with a mean of 37.9 years (Table - 1). About one-half of the respondents belonged to middle age group. About one-fifth of respondents belonged to the age group of 46 to 59 whereas more than one-fourth were in the age group of 23 to 30 years.

Education : It was observed that there was almost an equal distribution of respondents among the three levels of education, though, among them, more percentage of respondents were graduates than postgraduates or undergraduates.

Table 1. Background Information of Respondents

Sr. No.	Background Information	Respondents (n = 204) f	%
1.	Age		
	(i) Young	57	27.9
	(ii) Middle aged	103	50.5
	(iii) Older	44	21.6
	Mean	37.9	
2.	Education		
	(i) Below Graduate	63	30.9
	(ii) Graduate	72	35.3
	(iii) Post-Graduate	69	33.8
3.	Employment		
	(i) Non-employed	102	50.0
	(ii) Employed	102	50.0
4.	Family Income (Rupees per month)		
	(i) 5000 and below	42	20.6
	(ii) Between 5001-9000	72	35.3
	(iii) Between 9001-13,000	57	27.9
	(iv) Above 13,001	33	16.2
	Mean	12,027	
	Median	8,000	
	S.D.	16,046	

Employment: Half of the respondents were non employed and half were employed in various fields (Table 1), such as banks, private organizations, government offices. About one tenth of respondents were self employed.

Family Income : Total monthly family income of respondents ranged from Rs.3,000/- to Rs.40,000/- (mean income = Rs.12,027/- and the median income = Rs.8,000/-). About thirtyfive per cent had monthly family income ranging from Rs.5,001/- to Rs.9,000/-. Nearly twenty eight per cent had income ranging from Rs.9,001/- to Rs.13,000/- per month. There were one-fifth of the respondents who had income of Rs.5,000/- and below. Thus, a wide variation was observed in the total monthly family income of the respondents.

2. Use of Sources of Information Before Buying any Product

Generally, apart from their own experience, almost all consumers make use of some sources of information which would make them aware of various aspects of any product before making purchase. Since, one of the aspect of the present investigation was concerned with buying behaviour, it was considered appropriate to study the extent of use of sources of information, and the kind of information collected before purchasing a product.

Table 2. Frequency Distribution of Use of Various Sources of Information Before Buying a Product

Sources of Information	Respondents (n=204)							
	Always		Sometimes		Never		Total	
	f	%	f	%	f	%	f	%
A. Print Media								
1. Newspaper	98	48.0	89	43.6	17	8.3	204	100
2. Magazines	49	24.0	138	67.6	17	8.3	204	100
3. Leaflets	9	4.4	110	53.85	85	41.7	204	100
B. Visual								
1. Display in shop	36	17.6	148	72.5	20	9.8	204	100
2. Posters/Hoardings	19	9.3	124	60.8	61	29.9	204	100
C. Audio								
1. Radio	21	10.3	128	62.7	55	27.0	204	100
D. Audio-visual								
1. Television	96	47.1	104	51.0	4	2.0	204	100
2. Video	12	5.9	92	45.1	100	49.0	204	100
3. Cinema	4	2.0	96	47.1	104	51.0	204	100
E. Word-of-Mouth								
1. Friends	49	24.0	154	75.5	1	0.5	204	100
2. Relatives	35	17.2	158	77.5	11	5.4	204	100
3. Neighbours	33	16.2	158	77.5	13	6.4	204	100
4. Salesmen	4	2.0	121	59.3	79	38.7	204	100

2.1 Extent of use of Sources of Information

The frequency of use, in terms of always, sometimes and never indicated the extent of use of various sources of information (Table 2). The listed media were used "sometimes" by more percentage of respondents than those who used "always" or "never". Among the print media, leaflets were "never" used by 41.7 per cent respondents. News papers were "always" used by a little less than one-half of the respondents. Magazines were used "sometimes" by 67.6 per cent homemakers.

Visual media such as posters/hoardings and display in the shops were used "sometimes" by 60 and 72 per cent respondents respectively.

Radio (audio medium) to collect information was used "sometimes" by 62.7 per cent respondents and 27 per cent "never" used it. This indicates the decreasing popularity of radio in comparison to other sources of information especially in urban areas.

Among the audio-visual media, television was "always" used to collect information about the product by 47 per cent respondents and 51 per cent used it "sometimes". But video and cinema were "never" used by about half of the respondents.

Among the word-of-mouth sources of information, friends, relatives and neighbours were used "sometimes' by

about three-fourths of respondents, but salesmen were "never" used by 38.7 per cent respondents. Thus, it was observed, generally all the media were used "sometimes" by the respondents.

The extent of use of sources of information was determined by the cumulative scores on the three point continuum of frequency of use. It was observed (Table 3) that majority of the respondents used these sources of information to a medium extent whereas almost equal percentage of respondents used these to a lower and a higher extent.

Table 3. Extent of Use of Sources of Information

	Extent of Use	Respondents (n=204) f	%
1.	Lower Extent	27	13.2
2.	Medium Extent	147	72.1
3.	High Extent	30	14.7
	Mean	12.5	
	SD	3.58	

To find out which of the listed sources of information were more used, a `mean score' for each source was found out. On arranging the sources in the descending order according to their rank (Table 4), it was found that television was the most used media followed by the news paper,friends and magazines, which ranked second, third and fourth respectively.

Cinema ranked the last as the source of information probably because due to television and video, the frequency of watching cinema in theatre has decreased.

The video ranked last but one as a source to obtain information. Probably, this is due to the attention of viewers on the movie being watched, and not on the advertisements being screened in-between the movie. There is a tendency of viewers to fast forward the advertisements appearing during the movie, or engage in some other activity during that time.

Table 4. Ranking of Sources of Information Based on Their Use

Sources of Information	Mean Score Obtained out of Maximum Score of 2	Rank
Television	1.40	1
Newspaper	1.30	2
Friends	1.20	3
Magazines	1.15	3
Relatives	1.11	5
Neighbours	1.09	6
Displays in the shop	1.07	7
Radio	0.80	8
Posters/Hoardings	0.75	9
Leaflets	0.62	10
Salesman	0.60	11
Video	0.56	12
Cinema	0.51	13

Door-to-door selling by salesmn is not very common practice. Moreover, their area for circulation is less than other media. Generally, salesmen in the shop are consulted by very few customers before buying any item. Due to such reasons, salesman ranked 11th as a source of information.

The use as well as circulation of leaflets is also generally very less. Sometimes, leaflets are distributed along with newspapers, that too in some localities. Hence, this reason can be attributed for leaflets getting 10th rank.

Due to increased use of television, the radio is generally used by a very small percentage of population, and probably this may be the reason why radio ranked eighth.

Friends were more used as a source of information than relatives and neighbours among the word-to-mouth media. Salesman, as discussed earlier, was the least used. Their ranks were 3,5,6 and 11 respectively.

Thus, ranking gave a clear picture of the most to least used sources of information for buying any consumer product.

2.2 Kind of Information Obtained from Various Sources

Various kind of information were obtained by the consumers from various sources before purchasing any product as reported by them in an open-end questionnaire. The basic purpose for studying this aspect in the present investigation was to know whether consumers collect information about eco-friendliness of the product or not.

Table 5. Kind of Information Obtained From Various Sources

No.	Kind of Information	Respondents (N = 204) f	%
1.	Quality of product	108	52.9
2.	Price of various products	86	42.2
3.	New product in the market	50	24.5
4.	Variety of products	50	24.5
5.	Utility of the product	33	16.2
6.	Advantages of the product	28	13.7
7.	Various brand names of an item	24	11.8
8.	Place where the product was available	22	10.8
9.	Sale or discount offered	17	8.3

(Due to multiple answers the total exceeds 100%)

More than one-half of the respondents said that they collected information regarding quality of product, in terms of base material/ingredients of the product, the standards it met, and good points of the product (Table 5). About 42 per cent of the respondents gathered information about price of the products. About one-fourth respondents collected information regarding new product in the market and the same percentage of respondents tried to find out variety of products available in the market. About eight per cent respondents collected information about "sale" or discount offered. Thus, there were many kind of information which were collected by respondents before buying any item. But none of the respondents reported having gathered information about eco-friendliness of the product.

3. Environmental Awareness of Homemakers

An attempt was made to assess the knowledge at awareness level of the respondents, regarding general environmental situation and/or problems. An Environmental Awareness Scale was developed for this purpose.

3.1 Analysis of Environmental Awareness Sub-Scales

The scale consisted of statement regarding situation and/or problems concerning the following aspects :

3.1.1 Pollution of the environment

3.1.2 Resources of the Earth

3.1.3 Ozone layer, Green-house effect and Global Warming

3.1.4 Ecological Balance

3.1.5 Quality of Environment.

For the purpose of analysis and discussion each of these was referred as sub-scale of Environmental Awareness Scale.

Each aspect of Environmental Awareness Scale is presented here with the responses of the homemakers reflecting their awareness level.

3.1.1 Pollution of the Environment

The statements under this group mainly described the meaning, causes and effects of pollution. More than 83 per cent of the respondents were well aware regarding meaning of environmental pollution (Table-6). There were 13.7 per

cent homemakers who did not know what environmental pollution meant.

Table 6 : Responses of Homemakers on Environmental Awareness Sub-Scale - "Pollution of the Environment".

	Statements on Pollution : its meaning, causes and effects.	Respondents (n=204) Correct answers f	%	Wrong answers f	%	Did not know f	%
I.	**Meaning** :						
1.	Environmental Pollution is the act of introduction of substances of energy into the environment that induces unfavourable changes.	170	83.3	6	2.9	28	13.7
II.	**Causes of Pollution** :						
1.	There is no relationship between population and pollution.	177	86.8	23	11.3	4	2.0
2.	The manufacturing, consuming and disposing of many of the consumer products are increasingly creating pollution.	168	82.4	16	7.8	20	9.8
3.	Industries are one of the chief sources of water and air pollution.	190	93.1	12	5.9	2	1.0
4.	Water sources near industries are more polluted than those which are away from industries.	189	92.6	7	3.4	8	3.9
5.	Household waste water does not create water pollution.	160	78.4	28	13.7	16	7.8
6.	Radio active substances are source of pollution.	124	60.8	23	11.3	57	27.9
7.	Increasing use of pesticides does not create pollution.	175	85.8	9	4.4	20	9.8

Table 6 : Continued....

Statements on Pollution : its meaning, causes and effects.	Respondents (n=204) Correct answer f	%	Wrong answer f	%	Did not know f	%
8. Urbanisation is one of the major cause of polluting the urban environment.	166	81.4	21	10.3	17	8.3
9. Pollution is more in urban areas than in rural areas.	194	95.1	4	2.0	6	2.9
10. Soil can not be polluted in any way.	167	81.9	17	8.3	20	2.72
III. Effects of Pollution :						
1. Air pollution may lead to climatic changes	192	94.1	3	1.5	9	4.4
2. Pollution of air due to particulates leads to some changes in the climatic pattern of the city.	175	85.8	8	3.9	21	10.3
3. People will have to wear oxygen masks even in ordinary condition to breathe oxygen in near future due to pollution.	146	71.6	34	16.7	24	11.8
4. "Smoke" and "Fog" together are termed as "Smog" which is constantly increasing in Northern Countries of the world.	90	44.1	3	1.5	111	54.4
5. It is incorrect to say that after the Gulfwar of 1991, there was "Black snow fall".	69	33.8	55	27.0	80	39.2
6. More people living in urban areas are having hearing problems due to noise pollution than people living in rural areas.	183	89.7	8	3.9	13	6.4

Regarding causes of pollution, 93 per cent of respondents gave correct answers that "industries were one of the chief sources of water and air pollution." About the similar percentage (92.6) of the respondents said correctly that "water sources near industries were more polluted than those which were away from industries". As many as 95 per cent respondents gave correct answer that "pollution is more in urban areas". About one tenth respondents were not aware whether increasing use of pesticides caused pollution or not but 85.8 per cent respondents gave correct answer regarding it (Table-6). About 87 per cent of the respondents were well aware that "there was a relationship between population increase and pollution". More than 82 per cent said correctly that "the manufacturing, consuming and disposing of many of the consumer products were increasingly creating pollution".

About 78.4 per cent respondents judged the statements correctly that "household water did not create water pollution". About eight percent respondents did not know that "urbanisation use one of the major cause of polluting urban environment" whereas 10.3 per cent gave wrong answers but more than 81 per cent gave correct answer about this aspect. Though more than 60 per cent respondents were well aware that "radio-active substances are one of the sources of pollution," 27.9 per cent did not know about it and 11.3 per cent had wrongly answered about it.

Regarding effects of pollution, 94.1 per cent had correct answers that "air pollution may lead to climate changes". About 90 per cent were well aware that "more people living in urban areas were having problem due to noise pollution". A little more than 54 percentage of respondents did not know that "smoke" and "fog" together were termed as "Smog", only 44 per cent were aware about it.

3.1.2 **Resources of the Earth**

The statements grouped under this section of Environmental Awareness Scale were concerning limited nature of resources of the earth, depletion of resources and need for conservation.

About three fourths of respondents knew correctly that "the earth is like a space ship with only limited room and resources" whereas 16.2 per cent were wrong and 9.3 per cent were not aware regarding this aspect (Table-7). Eighty six per cent of respondents had correct information that "there will not be a continuous supply of petroleum products for ever" whereas one-tenth of respondents did not know about it.

Table 7 : Responses of the Homemakers on Environmental Awareness Sub-Scale - "Resources of the Earth"

Statements on Pollution : its meaning, causes and effects.	Respondents (n=204) Correct answer f	%	Wrong answer f	%	Did not know f	%
I. Limited Nature of Resources of the Earth						
1. The Earth is like a space-ship, with only limited room and resources.	152	74.5	33	16.2	19	9.3
II. Depletion of Resources						
1. There will be a continuous supply of petroleum products for ever.	176	86.3	7	3.4	21	10.3
2. Increasing population is one of the important causes of depletion of non-renewable resources.	157	77.0	13	6.4	34	16.7
3. Much of the metal resources are lost permanently in the garbage.	100	49.0	56	27.5	48	23.5
4. The feed stock of metals would be exhausted sometime or the other.	121	59.3	19	9.3	64	31.4
5. Most of the natural water reservoires such as lakes, ponds etc. are silted reducing quantity of water they can hold.	138	67.6	17	8.3	49	24.0
III. Need for Conservation						
1. There is no need to conserve drinking water	176	86.3	16	7.8	12	5.9
2. Alternative sources of energy must be utilized to conserve the traditional sources of energy.	184	90.2	11	5.4	9	4.4
3. Recycling of waste is becoming "a must" for sustainable development of the country.	179	89.7	10	4.9	15	7.4

Nearly one-half of the respondents were well aware that "much of the metal resources were lost permanently in the garbage" whereas more than 27 per cent gave wrong answers. About 59 per cent respondents gave correct answers that "the feed stock of metal would be exhausted sometime or the other" but 31.4 per cent did not know about it. This is very important with reference to throw away materials made of metals, such as tin, which are generally just thrown away. A little less than one fourth of respondents did not know that "most of the natural water reservoirs such as lakes, ponds etc. were silted reducing the quantity of water they can hold". In case of depletion of resources, respondents ranging from 49 per cent to 86 per cent gave correct answers (Table-7).

On the statements describing need for conservation of various resources of the earth, very high percentage of respondents ranging from 86 per cent to 90 per cent responded correctly (Table-7).

A little more than 90 percent respondents gave correct answers that "alternative sources of energy must be utilized to conserve the traditional sources of energy. Ninety per cent said correctly that "recycling of waste is becoming `a must' for sustainable development of the country". Eighty six per cent respondents said it correctly that "it is wrong to say that there was no need to conserve drinking water". Thus, most of the homemakers were well aware of the need for conservation of resources of the earth.

3.1.3 Ozone Layer, Green House Effect and Global Warming

Though nearly 69.6 per cent of the respondents were sure that the "Ozone layer was depleting," there were 28.9 per cent respondents who did not know about it (Table-8). About three-fourths respondents said correctly that "thinning of ozone layer in the atmosphere would result in decreasing protection of earth from the excess of the hazardous ultraviolet rays from the sun" but there were about one fourth of respondents who were not aware of it.

More than one-half of respondents did not know that chlorofluorocarbons, which are mainly used in refrigerators, aerosol cans etc. were one of the causes for depletion of ozone layer. With regards to this, 43.1 per cent gave correct answers.

About 84 per cent respondents were well aware that the temperature of the earth is rising, but with regards to result of the global warming, only a little more than half of the respondents gave correct answers. Fifty two per cent respondents were aware that "global warming will increase the water levels in the sea" but 34.3 per cent did not know about it, whereas 13.7 per cent gave wrong answered wrongly.

Similarly a little less than half gave correct answers that "increasing greenhouse effect is resulting in rapid global warming", whereas 42.6 per cent did not know about it.

Table 8 : Responses of the Homemakers on Environmental Awareness Sub-Scale - "Ozone Layer, global Warming and Green-house effect"

	Statements related to Ozone layer Green House Effect and Global Warming	Respondents (n=204) Correct answer f	%	Wrong answer f	%	Did not know f	%
I.	**Ozone Layer**						
1.	Ozone layer is depleting	142	69.6	3	1.5	59	28.9
2.	Thinning of Ozone layer in the atmosphere will result in decreasing protection of earth from the excess of the hazardous ultravoilet rays from the sun.	155	76.0	2	1.0	47	23.0
3.	Chlorofluoro Carbons (C.F.C.'s) which are mainly used in refrigerators, aerosols are one of the cause for depletion of ozone layer.	88	43.1	11	5.4	105	51.5
II.	**Greenhouse Effect**						
1.	Green house effect does not allow heat to escape from atmosphere.	94	46.1	39	19.1	71	34.8
2.	Carbon dioxide emission is of the Greenhouse effect.	83	40.7	20	9.8	101	49.5
3.	Greenhouse effect is more in urban areas than in rural areas due to heavy pollution.	88	43.1	28	13.7	88	43.1
III.	**Global Warming**						
1.	The temperature of the earth is rising.	172	84.3	6	2.9	26	12.7
2.	Global warming will increase the water levels in the sea.	106	52.0	28	13.7	70	34.3
3.	Increasing Greenhouse effect is resulting in rapid Global warming, i.e., rise in temperature of earth.	99	48.5	18	8.8	87	42.6

Forty six per cent were aware that "green house effect does not allow heat to escape from atmosphere," whereas 34.8 per cent did not know and 19 per cent gave wrong answers (Table-8). A little less than half respondents did not know that "Carbon dioxide emmision is one of the causes of green house effect". About 10 percent gave wrong answers and only 40.7 per cent gave correct answers regarding this aspect. This finding indicated a need to make people aware that carbondioxide, which is emitted while burning fuel of any kind, is one of the major causes for increasing gas concentration in greenhouse effect.

Forty three per cent of respondents were aware that "green house effect is more in urban areas than in rural areas due to heavy pollution". Whereas similar percentage of respondents did not know about it. There were 13.7 per cent respondents who gave wrong answers regarding this matter.

3.1.4 **Ecological Balance**

The statements grouped under this section of Environmental Awareness Scale were regarding importance and issues of disturbance in ecological balance. Generally, in all the statements of this section, a high percentage of respondents ranging from 71 per cent to 94 per cent, gave correct answers (Table-9).

Table 9 : Responses of the Homemakers on Environmental Awareness Sub-Scale - "Ecological Balance"

	Statements related to "Ecological Balance"	Respondents (n=204) Correct answer f	%	Wrong answer f	%	Did not know f	%
1.	Preservation of animal life helps to maintain an ecological balance.	191	93.6	9	4.4	4	2.0
2.	It is wasteful to spend money and effort on sanctuaries/wildlife reserves.	192	94.1	8	3.9	4	2.0
3.	Increasing deforestation is disturbing ecological balance.	185	90.7	5	2.5	14	6.9
4.	After deforesting their lands, the developed countries want the developing countries not to deforest, so that the earth's ecological balance can be maintained.	146	71.6	25	12.3	33	16.2
5.	Family planning has nothing to do with environmental problems.	164	80.4	30	14.7	10	4.9

About 94 per cent were well aware that "it is not wasteful to spend money and effort on wildlife reserves/ sanctuaries". Approximately same percentage of respondents gave correct answers that "preservation of animal life helps to maintain an ecological balance". Similarly 90.7 per cent knew that increasing deforestation is disturbing ecological balance.

Regarding relationship between family planning and environmental problems, 80.4 per cent gave correct answers

that there was an association between the two but about 14.7 per cent gave wrong answers regarding this (Table-9).

Though 71.6 per cent respondents gave correct answers that "after deforesting their lands, the developed countries want the developing countries, not to deforest, to maintain earth's ecological balance", there were 16.2 per cent who did not know and 12.3 per cent whose answers were incorrect.

3.1.5 **Quality of Environment**

Nearly 83 per cent of respondents were aware that it is wrong to say that "industrialization has improved the environmental quality", whereas about one tenth respondents gave wrong answers regarding this (Table-10). Similarly 82.8 per cent respondents said correctly that "nuclear weapons have a threat on the world's environment" but 10.8 per cent did not know about it.

Seventy per cent respondents were well aware that "throw-away" culture is not good economically as well as environmentally. But there were 13.7 per cent who gave wrong answers. About 16.7 per cent were not aware about this. Nearly sixtytwo per cent knew that desert in Rajasthan is extending in all directions but about one fourth of respondents did not know about it (Table-10).

In general a mixed picture emerged regarding this aspect as percentage of respondents giving correct answers ranged from 49.5 per cent to 82.8 per cent.

Table 10 : Responses of Homemakers on Environmental Awareness Sub Scale - "Quality of Environment"

Statements related to "Quality of Environment"	Respondents (n=204) Correct answer f	%	Wrong answer f	%	Did not know f	%
. Industrialization has improved the environmental quality.	169	82.8	22	10.8	13	6.4
. Economically developed countries have better environment.	101	49.5	72	35.3	31	15.2
. The high rise buildings have adverse impact on quality of environment.	118	57.8	28	13.7	58	28.4
. Nuclear weapons in no way have any threat on the world's environment.	169	82.8	13	6.4	22	10.8
. "Throw-away" culture is good, economically as well as environmentally.	142	69.6	28	13.7	36	16.7
. The desert in Rajasthan is extending in all directions.	126	61.8	28	13.7	50	24.5

3.2 **Level of Environmental Awareness**

The level of environmental awareness was analysed in terms of high, medium or low scores obtained on sub-scalesd and on the total environmental awareness scale. Mean $\pm$ standard deviation was used as a basis for formulating the categories of level of awareness. The high scores were considered as having high level of awareness.

The possible score on Environmental Awareness Scale was 0 to 46 out of which the homemakers obtained scores ranging

from 11 to 46. The mean awareness score for total scale was 33.57.

Analysing each sub-scale, it was observed that majority of respondents had medium level of awareness on each of the aspect of environment (Table- 10). Sixtyone per cent homemakers had medium level, 19 per cent had low level and the same percentage of respondents had high level of awareness on the aspect of "pollution of environment".

Regarding "Resources of the Earth", 60 per cent had medium level of awareness. Twentyone per cent had high level of awareness (Table-11). On the aspect of Ozone layer, global warming and green house effect nearly 58 per cent had medium level of awareness. More than 23 per cent had high whereas more than 18 per cent had low level of awareness. About "Ecological Balance", 86 per cent had medium level and no respondent had high level of awareness. On the aspect of "Quality of Environment" 63 per cent homemakers had medium level of awareness. Rest of the respondents were distributed equally in high and low categories of awareness.

For the total Environmental Awareness Scale, about two third respondents had medium level of awareness. More respondents had higher than those who had low level of environmental awareness.

Table 11 : Level of Environmental Awareness of Respondents

	Level of Awareness on Various Aspects of Environment	Range of Scores	Respondents (N=204) f	%
1.	Pollution			
	(1) Low level	0 - 9	39	19.7
	(2) Medium level	10-14	125	61.3
	(3) High level	15-17	40	19.6
	Mean = 12.61 S.D. = 2.21			
2.	Resources of the Earth			
	(1) Low level	0 - 5	38	18.6
	(2) Medium level	6 - 8	123	60.3
	(3) High level	9	43	21.1
	Mean = 7.23 S.D. = 1.70			
3.	Ozone Layer, etc.			
	(1) Low level	0 - 2	38	18.6
	(2) Medium level	3 - 7	118	57.8
	(3) High level	8 - 9	48	23.5
	Mean = 5.059 S.D. = 2.69			
4.	Ecological Balance			
	(1) Low level	0 - 1	29	14.2
	(2) Medium level	2 - 4	175	85.8
	(3) High level	5	Zero	Zero
	Mean = 3.42 S.D. = 1.15			
5.	Quality of Environment			
	(1) Low level	0 - 2	38	18.6
	(2) Medium level	3 - 5	128	62.7
	(3) High level	6	38	18.6
	Mean = 4.38 S.D. = 1.29			
6.	Total E.A.S. Scale			
	(1) Low level	0 - 25	31	15.2
	(2) Medium level	26-40	137	67.2
	(3) High level	41-46	36	17.6
	Mean = 33.57 S.D. = 7.09			

3.3 Variation in Environmental Awareness Scores Due to Selected Personal and Situational Variables of Homemakers

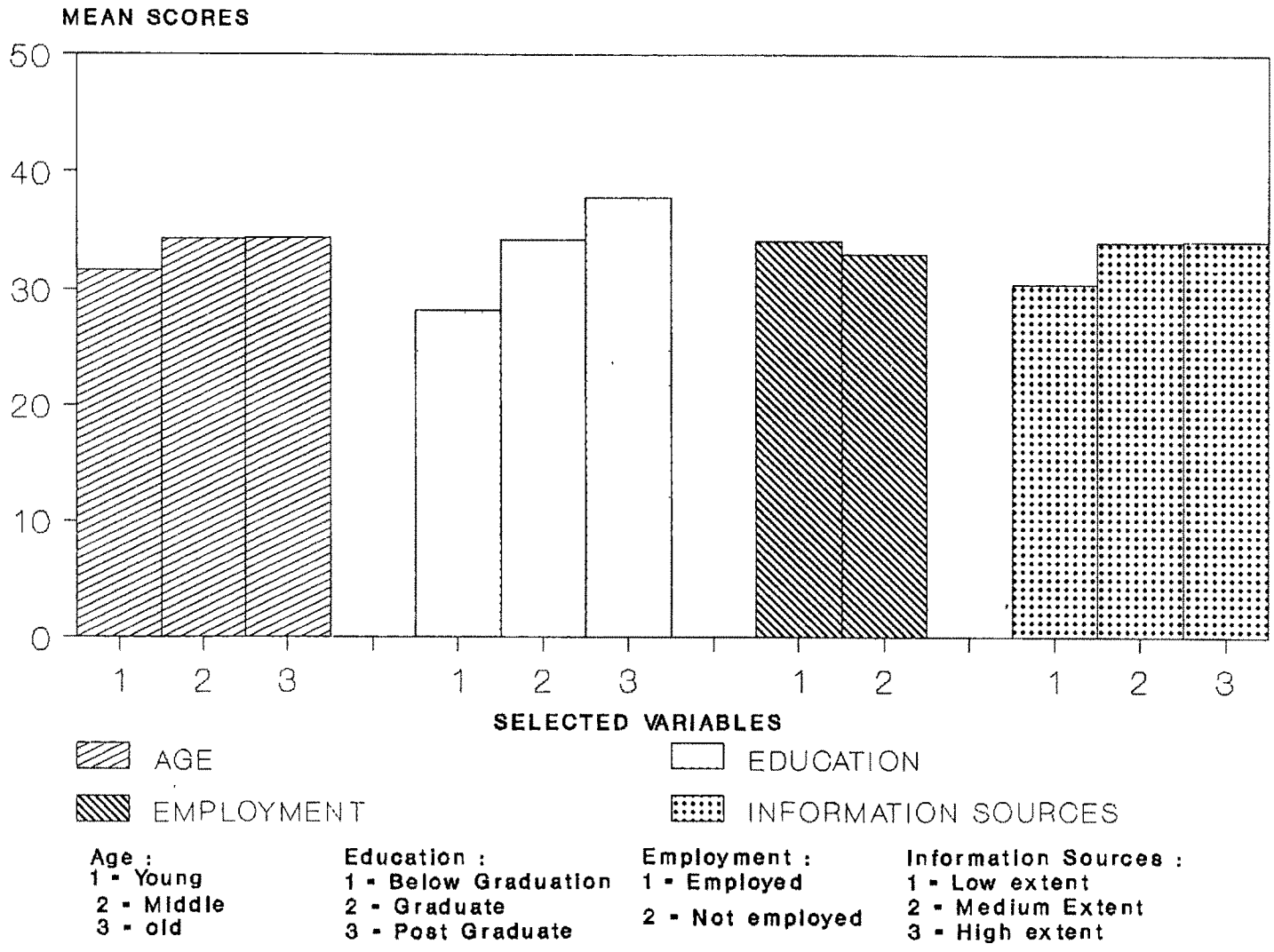
To find out the variation in the Environmental Awareness Scores of homemakers due to the selected personal and situational variables, first Analysis of Variance was compute. If the `F' ratio was found to be significant, then t-test was applied.

Age : The mean environmental awareness score of middle aged homemakers was higher than that of young and old homemakers. (Table - 12, Fig. 3 .). The mean score did increase with the increrase in age but the difference was not found significant (F=2.9592 Not significant).

Table 12 : Mean Environmental Awareness Scores of Homemakers by Selected Variables

	Categories of Selected Variables	Respondents (N=204)	Mean Awareness Score
1.	Age		
	Young	57	31,6
	Middle	103	34.3
	Old	44	34.4
2.	Education		
	Below graduation	63	28.2
	Graduate	72	34.3
	Post Graduate	69	37.8
3.	Employment		
	Employed	102	34.1
	Non-employed	102	33.0
4.	Extent of Use of Sources of Information		
	Low extent	27	30.4
	Medium extent	147	34.0
	High extent	30	34.1
5.	Total sample	204	33.6

Fig :3. MEAN ENVIRONMENTAL AWARENESS SCORES OF HOMEMAKERS BY SELECTED VARIABLES



Education : The `F' ratio=44.086 (Significant at 0.01) indicated variation in environmental awareness due to education of homemakers. The mean score of environmental awareness increased with the increase in educational level (Table-12, Fig. 3.). It differed significantly between grduate and under grduate (t=5.3, Sig. 0.01), between graduate and post graduate (t=9.7, Sig.0.01) and between under graduate and post graduate homemakers (t=3.95, Sig. 0.01).

Employment : Though the mean environmental awareness score of employed homemakers was more than non-emp;loyed ones (Table-13, Fig. 3) difference was not stastically significant (t=1.11, N.S.).

Table 13 : Analysis of Variance for Environmental Awareness

Sources of Variation	df	Sum of Squres	Mean Square	F Value	Level of Signi-ficance
I. Age					
Between Groups	2	292.0320	146.016	2.9592	N.S.
Within Groups	201	9918.00	49.343		
II. Education					
Between Groups	2	3113.17	1556.585	44.086	0.01
Within Groups	201	7096.867	35.3078		
III. Extent of Use of Sources of Information					
Between Groups	2	311.0656	155.53	3.1581	0.05
Within Groups	201	9898.97	49.248		

Extent of Use of Sources of Information : The F=3.1581 (Sig. 0.05) indicated variation in the environmental awareness due to variation in the extent of use of sources of information. The mean environmental awareness score increased with the increasing extent of use of sources of information (Table-12, Fig. 3.). But much difference was not observed in the mean scores of those homemakers who used the sources to medium and those who used to a high extent.

Table 14 : t-values Showing Difference Between Environmental Awareness Score by Selected Variables

Variables	Mean	t-value	df	Level of Significance
2. Education				
A. Below Graduation	28.1746	5.30	133	0.01
Graduates	34.2083			
B. Graduates	34.2083	9.70	130	0.01
Post Graduates	37.826			
C. Below Graduate	28.1746	3.95	139	0.01
Post Graduates	37.826			
3. Employment Status				
A. Employed	34.1078	1.09	202	N.S.
Non-Employed	33.0294			
4. Extent of use of Sources of Information				
A. Low extent	30.4074	2.44	172	0.05
Medium extent	34.0408			
B. Low extent	30.4074	1.87	55	N.S.
High extent	34.10			
C. Medium extent	34.0408	0.04	175	N.S.
High extent	34.10			

The results of t-test confirmed this observation. Only those homemakers who used the sources to a low extent and those who used to the high extent differed on environmental awareness (t=2.44, Sig. 0.05). No other groups differed significantly from each other (Table-14).

3.4 Conclusions

Majority of the homemakers had medium level of environmental awareness for the entire scale and for each of the aspect (sub-scale) of environmental awareness scale. The environmental awareness increased with the increase in educational level. Thus, it clearly influenced the environmental awareness of the homemakers.

4. Knowledge of Homemakers Regarding "Eco Mark", Harmful Effect of Goods on Envionment and Environmental Organizations

4.1 Knowledge Regarding `Eco Mark'

An attempt was made in the present investigation to find out the knowledge of homemakers about "Eco Mark" and their willingness to buy the products bearing "Eco Mark".

"Ecomark" is a symbol meant to identify products which are made, used or disposed of in a manner that is significantly less harmful to the environment than others serving the same purpose. Its purpose is to identify environment friendly products (The Times of India News Service, 1992). The products bearing Ecomark are not still

seen the Indian market but the Indian Government had started working in this direction since 1992.

4.1.1 Knowledge About Eco Mark

The present investigation revealed that 83.3 per cent of respondents did not have any knowledge about "Eco Mark" but 16.7 per cent knew about it (Table-15).

Table 15 : Respondents' knowledge about "Eco Mark".

	Knowledge about Ecomark	Respondent (n=204)	
		f	%
1.	Do not know about Ecomark	170	83.3
2.	Know about Ecomark	34	16.7

Those respondents who said that they knew about Eco Mark were asked to show their understanding regarding the meaning and purpose of such mark and on which products it was given.

4.1.2 Knowledge about Meaning of Ecomark :

About 29 per cent of those respondents who knew about Ecomark said about the meaning of ecomark that it was an environmental label which says that after the content of the package/container we used, it can be disposed of easily as it is bio-degradable." Same percentage of respondents said that "the product bearing Eco Mark will not pollute the environment". Only three respondents said that" the product

bearing ecomark was made of ecofriendly material. Three respondents said that "the meaning of ecomark is" environmental preservation". Thus, only a few respondents had correct knowledge about meaning of ecomark.

Table 16 : Knowledge about Meaning of Eco Mark

	Meaning of "Eco Mark'	Respondents (n=34) f	%
1.	It is an Environmetally Friendly label which says that the empty package/container, can be disposed off easily as it is bio- degradable.	10	29.41
2.	The product bearing Ecomark is made of eco-friendly material.	3	8.82
3.	It is like I.S.I. mark.	8	23.53
4.	For environmental preservation.	3	8.82
5.	The product bearing ecomark will not pollute the environment.	10	29.41

4.1.3 Knowledge about purpose of Ecomark

The respondents were asked to exhibit their knowledge regarding purpose of ecomark, 52.94 per cent respondents did not know the purpose of ecomark, where as some respondents gave multiple answers (Table.17). Nearly 18 per cent of them said that it is to "promote clean environment" and "for environmental protection" this mark is given. Similar percentage of respondents said that "to save the earth from pollution of various kinds" this mark is given. There were 5.88 per cent homemakers who said correctly that the purpose of this mark is "to help people to distinguish between eco-

friendly and non-friendly products." Thus very few respondents had correct knowledge about the purpose of the Eco mark.

Table 17 : Knowledge about the Purpose of Eco Mark

	Purpose of Ecomark	Respondents (n=34) f	%
1.	Do not know	18	52.94
2.	To promote clean environment	6	17.65
3.	To guarantee quality of product	4	11.76
4.	For environmental protection	6	17.65
5.	To see that the future generations have a healthy environment to live	3	5.88
6.	To save earth from pollution of various kinds.	6	17.65
7.	To help people distinguish between eco-friendly and non-friendly products.	2	5.88

4.1.4 Knowledge about Products on Which Ecomark Will be Given

As many as 61.76 per cent respondents were not able to say correctly that on which products "Ecomark" will be given (Table - 18). Nearly 9 per cent respondents were correct to some extent by saying that the mark will be provided on packaging which does not harm the environment. There were 11.76 per cent respondents who mentioned correctly that the ecomark will be provided on products that do not harm the environment or pollute it and the waste of which can be recycled. Thus very few respondents had correct information about the products on which the ecomark is provided.

Table 18 : Knowledge About the Products on Which Eco Mark Will be Given

	The products on which Eco-mark will be given	Respondents (n=34) f	%
1.	Do not know clearly	21	61.76
2.	Packaging which does not harm environment	3	8.82
3.	Consumer products	4	11.76
4.	On products that do not harm the environment or pollute it and the waste of which can be recycled	4	11.76
5.	Products like tins, spray can, household cleaners, consumable plastic, detergent,soap, packaging material.	2	5.88

4.1.5 Willingness of Homemakers to Buy a Product Bearing "Eco Mark" :

An inquiry was made for the willingness of homemakers to buy a product bearing "Ecomark" even if it costs more. Nearly three fourth of the respondents showed their unwillingness and about one fourth of them were willing to buy the products bearing "Ecomark" (Table -19). This clearly indicates a need to create an awareness among people to be environmentally concerned and prefer the products which are environment friendly.

Table 19 : Willingness to Buy Product Bearing "Eco Mark".

Sr. No.	Willingness to Buy Product having Ecomark	Respondents (n=204) f	%
1.	Not willing	150	73.53
2.	Willing	54	26.47

4.2 Knowledge of Homemakers Regarding Harmful Effect on Environment Generated by Certain Goods During Their Life Cycle

The investigator was interested in finding out whether the homemakers had any knowledge about the stage of life cycle (from manufacturing to disposal) in which certain goods harm/pollute the environment.

Glass jars/bottles and so on harm the environment in their production stage and after disposal of waste, if not sent for recycling. Thirteen per cent respondents did not know about harmful effect of glass (Table - 20) whereas 1.5 per cent respondents had wrong information that it polluted during "use" stage. About one fourth respondents said that it did not pollute at all which indicated that they had wrong information.

Goods such as jars and bottles made of plastic harm the environment during its production as well as after waste disposal. About 11 per cent respondents did not know about it (Table - 20) whereas 8.8 per cent had wrong impression that it harmed environment during usage stage. About 58.3 per cent of the respondents had correct information that plastic bottles/jars harm the environment after disposal. About one tenth respondents said that it did not pollute the environment, which was wrong. About 28.4 per cent respondents had knowledge that the production of plastic items caused harm to the environment.

Similarly, for plastic shopping bags majority of the respondents knew correctly that it created harmful effect when disposed off. Nine per cent said, they do not pollute, whereas 7.8 per cent did not know about this aspect. Very few 2.9 per cent wrongly said that shopping bags caused harm to the environment during usage stage. Almost similar responses were observed in case of plastic milk bags (Table-20).

Harmful effect about tin containers were not known to 23 per cent respondents and 28.9 per cent said that they did not pollute whereas 7.4 per cent wrongly said that it harms during usage stage. Thus only a 19.1 per cent had correct information that tin containers harm environment during manufacturing and 27.5 per cent had correct information that they pollute after disposal, if not sent for recycling.

Nearly 70 per cent of respondents responded correctly that disposable plastic cups/plates pollute the environment after disposal and 23.5 per cent had correct information that these had harmful effect on environment during production stage. About 11 per cent respondents did not know about it. There were very few (4.9 per cent) respondents who said that disposable plates/cups made of plastic did not harm the environment.

Regarding disposable paper plates, 56.9 per cent of respondents had correct information that they pollute the environment after disposal. But there were about one-fifth

of respondents who said that it did not pollute the environment which was wrong information. Around 12.3 per cent respondents did not know about harmful effect of paper plates on environment.

Nearly 45 per cent homemakers were correct in saying that "pattal" made of tree leaves did not pollute the environment due to its biodegradable nature. Moreover, generally it was fed to animals, and thus, do minimum harm to the environment.

About 37 per cent of respondents said that "pattal" pollutes the environment after disposal. They were correct to some extent in saying so because immediately after disposal until animals eat the "pattal" away, it did pollute the environment.

Disposable ball pen harm/pollute the environment was not known to about one-fifth of respondents. More than half respondents said correctly that such ball pens pollute the environment after disposal. About 13 per cent homemakers had impression that the ball pens do not pollute the environment. Nearly 19 per cent respondents had correct information that disposable ball pens harm the environment during manufacturing stage also because it was generally made of plastic which has harmful effect on the environment.

One third respondents correctly said that old news paper pollute environment after disposal. This is true if it was not sent for recycling. If the old news papers were

torn into small pieces, and thrown in the garbage then they litter around and pollute the environment till the rag-pickers pick it up to send for recycling. Generally old newspapers are sold and thereby sent for reuse/recycle. Hence, 41.7 per cent respondents said that these do not pollute the environment. There were 14.7 per cent respondents who did not know that news papers have harmful effect on environment. Only 12.7 per cent respondents knew correctly that news papers cause harm to the environment during manufacturing stage. Almost similar observations were made on analysing the responses with regards to gift wrapping paper (Table - 20).

Pesticide/insecticide harm the environment during manufacturing and use stage as well as after disposal. More than half of the respondents knew correctly that it harmed the environment during use stage. About one-third respondents said correctly regarding harm created by pesticide/insecticide cans during production stage. A little less than one-third said correctly about harm created after disposal of pesticide/insecticide. There were 14.7 per cent respondents who did not know about environmental impact of pesticide/insecticide.

Two-third of the respondents said correctly that use of gas/kerosene caused pollution during its use but less percentage knew that there were harmful effects on the environment while manufacturing gas/kerosene.

Table 20 : Knowledge of Respondents about Harmful Effect on Environment Created By Selected Good from their Manufacturing to Disposal Stage.

Sr. No.	Goods	Production stage (n=204)		Use stage (n=204)		After disposal (n=204)		Does not pollute (n=204)		Do not know (n=204)	
		f	%	f	%	f	%	f	%	f	%
1.	Glass jars, bottles	76	36.3	3	1.5	58	28.4	52	25.5	27	13.2
2.	Plastic jars, bottles	58	28.4	18	8.8	119	58.3	19	9.3	22	10.8
3.	Plastic shopping bags	42	20.6	6	2.9	147	72.1	19	9.3	16	7.8
4.	Plastic milk bags	38	18.6	12	5.9	147	72.1	24	11.8	15	7.4
5.	Tin containers	39	19.1	15	7.4	56	27.5	59	28.9	47	23.0
6.	Disposable plastic cups	48	23.5	13	6.4	142	69.6	10	4.9	22	10.8
7.	Diposable paper plates	33	16.2	3	1.5	110	56.9	40	19.6	25	12.3
8.	Pattal of tree leaves	6	2.9	4	2.0	70	37.3	91	44.6	32	15.7
9.	Disposable ball pen	38	18.6	4	2.0	112	54.9	26	12.7	40	19.6
10.	Old news papers	26	12.7	3	1.5	68	33.3	85	41.7	30	14.7
11.	Giftwrapping paper	28	13.7	5	2.5	70	34.3	79	38.7	33	16.2
12.	Pesticide/ insecticide aerosol cans	73	35.8	110	53.9	64	31.4	3	1.5	30	14.7
13.	Gas/Kerosene	55	27.0	135	66.2	33	16.2	6	2.9	27	13.2
14.	Petrol	50	24.5	149	73.0	34	16.7	4	2.0	21	10.3

There were 13 per cent respondents who did not know about environmental impact of gas/kerosene. Almost similar responses were noted regarding environmental impact of petrol.

This showed that many homemakers did not have correct information regarding pollution/harm created on environment by various goods though there were quite a few who had correct knowledge on this aspect. The correct knowledge regarding this can help to reduce the pollution/harm to the environment to some extent by being selective about the products.

4.3 Awareness About Environmental Organization

There are many non-governmental voluntary organizations working to save the deteriorating quality of environment. The investigator was interested in knowing whether the respondents were aware of such organizations, and were member of any of such organizations.

4.3.1 Awareness About Environmental Organizations : The data revealed that a little more than half of the respondents were aware about the existence of environmental organizations (Table-21).

Table 21 : Awareness About Existence of Environmental Organizations

	Awareness About Environmental Organizations	Respondents (n=204) f	%
1.	Not aware	97	47.5
2.	Aware	107	52.5

4.3.2 Names of Organizations About Which Respondents Were Aware : The names of organizations about which the respondents were aware were obtained through an open-end question. The analysis showed that about one third respondents were aware about "Socleen", a voluntary non-government organization of Baroda, working for the betterment of the environment (Table - 22). A few respondents were aware about more than one organization.

Table 22 : Names of Organizations About Which Respondents Were Aware

	Name of Organization	Respondents f	%
1.	Socleen	69	33.8
2.	INSONA	4	2.0
3.	W.W.F.	12	5.9
4.	Green Peace	3	1.5
5.	Chipko Andolan	4	2.0
6.	Narmada Bachao Andolan	6	3.0
7.	Pollution Control Board	8	4.0
8.	Oasis	9	4.4
9.	United Way of Vadodara	9	2.9
	Total.....	121	59.5

About six per cent respondents were aware of W.W.F. (World Wild Life Fund) which is an international organization mainly working for conservation, betterment an creating awareness regarding wild life. Two per cent were

aware about INSONA (International Society for Naturalists), and the same percentage had heard about "Chipko Andolan", a movement to prevent cutting of trees from the forest, lead by Shri Sundarlal Bahuguna.

Very few (1.5 per cent) respondents were aware about "Green Peace" an international organization working to save the environment from further deterioration. Some respondents (4 per cent) mentioned the name of Pollution Control Board, though it is a governmental organization. Some respondents were aware of "Oasis" and "United Way of Vadodara", which are working for the betterment of Vadodara and are not exclusively environmental organization though they do organise a few programmes for the improvement of environment.

4.3.3 Membership of Respondents in Environmental Organizations : The investigator was interested in finding out that how many respondents were member in any such organization, and if they were, then the kind of membership they had and in which activities they participated.

It was found that 3 per cent respondents were members of the environmental organization (Table - 23). Two per cent respondents were life-member of "Socleen" and one per cent were yearly member of W.W.F. Those who were members of "Socleen" were actively involved in the programmes such as tree-planting, cleaning Baroda and actively participated in

discussions and seminars, etc. Other respondents were passive members.

Table 23 : Membership and Involvement in Activities of Environmental Organization

		Respondents f	%
A.	Membership in Environmental Organization		
	Not a member	198	97.0
	A member	6	3.0
	Total...	204	100.0
B.	Name of Organization in which membership is held		
	Socleen	4	2.0
	World Wilf Life Fund	2	1.0
C.	Type of membership		
	Life member	4	2.0
	Yearly member	2	1.0
D.	Kinds of activities in which involved		
	Tree plantation	4	2.0
	Cleaning Vadodara	2	1.0
	Discussions, seminars, lectures	4	2.0

4.4 **Conclusion**

Majority of the homemakers did not have any knowledge about `Eco Mark'. Only a few homemakers among those who knew about `Eco Mark' had correct knowledge about the meaning and purpose of eco mark. Also a very few knew about the products on which the mark is given. Nearly three-fourth of the respondents were not willing to buy the products bearing eco mark.

5. Attitude of Homemakers Towards Environmental Responsibilities as Consumers

One of the aims of the present investigation was to study the attitude the homemakers towards environmental responsibilities as consumers. It was thought that the attitude might affect the environmental concern in buying, consumption and waste disposal behaviour.

5.1 Analysis of Attitude Sub-scales

The attitude scale developed for the purpose contained statements indicating environmental responsibilities of consumers concerning the following areas :

5.1.1 Protection of environment

5.1.2 Prevention of pollution

5.1.3 Conservation of resources

5.1.4 Participation in activities to save the environment.

For the purpose of analysis and discussion, each of these was referred to as sub-scale of the attitude scale. They are presented here with the responses of homemakers.

5.1.1. Environmental Responsibilities for Protection of Environment

The analysis of distribution of respondents according to their response to various statements of the sub-scale-1 (Table-20), showed that almost all (99 per cent) respondents agreed that it was the responsibility of each individual to create healthy environment in order to enjoy it. Also about

92 per cent agreed that if one harmed the nature, one harmed one self. About 85 per cent respondents did not agree with the idea that consumers did not neet to bother, when they bought any product, whether its manufacturing, use and disposal harmed the environment or not.

Majority disagreed with the statement: one need not particularly be worried about what the world will be like about 100 years from now. About 82 per cent respondents agreed that it was desirable to buy environmentally friendly products even if they were little more costly.

Fortyfour per cent respondents agreed that consumers did need to stop buying disposable items like paper/plastic cups and plates to save the environment but about 29 per cent disagreed, and 27 per cent were uncertain, about it. A varied response was obtained for the statement saying it is desired to discontinue using perfume sprays containing C.F.Cs. (Chlorofluorocarbons) which damage the ozone layer in the atmosphere. About 61 per cent agreed but 13 per cent disagreed whereas 26 per cent were uncertain about it.

Table 24 : Responses of Homemakers on Attitude Towards Environmental Responsibility as Consumers for "Protection of Environment".

Statement Regarding Protection of Environment	Respondents (n=204)					
	Agree		Uncer-tain		Disagree	
	f	%	f	%	f	%
1. If one harms the nature one harms one-self (+)	189	92.6	12	5.9	3	1.5
2. What life on the earth will be like in the future does not depend on how we take care of it now (-)	30	14.7	22	10.8	152	74.5
3. One need not particularly be worried about what the world will be like about 100 years from now. (-)	14	6.9	23	11.3	167	81.9
4. It is the responsibility of each individual to create healthy environment in order to enjoy it. (+)	202	99.0	1	0.5	1	0.5
5. The consumers need not bother when they buy any product whether its manufacturing, use and disposal harm the environment or not. (-)	10	4.9	21	10.3	173	84.8
6. It is desired to discontinue using perfumed sprays containing C.F.Cs. (Chlorofluoro carbons) which damage the ozone layer in the atmosphere. (+)	124	60.8	53	26.0	27	13.2
7. Consumers need to stop buying disposable items like paper/plastic cups and plates to save the environment. (+)	90	44.1	55	27.0	59	28.9
8. It is desirable to buy environmentally friendly" products even if they are little more costly.(+)	168	82.4	24	11.8	12	5.9

5.1.2 Environmental Responsibilities for Prevention of Pollution

Item wise analysis of distribution of respondents on this sub-scale revealed that almost all (98 per cent) respondents agreed that after eating in the parks/picnic spots, everyone must see that litter or waste is thrown in the dust bin (Table-21). About 96.6 per cent respondents agreed that it was expected from each consumer to dispose off the household waste in such a way that it did not need pollute the surroundings. Also a vast majority of respondents agreed that each consumer must try to prevent pollution generation. Though 88.2 per cent respondents disagreed with the statement that each individual as a consumer did not need to accept any responsibility for the proper disposal of waste from the things they buy, about nine per cent were uncertain about it'. Similarly, about nine per cent were uncertain that there was no need to bother oneself where and how the solid waste from each household is discarded but 86.3 per cent disagreed with this statement. Regarding keeping every type of waste material of household separate for the purpose of recycling, about one fourth of respondents felt that it was a nuisance whereas 45 per cent said it was not a nuisance but about 29 per cent were uncertain about it.

Table 25 : Responses of Homemakers on Attitude Towards Environmental Responsibility as Consumers for "Prevention of Pollution".

	Statement Regarding Prevention of Pollution	Respondents (n=204)					
		Agree		Uncer-tain		Disagree	
		f	%	f	%	f	%
1.	Each consumer must try to prevent pollution generation (+)	195	95.6	1	0.5	8	3.9
2.	There is no need for consumers to raise their voice against the industries and institutions which pollute the environment. (-)	5	2.5	12	5.9	187	91.7
3.	When using vehicle, consumers need not be bothered about the noise and air pollution generated by it. (-)	22	10.8	11	5.4	171	83.8
4.	It is expected from each consumer to dispose off the household waste is such away that it does not pollute the surroundings. (+)	197	96.6	4	2.0	3	1.0
5.	Each individual as a consumer need not accept any responsibility for the proper disposal of waste from the things they buy. (-)	5	2.5	19	9.3	180	88.2
6.	There is no need to bother oneself where and how the solidwaste from each household is discarded. (-)	9	4.4	19	9.3	176	86.2
7.	If each consumer makes it a point to send solid waste material for recycling agencies, it will help to solve solidwaste disposal problem. (+)	176	86.3	23	11.3	5	2.5
8.	It is a nuisance to keep every type of waste material separated for recycling. (-)	52	25.5	60	29.4	92	45.1
9.	After eating in the parks/picnic spots every one must see that litter or waste is thrown in the dust bin. (+)	200	98.0	0	0	4	2.0

5.1.3 Conservation of resources

About 89 per cent respondents agreed that unless consumers acted now to conserve natural resources, future generations would be faced with a lower quality of life, but about 8 per cent were uncertain and 2.5 per cent did not agree with the statement (Table-22). About ninetyfour per cent) of respondents did not agree with the statement that each individual did not have any responsibility towards protecting and growing more trees.

About one fourth of respondents agreed that choosing life-styles which were in harmony with the environment foster long-term benefits to the present and future generations but there were about 19 per cent respondents who were uncertain.

Forty per cent of respondents were uncertain that those who said that today's trash was tomorrow's cash were wrong although there were about 39 per cent who disagreed and 20 per cent agreed with the statement. Thus, a varied response was obtained for this statement.

Table-26 : Responses of the Homemakers on Attitude Towards Environmental Responsibility as Consumers for "Conservation of Resources"

	Statement regarding "Conservation of resources"	Respondents (n=204)					
		Agree		Uncer-tain		Disagree	
		f	%	f	%	f	%
1.	Unless consumers act now to conserve natural resources, future generations will be faced with a lower quality of life (+)	182	89.2	17	8.3	5	2.5
2.	Choosing life - styles which are in harmony with the environment fosters long term benefits to the present and future generation. (+)	154	75.5	39	19.1	11	5.4
3.	Consumers may waste less resources of the earth by restricting their wants. (+)	161	78.9	36	17.6	7	3.4
4.	Consumers should be selective in their consumption of resources choosing those which result in the least environmental damage in their extraction and use. (+)	164	80.4	34	16.7	6	2.9
5.	One need not bother oneself if he/she sees any where water flowing uselessly and being wasted. (-)	13	6.4	17	8.4	173	85.2
6.	Each individual does not have any responsibility towards protecting and growing more trees. (-)	8	3.9	4	2.0	192	94.1
7.	Those who say that today's trash is tomorrow's cash' are wrong. (-)	41	20.1	83	40.7	80	39.2

5.1.4 Environmental Responsibilities of consumers for Participation in activities to save the environment

About 91 per cent respondents agreed that organised or individual actions by consumers could save the environment of the earth, but there were (46 per cent) respondents who believed that one consumer alone could not do anything to save the environment however, 41.7 per cent respondents did not agree with this, whereas 12.3 per cent remained uncertain in their response (Table-23).

There were ninety per cent respondents who agreed that it was expected from each individual as consumer to think for the environment globally and act locally. Same percentage of respondents did not agree that one did not need to be aware and to support the environmental actions taken by city/district/state/central authorities. Similarly 82.8 per cent respondents disagreed with the statement saying it was not the responsibility of each consumer to participate actively in the activities to save the environment.

There were about 18 per cent respondents who were uncertain that consumers could help to save the deteriorating environment of the earth if they did not buy those products whose manufacturing harms the environment. However, about three-fourth of respondents agreed with this.

Table 27 : Responses of Homemakers on Attitude Towards Environmental Responsibility as Consumer Regarding `Participation in Activities to Save the Environment'

Statements regarding `Participation in activities to save the environment.	Respondents (n=204) Agree f	Agree %	Uncertain f	Uncertain %	Disagree f	Disagree %
1. It is not the responsibility of each consumer to participate actively in the activities to save the environment (-)	20	9.8	15	7.4	169	82.8
2. Organised or individual actions by consumers can save the environment of the earth (+)	187	91.7	14	6.9	3	1.5
3. One consumer alone can not do anything to save the environment. (-)	94	46.1	25	12.3	85	41.7
4. It is expected from each individual as consumer to think for the environment globally and act locally (+).	184	90.2	11	5.4	9	4.4
5. One need not be aware and need not support the environmental actions taken by city/district/state/ central authorities (-).	3	3.9	12	5.9	184	90.2
6. Consumers can help to save the deteriorating environment of the earth if they do not buy those products whose manufacturing harms the environment (+).	150	73.5	37	18.1	17	8.3

5.2 Attitude Level of Respondents Towards Environmental Responsibilities as Consumers.

The possible scores on the Attitude scale ranged from 30 to 90, out of which, scores obtained by the respondents ranged from 57 to 90 with a mean of 81.53 (S.D.=6.13).

Table 28 : Extent of Favourableness of Attitude of Respondents Towards Various Aspects of Environmental Responsibilities

Extent of Favourableness of Attitude on Sub-Scales on	Range of Scores	Respondents f	%
1. Protection of Environment			
Less Favourable	8 - 18	36	17.6
Moderately Favourable	19 - 23	128	62.7
Highly Favourable	24	40	19.6
Mean = 21.44 S.D. = 2.25			
2. Prevention o Pollution			
Less Favourable	9 - 23	36	17.6
Moderately Favourable	24 - 26	168	82.4
Highly Favourable	27		
Mean = 25.12 S.D. = 1.92			
3. Conservation of Resources			
Less Favourable	7 - 16	38	18.6
Moderately Favourable	17 - 19	119	58.3
Highly Favourable	20 - 21	47	23.0
Mean = 18.96 S.D. = 1.76			
4. Participation in activities to save the Environment			
Less Favourable	6 - 13	36	17.6
Moderately Favourable	14 - 16	117	57.4
Highly Favourable	17 - 18	51	25.0
Mean = 15.95 S.D. = 1.8			

To determine the degree of favourableness of the attitude of respondents, they were distributed according to their scores into three categories formulated on the basis of mean score and standard deviation (Table-24). The analysis of each sub-scale showed that majority of respondents had a moderately favourable attitude.

Regarding `Protection of Environment', 19.6 per cent had highly favourable attitude, whereas 17.6 per cent had less favourable attitude. Regarding Conservation of resources more (23.0) percentage of respondents had highly favourable attitude than those who had less favourable attitude (18.6 per cent). Similarly for Participation in activities to save the environment one fourth of the respondents had highly favourable attitude than those (17.6 per cent) who had less favourable attitude. In three out of four sub-scale, more percentage of respondents had highly favourable attitude than those who had less favourable attitude.

For the total scale 71 per cent had moderately favourable attitude but more percentage (16.7) had less favourable attitude than those (12.3 per cent) who had highly favourable attitude.

5.3 **Overall Group Attitude**

The overall group attitude score was computed according to the method suggested by Shah and Gupta (1993). The group

attitude was found to be 2.717. This, when compared with Intensity Index ranging from 1 to 3 (vide chapter of methodology) showed that the group i.e. the total sample had favourable attitude towards Environmental Responsibilities as consumers (Table-26).

Similarly overall group attitude was computed for each aspect of Environmental Responsibilities.

Table 29 : Overall Group Attitude for Sub-scale and Total Scale.

	Aspects of Environmental Responsibility	Intensity Value of Group Attitude	Attitude According Intensity Index Ranging from 1 to 3
1.	Protection of Environment	2.68	Favourable
2.	Prevention of Pollution	2.79	Favourable
3.	Conservation of Resources	2.7	Favourable
4.	Participation in Activities to save the environment.	2.66	Favourable
5.	Total attitude scale	2.72	Favourable

It was found that respondents had a favourable attitude for each aspect of Environmental Responsibilities as consumers (Table-26). Viewing the intensity value of group attitude for each scale, it could be said the respondents had more favourable attitude for "prevention of pollution" (intensity value 2.79), and for "conservation of resources" (value 2.7). In comparison to these the values were less

for "protection of environment" (2.68) and "participation in activities to save the environment" (2.66).

5.4 Variation in Attitude Towards Environmental Responsibilities Due to Selected Personal and Situational Variables of Homemakers

The analysis of variance was computed to find out the variation in the attitude towards environmental responsibilities as consumers. If `F' ratio was found significant then t-test was applied.

Education : The mean attitude score increased with the increase in educational level (Table - 30, Fig. 4..). The F=13.92 (Sig.0.01) indicated `between' and `within' group differences (Table - 31). The t-test (Table- 32) revealed that the mean attitude score of under-graduates was less than that of post-graduates (t=6.30, Sig. 0.01). It was also less in graduate and post graduate homemakers (t=3.31, Sig.0.01).

Income : The mean attitude score increased with the increase in income level but it decreased in the highest income level. (Table-30, Fig. 4 .). The `F'=6.42 (Sig. 0.01) showed that there were `between' and `within' group differences.

The attitude of those homemakers who had income below Rs.5,000 was different than those who had the income of Rs.13,000 and more. (t=2.33, Sig. 0.05). The attitude of homemakers belonging to the income category of `below Rs.5,000' differed significantly from those belonging to the

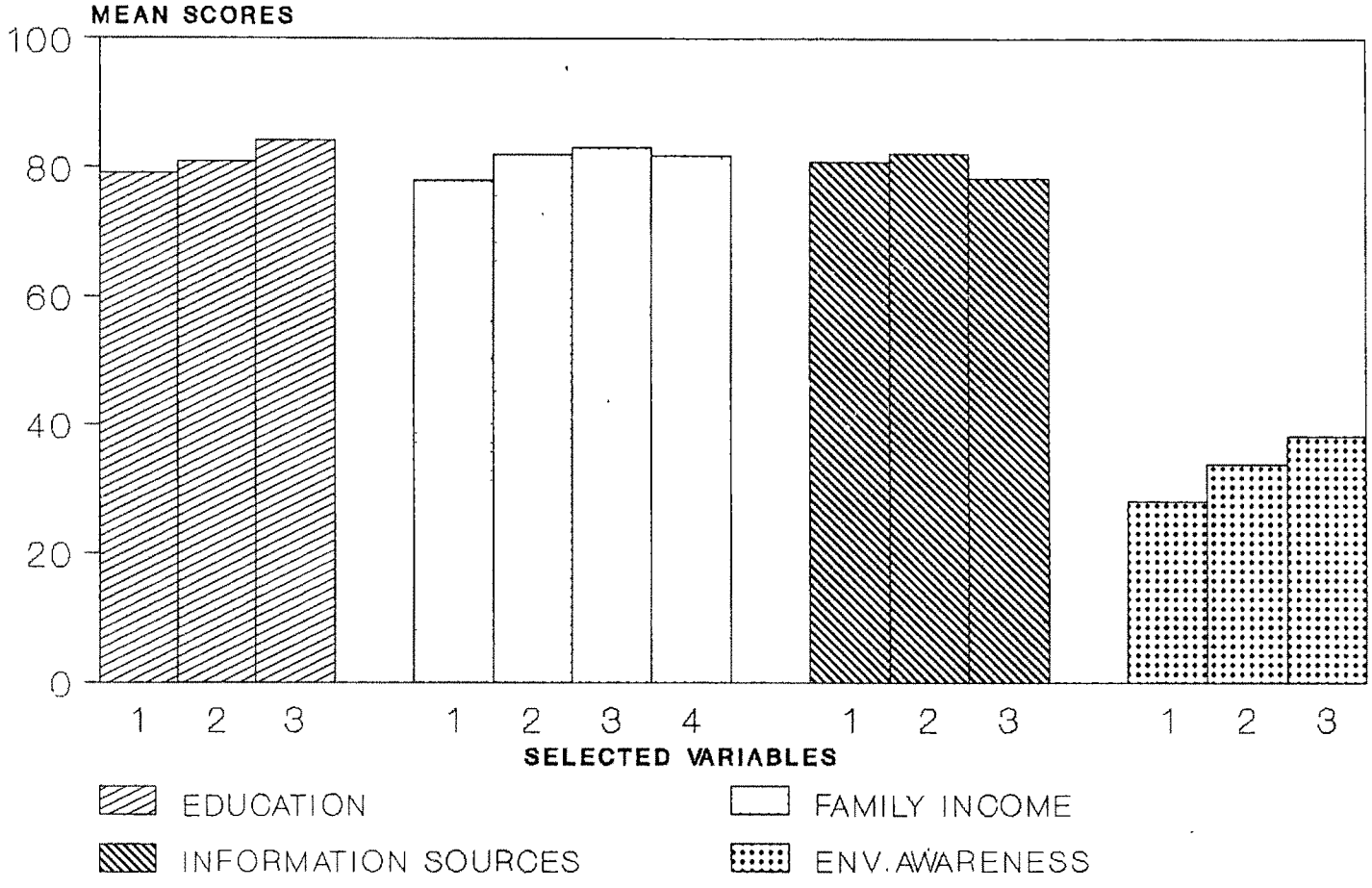
category of `Rs.5001 to Rs.9,000' (t=3.09, Sig. 0.01). The attitude also differed significantly between the homemakers from the income group below Rs.5000 and income group of Rs.9001 to Rs.13,000. No other groups of homemakers from different income groups were found to be having significantly different attitude (Table- 32).

Table 30 : Mean Attitude Score of Homemakers by Selected Variables

Categories of Selected Variables	Respondents n = 204	Mean Attitude Score
1. Education		
Below graduation	63	79.1
Graduate	75	81.0
Post graduate	69	84.3
2. Family Income (Rs.)		
Below 5000	42	78.1
Between 5001 and 9000	72	82.1
Between 9001 and 13,000	57	83.1
Above 13,001	53	81.9
3. Extent of Use of Sources of Information		
Low extent	27	81.0
Medium extent	147	82.2
High extent	30	78.5
4. Environmental Awareness		
Low level	34	28.088
Medium level	145	34.048
High level	25	38.24
5. Total sample.	204	81.5

Extent of Use of Sources of Information : The mean attitude was higher for those homemakers who used the

Fig : 4 MEAN ATTITUDE SCORE OF HOMEMAKERS BY SELECTED VARIABLES



Education :
1=Below Graduation
2=Graduate
3=Post Graduate

Family Income :
1=Below Rs.5000
2=Between 5001 & 9000
3=Between 9001 & 13000
4=Above 13001

Information Sources :
1=Low extent
2=Medium extent
3=High extent

Environmental Awareness :
1=Low Level
2=Medium Level
3=High Level

sources of information to a medium extent than those who used the sources to a lower or higher extent (Table-30, Fig.4.). Among all the groups, the mean attitude score was the lowest for those homemakers who used the sources to the highest extent. The F=4.83 (Sig. 0.01) indicated that the groups varied significantly from each other (Table-31). The results of t-test showed that there was a difference between attitude of those homemakers who used the sources of information to a medium extent and those who used to a high extent. Those who used the sources of information to a medium extent had a higher mean attitude score than those who used to high extent. No other groups varied significantly from each other (Table-32).

Environmental Awareness : The mean attitude score increased with the increase in the level of environmental awareness (Table-30, Fig.4.). The F=18.677 (Sig. 0.01). The t-values showed that there was a difference in attitude between those homemakers having environmental awareness at low level and those having at medium level (t=4.58, Sig.0.01). The mean attitude score was high for those who had medium level of awareness than those who ad at low level. It also varied between those having awareness at low level and those who had at high level (t=6.60, Sig.0.01). A difference was also found between those who had environmental awareness at medium and those who had it at high level (t=2.99, Sig. 0.01).

To study the interrelationshp between environmental awareness and attitude, coefficient of correlation was computed. It showed a positive correlation between the two r=0.4126, Sig. 0.001, 200 df).

Thus, environmental awareness and education were found to be having clear influence on the attitude of homemakers towards environmental responsibilities as consumers.

Table 31 : Analysis of Variance for Attitude Towards Environmental Responsibilities as Consumers

Sources of Variation	df	Sum of Squares	Mean Square	F Value	Level of Signifi-cance
1. Education					
Between Groups	2	927.6035	463.8017	13.9241	0.01
Within Groups	201	6695.1563	33.3092		
2. Family Income					
Between Groups	3	669.61	223.2034	6.42	0.01
Within Groups	200	6953.1496	34.7657		
3. Extent of Use of Sources of Information					
Between Groups	2	349.6635	174.83	4.83	0.01
Within Groups	201	7273.096	36.1846		
4. Environmental Awareness					
Between Groups	2	1600.0819	800.04	18.677	0.01
Within Groups	201	8699.957	42.835		

Table 32 : t-values Showing Difference Between Attitudes Towards Environmental Responsibilities by Selected Variables

Variables	Mean	t-value	df	Level of Signifi-cance
1. Education				
A. Below Graduates	79.0794	6.30	130	0.01
Post Graduates	84.304			
B. Below Graduates	79.0794	1.73	133	N.S.
Graduates	81.0278			
C. Graduates	81.0278	3.31	139	0.01
Post Graduates	84.3043			
2. Income				
A. Below 5,000	78.0952	2.33	73	0.05
13,000 and More	81.8788			
B. Below 5000	78.0952	3.09	112	0.01
5001-9000	82.1250			
C. Below 5000	78.095	4.35	97	0.01
9001-13,000	83.122			
D. 5001-9000	82.1250	1.09	127	N.S.
9001-13,000	83.1228			
E. 5001-9000	82.1250	0.19	03	N.S.
13,000 and More	81.8788			
F. 9001-13,000	83.1228	1.22	88	N.S
13,000 and More	81.8788			
3. Environmental Awareness				
A. Low level	28.088	4.58	177	0.01
Medium level	34.0483			
B. Low level	28.088	6.60	57	0.01
High level	38.240			
C. Medium level	34.0483	2.99	168	0.01
High level	38.24			
4. Sources of Information				
A. Low extent	81.0370	1.04	172	N.S.
Medium extent	82.2381			
B. Medium extent	82.2381	3.08	175	0.01
High extent	78.533			
C. Low extent	81.0370	1.28	55	N.S.
High extent	78.533			

5.5 Conclusions

Majority of the homemakers had moderately favourable attitude towards environmental responsibilities as consumers for each of the sub-scale and total attitude scale. The group attitude was `favourable' for each of the sub-scale and for the total scale when compared with Intensity Index ranging from 1 to 3 points. The variation in attitude was observed due to variation in education, family income, extent of use of sources of information and environmental awareness. The attitude clearly differed between various groups of homemakers having different educational level and environmental awareness. The mean attitude score increased with the level of education and environmental awareness. Thus, these two were the clearly influencing variables to the attitude towards environmental responsibilities as consumers. A positive relationship was found between environmental awareness and the attitude.

It was found that respondents had a favourable attitude for each aspect of Environmental Responsibilities of consumers (Table-26).

Environment Friendly Behaviour and Environmental Concern of Homemakers Buying, Consumption and Waste Disposal Behaviour

To study the environmental concern of homemakers in their buying, consumption and waste disposal behaviour, three scales were developed (vide Chapter III). It was presumed

that the homemakers may follow environment friendly practice consciously or unconsciously, but the concern for the environment would be reflected in the reasons given for following certain practices. Environment friendly behaviour was scored. Higher scores indicated more environment friendly behaviour. Each behaviour is discussed at length. In each table, the alternatives are presented in the descending order of environment friendliness. Only those reasons having (##) sign reflected the environmental concern.

6. Environment Friendly Behaviour and Environmental Concern in Buying Goods

Environmental concern and friendliness in buying behaviour were studied in relation to certain goods which were grouped as follows :

6.1 Same or similar product available in different packaging materials

6.2 Throw-away or reusable items.

6.3 Household utensils/appliances.

6.4 Detergents.

6.1 Environment Friendly Behaviour and Environmental Concern Reflected While Buying Same or Similar Product Available in Different Packaging Material

There were few products which were available in various kinds of packaging materials at the time of tool formation and data collection. The quality of the product

was same or very similar. Such products considered for the present investigation were :

6.1.1 Cooking oil

6.1.2 Coffee powder

6.1.3 Hair oil

6.1.4 Cold drinks

6.1.5 Food grains in bulk

6.1.6 Dry products in general.

The choice of packaging material while buying these selected goods reflected the environment friendly behaviour of respondents. The reasons given by the respondents for their choice reflected the environmental concern.

6.1.1 Buying cooking oil available in various packaging

Cooking oil was available in the market in the packaging of tin, plastic bottles/bags/jars and in tetrapacks. Among the three, tin packaging was considered the least harmful to the environment assuming that the tin cans be reused as well as recycled. Plastic bottles/bags/jars were considered harmful to some extent because these containers may be reused or recycled in some cases, otherwise thrown away. But the packaging of tetrapack can neither be reused nor be easily recycled as it is difficult to separate out various materials used in making the tetrapack. Thus, this was considered the most harmful to the environment among the three alternatives.

More than half respondents purchased cooking oil sold in tins whereas 27 per cent purchased it in tetra pack and about 17 per cent purchased it in plastic bottles/bags/jars (Table 33). Among those who purchased oil in tins reflected environment friendly behaviour to a great extent. Among them 22 per cent said that buying oil in tins was economical. Nearly 8 per cent said that for convenience oil was purchased in bulk which was available only in tins hence they purchased cooking oil in tins (Table 33). About 8 per cent respondents said that as the tins could be reused or sold, they became economical even after oil was consumed. There were only about 4 per cent respondents who thought of environment and said that since tins could be reused, their disposal was esy and thus the problem of pollution could be reduced to some extent. This answer reflected their environmental concern.

Among those who purchased cooking oil in plastic bottles/jars about 6 per cent said that these were easy to store and about 3 per cent said that it was easy to pour oil in small container for daily use. There were about 5.39 per cent homemakers who bought these so that the bottles/bags/jars could be reused. Only these respondents considered the impact on environment at the time of buying. There were about per cent respondents who purchased oil in plastic bags as they were easy to throw away. These respondents did not consider environmental impact of their action !

Among those respondents who purchased cooking oil in tetrapack reflecting the least friendly behaviour for the environment nearly 9 per cent said that tetra packs were convenient to buy and store. About 7 per cent said that good quality of oil was available in it.

It could be seen that environmental concern was shown by 12.25 per cent of those respondents who exhibited the most environment friendly behaviour. Among those who showed environment friendly behaviour to some extent amounted to 5.39 per cent.

On the whole 17.64 per cent homemakers from the total sample showed their environmental concern at the time of buying cooking oil.

Table 33 :Buying of Cooking Oil Available in Various Packaging and Reasons For the Choice

Buy cooking oil sold in various packaging	Respondents n=204 f	%	Reasons for choice	Respondents f	%
1. Tin	115	56.4		(n=115)	
			* For convenience oil is purchsed in bullt which is available in tins.	34	16.66
			* Same quality of oil is available throughout the year.	24	11.76
			* Oil is pure, not adulterated	28	13.72
			* Convenient to store	16	7.84
			* Economical	46	22.5

Table 33 (Contd...)

Buy cooking oil sold in various packaging	Respondents n=204 f	%	Reasons for choice	Respondents f	%
			* No tension of buying at short intervals	15	7.35
			## Can be reused or sold	17	8.33
			* Less problem of disposal and pollution since tins are reused.	8	3.92 (n=34)
2. Plastic bottles or bags or jars	34	16.6	* Easy to store	12	5.88
			* Fresh oil packed from factory at short intervals can be obtained.	4	1.96
			* Plastic bags are easy to throw-away.	4	1.96
			* Easily available	3	1.47
			* Easy to pour in small container for daily use	6	2.94
			* Small quantity than tins is needed	10	4.90
			## Can be reused	11	5.39
3. Tetrapack	55	27.0			(n=55)
			* Convenient to buy and store.	18	8.82
			* Packaging easy to throw away.	5	2.45
			* Good quality	14	6.86
			* No need of large investment.	13	6.37
			* Only small quantity is needed.	11	5.39
			* Fresh oil packed from factory at short invervals can be obtained.	10	4.96

(The reasons with ## sign show environmental concern)

6.1.2 Buying Coffee-powder available in various packaging material

Generally coffee powder is available in the market in glass bottle/jar or in refill pack. It is packed in plastic or paper packaging if purchased loose. Loose coffee can be purchased in one's own container, thus eliminating the need for packaging material. Glass containers were considered as the most environment friendly because they could be reused and recycled thereby reducing pollution to some extent. Buying loose coffee in paper/plastic packet provided by the shopkeeper was considered somewhat friendly choice for the environment. The refill packs generally made of plastic were considered the most harmful to the environment as they were neither easily recycled nor bio-degradable.

Seventytwo per cent of respondents purchased coffee powder in refill packs (Table-34). Among these, 47.5 per cent respondents considered the practice as economical. About 7 per cent already had glass bottles, hence they purchased coffee in refill packs. About 5 per cent considered that empty packages were easy to dispose than glass bottles, hence they purchased them. This reflected lack of concern for the environment.

A little less than one-fourth of respondents purchased coffee powder in glass bottles, reflecting most environment friendly behaviour. About one-tenth respondents said that glass bottles could be reused. About 1.47 per cent of respondents clearly stated that the problem of pollution could be reduced since bottles could be reused.

Only 3.4 per cent respondents purchased loose coffee and 2.9 per cent considering that it was less costly (Table-34).

Table 34 : Buy Coffee Powder Available in Various Packaging and Reasons for the Choice.

Buy Coffee powder available in various packaging	Respondents n=204 f	%	Reasons for choice	Respondents f	%
1. In Glass containers	49	24.0		(n=49)	
			* It is airtight	17	8.33
			* Easy to store	13	6.37
			* Quality remains fresh	5	2.45
			## Can be reused	20	9.80
			* No problem of pollution since bottles are reused.	3	1.47
2. Loose	7	3.4		(n=7)	
			* More fresh and tasty.	2	0.98
			* Less cost	6	2.94
3. In Refill packs.	148	72.6		(n=148)	
			* Good quality	13	6.37
			* Small quantity needed.	18	8.82
			* Safer than loose coffee	5	2.45
			* Empty package easy to dispose.	10	4.90
			* Economical	97	47.54
			* Easy to handle and store	15	7.35
			* Do not like to collect bottles.	14	6.86
			* Already have glass bottle to empty refill pack.	12	5.88

(The reasons with ## sign show environmental concern)

Thus, it can be said that in case of buying coffee-powder the least environment friendly behaviour was reflected by majority of the respondents. Environmental concern was shown by 11.27 per cent of those homemakers who had most environment friendly behaviour.

6.1.3 Buying hair oil available in various kinds of packaging material

As far as hair oil is concerned, 68.6 per cent respondents purchased it in plastic bottles which was considered the most harmful choice for the environment among the provided alternatives (Table-35). This was because plastic bottles could be reused and recycled to a lower extent than glass and tin containers. One-fourth of respondents purchased hair oil available in glass bottles. These were considered somewhat friendly choice for the environment. Only 6.4 per cent respondents selected the least harmful alternative for the environment, which was, tin.

Among those who purchased hair oil in tin containers, exhibiting the most environment friendly behaviour. 2.9 per cent respondents said that as the tins could be reused, so they purchased hair oil in tins. This reflected their environmental concern (Table-30). About 1.5 per cent respondents from those who purchased hair oil in glass bottle said clearly that there would be less problem of waste and pollution since bottles could be reused. This showed the concern for environment. About 3.4 per cent said

Table 35 : Buying Hair Oil Available in Various Packaging Material and the Reasons for the Choice.

Packaging material of hair oil	Respondents n=204 f	%	Reasons for choice	Respondents f	%
1. Tin containers	13	6.4		(n=13)	
			* Oil smells fresh	2	0.98
			* Economical	4	1.96
			* More durable	2	0.98
			## Can be reused	6	2.94
2. Glass bottles	51	25.0		(n=51)	
			* Preferred brand available in glass bottles only.	29	14.21
			* Plastic is harmful and tins get rusted.	6	2.94
			* Easy to pour	10	4.90
			## Can be reused.	7	3.43
			* Less problem of waste and pollution since bottles can be reused.	3	1.47
3. Plastic bottles	140	68.6		(n=140)	
			* Convenient and easy to handle.	58	8.43
			* Do not break like glass bottles.	41	20.09
			* Economical.	13	6.37
			* Preferred brnad available only in plastic bottles.	28	13.72
			* Oil requirement is less which is available only in small plastic bottles.	13	6.37
			* Can be sold for money	5	2.45
			## Can be reused.	12	5.88

(The reasons with ## sign show environmental concern)

that as glass bottles could be reused they purchased hair oil in them.

About 28 per cent of those respondents who purchased hair oil in plastic bottles did so as they were convenient and easy to handle. Twenty nine per cent did so as plastic bottles did not break like glass bottles. There were 2.4 per cent respondents who said that plastic bottles could be sold to get money and 5.88 per cent said that these can be reused. This indicated that a very small group of respondents did think of environment at the time of buying, though they reflected the least environment friendly behaviour.

Environmental concern was shown by 2.9 per cent of those respondents who exhibited the most environment friendly behaviour, and by 4.9 per cent of those who had environment friendly behaviour to some extent. Environmental concern was also shown by 5.88 per cent of those respondents who exhibited least environment friendly behaviour.

Only 13.62 per cent respondents from the total sample showed environmental concern when buying hair oil.

6.1.4 Buying cold drink available in various packaging material

Now-a-days cold drinks are available in glass bottles as well as in paper packs. Buying in glass bottles was considered the most environment friendly practice because glass bottles can be reused and recycled. Buying in paper

packs was considered the most harmful whereas using glass bottles at times and paper packs at other times was considered somewhat harmful practice for the environment.

About sixty two per cent respondents purchased cold drinks in glass bottles, 7 per cent purchased them in paper packs, whereas 31 per cent used either glass bottles or paper packs sometimes (Table-36).

About 5 per cent respondents buying in glass bottles said that this was an environmentally healthy choice. Nearly 16 per cent respondents said that bottles can be reused and recycled hence they bought cold drink in them. About 6 per cent said that the bottles could be returned to get the deposited money back so they preferred bottles.

On the other hand among those respondents who preferred paper packs, 2.94 per cent felt that paper packs were easy to dispose. They did not probably realise that the packs would litter the ground.

There were considerable respondents who did not bother about the type of container. Such carelessness was considered harmful practice for the environment to some extent. Among them, 17 per cent respondents said that they drank whatever they liked at that point of time.

Thus, as far as buying of cold drinks is concerned, most of the respondents exhibited environment friendly behaviour, but only 20.58 per cent showed environmental concern.

Table 36 (Contd...)

Packing material of Colddrink	Respondents n=204 f	%	Reasons for choice	Respondents f	%
3. Paper pack packs	14	6.9		(n=14)	
			* Easy to dispose off	6	2.94
			* Easy to use	5	2.45
			* Easy to carry home	4	1.96
			* No need of depositing money as in the case of bottles.	5	2.45
			* Economical.	4	1.96

(The reasons with ## signs show environmental concern)

6.1.5 Buying Food Grains In Bulk Available In Various Packaging Material

Generally food grains in bulk, are packed in bags made of jute/plastic or jute lined with plastic. Jute bags are reused in many ways and are bio-degradable, hence, they were considered the least harmful to the environment out of the three suggested alternatives. As plastic bags couldalso be reused, they were considered some what harmful to the environment compared with jute gunny bags lined with plastic, where the lining is difficult to be detached before recycling of jute or plastic.

A little less than one-half of respondents purchased food grains in bulk packed in jute bags (Table-37). About 32 per cent purchased the grains in plastic bags whereas 19 per cent purchased in bags of jute lined with plastic.

Nearly 30 per cent respondents purchased food grains in jute bag because they were commonly available where as 10.78 per cent thought about their reuse. There were 8.33 per cent respondents who clearly said that jute bags did not create pollution as they were reused.

Those who purchased food grains in plastic gunny bags about 3 per cent preferred them because they provided more protection to grains from insects. Nearly 5 per cent said that they provided more protection from moisture and 4 per cent said that they could be used for other purposes.

Jute bags lined with plastic were considered more durable by 12 per cent respondents, and more clean by 2.9 per cent respondents. About 2.4 per cent said that such bags could be reused.

Environmental concern was reflected by 39 per cent of those respondents who exhibited the most environment friendly behaviour. Among those who exhibited friendly behaviour to some extent, 3.9 per cent showed environmental concern. Even among those who followed the least environment friendly practice environmental concern (reusing the goods) was shown by 2.4 per cent respondents.

On the whole 25.49 per cent respondents from total sample showed environmental concern while buying food grins in bulk.

Table 37 : Buying Food Grain in Bulk Available in Various Packaging Material and the Reasons for Choice.

Buying food grain in bulk packed in various material	Respondents n=204 f	%	Reasons for choice	Respondents f	%
1. Jute Gunny bag	100	49.0			(n=100)
			* Commonly available	60	29.41
			* It has resale value	15	7.35
			## Can be reused	22	10.78
			## Do not create pollution as they are reused.	17	8.33
2. Plastic gunny bags	65	31.9			(n=65)
			* Provide more protection to grain from insects.	6	2.94
			* Preferred quality of grain available in plastic gunny bag.	8	3.92
			* Do not tear easily.	5	2.45
			* Protects grains from moisture.	10	4.90
			* Grains are to good quality.	5	2.45
			* Such bags are cleaner than jute bags.	3	1.47
			## Can be used for other purpose.	8	3.92
3. Jute Gunny bags lined with plastic	39	19.1			(n=39)
			* More durable.	26	12.74
			* More protected from moisture.	22	10.78
			* More protected from insects and pests.	10	4.90
			* More clean.	6	2.94
			* Remain well sealed for longer period.	16	7.84
			* Can be reused.	5	2.45

(The reasons with ## signs show environmental concern)

6.1.6 Buying solid Product in Packaging of various material

Forty seven per cent respondents purchased solid products from the market in polythene bags which was considered the most harmful choice for the environment (Table-38). This reflected the least environment friendly behaviour of respondents. About 42 per cent respondents bought the products in fresh paper which reflected their environment friendly behaviour to some extent. The use of fresh papers was considered better than the use of polythene bags but not as good as the use of reused or recycled paper. Reused or recycled paper for buying solid products was practised by about 11 per cent respondents reflecting most environment friendly behaviour.

Out of these respondents who used or recycled/reused paper, 9.3 per cent respondent said clearly that they did so because this was less harmful to the environment as paper was utilized to the maximum extent. Nearly 7 per centrespondents said that generally shopkeepers used old papers to make packets.

Table 38 : Buying Solid Product in Packaging of Various Materials and Reasons for the Choice.

Packing of various material	Respondents n=204 f	%	Reasons for choice	Respondents f	%
1. Reused or Recycled paper	23	11.3		(n=23)	
			* Generally shopkeepers use old papers to make packets.	15	7.35
			## Less harmful to the environment as papers utlized to the maximum extent.	19	9.31
2. Fresh-paper	85	41/7	* More durable	28	13.72
			* More clean and hugienic	43	21.07
			## Can be ultimately be sent for recycling.	14	6.86
3. Polythene bag	96	47.0		(n=96)	
			* Convenient	40	19.60
			## It can be used for other purposes.	72	35.29

(The reasons with ## signs show environmental concern)

Fresh paper was preferred by 21 per cent respondents because it was more clean and hygienic than reused/recycled paper whereas 3 per cent of respondents thought fresh paper to be "more durable". There were 6.86 per cent respondents who said that fresh paper could be sent for recycling hence they accepted it.

Polythene bags were accepted by 35 per cent respondents as these bags could be used for other purposes where as 19 per cent of accepted them for convenience. Thus, environmental concern was shown by 9.31 per cent of those

respondents who exhibited the most environment friendly behaviour, 6.86 per cent of those who exhibited environment friendly behaviour to some extent and 35 per cent of those who had the least environment friendly behaviour.

From the total sample 51.47 per cent respondents showed environmental concern through the reasons for buying solid product in packaging of various materials.

6.1.7 Overall Environment Friendly Behaviour and Environmental Concern Reflected in Buying Goods Packed in Various Packaging Materials.

After analysing the findings regarding each product in details, to have an overall view of the environment friendly behaviour and environmental concern, they are pooled together and presented here (Table-39, Fig.-5.).

Cooking oil, cold drinks and food grains in bulk were purchased in the packaging least harmful to the environment by the respondents ranging from 49 to 61 per cent. But respondents ranging from 80 to 91 per cent did not reflect environmental concern while buyng these items. Majority of the respondents purchased coffee powder and hair oil in the most harmful packaging, but nearly 87 to 89 per cent did not show environmental concern. Dry solid products were purchased by little less than half of respondents in packing which were harmful to some extent. Many (41.7 per cent) purchased them in packaging which was the most harmful for the environment. Thus, reflecting lack of environmental concern in almost 75 per cent of the sample.

Fig : 5. Distribution of Respondents Showing Environment Friendly Behaviour and Environmental Concern in Buying Goods in Various Packaging Materials

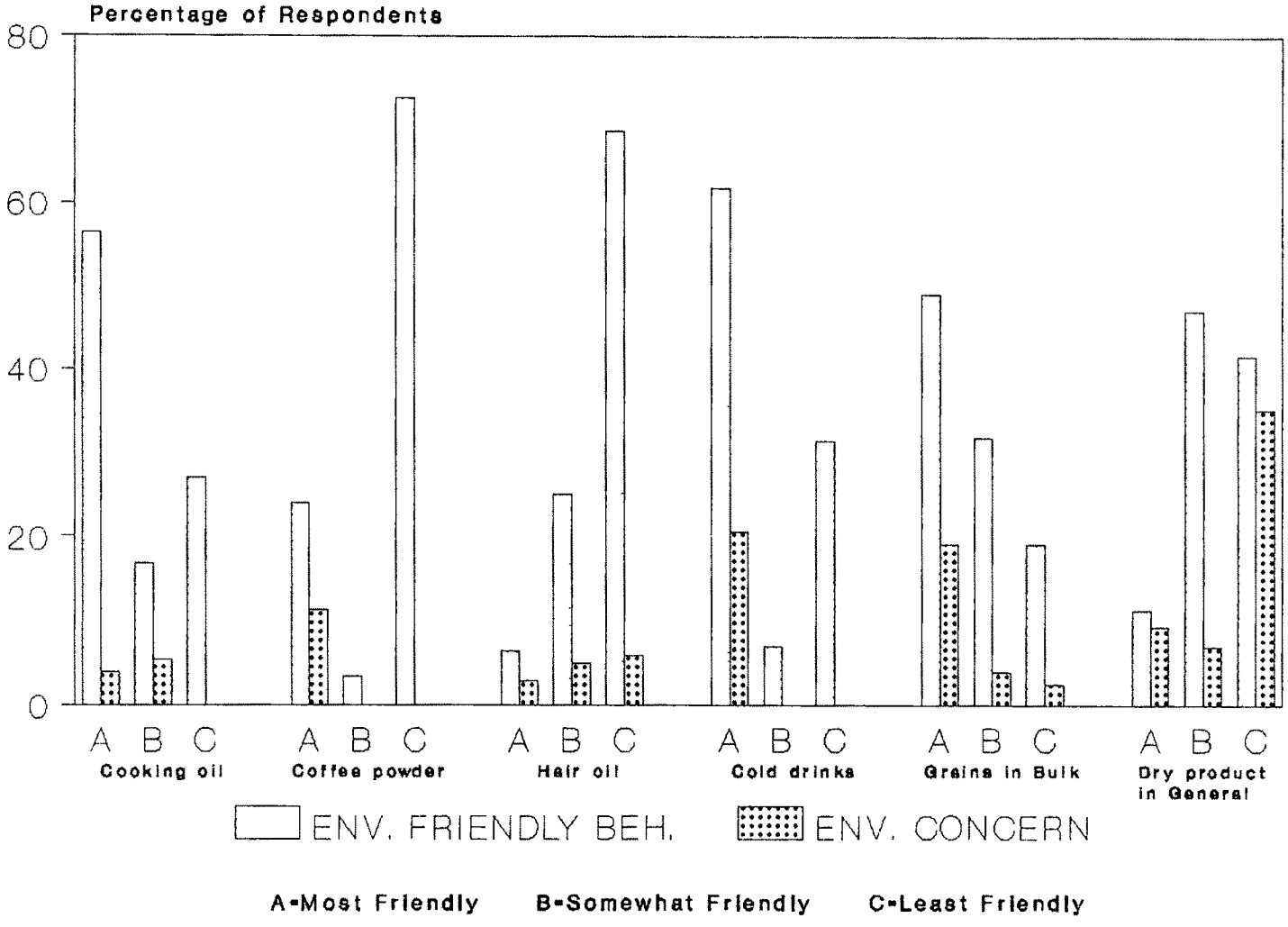


Table 39 : Environment Friendly Behaviour Environmental concern reflected in buying selected goods packed in various packaging material : An overall view.

Product	Choice of Alternative (n=204)							
	Most Envoron-ment friendly		Friendly to some extent		Least Friendly		Total	
	f	%	f	%	f	%	f	%
1. Cooking oil	115	56.4	34	16.7	55	27.0	204	100
Environmental Concern	8	3.92	11	5.39	0	0	19	9.31
2. Coffee powder	49	24.0	7	3.4	145	72.5	204	100
Environmental Concern	23	11.27	0	0	0	0	23	11.27
3. Hair oil	13	6.4	51	25.0	140	68.6	204	100
Environmental Concern	6	2.9	10	4.9	12	5.88	28	13.725
4. Cold Drinks	120	61.8	14	6.9	64	31.4	204	100
Environmental Concern	42	20.59	0	0	0	0	42	20.59
5. Food grains in bulk	100	49.0	65	31.9	39	19.1	204	100
Environmental Concern	39	19.11	8	3.9	5	2.45	52	25.49
6. Dry-solid products in general	23	11.3	96	47.1	85	41.7	204	100
Environmental Concern	19	9.31	14	6.86	72	35.29	105	51.47

6.2 Environment Friendly Behaviour and Environmental Concern While Buying Throw-Away or Re-usable Items

Today the world has become a "Throw-away society". It started becoming so when the population was less, energy was inexpensive, raw materials were abundant and recycling of the used materials was not feasible (Brown and Show, 1982). But the shape of the things is different today. There is a need to turn towards sustainable or Earthmanship society aimed at recycling and reusing materials. There is a global realisation of the fact that single use of some of the important materials like metal, glass and paper would lead

to scarcity of such materials as their feed-stocks would get exhausted. Discarding materials after a single use means wastage of energy also (Khoshoo, 1986). Do the homemakers realise this fact and do they reflect it in their buying behaviour ? An attempt was made to find out answers for the aforesaid questions.

Among the throw-away or reusable items, the products considered were

6.2.1 ball pens

6.2.2 disposable plates/cups and the like

6.2.3 shopping bag

6.2.4 gift-wrapping paper.

Buying ball-pen

Endless variety of ball-pens are available in the market. But, they can be grouped into two broad categories, one, those which can be reused by changing refills and the other, which have to be thrown away when the ink/carbon is totally consumed. Generally the ball pens are made of plastic or metals. Throwing away of such materials results in wastage of resources. The amount of of such waste and its recycling is a question for investigation.

The ball-pens which can be re-used are considered the most environmentally friendly choice whereas buying throw-away pens is the least environmentally friendly choice.

A little more than two third respondents purchased definitely re-usable ball pens as they were "economical" and "convenient" and to reduce waste generation especially that of plastic used in ball pens as was stated by 8.33 per cent respondents (Table 40).

There were about one-fifth respondents who did not bother whether the ball pen was "reusable" or "disposable" and purchased any kind. This exhibited the environment friendly behaviour to some extent. About 13 per cent respondents said that they liked variety, hence they did not bother about the type of ball pens. There were 9.8 per cent respondents who purchased "throw-away" ball pens because 2.4 per cent of them thought that "buying refill was a botheration", 6.3 per cent of them said that when needed, new ones and a variety of ball-pens could be purchased and 3.4 per cent explained that buying a throw-away ball pen cost the same or even less than buying a refill.

Thus, it could be observed that in the case of ball pens, most of the respondents exhibited most environment frendly behaviour by buying re-usable ball pens. Among these and from the total sample only 8.33 per cent reflected environmental concern in buying ball pens. Nearly 92 per cent did not reflect environmental concern.

Table 40 : Practice of Buying Reusable or "Throw Away" Ball Pen and Reasons for the Choice.

No.	Buying reusable or "throw-away" ball pen	Respondents n=204 f	%	Reasons for the choice	Respondents f	%
1.	Re-usable	142	69.6		(N=142)	
				* Economical and Convenient,	111	54.41
				* Since refills are available, no need to buy a new one everytime.	31	15.19
				## To reduce waste generation especially that of plastic used in ball pen	17	8.33
2.	Buy any kind, donot bother whether re-usable or not	42	20.6		(n=42)	
				* Like variety and fancy items.	27	13.23
				* Consider good flow in writing	11	5.39
				* As it is not a high priced item, any type can be purchased	7	3.43
3.	Buy "throw-away" ball pen.	20	9.8		(n=20)	
				* When needed, new ones can be purchased	13	6.37
				* Cost same or even cheaper than buying a refill	7	3.43
				* Buying refill is botheration	5	2.45

(The reasons with ## sign show environmental concern)

6.2.2 Buying disposable plates/cups made of various materials

A little more than one-tenth of the respondents purchased the most environment friendly alternative out of the given ones, i.e. tree leaves or earthen ware articles, when they were required to buy disposable plates/cups (Table-41). A little more than half of the respondents who used these said that the tree leaves and earthenware were biodegradable, hence more environment friendly. About 30 per cent of them said that tree leaves could be fed to animals and earthern ware could be used in gardens, thereby reducing the waste. Thus they reflected their concern for the environment.

About 63 per cent respondents used plates made of paper as 25.5 per cent of them considered these to be cheap, and 23.53 per cent considered these easy to dispose. About 11 per cent respondents said that, they were environmentally safe because paper was recyclable and biodegradable. By choosing paper plates they reflected environment friendly behaviour concern to some extent.

Plastic plates were bought by 26 per cent because they looked decent (10.7 per cent) and they were stiffer than paper-plates, hence easy to handle (17 per cent). Thus they reflected the least environment friendly behaviour by buying the least environment friendly goods out of the provided alternatives. Among those who exhibited the most environment friendly behaviour, 8.82 per cent respondents reflected environment concern in the reasons.

Table 41 : Buying Throw-Away Plates, Cups, etc Made From Various Materials and Reasons for the Choice.

No.	Throw-away plates cups etc.	Respondents n=204 f	%	Reasons for the choice	Respondents f	%
1.	Leaves of tree or Earthen Ware	23	11.3		(n=23)	
				* Cheap	14	6.86
				* Stylish and Traditional	15	7.35
				## They are bio-degradable hence more environment friendly	12	5.88
				## Leaves of tree can be fed to animals and earthern ware can be used in garden	7	3.43
2.	Paper	128	62.7		(n=128)	
				* Easy to dispose	48	23.53
				* Cheap	52	25.5
				* Look good	20	9.8
				* Light in weight	11	5.39
				* Hygienic	13	6.37
				* Convenient	29	14.21
				* Easily available in market	4	1.96
				## Environmentally safe as paper is recyclable and bio-degradable	22	10.78
3.	Plastic	53	26.0		(n=53)	
				* Looks decent	22	17.15
				* Stiffer than paper hence easy to handle	35	17.15
				* For some recipe plastic plates are better	13	6.37

(The reasons with ## sign show environmental concern)

Among those who had environment friendly behaviour to some extent, 10.78 per cent reflected environmental concern.

From the total sample 20.098 per cent respondents reflected environmental concern while buying disposable cups/plates but 80 per cent did not reflect it.

6.2.3 Buying goods using one's own shopping bag or in plastic carrying bag given by the shopkeepers

Since the trend of plastic carrying bags provided by the shopkeepers is increasing, resulting in increased amount plastic waste, this practice was considered the least environmentally friendly. Though such bags are reused to the maximum extent, eventually they are torn into smaller pieces which can not be easily picked up even by the rag pickers.

Carrying the purchased goods in one's own shopping bag, taken from home, generally made of cloth/durable material, which can be reused several times, was considered the most environment friendly practice. Those who did not bother to carry their own shopping bags and brought the purchased items in the plastic bags provided by the shopkeepers were considered to be exhibiting the environment friendly behaviour to the least extent. Those respondents who accepted plastic shopping bags from the shopkeeper only when their own shopping bags were full or they had to do some unplanned purchasing were considered to be exhibiting their environment friendly behaviour to some extent.

About 42 per cent of respondents carried their own shopping bags, and 47.7 percent accepted, shopping bags from the shopkeepers sometimes. There were 16.2 per cent who used

plastic carrying bags only provided by the shopkeepers (Table-42).

Carrying one's own shopping bag was found to be more convenient by 23 per cent respondents. There were about 5.39 per cent respondents who clearly said that this practice helped in avoiding pollution as there was no need to dispose bags and so there was no pollution due to solid waste of plastic. There were 4.9 per cent respondents who said that it was ecologically friendly practice. Thus 10.29 per cent respondents showed their concern for the environment in the reasons given for following a practice of carrying one's own shopping bag.

Those respondents who accepted the shopping bag only in case of unplanned purchase or excess purchase 14 per cent said that they needed plastic bags to carry items in excess from their own shopping bags, whereas about 3 per cent respondent said that plastic bags were given with same goods so they accepted (Table-42).

Among those respondents who used plastic shopping bags only provided by the shopkeepers as 9.8 per cent said that they could be reused in the home for many purposes whereas to carry one's own shopping bag. Nearly 9.31 per cent respondents followed this practice because all the shopkeepers provided plastic bags. Among those who exhibited the most environment friendly behaviour, only about one-tenth of the respondents reflected environmental concern in their reason.

Table 42 : Using Own Shopping Bag or Plastic Carrying Bag Given by Shopkeeper and Reasons for the Choice

No.	Practice about shopping bag.	Respondents n=204 f	%	Reasons for the choice	Respondents f	%
1.	Carry one's own shopping bag to bring purchased items	86	42.2		(n=86)	
				* More convenient	47	23.03
				* Plastic bags may not bear weight of goods.	17	8.33
				* Can carry large quantity	20	9.80
				* Since the shopping is planned, can carry one's own shopping bag.	13	6.37
				* Do not want to collect many plastic shopping bags	7	3.43
				* Habit	5	2.45
				## It is ecologically friendly practice.	10	4.90
				## Helps in avoiding pollution as no need to dispose bag hence no pollution due to solid waste	11	5.39
2.	Accept plastic shopping bag only in case of unplanned shopping or when own bag is full	85	41.7		(n=85)	
				* Needed to carry excess items	29	14.21
				* Forget to carry own shopping bag	13	6.37

Table 42 (Contd...)

No.	Practice about shopping bag.	Respondents n=204 f	%	Reasons for the choice	Respondents f	%
				* When do unplanned purchasing	42	20.58
				* Plastic bags are given with some goods, so accept	6	2.94
3.	Use plastic bags only provided by the shop-keepers	33	16.2		(n=33)	
				* Because all the shopkeepers provide plastic bags	19	9.31
				* No need to carry one's own shopping bag, so more convenient.	17	8.33
				* Easier to carry more small shopping bags than one bag carried from home.	5	2.45
				## They can be reused in home for many purposes.	20	9.80

(The reasons with ## sign show environmental concern)

Among those respondents who exhibited the least environment friendly behaviour, 9.8 per cent reflected environmental concern in their reasons because reuse of any goods was considered an environment friendly practice (Table-42).

About only one-fifth of the respondents from total sample reflected environmental concern in the use of shopping bags.

6.2.4 Buying new or using old gift wrapping paper

No packaging at all is considered to be the best solution to the problem of waste generated by packaging, (Makower, 1993), hence the practice of not warping the gift was considered to be the most environment friendly practice, which only 0.5 per cent out of 204 respondents followed, that too, due to laziness, and not due to environmental ocncern.

The practice of reusing the gift paper wrapped on the gift received from somebody or using news paper was considered as the practice friendly to the environment to some extent. Purchasing new gift wrapping paper by self or given free of cost from the shop was considered the least friendly practice for the environment.

Nearly 82 per cent of the respondents used new gift wrapping paper, whereas 17.6 per cent used old gift wrapping paper (that means the ones received with the gifts). New gift wrappings were used by 12.7 per cent because it was socially expected way of presenting gift by wrapping attractively (Table 38). As new gift wrapping paper looked attractive and presentable, 54 per cent respondents used them. About 5 per cent of respondents used these because shopkeepers gave it free of charge.

Those who used old gift paper, 9.8 per cent respondents said that by doing so, they made the best use of waste and 3.9 per cent respondents said that they used old gift wrapping papers so as not to waste paper thereby reduce cutting of trees for making paper.

Table 43 : Wrapping the Gift With New or Used Gift-Wrapping Paper and Reasons for Choice.

No.	Gift wrapping paper	Respondents n=204 f	%	Reasons for the choice	Respondents f	%
1.	Use new paper	167	81.9		(n=167)	
				* Looks attractive and presentable	111	54.41
				* Like new paper only	33	16.17
				* Shopkeeper gives free of charge	10	4.90
				* As shopkeeper packs gift with new paper, one's time is saved.	13	6.37
				* It is a socially expected way of presenting gift by wrapping attractively	26	12.74
2.	Use old one received on the gift given by somebody or use news paper	36	17.6		(n=36)	
				* Economical	18	8.82
				## Best use of waste	20	9.80
				## Not to waste paper so that reduce cutting of trees for paper making	8	3.92
3.	Do not wrap the gift	1	0.5		(n=1)	
				* Laziness	1	0.49

(The reasons with ## sign show environmental concern)

Thus at least 13.72 per cent of the total sample of the present investigation thought about environment reflecting environmental concern while making use of gift-wrapping paper, but nearly 87 per cent did not show environmental concern.

6.2.5 Overall View of the Environmental Friendly Behaviour and Environmental Concern Reflected in Buying Throw-away or Reusable Goods

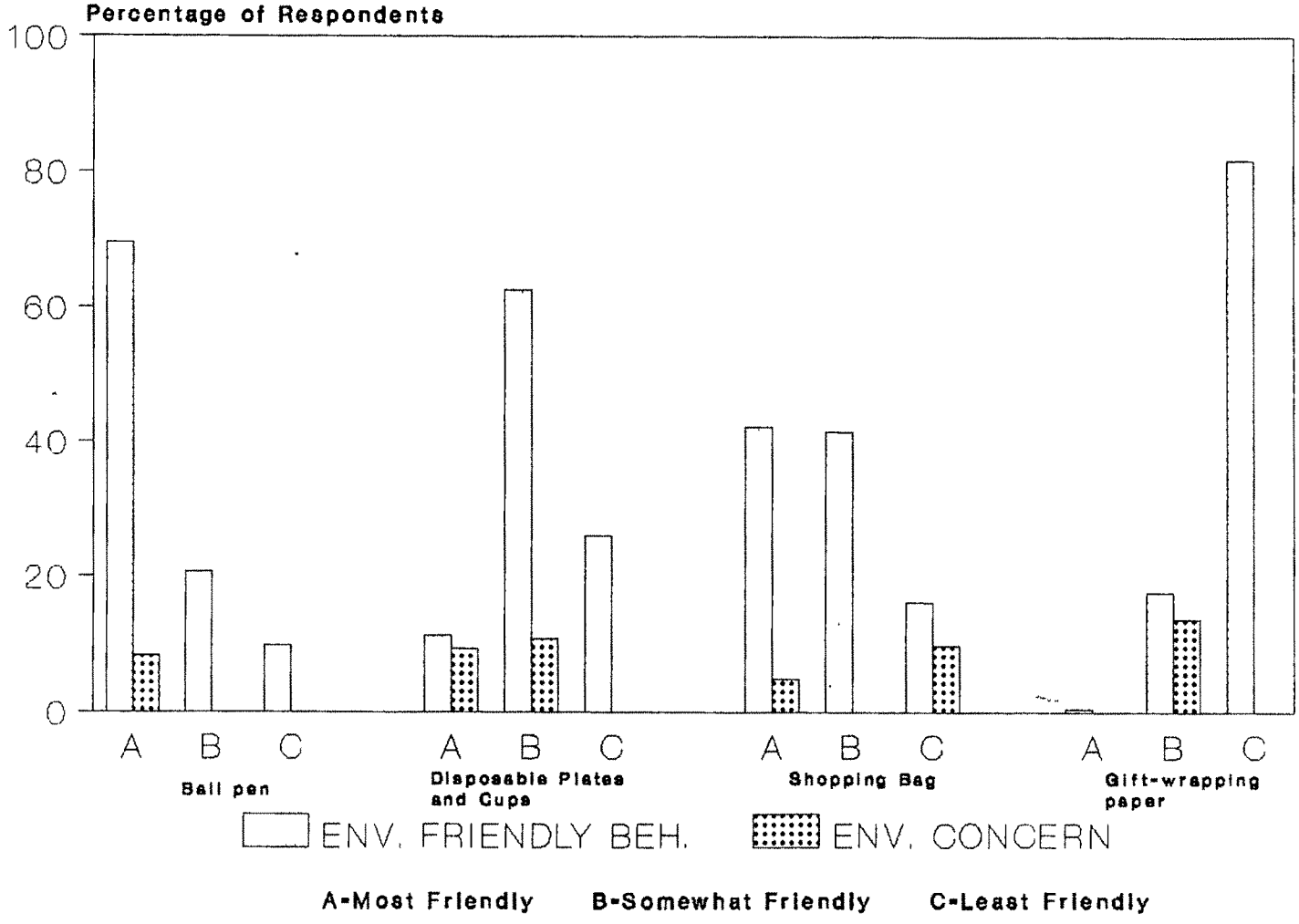
With regards to ball-pen,about 70 per cent of the respondents purchased the ones which were the least harmful to the environment but only 8.33 per cent reflected environmental concern. The disposable cups/plates were purchased by most of the respondents in a manner which were harmful to the environment to some extent, but environmental concern was reflected by about one-fifth of respondents.

Table 44 : Overall View of the Environmental Concern Reflected in Buying Throw-Away or Reusable Goods.

Throw-away or reusable Goods	Choice of Alternative (n=204)							
	Most Environ-ment Friendly		Friendly to some extent		Least Friendly		Total	
	f	%	f	%	f	%	f	%
1. Ball-pen	142	69.6	42	20.6	20	9.8	204	100
Environmental Concern	17	8.33	0	0	0	0	17	8.33
2. Disposable plates/cups	23	11.3	128	62.7	53	26.0	204	100
Environmental Concern	19	9.31	22	10.78	0	0	41	20.1
3. Shopping bag	86	42.2	85	41.7	33	16.2	204	100
Environmental Concern	10	4.9	0	0	20	9.8	30	14.7
4. Gift wrapping paper	1	0.5	36	17.6	167	81.9	204	100
Environmental Concern	0	0	28	77.8	0	0	28	13.7

With regards to gift wrapping paper nearly 82 per cent of the respondents followed the alternative which was the most harmful to the environment reflecting their least friendly behaviour for the environment, even then environmental concern was reflected by 13.7 per cent respondents. As far as shopping bags were concerned almost equal percentage of respondents followed the practices which

Fig : 5. Distribution of Respondents Showing Environment Friendly Behaviour and Environmental Concern in Buying Throw-Away or Reusable Goods



were the least harmful and somewhat harmful to the environment, but only 14.7 per cent respondents reflected environmental concern. Thus, respondents ranging from 80 to 92 per cent did not reflect environmental concern while buying throw-away or re-usable goods (Fig .6).

6.3 Household Utensils/Appliances

An attempt was made to find out the environment friendly behaviour and environmental concern while buying household utensils or appliances for surface/oven cookery, electrical appliances and plastic buckets.

6.3.1 Considering Heat Conductivity of base material while buying surface/oven cookery

Those respondents who considered heat conductivity of base material of surface/oven cookery utensils at the time of buying were considered to be reflecting most environment friendly behaviour, whereas those who did not consider it were considered as reflecting the least environment friendly behaviour.

There were 65.7 per cent respondents who considered heat conductivity, but 8.8 per cent respondents did not consider heat conductivity of the material of oven/surface cookery utensils at the time of purchasing (Table-45). About one-fourth of respondents considered it sometimes reflecting the environment friendly behaviour to some extent.

About 44 per cent respondents considered heat conductivity efficiency to conserve fuel reflecting their environmental concern, while 26 per cent did so with a view that in future operation cost would be less.

Table 45 : Considering Heat Conductivity of Base Material While Buying Surface/Oven Cookery.

No.	Consideration of fuel efficiency while buying	Respondents n=204 f	%	Reasons for the choice	Respondents f	%
1.	Consider Heat Conductivity	134	65.7		(n=134)	
				* In future operation cost would be less.	54	26.47
				* Cooking quality depends on fuel efficiency of base material.	10	4.90
				## To conserve fuel	90	44.12
2.	Consider Heat Conductivity sometimes.	52	25.5		(n=52)	
				* Cost of equipment gets more priority	15	7.35
				* Utility becomes more important	30	14.70
				* Convenience is more important	10	4.90
3.	Do not consider Heat Conductivity	18	8.8		(n=18)	
				* Lack of awareness	7	3.43
				* Buy according to need	10	4.90

(The reasons with ## sign show environmental concern)

Among those who did not consider heat conductivity 3.4 per cent did so due to lack of awareness. About 5 per cent respondents gave more weightage to the needs of buying

utensils. Nearly 15 per cent respondents considered heat conductivity sometimes because for them utility of utensil was more important and for 7.35 per cent respondents cost of equipment was more important. (Table-45).

Among those who exhibited most environment friendly behaviour, and from the total sample 44 per cent reflected environmental concern in considering heat conductivity of base material while buying surface/oven cookery.

6.3.2 Considering expected electric power consumption while buying the equipmnt

There were 60.8 per cent respondents who considered expected electricity consumption at the time of buying the equipment reflecting most friendly behaviour for the environment. About 30 per cent respondents said that they did so in order to save electric power consumption but about 42 per cent did so to reduce operation cost of the equipment in future (Table-46).

For 7.8 per cent respondents need of the equipment was more important than the expected electricity consumption. About 2 per cent respondents who were able to pay high electricity bills, did not consider the expected electric consumption at all. One-fourth of the total sample considered it sometimes exhibiting their environmental concern to some extent. For 9 per cent of them "need' of the equipment was more important, and 15.68 per cent of them gave more priority to the use of equipment. Nearly 31 per

cent from the total sample reflected environmental concern in considering expected electric power consumption while buying equipment.

Table 46 : Consideration of Expected Electric Consumption While Buying the Equipment and Reasons for the Choice

No.	Consideration of electric consumption of equipment while buying	Respondents n=204 f	%	Reasons for the choice	Respondents f	%
1.	Consider expected electricity consumption.	124	60.8		(n=124)	
				* To reduce operational cost of equipment in future	86	42.15
				## To save power consumption	63	30.88
2.	Consider Electricity Consumption sometimes only	52	25.5		(n=52)	
				* Give more impo-rtance to need	19	9.31
				* Give more weightage to usability	32	15.68
				* Popular brand gets more weightage	8	3.92
3.	Do not consider electricity consumption at all	28	13.7		(n=28)	
				* Ignorance	2	0.98
				* Buy according to need	16	7.84
				* Able to pay high electricity bill	6	2.94

(The reasons with ## sign show environmental concern)

6.3.3 Buying bucket made from virgin or recycled plastic

In the market of Baroda, plastic buckets made of virgin as well as recycled plastic are available. Buying of buckets made of recycled plastic was considered the most friendly practice for the environment. On the other hand buying bucket made of virgin plastic was considered the least friendly practice out of the provided alternatives. Those who sometimes purchased buckets made of recycled plastic or sometimes virgin plastic reflected their environment friendly behaviour to some extent.

There were about 61 per cent respondents who purchased buckets made of virgin plastic reflecting their least friendly behaviour for the environment. There were about one-third respondents who sometimes purchased buckets made of virgin plastic and on some other occasions purchased those made of recycled plastic. There were only 5.4. per cent respondents who always purchased buckets made of recycled plastic, exhibiting the environment friendly behaviour to a great extent.

Out of those respondents who purchased buckets made of recycled plastic, 3.43 per cent said that these werecheaper compared to virgin plastic bucket. About one per cent clearly said that this practice was good for the environment. This reflected their environmental concern (Table-47).

Forty one per cent of those respondents who bought buckets made from virgin plastic did so because they were more durable. About 14 per cent of them considered virgin plastic bucket of having "good quality".

Table 47 : Buying Buckets Made from Virgin or Recycled Plastic

No.	Buying bucket of made of recycled or virgin plastic	Respondents n=204 f	%	Reasons for the choice	Respondents f	%
1.	Recycled plastic	11	5.4		(n=11)	
				* Cheaper	7	3.43
				* Maximum utilization of plastic	3	1.47
				## Good for the environment	2	0.98
2.	Virgin (new) Plastic	124	60.8		(n=124)	
				* More durable	84	41.17
				* Good quality	30	14.7
				* Looks better and more colourful	22	10.78
3.	Do not bother about the type of plastic and buy some times recycled or some times virgin plastic bucket.	69	33.8		(n=69)	
				* Does not make any difference and buy which ever is cheap and good	25	12.25
				* Never thought about it	11	5.39
				* Do not have any knowledge about it	27	13.23
				* Do not hunt for recycled plastic buy whichever is available	10	4.9

(The reasons with ## sign show environmental concern)

Among those who did not bother about the type of plastic and purchased sometimes recycled or sometimes virgin plastic buckets, about 12 per cent of them did so because it did not make any difference to them, whereas 13 per cent of them had no knowledge about type of plastic. About 5 per

cent of these respondents did not like to go hunting about recycled plastic and so used to buy whichever was available.

Thus in relation to buying of plastic buckets, most of the respondents reflected the least environment friendly buying behaviour.

From the total sample only about one per cent respondents reflected environmental concern in the reasons while buying plastic bucket and 99 per cent did not reflect the concern for environment.

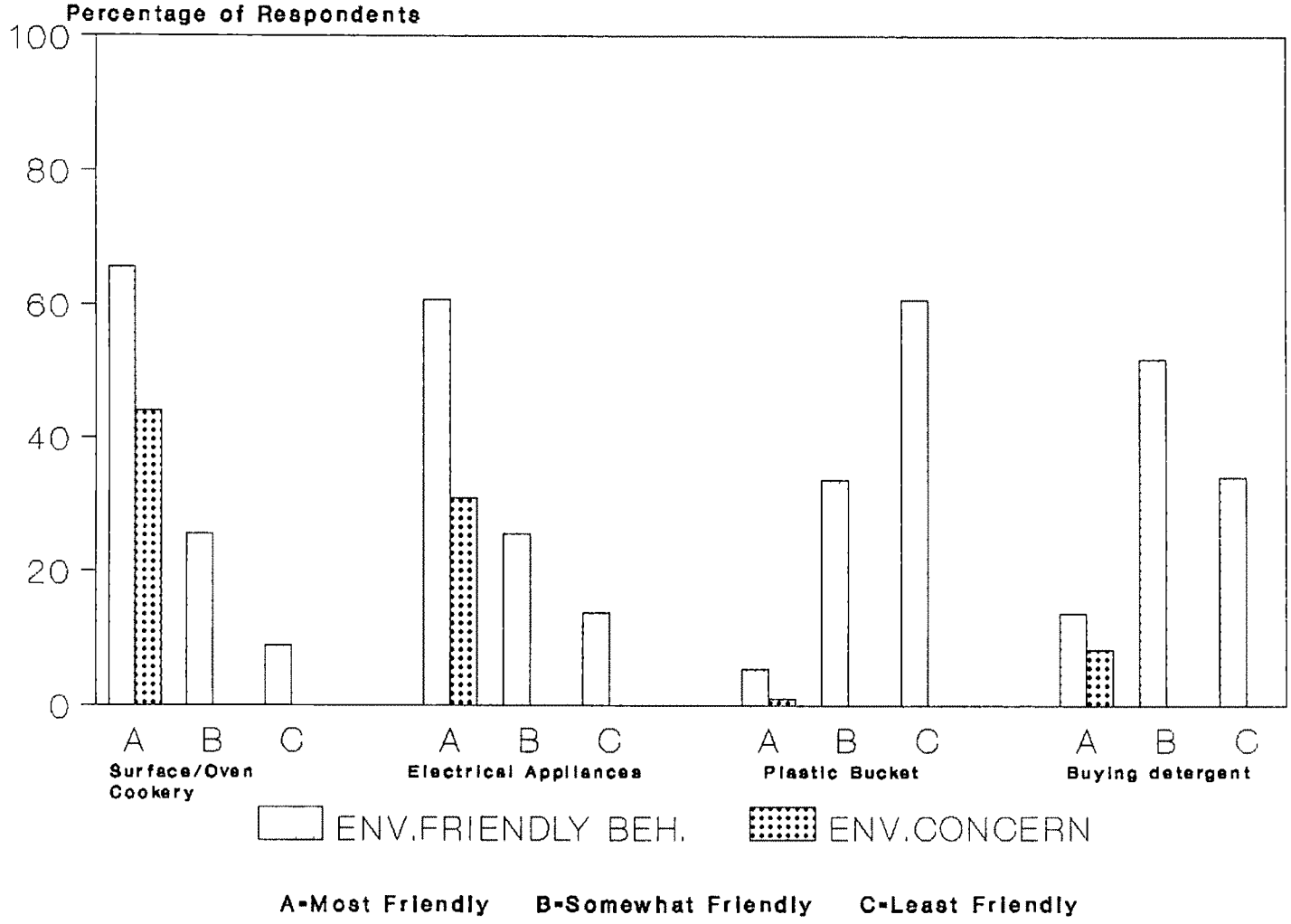
6.3.4 Overall View of he Environment Friendly Behaviour and Environmental Concern Exhibited in Buying Household Utensils/Appliances

Regarding buying surface/oven cookery utensils and electrical appliance, most of the respondents followed the practices which were least harmful to the environment. But in case of buying buckets most of the respondents followed the least environment friendly behaviour.(Fig 7).

Table 48 : Environmental Concern Reflected in Buying Household Utensils/Appliances.

Household Utensils or appliances	Choice of alternative (n=204) Most Friendly		Friendly to some extent		Least Friendly		Total	
	f	%	f	%	f	%	f	%
1. Surface/oven cookery utensils	134	65.7	52	25.5	18	8.8	204	100
Environmental Concern	90	44.12	0	0	0	0	90	44.12
2. Electrical appliances	124	60.8	52	25.5	28	13.7	204	100
Environmental Concern	63	30.88	0	0	0	0	63	30.88
3. Plastic Bucket	11	5.4	69	33.8	124	60.8	204	100
Environmental Concern	2	0.98	0	0	0	0	2	0.98

Fig : 7) Distribution of Respondents Showing Environment Friendly Behaviour and Environmental Concern in Buying Household Utensils or Appliances and Detergents



A-Most Friendly B-Somewhat Friendly C-Least Friendly

In the case of buying surface/oven cookery utensils 44.12 per cent and in case of electrical appliances 30.88 per cent of respondents from the total sample reflected environmental concern while buying these goods. In case of buying plastic bucket only one per cent from the total sample reflected environmental concern.

6.4.4 Detergent

Sometime back "Tata" company had introduced a detergent which did not contain phosphate. With a view to find out whether respondents pay any attention to the phosphate contents of the detergent, their buying practice was studied. Those who purchased the detergent like "Shuddh" from Tata, which did not contain phosphate were considered to be exhibiting most environment friendly behaviour out of the provided alternatives. There were 13.7 per cent respondents who followed this practice. There were about 34 per cent of respondents who did not know anything about phosphate contents. This reflected their least environment friendly behaviour. More than half did not bother about phosphate content and bought any detergent. Thus they reflected no environmental concern . It was presumed that they might choose environment friendly product sometimes.

Those respondents who did not bother about phosphate content did so due to habit (6.8 per cent), and due to the belief that good brands gave good results (11.76 per cent). About 29 per cent respondents did not know about phosphate content. There were 8.33 respondents who agreed that, the

detergent which did not contain phosphate did less harm to environment, thus they reflected their environmental concern. From the total sample nearly 92 per cent did not respondents reflected the environmental concern in buying detergents (Fig.7)

Table 49 : Environmental Concern Reflected in Buying Detergent with or Without Phosphate and Reasons for the Choice.

No.	Buying detergent with or without phosphate content	Respondents n=204 f	%	Reasons for the choice	Respondents f	%
1.	Does not contain phosphate.	28	13.7		(n=28)	
				* A new product	13	6.37
				* It is a product from good company	9	4.41
				## Does less harm to environment.	17	8.33
2.	Do not bother about phosphate content and buy any kind.	106	52.0		(n=106)	
				* Buy which suits skin	38	18.62
				* Prefer standard qualities	26	12.74
				* Habit	14	6.86
				* Good brands give good results	24	11.76
3.	Do not know about phosphate content	70	34.3		(n=70)	
				* Donot know about it	60	29.41
				* Not familiar with chemical composition of detergent	10	4.9

(The reasons with ## sign show environmental concern)

6.5 Extent of Environment Friendly Buying Behaviour

The extent of environment friendly buying behaviour was judged on the basis of scores obtained by the respondents on the Buying Behaviour Scale. Higher the score more was the environment friendliness reflected in buying behaviour. The scores obtained by the respondents ranged from 17 to 36 out of the possible score of 14 to 42. The mean was found to be 27.66.

Table 50 : Extent of Environment Friendly Buying Behaviour

No.	Extent of Environment Friendliness	Scores Min	Scores Max	Respondents (n=204) f	Respondents (n=204) %
		14	42		
1.	High	32	42	36	17.64
2.	Medium	24	31	135	66.18
3.	Low	14	23	33	16.18

Mean = 27.66
S.D. = 3.26

About 66 per cent of the respondents reflected environment friendly behaviour to medium extent. Nearly 18 per cent exhibited to a higher extent. There were 16.18 per cent respondents who exhibited the least environment friendly behaviour.

6.6 Variation in the Mean Score of Environment Friendly Behaviour Due to Selected Personal and Situational Variables of Homemakers

Analysis of variance was computed to find out the variation in the mean score of environment friendly buying behaviour due to selected variables. If `F' ratio was found significant then t-test was applied.

Education : The mean score of environment friendly buying behaviour increased with the educational level of the homemakers (Table- 51, Fig. 8). The `F'=5.71 (Sig.0.01) showed variation in scores of the groups of homemakers according to educational level. The t=2.82 (Sig. 0.01) indicated that the respondents having education below graduation differed from those who were post graduates in their buying behaviour. They also differed from those who were graduates or t=2.85 (Sig. 0.01). No significant difference was found between the homemakers who were graduates and those who were post graduates (Table-53).

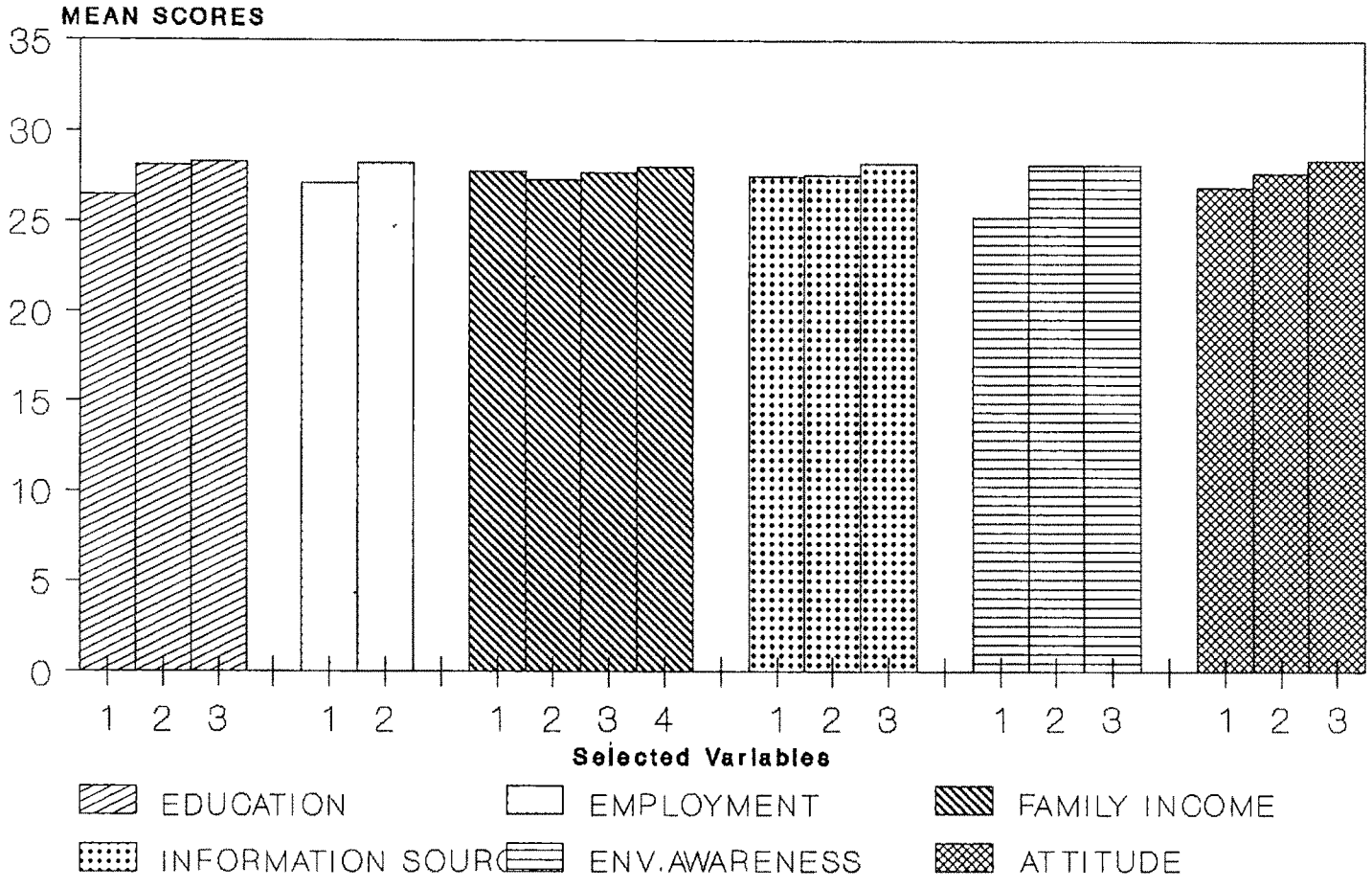
Employment : The mean score for environment friendly buying behaviour of employed homemakers was marginally lower than that of non-employed homemakers. (Table-51, Fig. 8). The value of t=2.59 (Sig. 0.01).

Table 51 : Mean Score of Environment Friendly Buying Behaviour by Selected Variables

	Categories of Selected Variables	Respondents n=204	Mean Score of Environment Friendly Buying Behaviour
1.	Education		
	Below Graduation	63	26.5
	Graduate	72	28.1
	Post Graduate	69	28.3
2.	Employment		
	Employed	102	27.1
	Non-employed	102	28.24
3.	Family Income (Rs.)		
	Below 5000	42	27.8
	Between 5001 and 9000	72	27.3
	Between 9001 and 13000	57	27.7
	Above 13001	33	28.0
4.	Extent of Use of Sources of Information		
	Low extent	27	27.5
	Medium extent	147	27.6
	High extent	30	28.2
5.	Environmental Awareness		
	Low level	36	25.25
	Medium level	137	28.18
	High level	31	28.13
6.	Attitude Towards Environmental Responsibilities		
	Less favourable	34	26.94
	Moderately favourable	145	27.69
	Highly favourable	25	28.44
7.	Total Sample	204	27.7

Family Income : Not much of variation was observed in the mean score in buying behaviour according to the total

Fig :8. MEAN SCORE OF ENVIRONMENT FRIENDLY BUYING BEHAVIOUR BY SELECTED VARIABLES



Education :
1-Below Graduation
2-Graduate
3-Post Graduate

Employment :
1-Employed
2-Non-employed

Family Income :
1-Below Rs.5000
2-Bet.5001 & 9000
3-Bet. 9001 & 13000
4-Above 13001

Information Sources :
1. Low extent
2. Medium extent
3. High level

Env.Awareness :
1.Low level
2.Medium level
3.High level

Attitude
1.Less favourable
2.Moderately fav.
3.Highly favourable

family income of the respondents. Even then, it could be observed that mean score of respondents having monthly income of more than Rs.13,000 had marginally higher mean than the rest of the respondents (Table-51, Fig. 8), but it was not statistically significant (F=0.428, N.S.).

Extent of Use of Sources of Information : Though negligible rise in the mean scores of environment friendly buying behaviour was observed (Table-51, Fig. 8) with the increasing extent of use of sources of information, it was not statistically significant (F=0.28, N.S.).

Environmental Awareness : There was a rise in mean score of buying behaviour with the rise in the level of environmental awareness from low to medium (Table-51,Fig.8). The F=13.43 (Sig.0.01). The t-test (Table-53) indicated that there was a difference in environment friendly buying behaviour of homemakers having low and those having medium level of environmental awareness. (t=5.18, Sig. 0.01). It also varied between those homemakers who had low level and those who had high level of awareness. (t=3.3, Sig.0.01).

Attitude Towards Environmental Responsibilities : The mean score of homemakers on buying behaviour increased marginally with the increasing favourableness of the attitude towards environmental responsibilities. But the difference was not statistically significant as F=1.56 (N.S.).

Table 52 : Analysis of Variance for Environment Friendly Buying Behaviour

Sources of Variation	df	Sum of Squares	Mean Square	F Ratio	Level of Significance
1. Education					
Between Groups	2	116.0538	58.0269	5.7129	0.01
Within Groups	201	2041.6079	10.1573		
2. Family Income					
Between Groups	3	13.8061	4.602	0.429	N.S.
Within Groups	200	2143.8557	10.719		
3. Extent of Use of Sources of Information					
Between Groups	2	5.9959	2.9979	0.2801	N.S.
Within Groups	201	2151.6659	10.7048		
4. Environmental Awareness					
Between Groups	2	254.3622	127.1811	13.43	0.01
Within Groups	201	1903.2996	9.4692		
5. Attitude Towards Environmental Responsibilities					
Between Groups	2	32.9711	16.4856	1.5596	N.S.
Within Groups	201	2124.69	10.5706		

N.S. = Not Significant

Thus, out of the selected variables, education, employment and environmental awareness of homemakers were found to be causing variation in the scores of environment friendly buying behaviour.

Table 53 : t-values Showing Difference Between Environment Friendly Buying Behaviour by Selected Variables

Variables	Mean Score	t-value	df	Level of Significance
A. Employment				
Non-employed	28.2457	2.59	202	0.01
Employed	27.0784			
B. Education				
Below Graduation	26.5397	2.82	130	0.01
Post Graduation	28.26			
Below Graduation	26.5397	2.85	133	0.01
Graduate	28.069			
Graduate	28.0694	0.39	139	N.S.
Post Graduate	28.0609			
C. Environmental Awareness				
Low level	25.25	5.18	171	0.01
Medium level	28.1898			
Medium level	28.1898	0.10	166	N.S.
High level	28.1290			
Low level	25.25	3.30	65	0.01
High level	28.1290			

6.7 **Conclusion**

Environment friendly buying behaviour to a medium extent was exhibited by about two-third respondents. There were more respondents who exhibited environment friendly behaviour to higher extent than those to lower extent.

Respondents ranging from 49 to 61 per cent exhibited most environment friendly behaviour regarding buying cooking oil, cold drinks and food grains in bulk. Hair oil and coffee powder were purchased in least friendly packaging, reflecting least environment friendly behaviour. Only 13.72

per cent and 11.27 per cent respondents reflected environmental concern respectively in buying above products. Respondents ranging from 20 to 51 per cent reflected environmental concern while buying cold drinks, foodgrains in bulk and dry products in general.

While buying ball pens about 70 per cent respondents showed most environment friendly behaviour buy only 8 per cent showed environmental concern. Respondents ranging from 13 to 20 per cent reflected environmental concern while buying goods in shopping bags, disposable cups and plates and gift wrapping paper.

While buying surface/oven cookery utensils and electrical appliances, most of the respondents exhibited most environment friendly behaviour but 30 to 44 per cent respondents reflected environmental concern. The least environment friendly behaviour was shown by 60 per cent respondents while buying plastic buckets and the environmental concern was shown only one per cent respondent.

A little more than half of respondents exhibited environment friendly behaviour to some extent while buying detergent and only 8.33 per cent reflected environmental concern.

Thus, on the whole respondents ranging from 50 to 99 per cent did not reflect environmental concern while buying the selected goods. Education, employment and environmental awareness of homemakers caused variation in the scores of environment friendly buying behaviour.

7. Environment Friendly Consumption Behaviour and Environmental Concern of Homemakers

Environment friendly behaviour and Environmental concern in consumption was studied in relation to the use of following goods/services

7.1 Plates, Cups, napkins etc.

7.2 Paper

7.3 Fuel and electricity

7.4 Insecticide

7.5 Empty containers

7.1 Use of Plates, Cups, Napkins - Made of Different Base Materials

In recent years, cups and plates of throw-away materials such as paper and plastic are used along with those made of china/metal/durable plastic. Similarly paper napkins, to be thrown away after use, are used extensively. An attempt was made to study the consumption of these items by the respondents.

7.1.1 Use of Plates Made of Different Base Materials

In case of base material of plates, 77.9 per cent used plates made from glass/steel/durable plastic which was considered as the alternative reflecting environment friendly behaviour to some extent. The most environment friendly choice, that of using plates made from tree leaves (pattal), was followed by 3.9 per cent. The most harmful

Table 54 : Use of Plates Made from Different Base Materials.

No.	Material of plates	Respondents f	%	Reasons for the choice	Respondents f	%
1.	Tree leaves (Pattal)	8	3.92		(n=8)	
				* Cheap	5	2.45
				* Convenient to dispose	3	1.47
				* Traditional way	6	2.94
				## Good for the environment	6	2.94
2.	Glass/steel/ durable plastic	159	77.94		(n=159)	
				* Manageable for less people	9	4.41
				* Look sophisticated	43	21.07
				* Easily available at home	45	22.05
				* No need of extra expenditure as they are available at home	26	12.74
				* Can easily be cleaned	17	8.33
				* For some receipes paper plates are not suitable	14	6.86
				## Throw-away plates cause pollution	10	4.90
				## Can be reused	38	18.62
3.	Paper	37	18.14		(n=37)	
				* Easily disposable	16	7.84
				* Time and energy is saved as no need of washing	20	9.80
				* Cost less	12	5.88
				* Hygienic	3	1.47
				## Can be recycled	3	1.47

(The Reasons with ## sign show environmental concern)

practice for the environment, (using paper plates) was followed by about 18 per cent respondents, reflecting the least friendly behaviour for the environment.

Those who used plates made from tree leaves nearly 3 per cent of them said that they considered them to be "good for the environment" and 2.45 per cent found them to be "cheap". Three per cent of respondents used such plates as it was a "traditional way" and 1.47 per cent respondents found them "convenient to dispose".

About 22 per cent of those respondents who used plates made of glass/steel/durable plastic, said that they used them because they were easily available at home. Twenty-one per cent thought that they looked sophisticated. About 18.6 per cent of them said that these could be reused. About 5 per cent felt that throw away plates caused pollution so they did not use them.

Paper plates were used by nearly 10 per cent respondents so that time and energy were saved as there was no need to whash them. Nearly 8 per cent respondents considered paper plates as easily disposable whereas 1.47 per cent respondents said that paper plates could be sent for recycling after the disposal. Environmental concern was reflected in reasons by nearly 3 per cent of those respondents who exhibited the most environment friendly behaviour. Among those respondents who exhibited environment friendly behaviour to some extent 23.5 per cent

reflected environmental concern. Nearly 1.5 per cent of those respondents who exhibited the least environment friendly behaviour also reflected environmental concern in the reasons for their choice.

On the whole 27.94 per cent homemakers from the total sample reflected but 72 per cent did not reflect environmental concern while using plates made from different base materials.

7.1.2 Use of Napkins Made of Various Materials

Generally in a party, each guest is supplied a paper or cloth napkin or one cloth napkin is placed to be used by all the guests. The consumption of paper napkins was considered the most harmful to the environment out of these alternatives, as their disposal caused solid waste. About 66 per cent homemakers used them. Though 11.27 per cent of the respondents thought them to be easily disposable, they did not realise the that solid waste was created by such material. About 21.56 per cent respondents using paper napkins found them to be "convenient" and 10.78 per cent found them "economical". There were 13.7 per cent respondents who said that they "look decent".

There were 21.6 per cent of the total sample who used cloth napkins for each guest. This reflected their environment friendly behaviour to some extent. The cloth napkins were considered better than paper napkins due to their re-usability without any waste generation.

Table 55 : Use of Napkins Made of Various Materials.

No.	Use of napkins made of different materials	Respondents f	%	Reasons for the choice	Respondents f	%
1.	One cloth napkin common for all the guest	24	11.8		(n=24)	
				* Easy to manage for less people	7	3.43
				* Economical in effort and cost	20	9.80
2.	Cloth napkin to each guest	44	21.6		(n=44)	
				* It is a party culture	8	3.92
				* Looks decent	15	7.35
				* Available in home	6	2.94
				## Paper napkins cause pollution, not cloth ones	6	2.94
				## Can be reused	22	10.78
3.	Paper napkin to each guest	136	66.6		(n=136)	
				* Easily disposable	47	11.27
				* No need of washing hence time and energy are saved	25	12.25
				* Economical	22	10.78
				* Hygienic	32	15.68
				* Convenient	44	21.56
				* Looks decent	28	13.72

(The Reasons with ## sign show environmental concern)

About one-tenth of respondents, clearly stated reusability of cloth napkins as the reason for their choice. Nearly 3 per cent of them maintained that paper napkins caused pollution,not the cloth ones.

One cloth napkin to be used by all the guests was supplied by 11.8 per cent of the total respondents as 9.8 per cent respondents out of them considered practice as economical in effort and cost and 3.4 per cent of them felt it easy to manage in case of less guests. Among those who exhibited the most environment friendly behaviour, none reflected environmental concern in their reasons. About 13.72 per cent of those respondents who exhibited environment friendly behaviour to some extent, reflected environmental concern.

Thus, there were only 13.72 per cent out of total respondents who gave reasons clearly indicating the environmental concern in their consumption behaviour regarding napkins made of various materials.

7.1.3 Use of Cups Made of Different Materials for Serving Tea

In a party for a moderately large group of people, tea can be served in cups/mugs made of china/steel/melamine or in disposable (polystyrene) plastic cups or in i.e. "Kulladh" which is an earthenware container. The earthen containers are the most environment friendly choice as they are biodegradable. The cups/mugs made of china/steel/

melamine plastic were considered environment friendly to some extent due to their reusability. But because of the waste of resources and phosphatic discharged in cleaning them they were considered harmful to some extent. Disposable cups made of plastic were considered the most harmful for the environment due to the non-biodegradable nature of the material and the volume of waste generated.

There were 30.9 per cent of total respondents who used disposable plastic cups. Most (66.7 per cent) of the respondents used cups made of china/stainless steel/melamine whereas only 2.4 per cent used earthen cups.

Nearly 16 per cent respondents used disposable cups as they saved time and energy and were found convenient by 12.25 per cent respondents.

Cups made of china/steel/melamine were used by 30 per cent respondents as they look dignified and were available at home, said 17 per cent respondents. Nearly 9 per cent respondents said that they used such cups as they were reusable. Nearly 9 per cent respondents considered such cups better than plastic throwaway cups because they did not pollute the environment.

Those who used earthen cups nearly 2 per cent of them did so because they were bio-degradable and would not pollute the environment. Nearly 2 per cent of the respondents used them as they were cheap.

Table 56 : Serving Tea in Containers of Various Materials.

No.	Material of containers for serving tea.	Respondents f	%	Reasons for the choice	Respondents f	%
1.	Earthen cup (Kulladh/Rampyali)	5	2.4		(n=5)	
				* Cheaper	4	1.96
				* Fashion as well as tradition	3	1.47
				## As it is bio-degradable, so would not pollute the environment	4	1.96
2.	China/Steel/ malamine	136	66.7		(n=136)	
				* Durable	7	3.43
				* Look dignified	61	29.9
				* Easily available at home	35	17.15
				* Economical	13	6.37
				* Convenient to use	11	5.39
				## Reusable	19	9.31
				## Does not pollute the environment as in the case of plastic	18	8.82
3.	Disposable plastic cups	63	30.9		(n=63)	
				* Hygienic	8	3.92
				* Save time and energy	32	15.68
				* Convenient	25	12.25
				* Difficult to arrange cups of china/steel/melamine for large group of people	3	1.47
				* Look decent	11	5.39

(The Reasons with ## sign show environmental concern)

Thus, viewing the respondents from the total sample who mentioned environmental impact in their reasons, irrespective of the choice of alternatives, it was found that 29.41 per cent respondents reflected environmental concern, but nearly 71 per centdid not reflect it.

7.1.4 Overall Environmental Concern Reflected in Using Cups, Plates and Napkins made of Various Materials

In case of use of plates and cups majority of the respondents reflected environment friendly behaviour to some extent but in the case of napkins most of the respondents reflected the least environment friendly behaviour (Table-57, Fig.9). Environmental concern was reflected by 13 to 27 per cent respondents only. Remaining 73 to 83 per cent respondents did not reflect it.

Table 57 : Environment Friendly Behaviour and Environmental Concern Reflected in Using Cups, Plates and Napkins Made of Various Materials : An Overall View

Use of Material of Various Products	Choice of Alternative (n=204)							
	Most Environment Friendly		Friendly to Some Extent		Least Friendly		Total	
	f	%	f	%	f	%	f	%
1. Plates	8	3.9	159	77.9	37	18.1	204	100
Environmental Concern	6	2.94	48	23.53	3	1.47	57	27.94
2. Napkins	24	11.8	44	21.6	136	66.7	204	100
Environmental Concern	0	0	28	13.7	0	0	28	13.72
2								
3. Cups for Serving Tea	5	2.5	136	66.7	63	30.9	204	100
Environmental Concern	4	1.96	37	18.13	0	0	41	20.09

7.2. Environment Friendly Behaviour and Environmental Concern Reflected in the Consumption of Paper

In the present investigation, consumption of paper was considered for the purpose of doing rough writing work, writing letters and the use of greeting cards received on various occasions.

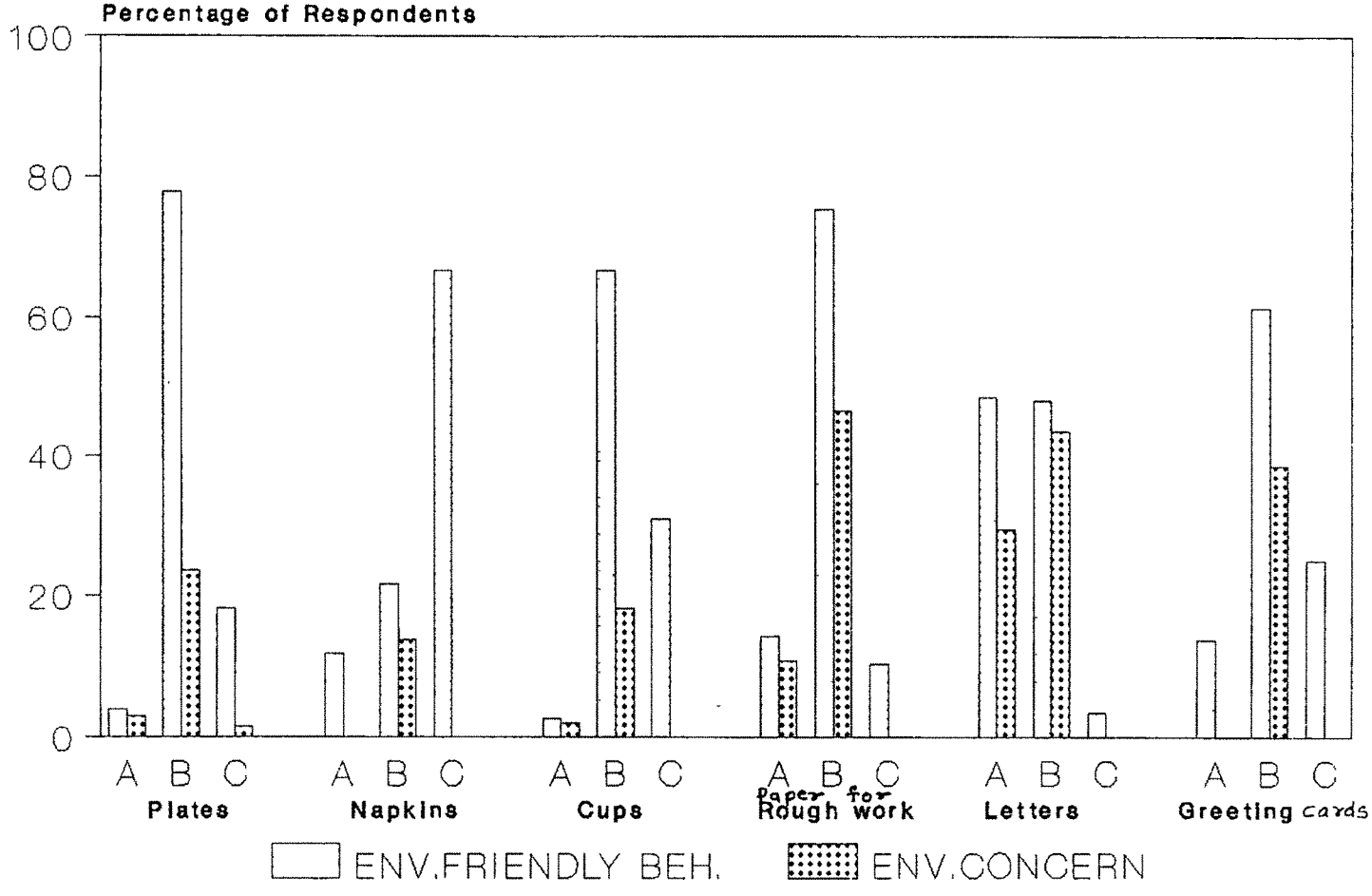
7.2.1 Consumption of Paper for Doing Rough Work

Generally all children need to do rough writing work while studying. This can be done on slates, which is the old and traditional way as well the most environment friendly method. On the other hand, new note books or fresh paper are used. This method was considered as the most harmful to the environment because of use of resources in making fresh paper. But blank pages from old note books or used computer stationary or such other papers could also be used. This could be considered the environment friendly method to some extent.

Three-fourth of total respondents used blank pages from old note books or used computers paper or note books made from second hand paper. About one tenth of total respondents used new notebooks or fresh paper, whereas 14 per cent respondents used slates.

About 2.5 per cent of respondents who gave slate to their children for doing rough work did so to save paper and trees whereas 8.33 per cent of them did so because slates could be used repeatedly.

Fig : 9. Distribution of Respondents Showing Environment Friendly Behaviour and Environmental Concern in use of Plates, Napkins, Cups and Paper



A-Most Friendly B-Somewhat Friendly C-Least Friendly

Table 58 : Use of Paper for Doing Rough Work.

No.	Use of paper for doing rough work.	Respondents f	%	Reasons for the choice	Respondents f	%
1.	Do not use paper but use slate and pencil.	29	14.2		(n=29)	
				* Economical	10	4.90
				## Can be used repeatedly	17	8.33
				## To save paper and thereby trees	15	2.45
2.	Old note books or second hand papers or note books made from paper of poor quality.	154	75.5		(n=154)	
				* Economy	89	43.62
				## Best use of waste	49	24.01
				## To save paper	28	13.72
				## Save tree	12	5.88
				## Children learn the importance of saving paper and thereby trees	6	2.94
3.	New note books or fresh papers	21	10.3		(n=21)	
				* Can afford to buy new notebooks for rough work.	3	1.47
				* Children like to work in new note books hence they are provided.	5	2.45
				* Provide best things to children	9	4.41
				* Generally old note books are filled up.	6	2.94

(The Reasons with ## sign show environmental concern)

Among the respondents who consumed second-hand paper for their children's rough work, 13.7 per cent did so to save paper and 5.88 per cent did so to save trees. Nearly 3 per cent respondents thought that by doing so children learnt the importance of saved paper and thereby saving trees. About 24 per cent respondents considered this to be the best use of waste.

New notebooks or fresh papers were given to children by 1.47 per cent respondents as they could afford to buy new note books and 2.45 per cent of them did so because their children liked to work in new notebook. About 16 per cent of respondents who exhibited most environment friendly behaviour reflected environmental concern in their reasons. Nearly 46.5 per cent of those respondents who exhibited environment friendly behaviour to some extent showed environmental concern in their reasons. About 62 per cent respondents from the total sample reflected environmental concern in their reasons.

7.2.2 Consumption of Paper in Writing Letter

Some people write mostly on the paper when they write letters. Some write few lines on a large piece of paper, and others use smaller pieces of paper to write few lines.

Table 59 : Extent of Use of Paper while Writing Letter.

No.	Extent of use of paper while writing letter	Respondents f	%	Reasons for the choice	Respondents f	%
1.	Write maximum possible on the paper	99	48.53		(n=99)	
				* Save expenditure on paper and postage	30	14.70
				## Maximum utilization of paper	50	24.50
				## Not to waste paper thereby reduce resource use	10	4.90
2.	Small paper to write few lines	98	48.04		(n=98)	
				* Looks proportionate	10	4.90
				## Maximum utilization of paper	63	30.88
				## Not to waste paper	26	12.74
3.	Large paper to write few lines.	7	3.43		(n=7)	
				* Use inland letter, no matter how much is written	4	1.96
				* Use own letter pad-no matter how much is written.	3	1.47

(The Reasons with ## sign show environmental concern)

A little less than half of respondents followed the most environment friendly practice of writing mostly on paper. Similar percentage of respondents followed somewhat environment friendly practice of using smaller paper to

write a few lines. Only about 3.5 per cent respondents followed the least environment friendly practice. Most of these respondents said that they always used Inland letter or a page of a letter pad, no matter how much they wrote.

Among those who used smaller paper to write few lines, 30.88 per cent said that they did so for maximum utilization of paper and 12.74 per cent did so as not to waste paper. This reflected their environmental concern. About one-fourth of the respondents wrote mostly on paper for maximum utilization of paper. About 5 per cent of them did so as not to waste paper and thereby reduce the resource use. About 15 per cent respondents did so to save expenditure on paper and postage. Environmental concern in the reasons was reflected by about 29.4 per cent of the respondents who exhibited most environment friendly behaviour, and 43.62 per cent of those who exhibited somewhat environment friendly behaviour. Seventy three per cent of respondents from the total sample reflected environmental concern in the use of paper while writing letters. In this case only 33 per cent respondents did not reflect environmental concern.

7.2.3 Use of Greeting Cards Received on Various Occasions

It is observed that greeting cards are extensively sent not only during festivals but also on various occasions.

Table 60 : Use of Greeting Cards Received on Various Occasions.

No.	Use of greeting cards received	Respondents f	%	Reasons for the choice	Respondents f	%
1.	Preserved for ever for sentimental value	28	13.7		(n=28)	
				* Preserved for sentimental value	24	11.76
				* Important ones are collected	22	10.78
2.	Used as book mark or to make new cards or used for noting shopping list or telephone call and then thrown.	125	61.3		(n=125)	
				* Hobby to collect	11	5.39
				* Reused for creativity	13	6.37
				* They become handy for such purpose	10	4.90
				* It is economical to use this instead of using fresh paper.	16	7.84
				## Use of waste	54	26.47
				## Maximum utilization of paper	25	12.25
3.	Thrown away	51	25.0		(n=51)	
				* No place to keep such things	13	6.37
				* Do not reuse	20	9.80
				* Do not like to store	20	9.80

(The Reasons with ## sign show environmental concern)

Some people, after receiving greeting cards, throw them away thus generating waste. This wastes resources and exhibits least environment friendly behaviour. Some people preserve them. Thus by not wasting paper they reflect the most environment friendly behaviour. Using the greeting cards to make new cards, book-marks, making shopping list or for noting telephone calls, the environment friendly behaviour was reflected to some extent. Sixty one per cent respondents reused the greeting cards whereas about one fourth respondents threw them away. About 14 per cent respondents preserved the cards for ever.

About 10 per cent respondents threw the cards away because they were not reused. There were 10 per cent respondents who did not like to store cards so they threw them.

Those who reused cards, 26.47 per cent of them did so for theuse of waste and 12 per cent of them did so for maximum utilization of paper. Cards were preserved for ever by 11.76 per cent respondents for sentimental values. Those who reflected the most environment friendly behaviour, none of them reflected environmental concern in their reasons. About 38.7 per cent of those who exhibited environment friendly behaviour to some extent reflected environmental concern in their reasons. Only these were the respondents from the total sample who reflected environmental concern in the use of received greeting cards. Thus, nearly 61 per cent respondents did not reflect environmental concern in the use of greeting cards.

7.2.4 Overall Environmental Concern Reflected in Use of Paper

Majority of respondents reflected environment friendly behaviour to some extent in case of use of paper for doing rough work by children (Table-61, Fig. 9). In using paper for the purpose of writing letters nearly half of the respondents reflected environment friendly behaviour to great extent and nearly half reflected to some extent. In the use of received greeting cards, most of the respondents reflected most environment friendly behaviour. It was encouraging to note that 73 per cent respondents from the total sample reflected environmental concern in case of using paper for writing letters. About 57 per cent in case of use paper for rough work and 38.7 per cent in case of using greeting cards reflected environmental concern.

Table 61 : Environment Friendly Behaviour and Environmental Concern reflected in Use of Paper

Use of Paper Various Products	Choice of Alternative (n=204)							
	Most Environment Friendly		Friendly to Some Extent		Least Friendly		Total	
	f	%	f	%	f	%	f	%
1. For doing rough work	29	14.2	154	75.5	21	10.3	204	100
Environmental Concern	22	10.78	95	46.6	0	0	117	57.35
2. For writing letters	99	48.5	98	48.0	7	3.4	204	100
Environmental Concern	60	29.41	89	43.6	0	0	149	73.04
3. Use of Greeting Cards	28	13.7	125	61.3	51	25.0	204	100
Environmental Concern	0	0	79	38.7	0	0	79	38.7

7.3 Environment Friendly Behaviour and Environmental Concern reflected in the Use of Fuel and Electricity

An attempt was made in the present investigation to find out the environmental concern of homemakers while consuming fuel, mainly gas and electricity reflected through certain practices.

7.3.1 Intensity of Flame of Burner of Stove on Boiling Any Liquid

One of the ways of conserving energy (fuel) is to reduce the intensity of flamess once the liquid starts boiling, because even low flamess keep the liquid boiling. Hence those who followed this practice were considered to display having most environment friendly behaviour. Those who reduced flamess only at times, exhibited environment friendly behaviour to some extent and those who did not reduce the flames, were considered as exhibiting the least environment friendly behaviour.

Nearly 86 per cent of the respondents reduced the intensity or flames once the liquid started boiling (Table-60). About 66 per cent of them did so to conserve the fuel. Nearly 12 per cent of them reduced flames so that the food was cooked properly and some reduced them so that the liquid did not overflow. There were nearly one per cent respondents who did so because of continuous instructions from voluntary organizations. One-tenth of respondents reduced flames to reduce gas consumption for the sake of economy. There were 9.3 per cent respondents

Table 62 : Intensity of Flame of Burner of Stove on Boiling Any Liquid

No.	Intensity of flame of burner on boiling liquid	Respondents f	%	Reasons for the choice	Respondents f	%
1.	Reduce the flame of burner	175	85.8		(n=175)	
				* Nutrients are not lost	5	2.45
				* So that food cooks properly	26	12.74
				* Liquid does not overflow	21	10.29
				* The food does not burn	26	12.74
				* Economy	19	9.31
				* Due to continuous instructions from voluntary organizations	2	0.98
				## Conservation of fuel gas/energy	135	66.17
2.	Reduce the flame sometimes only.	19	9.3		(n=19)	
				* As per requirement of recipe	15	7.35
				* Reduce only when there is enough time to cook on low flame	5	2.45
3.	Do not reduce the flame	10	4.9		(n=10)	
				* To save time	7	3.43
				* No need to bother	3	1.47

(The Reasons with ## sign show environmental concern)

who reduced flames at times. Depending on the recipe 7.35 per cent did soak materials. Only 4.9 per cent of the total respondents did not reduce flames. Out of them 3.43 per cent wanted to save time. Environmental concern in the reasons was reflected by 66 per cent of those respondents who followed the most environment friendly behaviour. Only these respondents from the total sample reflected environmental concern, whereas 3 of them did not bother about it.

7.3.2 Lighting the Burner While Doing Preparation of Vegetables

When preparing meals, some homemakers left gas burners on they cut vegetables. Some kept vessels for frying on low flames on burners, whereas some lit burners only when they were ready to cook vegetables cook.

Majority (86.3 per cent) of the total sample lit burners only when they were ready to cook. This exhibited their most environment friendly behaviour. Nearly 78 per cent of them said that this was done to save fuel whereas 24.5 per cent respondents said that they did so to save money by reducing fuel consumption.

There were 9.8 per cent respondents from the total sample who put cooking vessels over low flames, during pre-preparation of vegetable, so that the heat from the flames was not left unutilised. The oil/ghee in the vessel was being heated. This exhibited the environment friendly

behaviour to some extent. Very few (3.9 per cent) respondents left the gas burners on either because of habit or because they could afford higher fuel bills. Nearly 78 per cent of those who exhibited most environment friendly behaviour reflected environmental concern in lighting the burner while doing pre-preparation of vegetable. Only nearly 32 per cent respondents from the total sample did not reflect environmental concern (Table 73).

Table 63 : Lighting of Burner while Doing Pre-preparation of Vegetables.

No.	Lighting burner while doing pre-paration	Respo-ndents f	%	Reasons for the choice	Respon-dents f	%
1.	Light burner only when ready to cook.	176	86.3		(n=176)	
				* To save money by reducing fuel consumption	50	24.50
				## To save fuel	159	77.94
2.	Put the vessel over a low flame during pre-pre-paration.	20	9.8		(n=20)	
				* Oil starts heat-ing by the time pre-preparation is done.	20	9.80
3.	Leave gas stove burning during pre-preparation	8	3.9		(n=8)	
				* Habit	5	2.45
				* Can afford to pay high fuel bills	5	2.45

(The Reasons with ## sign show environmental concern)

7.3.3 Use of Pressure Cooker

Pressure cooker was used mainly for preparing "Rice" and "Dal", by 91.66 per cent respondents. This was considered to be the most environment friendly practice. Sixty four per cent of these respondents said that, the food cooked faster and saved time whereas 57 per cent respondents said clearly that pressure cooker saved fuel energy. There were 56.37 per cent respondents who said that use of pressure cooker saved money.

There were 6.87 per cent respondents who used pressure cooker at times only. To get right the consistency of rice or dal, nearly 5 per cent did so. There were 2.45 per cent respondents who said that some recipes did not require pressure cooker, so they used it at times only. As one respondent used solar cooker she used pressure cooker infrequently.

Very negligible number (1.47 per cent) of respondents from the total sample did not use pressure cooker because they did not like the food prepared in the pressure cooker. This was the least environment friendly practice. Among those who exhibited the most environment friendly behaviour 37.35 per cent reflected environment concern in their reason. Nearly 58 per cent respondents from the total sample reflected environmental concern in the use of pressure cooker (Table 73).

Table 64 : Use of Pressure Cooker

No.	Use of pressure cooker for cooking rice and/or dal	Respondents n=204 f	%	Reasons for the choice	Respondents f	%
1.	Use pressure cooker	187	91.66		(n=187)	
				* Cooks faster so saves time	131	64.21
				* Cooks well	11	5.39
				* Nutrients are preserved	15	7.35
				* Saves money	115	56.37
				* Convenient	12	5.88
				* Saves human energy	6	2.94
				## Saves fuel energy	117	57.35
2.	Use pressure cooker only sometimes	14	6.87		(n=14)	
				* Some recipe do not require use of pressure cooker	5	2.45
				* To get right consistancy of rice and/or dal	10	4.90
				## Use solar cooker	1	0.49
3.	Do not use	3	1.47		(n=3)	
				* Do not like food prepared in pressure cooker	3	1.47

(The Reasons with ## sign show environmental concern)

7.4.4 **Use of `Flat Bottom' Pan**

The pans (cooking utensils) having flat-bottom utilize the heat to the maximum extent and can distribute heat evenly. There were 39.7 per cent of total respondents who

always used flat bottom pans, reflecting the most environment friendly behaviour (Table-63). About 19.6 per cent of them said that in using flat bottom pans heat was fully utilized and hence fuel was saved. About 20 per cent of those who used flat bottom pans did so because food was cooked evenly as heat was distributed equally throughout the pans. These respondents followed the most friendly practice for the environment.

Flat bottom pans were used at times by 39.7 per cent respondents, reflecting the environment friendly behaviour to some extent. More than 22 per cent of them said that the use of flat bottom pans depended upon the food to be cooked.

There were 20.6 per cent respondents who did not bother about the shape of the bottom of the pans reflecting the least friendly behaviour for the environment. Half of them used whatever was available and half of them had no time to bother. About one-fifth of the total respondents reflected environmental concern in their reasons for using flat bottom pans (Table-73).

7.3.5 **Use of Small or Large Burner of Gas Stove**

The respondents were asked whether they generally used small or large burners. Nearly 60 per cent of the respondents made it a point to use small burners only whenever possible. This reflected teh most environment friendly behaviour. Nearly 36 per cent of respondents did so to save money by saving fuel. About 12 per cent of the

respondents felt that there was less chance of burning food on small burners. There were 2.45 per cent respondents who used small burners to conserve energy.

Table 65 : Use of Flat Bottom Pans.

No.	Use of flat bottom pans on gas/stove paration	Respo-ndents n=204 f	%	Reasons for the choice	Respon-dents f	%
1.	Use flat bottom pans	81	39.7		(n=81)	
				* Cooks evenly as heat is equally distributed	41	20.09
				* Cooks faster	19	9.31
				## Heat is fully utilized, hence saves fuel	40	19.60
2.	Use flat bottom pan in some cases	81	39.7		(n=81)	
				* Depends upon food to be cooked.	46	22.5
				* Convenience gets more importance	15	7.35
				* Do not have many flat bottom pans	30	14.70
3.	Do not bother about shape of bottom of pan	42	20.6		(n=42)	
				* Use what ever is available	21	10.29
				* No time to bother	20	9.80
				* Ignorance	5	2.45
				* Does not make any difference	13	6.37

(The Reasons with ## sign show environmental concern)

About one-fifth of the total respondents used small burners at times. This reflected their environment friendly behaviour to some extent. About 11 per cent of these respondents used the small burners according to the requirement. About 8 per cent of these respondents used small burners depending on the size of pans.

Table 66 : Use of Small or Large Burner of Gas Stove.

No.	Use of small/large burner of gas stove	Respondents n=204 f	%	Reasons for the choice	Respondents f	%
1.	Use small burner whenever possible	122	59.8		(N=122)	
				* To save money by saving fuel	73	35.78
				* Generally food is cooked in small vessels as less quantity is required	25	12.25
				* Less chance of burning food	25	12.25
				* Like food cooked on low heat	12	5.88
				## To conserve energy	5	2.45
2.	Use small burner sometimes	40	19.6		(n=40)	
				* Depends upon size of pan	17	8.33
				* Depends on quanity of food	14	6.86
				* Use according to the requirement	23	11.27
3.	Use large burner only	42	20.6		(n=42)	
				* Cooks faster so time is saved	42	20.58

(The Reasons with ## sign show environmental concern)

About one-fifth of respondents used large burners only so that the food fwas prepared faster thus saving time but it reflected the least environment friendly behaviour for the environment. Only 2.45 per cent respondents having the most environment friendly behaviour and from the total sample reflected environmental concern in using small or large burners of gas stove. As many as 98 per cent did not reflect the concern for environment.

7.3.6 **Cleaning of Gas Burner**

Regular cleaning of gas burners saves fuel. There were 57.8 per cent respondents who cleaned the burners regularly - i.e. daily or on alternate days, exhibiting the most environment friendly behaviour. About 14 per cent of these respondents cleaned them regularly because it was their habit. Only 18.13 per cent respondents reflected environmental concern by saying that this practice saved fuel consumption.

There were 31.9 per cent respondents who cleaned gas burners once in a week. About 22 per cent of them did so due to constraint of time. This reflected the environment friendly behaviour to some extent.

There were one tenth of total respondents who cleaned the burners only when they gave out low and/or red flames reflecting the least concern for the environment. About 18 per cent of those who exhibited the most environment friendly behaviour, reflected environmental concern in their

reasons. From the total sample also only these 18.13 per cent respondents reflected environmental concern in the practice of cleaning gas burners.

Table 67 : Cleaning of Gas Burner

No.	Cleaning of gas burner	Respondents n=204 f	%	Reasons for the choice	Respondents f	%
1.	Regularly i.e., daily or on alternate days	118	57.8		(N=118)	
				* For cleanliness	18	8.82
				* Increases durability of stove	17	8.33
				* Habit	29	14.21
				* Increase efficiency of burner	20	9.80
				* So that pan does not get burned	10	4.90
				## Saves fuel consumption	37	18.13
2.	Once in a week	65	31.9		(n=65)	
				* Due to constraint of time	45	22.05
				* Do not consider necessary to clean everyday.	15	7.35
				* Carelessness	10	4.90
3.	Only when the burner gives out low and/or red flame.	21	10.3		(n=21)	
				* Lack of time	21	10.29

(The Reasons with ## sign show environmental concern)

7.3.7 Placing Lid on the Vessel While Cooking

Eighty per cent of the total respondents followed the most environment friendly practice of placing lids on vessels while cooking. It is well known that by placing lid the heat does not escape and the cooking is quickened. It utilizes the heat to the maximum extent and ultimately leads to conservation of energy.

Table 68 : Placing Lid on the Vessel while Cooking

No.	Placing lid on open vessel while cooking	Respondents n=204 f	%	Reasons for the choice	Respondents f	%
1.	Place lid	164	80.4		(n=164)	
				* Cooks faster	92	45.09
				* Nutrients are not lost	26	12.74
				* To prevent any thing falling in the food	42	20.58
				* Utilizes heat to maximum	14	6.86
				* Cooks well	6	2.94
				## Saves fuel	53	25.98
2.	Place lid only sometimes	32	15.7		(n=32)	
				* According to the need	32	15.68
3.	Do not place lid	8	3.9		(n=8)	
				* Method of preparing recipe requires open cooking	8	3.92

(The Reasons with ## sign show environmental concern)

About one-fourth of respondents said that this practice saved fuel. About 7 per cent of the respondents said that by placing lids heat was utilized to the maximum extent. About one-fifth of respondents placed lids to prevent anything falling in the cooking food being cooked.

There were 15.7 per cent respondents from the total sample who placed lids at times only. This reflected environment friendly behaviour to some extent. Nearly 16 per cent of them said that this was done according to the need and recipe.

A very small percentage (3.9 per cent) of the total respondents did not place lids on vessels while cooking reflecting the least friendly behaviour for the environment. Their method of food preparation required open cooking. About 26 per cent of those respondents who followed the most environment friendly behaviour, reflected environmental concern in the reasons. Nearly 74 per cent respondents from the total sample did not reflect environmental concern in their practice of placing lids on vessels while cooking.

7.3.8 **Heating of Refrigerated Food Before Reusing**

Left over food is stored in refrigerator. Before using it again, it is usually heated. If the food is allowed to reach to room temperature before heating, the fuel (gas) consumption would be less than when it is being hit immediately after removal from refrigerators. Hence the practice of allowing food to reach room temperature was

considered as the most environment friendly. Heating immediately after taking out from refrigerator was considered to be the least friendly practice for the environment. The practice of sometimes heating fod immediately and sometimes allowing it to reach room temperature was considered to be some what friendly to the environment. Seventy two per cent of respondents allowed the food to reach room temperature before heating it. One-fifth of the respondents put food immediately on gas only at times. There were 7.4 per cent who put food immediately on gas for heating. This reflected the least environment friendly behaviour.

Table 69 : Reheating Food Stored in Refrigerator.

No.	Heating refri--gerated food before reusing	Respo-ndents n=204 f	%	Reasons for the choice	Respon-dents f	%
1.	Allow food to reach the room temperature before heating	148	72.5		(n=148)	
				* Takes less time to heat	44	21.56
				## To save fuel	10	4.90
2.	Sometimes put on gas immediately	41	20.1		(n=41)	
				* Due to lack of time	35	17.15
				* Depends on situation	10	4.90
3.	Put refrigerated food immediately on gas for warming	15	7.4		(n=15)	
				* To save time	15	7.35

(The Reasons with ## sign show environmental concern)

Nearly 5 per cent respondents allowed the food to reach the room temperature before heating did so to save fuel. About 21.5 per cent of them did so because this practice took less time to heat food. About 17 per cent from those respondents who sometimes followed the practice of putting food immediately on gas did so due to lack of time.

All of those respondents who put the food immediately on gas for warming did so to save time. Among those who exhibited the most environment friendly behaviour, 4.9 per cent reflected environmental concern. These were the respondents from the total sample who reflected environmental concern while heating of refrigerated food before reusing.

7.3.9 **Soaking Food Grains Before Cooking**

It is desirable to soak food grains (Rice and Pulses in this case) before cooking so as to conserve energy. But the water in which they are soaked must be used, as it contains water soluble vitamins, dissolved from the grains soaked.

There were 68 per cent of respondents who followed the practice of soaking food grains, reflecting the most environment friendly behaviour (Table-70). Nearly 45 per cent of them did so because they cooked faster. About 32 per cent followed this method as fuel was saved.

Table 70 : Soaking Food Grains Before Cooking.

No.	Practice of soaking food grains before cooking	Respondents n=204 f	%	Reasons for the choice	Respondents f	%
1.	Soak grains before cooking	139	68.1		(n=139)	
				* Cooks faster	91	44.60
				* Better results	28	13.72
				## Fuel is saved	67	32.89
2.	Soak grains only if preservative is applied.	8	3.9		(n=8)	
				* Soak grains since preservative oil is applied on grains	8	3.92
3.	Just wash the grains and immediately start cooking	57	27.9		(n=57)	
				* It has become routine	15	7.35
				* Lack of time	40	19.60
				* Use pressure cooker so no need to soak	6	2.94

(The Reasons with ## sign show environmental concern)

Those respondents who did not soak the grains, but immediately started cooking after just washing the grains reflected the least environment friendly behaviour. This method consumed more fuel. There were 27.9 per cent respondents who followed this practice. Nineteen per cent of these respondents had lack of time. This had become a routine for seven per cent respondents.

There were 3.9 per cent respondents who soaked grains if oil was applied as a preservative on them (Table-70). This was considered as some what environment friendly practice as eventually the fuel would be conserved. Environmental concern in the reasons was reflected by nearly 33 per cent of those respondents who followed the most environment friendly practice. Only these respondents from the total sample, reflected environmental concern in the practice of soaking food grains before cooking.

7.3.10 **Warming Food Before Having Meals**

Almost all people like to eat warm food. In some houses all the family members have their meals together. In this case food is heated only once. Thus, they conserve fuel and at the same time enjoy family gathering. These respondents followed such practice were considered to be reflecting the most environment friendly practice. There were 66.2 per cent such respondents (Table-71).

Among these, there were 19.60 per cent respondents who reflected environment concern in the reason, that such practice saved fuel. Having meals together was a `habit' for 35.78 per cent respondents. About 10 per cent of these respondents felt that nutrients were lost on reheating, so they had meals together, heating the food only once.

Table 71 : Warming Food before Having Meals

No.	Practice regarding warming food before eating	Respondents n=204 f	%	Reasons for the choice	Respondents f	%
1.	Have meals together, heating food only once.	135	66.2		(n=135)	
				* Habit	73	35.78
				* Reheating changes taste of food	8	3.92
				* Nutrients are lost on reheating	22	10.78
				* Less work load	10	4.90
				* Save time	9	4.41
				* Convenient	12	5.58
				* Economic	15	9.35
				## To save fuel	40	19.60
2.	Food is kept in insulated containers to keep warm for member taking meals at different timings.	56	27.4		(n=56)	
				* Does not require reheating	20	9.80
				* Reheating spoils, taste, colour and nutrients of food	10	4.90
				* Easy and convenient	15	7.35
				## Saves gas and time	19	9.31
3.	Have meals at different timings and heating food each time	13	6.4		(n=30)	
				* All family members have meals at different time and no body likes cold food.	9	4.41
				* Not bothered about fuel consumption	11	5.39

(The reasons with ## sign show environmental concern)

Twenty seven per cent of respondents followed some what environment friendly practice of keeping hot food in the insulated containers. About 9 per cent of them reflected environmental concern in the reasons, saying that this practice saved fuels and time. About 10 per cent of the respondents followed this practice as it did not generally require reheating (Table-71). About 6 per cent respondents followed the practice of having separate meals heating food each time. This reflected the least friendly practice for the environment among the given alternatives. About 5 per cent of them were not bothered about fuel consumption. In 4.41 per cent of cases all the family members had meal at different times and nobody liked cold food. Among those who followed the most environment friendly practice, 19.60 per cent reflected environmental concern in the reasons. Among those who followed environment friendly practice to some extent, 9.31 per cent reflected environmental concern. From the total sample 28.92 per cent reflected environmental concern in their reasons for following different practices in warming food before having meals.

7.3.11 **Switching Off Unneeded Lights and Fans**

The practices of respondents in relation to switching off lights and fans not required were found out to ascertain their environmental concern by conserving electricity. Ninety per cent of respondents made it a point to always switch off all unnecessary lights and fans when they went

out of the room, reflecting the most environment friendly practice out of the provided ones (Table-72). Forty one per cent of these respondents did so to reduce electricity bills and save money. A few (6.4 per cent) respondents switched off fans but not lights as 3.92 per cent of them did not like dark rooms, whereas 2.45 per cent of them said that as fan consumed less electricity than light they switched off fans only. This reflected environment friendly behaviour to some extent. There were very few (3.4 per cent) respondents who did not bother about switching off lights and fans, reflecting the least concern environment friendly behaviour (Table-72). Nearly 3 per cent of these respondents said that as they could afford to pay high electricity bills, they did not bother about switching off lights and fans.

Environmental concern was reflected by 56.37 per cent of those respondents who followed the most environment friendly practice. Out of the total sample only these respondents reflected environmental concern in the reasons for switching off unnecessary and fans, whereas nearly 44 per cent did not reflect any concern for environment.

Table 72 : Switching Off Unneeded Light and Fan.

No.	Switching off lights and fans	Respondents n=204 f	%	Reasons for the choice	Respondents f	%
1.	Switch off unneeded lights and fans.	184	90.2		(n=184)	
				* Reduce electricity bill and save money	84	41.17
				## Conserve electricity	115	56.37
				* Habit	11	3.92
2.	Switch off fan but not light	13	6.4		(n=13)	
				* Do not like dark rooms	8	3.92
				* Since light consumes less electricity and fans consumes more electricity	5	2.45
3.	Donot bother about switching off lights and fans.	7	3.4		(n=7)	
				* Can afford to pay high bill	6	2.94
				* Carelessness	3	1.47

(The reasons with ## sign show environmental concern)

7.3.12 Overall Environmental Concern Reflected in Consumption of Fuel and Electricity

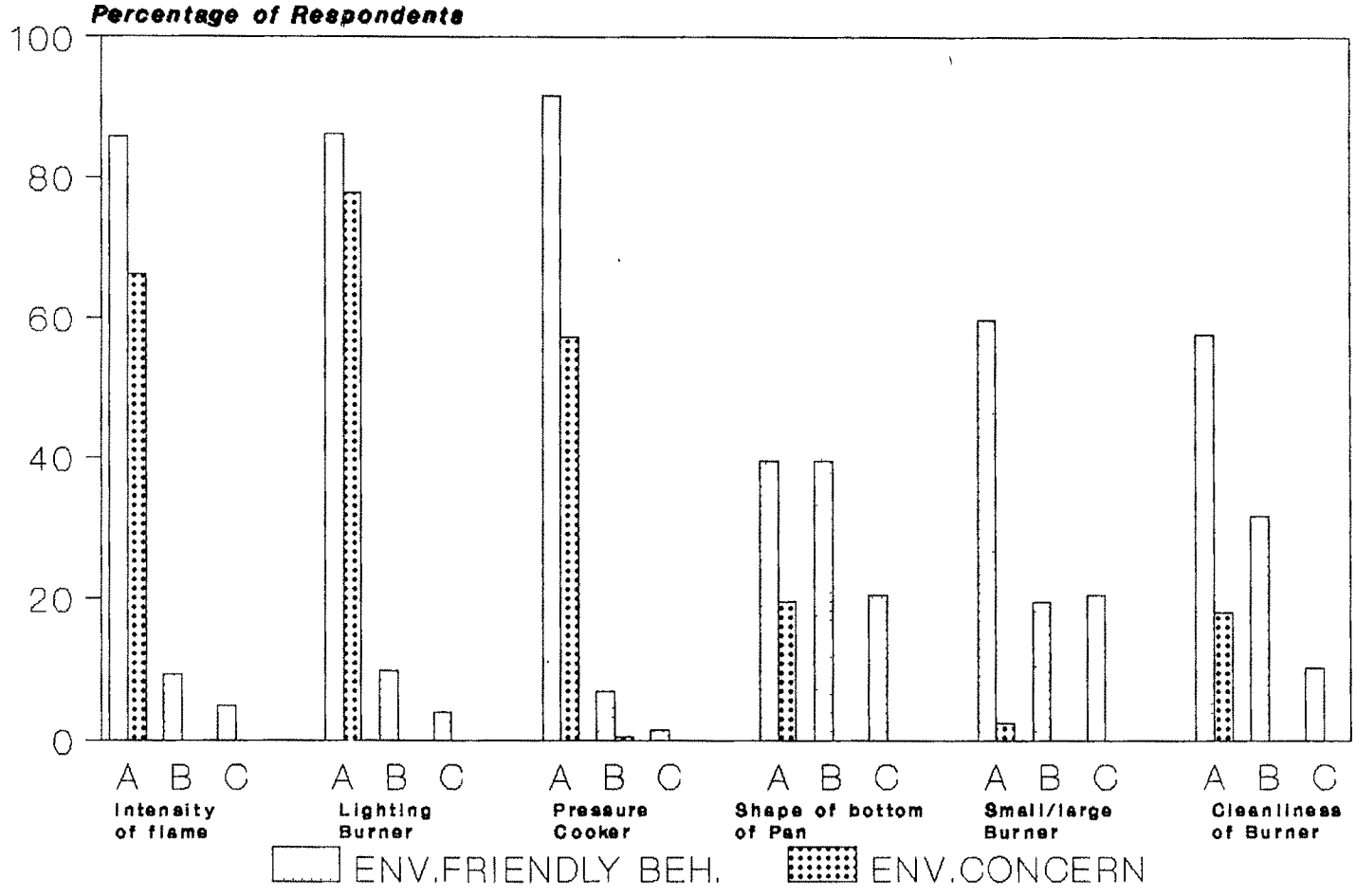
Ranging from 72 to 90 per cent of the respondents exhibited the most environment friendly practice out of the provided ones regarding the consumption of fuel and electricity (Table-73). The main purpose was reducing bill and energy consumption. In the case of shape of bottom of the pan about 40 per cent of respondents followed the most

environment friendly practice and same percentage followed somewhat friendly practice.(Fig. 10, 11).

Table 73 : Environment Friendly Behaviour and Environmental Concern reflected in Consumption of Fuel and Electricity

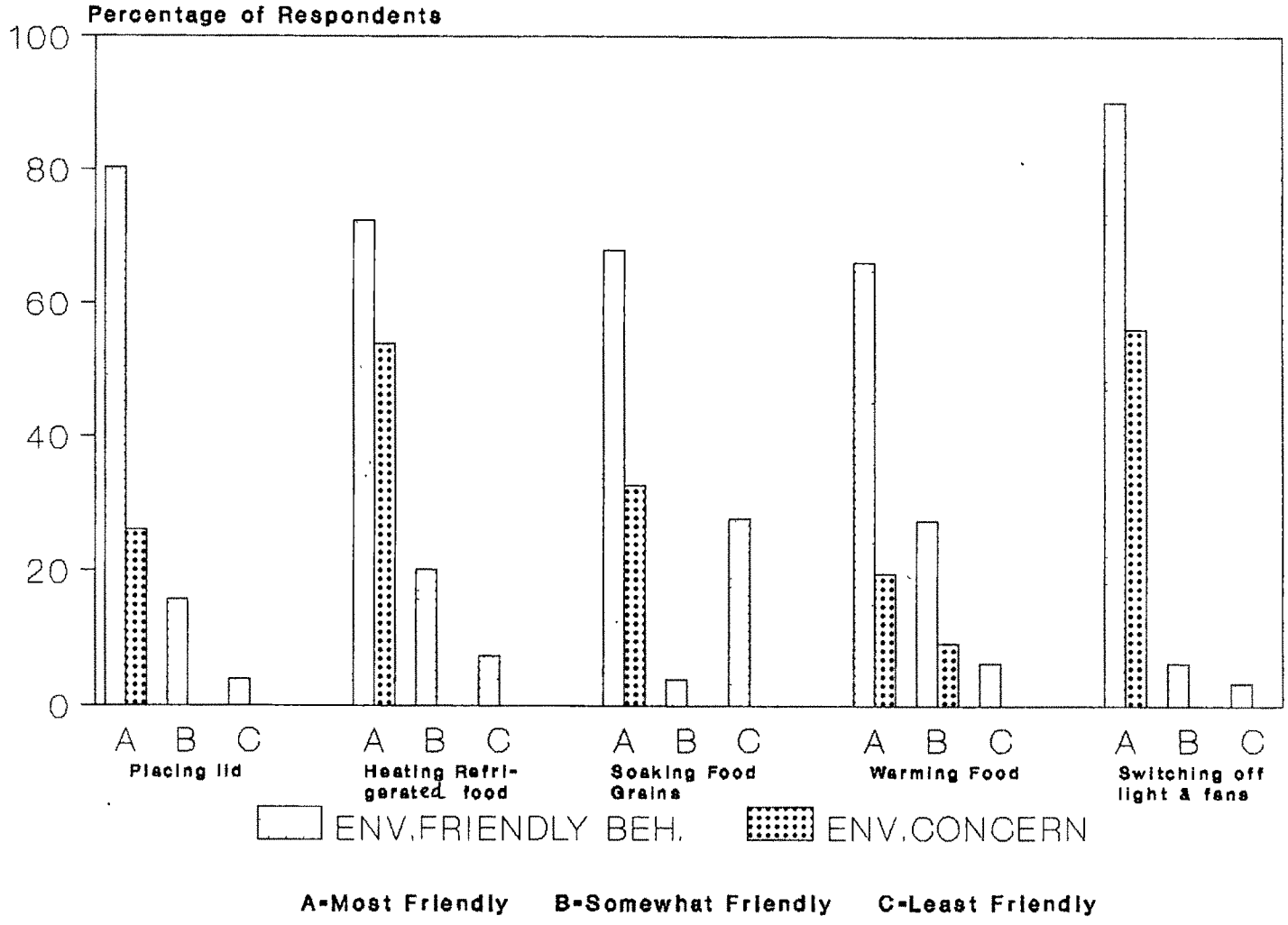
Consumption of Fuel and Electricity	Choice of Alternative (n=204)							
	Most Environment Friendly		Friendly to Some Extent		Least Friendly		Total	
	f	%	f	%	f	%	f	%
1. Intensity of flame of gas burner on boiling liquid	175	85.8	19	9.3	10	4.9	204	100
Environmental Concern	135	66.17	0	0	0	0	135	66.17
2. Lighting burner while doing pre-preparation	176	86.3	20	9.8	8	3.9	204	100
Environmental Concern	159	77.9	0	0	0	0	159	77.9
3. Use of pressure cooker	187	91.7	14	6.9	3	1.5	204	100
Environmental Concern	117	7.35	1	0.49	0	0	118	57.84
4. Shape of bottom of pan	81	39.7	81	39.7	42	20.6	204	100
Environmental Concern	40	19.6	0	0	0	0	40	19.6
5. Use of small/large burner	122	59.8	40	19.6	42	20.6	204	100
Environmental Concern	5	2.45	0	0	0	0	5	2.45
6. Cleanliness of gas burner	118	57.8	65	31.9	21	10.3	204	100
Environmental Concern	37	18.13	0	0	0	0	37	18.13
7. Placing lid on cooking vessel	164	80.4	32	15.7	8	3.9	204	100
Environmental Concern	53	25.98	0	0	0	0	53	25.98
8. Heating refrigerated food before reusing	148	72.5	41	20.1	15	7.4	204	100
Environmental Concern	110	53.9	0	0	0	0	110	4.9
9. Soaking foodgrains before cooking	139	68.1	8	3.9	57	27.9	204	100
Environmental Concern	67	32.84	0	0	0	0	67	32.84
10. Warming food before having meals	135	66.2	56	27.5	13	6.4	204	100
Environmental Concern	40	19.6	19	9.31	0	0	59	28.92
11. Switching off unneeded lights and fans	184	90.2	13	6.4	7	3.4	204	100
Environmental Concern	115	56.37	0	0	0	0	115	56.37

Fig. : 10. Distribution of Respondents Showing Environment Friendly Behaviour and Environmental Concern in use of Fuel Electricity



A=Most Friendly B=Somewhat Friendly C=Least Friendly

Fig. :/|C. Distribution of Respondents Showing Environment Friendly Behaviour and Environmental Concern in use of Fuel and Electricity



A-Most Friendly B-Somewhat Friendly C-Least Friendly

About one-fifth of homemakers exhibited the least environment friendly behaviour in the case of shape of the bottom of the pans and use of small/large burners. A little more than one-fourth homemakers reflected least environment friendly behaviour in case of soaking food grains before cooking. Majority of the respondents reflected the mostenvironment friendly behaviour concern in the consumption of electricity by switching off the unnecessary lights and fans. Environmental concern was reflected by 56 to 77 per cent homemakers in the practice of, switching off lights and fans, use of pressure cookers, reducing intensity of flames on boiling the liquid, and lighting burners during pre-preparation of vegetables. Environmental concern was reflected by about one-third respondents in soaking food grains, and by about one-fourth in the practice of placing lids over vessels while cooking. Only 2 per cent reflected environmental concern in the practice of generally using small/large burners of gas stoves. On the whole,nearly 33 to 98 per cent respondents did not reflect environmental concern using fuel and electricity.

7.4 Environment Friendly Behaviour and Environmental Concern reflected in the Consumption of Insecticide

Various techniques are used to control household pests/insects such as cockroaches and mosquitoes. An attempt was made in the present investigation to find the practices used to control these insects and to assess environmental concern.

7.4.1 Consumption of insecticide to Control Cockroaches

Generally people use either household techniques or insecticides/spray or powder (to control cockroaches). Use of insecticide spray was considered the most harmful to the environment and the use of insecticide powder was considered harmful to the environment to some extent. Using household techniques was considered the least harmful to the environment.

Seventy three per cent of respondents used insecticide spray to control cockroaches (Table-73), 18.63 per cent used household techniques whereas 8.33 per cent used insecticide powder to control cockroaches in the house.

Forty-nine per cent of the respondents considered insecticide spray the most effective hence they used it. About one-fifth respondents found it convenient and 8.8 per cent used it due to its quick effect. Among those who used household techniques, 8.33 per cent considered these as not harmful to human beings. About 6.37 per cent of them found household techniques as the cheaper and effective. About 8 per cent reflected environmental concern by saying that household techniques did not pollute the environment. Insecticide powder was found to be quite effective by 6.37 per cent respondents. Thus, in case of controlling cockroaches, majority of the homemakers followed the most harmful practice for the environment. Only 1.47 per cent respondents from the total sample reflected environmental concern in the use of insecticide to control cockroach.

Table 74 : Use of Insecticide to Control Cockroaches in the House.

No.	Consumption of pesticide to control cock-roaches	Respo-ndents n=204 f	%	Reasons for the choice	Respon-dents f	%
1.	Household techniques	38	18.63		(n=38)	
				* The cheapest and effective	13	6.37
				* Easily available	4	1.96
				* Not harmful to human beings	17	8.33
				* Good habit	2	0.98
				## Do not pollute environment	3	1.47
2.	Insecticide powder	17	8.33		(n=17)	
				* Quite effective	13	6.37
				* Less costly	5	2.45
3.	Insecticide spray	149	73.04		(n=149)	
				* Most effective	100	49.01
				* Convenient	40	19.60
				* Quick effect	18	8.82
				* Easily available	7	3.43

(The reasons with ## sign show environmental concern)

7.4.2 Use of Insecticide in Methods to Get Protection From Mosquitoes

Generally people follow various methods to protect themselves from the increasing menace of mosquitoes. Sleeping in mosquito net, burning leaves of "Neem" tree, and spraying insecticides are some of such methods. (Table 75). About one-third of respondents used mosquito nets reflecting

the most environment friendly practice. There were some 7.4 per cent who burnt "Neem" leaves reflecting environment friendly practice to some extent.

Among those respondents who used repellent "mats" or insecticide spray, 26.96 per cent respondents found these very effective; 23 per cent found them convenient; nearly 5 per cent liked such methods for their quick results; 4.41 per cent respondents did not like to use mosquito nets and burning of "Neem" leaves (Table 75). About 5 per cent of those who burnt "Neem" leaves considered this methods cheap. Among those respondents who used mosquito nets, 14.21 per cent found it safe, 11.27 per cent found it convenient. Only 1.41 per cent reflected environmental concern by saying that it did not pollute air.

Thus, with regards to the use of insecticide in protecting oneself from mosquitoes, more than half of the homemakers exhibited least environment friendly behaviour. Only 1.47 per cent from the total sample reflected environmental concern in their reasons for the choice of method used for protection from mosquitoes.

Table 75 : Use of Insecticide in Methods Used to Protect From Mosquitoes

No.	Method to protect from mosquitoes	Respondents n=204 f	%	Reasons for the choice	Respondents f	%
1.	Use mosquito net	70	34.3		(n=70)	
				* Can be used for longer time	6	2.94
				* Safest	29	14.21
				* Cheap as there is no recurrent expenditure	12	5.88
				* Convenient	23	11.27
				* Most effective	19	9.31
				## Does not pollute air	3	1.41
2.	Burn "Neem leaves"	15	7.4		(n=15)	
				* Cheap	10	4.90
				* Safe	3	1.47
				* Effective	6	2.94
3.	Use repellent "Mat" or insecticide spray can.	119	58.3		(n=119)	
				* Very effective	55	26.96
				* More suitable	9	4.41
				* Not irritating as burning of leaves	9	4.41
				* Do Not like "net"	9	4.41
				* Convenient	47	23.03
				* Safe	6	2.94
				* Quick result	10	4.90

(The reasons with ## sign show environmental concern)

7.4.3 Overall Environmental Concern Reflected in the Use of Insecticide

It was observed (Table-76) that the most of the respondents followed the least friendly methods for the environment to control cockroaches and mosquitoes. There were about one-third of respondents who followed the most environment friendly methods for protection from mosquitoes. Only 1.43 per cent from the total sample reflected the environmental concern in the reasons for using various methods to control cockroaches and mosquitoes, but as many as 98.6 per cent did not reflect it.(Fig.12)

Table 76 : Environment Friendly Behaviour and Environmental Concern reflected in Use of Insecticide and Empty Containers

Consumption of Fuel and Electricity	Choice of Alternative (n=204)							
	Most Environment Friendly		Friendly to Some Extent		Least Friendly		Total	
	f	%	f	%	f	%	f	%
1. Methods to control cockroach	38	18.6	17	8.3	149	73.0	204	100
Environmental Concern	3	1.47	0	0	0	0	3	1.47
2. Protection from mosquitoes	70	34.3	15	7.4	119	58.3	204	100
Environmental Concern	3	1.47	0	0	0	0	3	1.47
3. Empty containers	176	86.3	22	10.8	6	2.9	204	100
Environmental Concern	31	15.19	4	1.96	0	0	35	17.1

7.5 Use of Empty Containers Made of Glass or Plastic

Generally after consuming the products of glass/plastic containers, the empty containers are either used again or sold or thrown in the garbage. Reusing is the most environment friendly practice. The containers are generally sent in to recycling channel if they are sold, hence this

can be considered as environment friendly practice to some extent. If the containers are thrown in the garbage, then that becomes the most harmful practice for the environment as it increases solid waste.

Eighty six per cent of the respondents reused the empty containers of glass/plastic (Table-77). There were 10.8 per cent who sold such containers and only 2.9 per cent respondents threw them away.

Among those respondents who reused the containers more than half said that this was an economical practice because new ones were not to be purchased (Table-77). About 23 per cent respondents felt that they were very useful and handy. There were about one-tenth of respondents who considered this as the best use of waste. There were 5.39 per cent who said that by reusing, the problem of waste disposal did not arise. Only these 15 per cent respondents reflected environmental concern.

Among those respondents who sold the containers 7.35 per cent did so to obtain money in exchange. About 2 per cent respondents sold these containers so that they could go for recycling. Thus, these respondents really reflected the environmental concern (TAble-77). Those respondents who threw away the empty containers, all of them did not like to collect waste in the house. Environmental concern was reflected by 15.19 per cent of those who exhibited the most environment friendly behaviour and about 2 per cent from those who exhibited environment friendly behaviour to some

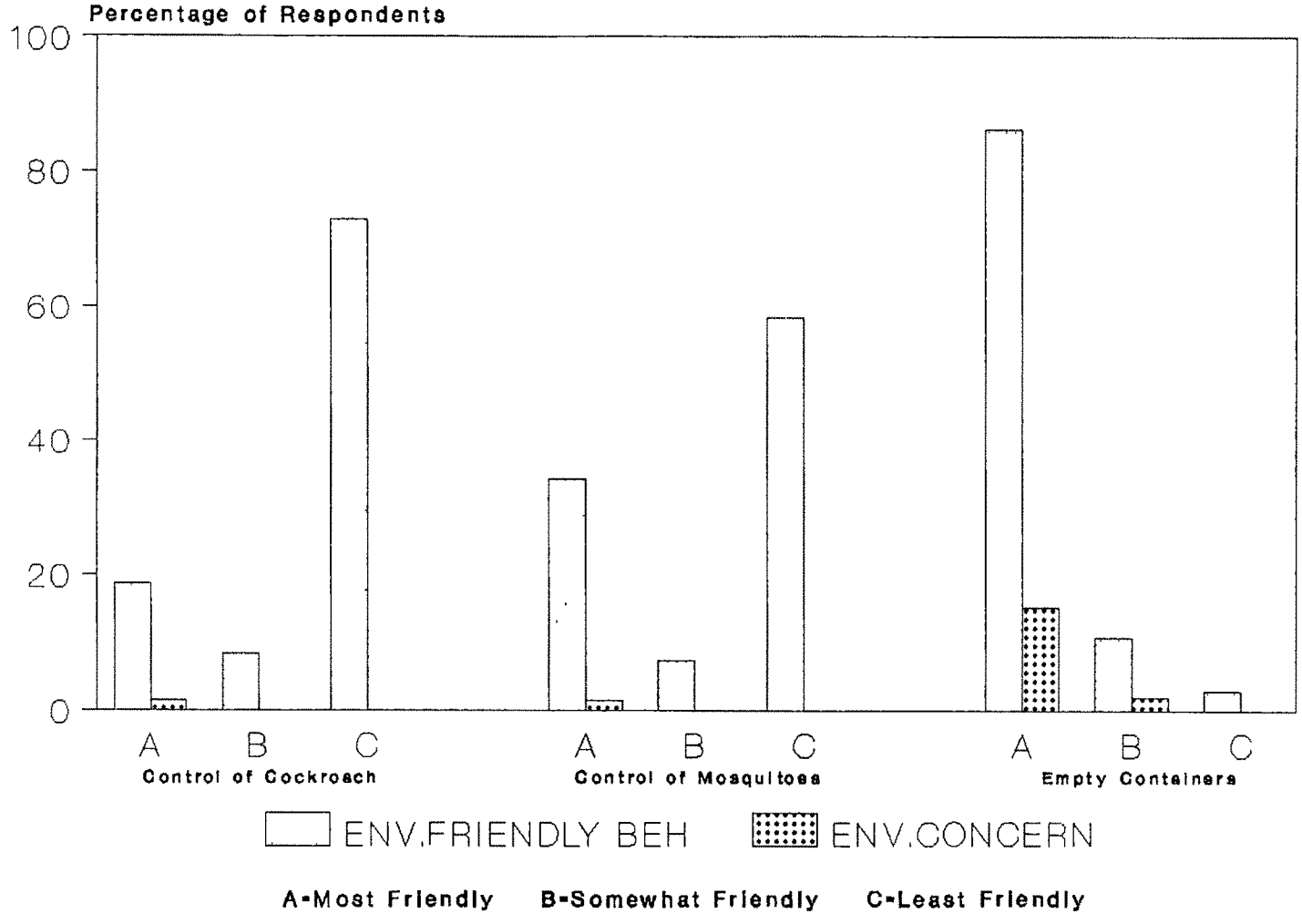
extent. From the total sample 17.15 per cent respondents reflected environmental concern in use of empty containers.

Table 77 : Use of Empty Containers made of Glass and Plastic.

No.	Use of empty containers, made of glass or plastic	Respondents n=204 f	%	Reasons for the choice	Respondents f	%
1.	Used again	176	86.3		(n=176)	
				* Economy as new ones need not be purchased	104	50.98
				* Collect containers of same size and type	10	4.90
				* They are very useful and handy	47	23.03
				* Convenience	8	3.92
				## Best use of waste	20	9.80
				## No problem of waste disposal in the environment.	11	5.39
2.	Sold	22	10.8		(n=22)	
				* To obtain money in exchange	15	7.35
				* Convenient	5	2.45
				## So that they can go for recycling	4	1.96
				* That money can be utilized to buy set of container from the market.	5	2.45
3.	Thrown in the garbage	6	2.9		(n=6)	
				* Donot like to collect waste in the house	6	2.94

(The reasons with ## sign show environmental concern)

Fig : 12. Distribution of Respondents Showing Environment Friendly Behaviour and Environmental Concern in Use of Insecticide and Empty Containers



7.6. Extent of Environment Friendly Behaviour Exhibited in Consumption of Goods by the Homemakers

The respondents were distributed in the three categories according to the scores obtained on consumption behaviour scale. Higher the score, more environment friendly was the consumption behaviour.

The possible score for the consumption behaviour ranged from 20 to 60 and the scores obtained by the respondents ranged from 33 to 57 with a mean of 46.80 (Table-78). It was observed that 70.6 per cent of the respondents got moderate scores, thereby, reflecting the environment friendly behaviour to the medium extent. More percentage of respondents reflected environment friendly consumption behaviour to a higher extent.

Table 78 : Extent of Environment Friendly Consumption Behaviour of Respondents

No.	Extent of Environment Friendly Behaviour	Range of Scores Min. 20 Max. 60	Respondents n=204 f	%
1	Lower Extent	20-41	25	12.3
2	Medium Extent	42-50	144	70.6
3	Higher Extent	51-60	35	17.2
	Mean 46.80			
	SD 4.14			

7.7 Variation in the Mean Score of Environment Friendly Consumption Behaviour According to Selected Personal and Situational Variables of Homemakers

Analysis of variance was computed to find out the variation in the mean score of environment friendly consumption behaviour according to selected variables. If `F' ratio was found significant then t-test was applied.

Education : The mean score for environment friendly consumption behaviour increased with the increase in educational level (Table-79, Fig. 13). For education `F'=17.42 (Sig.0.01). The test values indicated that there was a difference in the environment friendly consumption behaviour between homemakers who studied below graduation and those who were post graduates t=5.34 (Sig. 0.01). It was also different in those who were graduates and those who had education below graduation t=3.98 (Sig. 0.01).

Employment Status : The environment friendly consumption behaviour of employed homemakers was different than that of non-employed ones. t=3.8 (Sig. 0.01). The mean score of non-employed homemakers was higher than that of the employed ones (Table-79, Fig. 13).

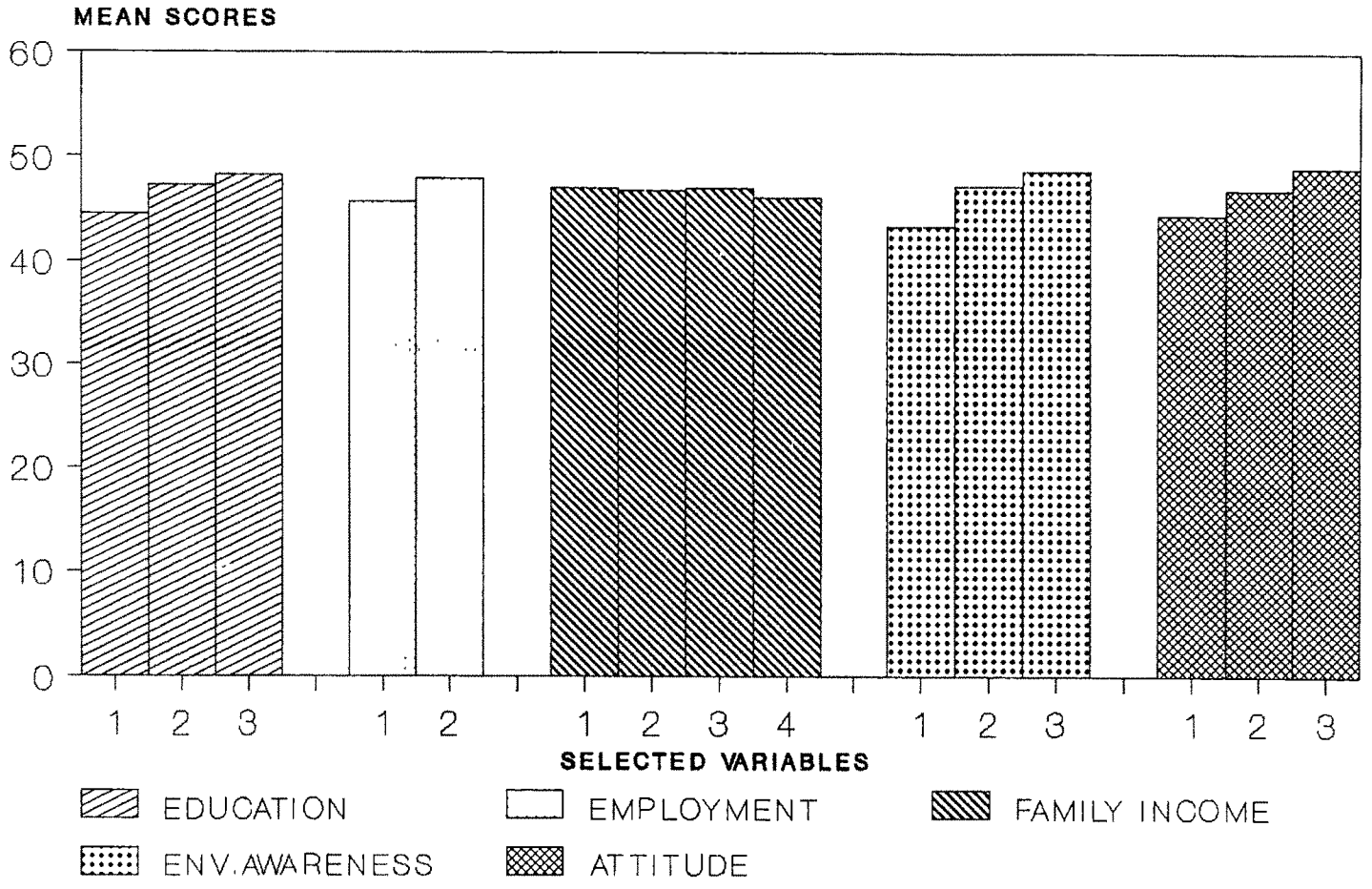
Family Income : Not much of variation was observed in the mean consumption score of homemakers from various income groups (Table- 79, Fig. 13). `F' = 0.32 (Not Sig.).

Table 79 : Mean Score of Environment Friendly Consumption Behaviour by Selected Variables

Categories of Selected Variables	Respondents (n=204)	Mean Score of Environment Friendly Consumption Behaviour
1. Education		
Below Graduation	63	44.5
Graduate	72	47.3
Post Graduate	69	48.3
2. Employment		
Employed	102	45.7
Non Employed	102	47.9
3. Family Income		
Below Rs.5000	42	47.0
Between 5001 and 9000	72	46.8
Between 9001 and 13,000	57	47.1
More than 13,000	33	46.2
4. Environmental Awareness		
Low level	36	43.38
Medium level	137	47.25
High level	31	48.77
5. Attitude Towards Environmental Responsibilities		
Less favourable	34	44.5
Moderately favourable	145	46.96
Highly favourable	25	49.00

Environmental Awareness : : The mean environment friendly consumption score increased with increasing level of environmental awareness (Table-79, Fig. 13). F=19.58 (Sig. 0.01) (Table - 80). The t-values indicated that those homemakers who had low level of awareness had different environment friendly consumption behaviour than those who

Fig :13. MEAN SCORE OF ENVIRONMENT FRIENDLY CONSUMPTION BEHAVIOUR BY SELECTED VARIABLES



Education :
1. Below graduation
2. Graduate
3. Post Graduate

Employment :
1. Employed
2. Non employed

Family Income :
1. Below Rs.5000
2. Between 5001 & 9000
3. Between 9001 & 13,000
4. More than 13,000

Env. Awareness
1. Low level
2. Medium level
3. High level

Attitudes
1. Less favourable
2. Moderately favourable
3. Highly favourable

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had medium level of awareness t=5.26 (Sig. 0.01). It was also different between the respondents having low or high levels of environmental awareness as t=4.92 (Sig. 0.01) (Table-81).

Table 80 : Analysis of Variance for Environment Friendly Consumption Behaviour

Sources of Variation	df	Sum of Squares	Mean Square	F Ratio	Level of Signi-ficance
1. Education					
Between Groups	2	514.7581	257.379	17.422	0.01
Within Groups	201	2969.3988	14.7731		
2. Family Income					
Between Groups	3	16.5732	5.5244	0.3186	N.S.
Within Groups	200	3467.5837	17.3379		
3. Environmental Awareness					
Between Groups	2	568.1236	284.0618	19.5802	0.01
Within Groups	201	2916.0333	14.5076		
4. Attitude Towards Environmental Responsi--bilities					
Between Groups	2	304.8295	152.4146	9.6358	
Within Groups	201	3174.3276	15.8176		

N.S. = Not Significant

Attitude Towards Environmental Responsibilities : The mean score of environment friendly consumption behaviour increased with the increasing favourablenes of attitude towards environmental responsibilities (Table-79, Fig.13).

Table 81 : t-values Showing Difference Between Environment Friendly Consumption Behaviour due to Selected Variables

Variables	Mean Score of Consumption Behaviour	t Value	df	Level of Signi-ficance
A. Employment				
Non-employed	47.87	3.80	202	0.01
Employed	45.73			
B. Education				
Below Graduation	44.507	5.34	130	0.01
Post Graduation	48.33			
Below Graduation	44.507	3.98	133	0.01
Graduation	47.34			
Graduate	47.34	1.80	139	N.S.
Post Graduation	48.33			
C. Environmental Awareness				
Low level	43.3889	5.26	171	0.01
Medium level	47.2552			
Medium level	47.2552	2.26	160	N.S.
High level	48.7752			
Low level	43.3889	4.92	65	0.01
High level	48.7742			
D. Attitude Towards Environmental Responsi--bilities				
Less Favourable	44.5	3.14	177	0.01
Moderately Favourable	46.96			
Moderately Favourable	46.96	2.48	168	N.S.
Highly Favourable	49.00			
Less Favourable	44.5	4.20	57	0.01
Highly Favourable	49.00			
Highly Favourable	49.00			

The F=9.64 (Sig. 0.01). those who had less favourable attitude had less mean score for environment friendly consumption score than those who had moderately favourable attitude t=3.14 (Sig. 0.01). There was a difference in consumption behaviour of those respondents who had less favourable attitude than those who had highly favourable attitude. t=4.20 (Sig. 0.01). The mean environment friendly consumption behaviur score was more among those who had highly favourable attitude.

Thus, it could be seen that employment, education, environmental awareness and attitude towards environmental responsibilities caused variation in the environment friendly consumption behaviour scores.

7.8 **Conclusion**

Environment friendly consumption behaviour was exhibited to a medium extent by 70.6 per cent of homemakers.

Environment friendly behaviour to some extent was exhibited by majority of the respondents in use of plates and cups made of various base materials but in the use of napkins, majority exhibited the least environment friendly behaviour. Environmental concern in the reasons was reflected by respondents ranging from nearly 14 to 28 per cent in the use of plates, cups and napkins made of various materials.

Environment friendly behaviour was exhibited to some extent by three-fourth of respondents in using paper for

rough writing work, whereas for using greeting cards 61 per cent showed the mostfriendly behaviour. A little less than half of respondents showed the mostfriendly behaviour in using paper for writing letters and same percentage exhibited environment friendly behaviour to some extent. Environmental concern in use of paper was reflected by 73 per cent in relation to use of paper for writing letters. Regarding use of greeting cards and paper for rough work 38 and 57 per cent showed environmental concern respectively.

Most of the respondents exhibited the most environment friendly behaviour while using fuel and electricity. Environmental concern was reflected by respondents ranging from 53 to 77 per cent in the practice such as heating refrigerated food before reusing, switching off lights and fans, use of pressure cooker and so on. Respondents ranging from 18 to 33 per cent reflected environmental concern in the practices of cleaning burners, use of flat bottom pans, placing lids over vessels while cooking, warming food before meals and soaking food grains. Regarding use of small/large burners only 2 per cent reflected environmental concern.

Most of the respondents followed the least environment friendly methods to control cockroaches and mosquitoes and only 1.47 per cent respondents reflected environmental concern in their reasons.

As many as 86 per cent respondents reused the empty containers of glass/plastic, exhibiting the most environment friendly behaviour. About one-tenth of respondents sold such containers. About 15 per cent of respondents reflected environmental concern in their reasons and 85 per cent did not reflect.

The mean score of environment friendly consumption behaviour varied due to education, employment, environmental awareness and attitude towards environmental responsibilities as consumers. On the whole regarding use of fuel and electricity many homemakers reflected environmental concern but in other cases, most of the homemakers did not reflect the concern.

8. Environment Friendly Waste Disposal Behaviour and Environmental Concern of Homemakers

Presently the quantity of waste is increasing and hence is posing a great environmental problem. Whether homemakers are concerned about this or not and to what extent they exhibit their environmental concern in their waste disposal behaviour was studied in the present investigation.

The waste disposal was considered in relation to the following materials.

8.1 Paper

8.2 Milk bags and shopping bags

8.3 Bottles and tin containers

8.4 Disposable cups and plates

8.5 General waste material.

8.1 Environment Friendly Behaviour and Environmental Concern Reflected in Waste Disposal Practices Regarding Paper

Waste disposal practices regarding paper were concerned with disposal of bits of paper and gift-wrapping paper.

8.1.1 Disposal of Bits of Waste Paper

Bits of paper litter around, which increase the quantity of waste. Bits of waste paper from the houses were collected and thrown into dustbin by 81.4 per cent of respondents. This practice was considered somewhat environment friendly (Table-78). Those who collected and burnt the bits were considered as having most friendly

behaviour for environment as this method tends to reduce the waste. There were 15.2 per cent respondents who exhibited this behaviour. Very few (3.4 per cent) just threw the bits out of the window of the house. This was the least friendly behaviour.

Table 82 : Disposal of Bits of Waste Paper.

No.	Disposal of bits of waste paper	Respondents n=204 f	%	Reasons for the choice	Respondents f	%
1.	Collected and burnt	31	15.2		(N=31)	
				* For cleanliness	27	13.23
				* To destroy completely	12	5.88
				## So that they do not litter around	1	0.49
2.	Collected and thrown in the dust bin	166	81.4		(n=166)	
				* Convenient	86	42.15
				## To keep the house and surrounding clean	166	81.37
3.	Thrown out of the window of the house	7	3.4			
				* Habit	6	2.94
				* Ample of open space around the house	7	3.43

(The reasons with ## sign show environmental concern)

Thirteen per cent of those respondents who burnt the bits of paper, did so for cleanliness and 5.88 per cent did so to destroy it completely. Only one respondent reflected

environmental concern by saying that she burnt the bits of papers so that they do not litter around. All the respondents who collected the bits of paper and threw in the dustbin, did so, to keep the house and surroundings clean thus, they reflected environmental concern. Forty two per cent of the respondents found this method convenient. All the respondents who had practice of throwing bits of waste paper out of the window did so because there was ample of open space around their house. All the respondents who exhibited environment friendly behaviour to some extent, showed the environmental concern in their reasons. From the total sample, 81.86 per cent respondents reflected environmental concern in disposal of bits of waste paper.

8.1.2 Disposal or Use of Gift-wrapping Paper Received on the Gift

People might carefully remove the gift wrapping paper in which they receive the gift or tear and throw it away. Those who remove it carefully and collect for reuse, exhibit most environmental friendly behaviour because by doing so they reuse the paper. Those who remove the paper carefully only if it is of good quality and design, otherwise, throw-away, reflect the environment friendly behaviour to some extent but those who throw away the paper show environment friendly behaviour to the least extent.

About 39 per cent respondents removed gift-wrapping paper carefully for reuse. About 42 per cent respondents

removed carefully only if the paper was of good quality whereas 17.65 per cent had a practice of tearing and throwing away the gift wrapping paper (Table-79). Thirty seven per cent respondents collected the gift-wrapping paper so that there is no need to buy a new one. Six per cent of them considered this as the best use of waste. There were one per cent respondents who said that they collected it so that paper is not wasted. Thus, they reflected environmental concern. Among those who collected the gift paper only if it was of good quality and design, nearly 37 per cent of them did so that it can be reused and 7 per cent of them did so as not to waste paper. thus, they reflected environmental concern.

Nearly 12 per cent respondents said that usually the gift-wrapping paper was torn while opening the gift, hence was generally thrown. there were nearly 4 per cent respondents who always used new gift wrapping paper while presenting gift to others. Therefore, they used to throw away that paper which they received with their gifts. About 7 per cent of those who followed the most environment friendly behaviour and 44 per cent of those who followed such behaviour to some extent reflected the environmental concern in their reasons. About 51 per cent from the total sample reflected and 49 per cent did not reflect environmental concern in using the received gift-wrapping paper.

Table 83 : Use or Disposal of Gift Wrapping Paper Received With the Gift.

No.	Use or disposal of gift wrapping paper	Respondents n=204 f	%	Reasons for the choice	Respondents f	%
1.	Removed carefully and collected for reuse	81	39.7		(n=81)	
				* So that there is to need to buy a new one	76	37.25
				* Like to collect	8	3.92
				## Best use of waste	13	6.27
				## Not to waste paper	2	0.98
2.	Removed carefully only if it is of good quality or design.	87	42.65		(n=87)	
				## So that it can be reused	72	35.29
				* Not to waste paper	15	7.35
3.	Torn and thrown	36	17.65		(n=36)	
				* Usually gift-wrapping paper is torn while opening, hence thrown	24	11.76
				* Do not like to collect	14	6.86
				* Always use new gift wrapping paper	8	3.92

(The reasons with ## sign show environmental concern)

8.2 Environment Friendly Behaviour and Environmental Concern Reflected in the Disposal of Waste Milk-Bags and Shopping/ Packaging Bags

The practices regarding disposal of waste milk bags and shopping bags and/or packaging made of plastic were studied in this section.

8.2.1 Disposal of Empty Milk Bags

Nearly 68 per cent respondents used to sell the empty milk-bags. Either they themselves or their servants sold the bags. This practice was considered to be the most environment friendly because,by selling, the bags ultimately go for recycling. About 53 per cent of these respondents sold the milk bags to obtain money in exchange. Only 2.45 per cent respondents did so to send it for recycling (Table-80).

There were a little more than one fourth of total respondents who threw away the empty milk bags in the dust bins. About one-fifth of them found this method the most convenient. There were nearly 3 per cent respondents, who threw away bags in the dust bin, so that rag-pickers could pick them up.

The empty milk bags were re-used in the home by 6.4 per cent respondents reflecting the environment friendly behaviour to some extent. About 2.45 per cent respondents used these bags for economy, so that new plastic bags need not be purchased. Nearly 2 per cent of those who followed most environment friendly practice, reflected environmental concern in their reasons. There were nearly 3 per cent who reflected environmental concern, though they exhibited the least environment friendly behaviour. Only 5.39 per cent respondents from the total sample reflected environmental concern in disposal of empty milk bags and the remaining 94.71 per cent did not show any concern for lenvironment.

Table 84 : Disposal of Empty Milk Bags.

No.	Disposal of empty milk bags	Respondents n=204 f	%	Reasons for the choice	Respondents f	%
1.	Sold by self or by servant	138	67.6		(n=138)	
				* To obtain money whatever possible	108	52.94
				* Servant sells to get money	31	15.19
				## So that it is sent for recycling	5	2.45
2.	Reused in the home.	13	6.4		(n=13)	
				* To store certain things	9	4.41
				* Economy, so that new plastic bags need not be purchased	5	2.45
3.	Thrown in the dustbin	53	26.0		(n=53)	
				* Most convenient way of disposal	40	19.60
				* Habit	9	4.41
				## Rag pickers can pick-up and send for recycling	6	2.94

(The reasons with ## sign show environmental concern)

8.2.2 **Empty Shopping Bags and/or Packaging Bag**

The shopping bags and/or packaging bag made of plastic which are received from the shops, are sometimes collected for reuse or for selling after emptying the contents. Many-a-times they are thrown away. If they were collected to use or sell or to give to rag pickers then, it was considered to be the least harmful practice for the environment. There

were 68.6 per cent of total respondents, who followed this practice. About 37 per cent of these respondents said that they collected the empty shopping/packaging bags for reuse. About 17 per cent of them collected the shopping/packaging bags to sell later to get the maximum possible money. Around 9 per cent of respondents gave such bags to rag-pickers.

Nearly 29 per cent of total respondents threw away the empty packaging/shopping bags carefully in the garbage bin. It was assumed that from the garbage bin of the house, the garbage ultimately goes to the Municipal garbage collection centre. There the various materials are separated out for the purpose of recycling. Even if rag pickers pick plastic material from the garbage and sell, then also it goes for recycling. Hence, this practice was considered as friendly to the environment to some extent.

Among those respondents who followed this practice, about 5 per cent said that they threw way plastic shopping/packaging bags carefully in the garbage bins so that the rag-pickers could pick them up. About 15 per cent of respondents said that in order to keep the house and surroundings clean, they followed this practice (Table-81). Only 2.5 per cent of respondents followed the practice of tearing the shopping/packaging bags of plastic into small bits and throwing away anywhere. This was considered as the least environment friendly practice because plastic is non-bio-degradable, has a long life and pollutes the soil.

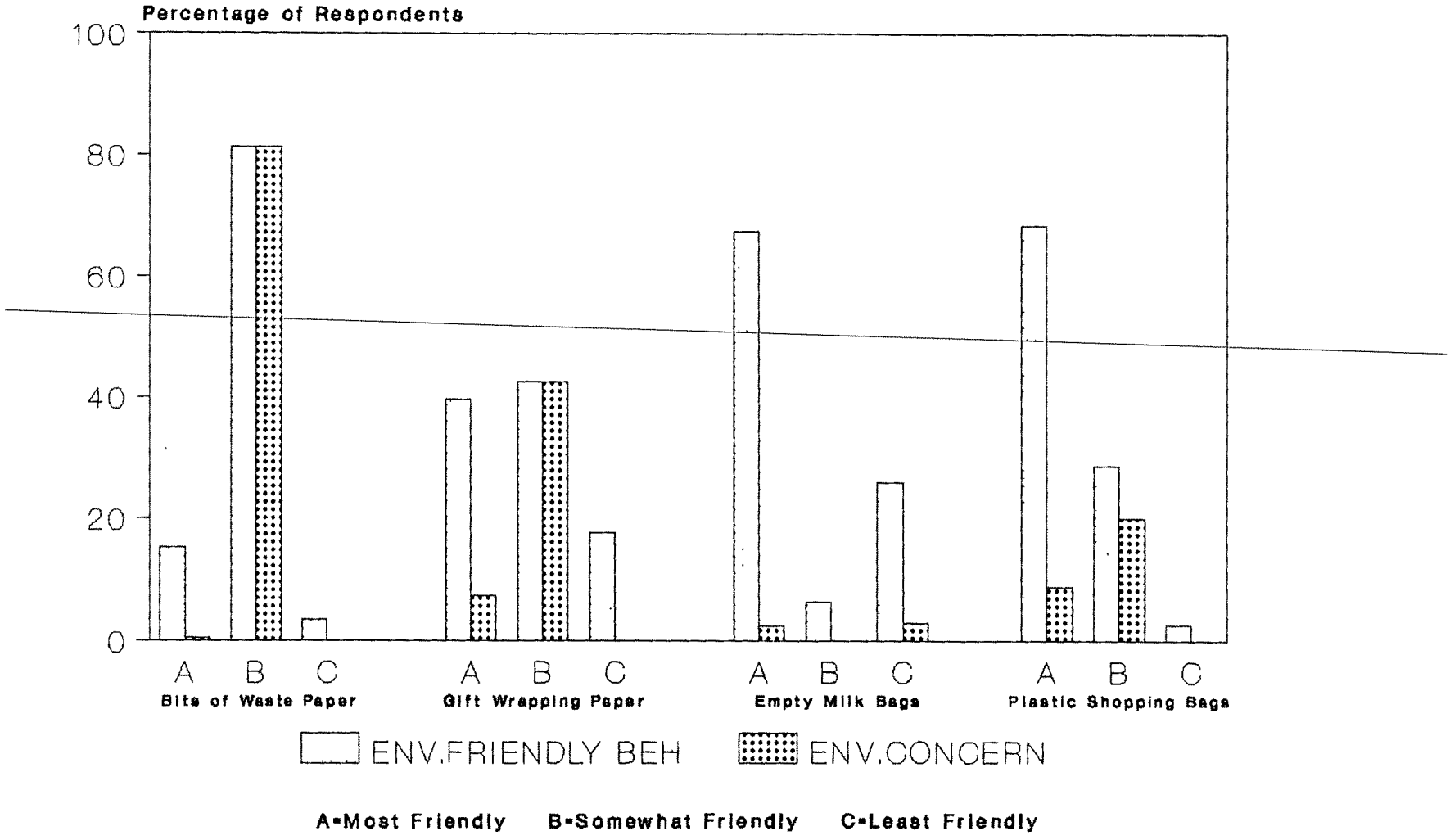
Table 85 : Disposal of Shopping Bag and/or Packaging Made of Plastic

No.	Disposal of shopping bag and/or packaging	Respondents n=204 f	%	Reasons for the choice	Respondents f	%
1.	Collected to use or sell or to give to rag pickers	140	68.6		(n=140)	
				* Collected for reuse	75	36.76
				* Collected to sell them to get money	36	17.64
				* Reuse them as it is economic	18	8.82
				* To use for economy as new ones need not be purchased	17	8.33
2.	Thrown away carefully in garbage bin.	59	28.9		(n=59)	
				* They are of no use	15	9.35
				* Habit	3	1.47
				* To keep the house and surroundings clean	31	15.19
				* So that rag pickers can pickup	10	4.90
3.	Torn into small bits and thrown anywhere	5	2.5		(n=5)	
				* Habit	5	2.45

(The reasons with ## sign show environmental concern)

Thus, it could be inferred that with regard to the practice of disposal of empty shopping/packaging bags of plastic among those respondents who exhibited most environment friendly practice, only about 9 per cent reflected environmental concern. Among those who exhibited

Fig : 14 Distribution of Respondents Showing Environment Friendly Behaviour and Environmental Concern in Disposal of Waste Paper and Plastic Milk/Shopping Bag



environment friendly behaviour to some extent, 20.09 per cent reflected environmental concern in their reasons. It was reflected by 28.9 per cent but not by 71.1 per cent from the total sample (Table-87, Fig.14)

8.3 Environment Friendly Behaviour and Environmental Concern Reflected in the Disposal of Empty Bottles and Tin Containers

The findings regarding environment friendly behaviour of homemakers in relation to the disposal of empty small bottles and empty tins of pesticide are presented here.

8.3.1 Disposal of Empty Bottles Made of Glass or Plastic

Nearly 59 per cent of total respondents reused the small bottles in the home in the best possible way. this reflected the most environment friendly behaviour. Reusing anything was considered as a great environment friendly behaviour. Twenty one per cent of these respondents found this practice as economic because new bottles need not be purchased. About 12 per cent of these respondents considered reusing small bottles as the best use of waste. There were 2.45 per cent respondents who clearly mentioned that by reusing, there was no problem of waste disposal. These reasons reflected their environmental concern.

About 30 per cent of total respondents sold the small bottles of glass/plastic reflecting the environment friendly behaviour to some extent. It was presumed that on selling, these items might go for recycling. Therefore, this was considered as environment friendly behaviour to some extent.

Table 86 : Disposal of Small Empty Bottles of Glass and Plastic

No.	Disposal/use of empty small bottles of plastic/ glass	Respondents n=204 f	%	Reasons for the choice	Respondents f	%
1.	Reused	120	58.8		(n=120)	
				* Useful in many ways	21	10.29
				* To store small quantity of items	20	9.80
				* Economical as new bottles need not be purchased	50	24.50
				* Habit	10	4.90
				## Best use of waste	24	11.76
				## No problem of waste disposal as they are used in home	5	2.45
2.	Sold	62	30.4		(n=62)	
				* To get money in return	34	16.66
				* To keep the house clean	11	5.39
				* They are too small to store anything	5	2.45
				## Do not like to collect	12	5.88
				## So that it is sent for recycling	16	7.84
3.	Thrown away	22	10.8		(n=22)	
				* They do not yield good money on selling	5	2.45
				* Do not like to store	15	7.35
				* Items are stored in a set of containers bought from market, so no need to store waste.	3	1.47

(The reasons with ## sign show environmental concern)

Nearly 17 per cent of these respondents sold the bottles to get maximum possible money in return. About 6 per cent of these respondents sold them so that the bottles were sent for recycling (Table-82). This reflected their concern for the environment.

About one-tenth of total respondents just threw away the small bottles of glass/plastic. This was considered as the most harmful practice for the environment. Seven per cent of them did not like to store such items. About 2.45 per cent respondents felt that such small items did not yield substantial money on selling so the small bottles of plastic/glass were thrown away by them. Among those homemakers who exhibited most environment friendly behaviour, 14.2 per cent reflected environmental concern. Whereas 7.8 per cent of those who exhibited somewhat friendly behaviour also reflected their concern for the environment. It was reflected by only 22.05 per cent respondents from the total sample.

8.3.2 **Disposal of Empty Tins of Pesticides/Insecticide**

The pesticide/insecticides are helpful in controlling pests/insects menace but they have harmful effect, sometimes on human beings also. Some insecticide/pesticide remain in the tins even after consuming the contents fully. Disposal of such containers must be done carefully. Those homemakers who sell such containers assume that they would be sent in the right channel for recycling. Hence selling was

considered to be the least harmful practice for the environment. There were only 14.7 per cent of total respondents who sold the empty tins of pesticide/ insecticide (Tale-83). Nearly 13 per cent of them did so to get maximum possible money. About 5 per cent of them sold because if such tins are disposed in the garbage then they might harm someone.

Table 87 : Disposal of Empty Tins of Pesticides/Insecticide.

No.	Disposal of empty tins of pesticides or insecticide	Respondents n=204 f	%	Reasons for the choice	Respondents f	%
1.	Sold	30	14.7		(n=30)	
				* To get what ever money is possible	26	12.74
				* If disposed in the garbage then it may harm someone	10	4.90
2.	Disposed carefully so as not to harm anyone	136	66.7		(n=136)	
				* For safety against risk of poisioning and harming anyone	136	66.66
3.	Disposed along with other waste of the house	38	18.6		(n=38)	
				* No time to bother and throw separately	19	9.31
				* They have no resale value	6	9.34
				* Habit	5	2.45
				* Convenient	11	5.39

(The reasons with ## sign show environmental concern)

About two-third of total respondents disposed the empty tins of pesticide/insecticide carefully so as to not harm

anyone. This was considered as reflecting environment friendly behaviour to some extent as it was not made clear as to how and where did they used to dispose off such tins.

There were 18.6 per cent respondents who disposed such tins along with other waste material of the house, reflecting the least friendly behaviour for the environment. About 9 per cent of them did not have any time to bother about it and take special efforts to throw separately (Table-83). About 5 per cent of them found this practice convenient.

Thus, in the case of disposal of empty tins of pesticide/insecticide, 5 per cent of the respondents who showed most environment friendly behaviour were found to be reflecting environmental concern. Only these respondents from the total sample reflected environmental concern.

8.4 Environment Friendly Behaviour and Environmental Concern Reflected in Disposal of Throw-away Cups and Plates

The homemakers were asked to tell about the practices regarding disposal of throw-away cups and plates when they used them. Those who used to sell them were considered to be having most environment friendly behaviour because by selling, the waste goes into the recycling channel. There were very few (4.9 per cent) respondents who followed this practice. Only one of them understood and said correctly that by selling, such items can be sent for recycling (Table-84).

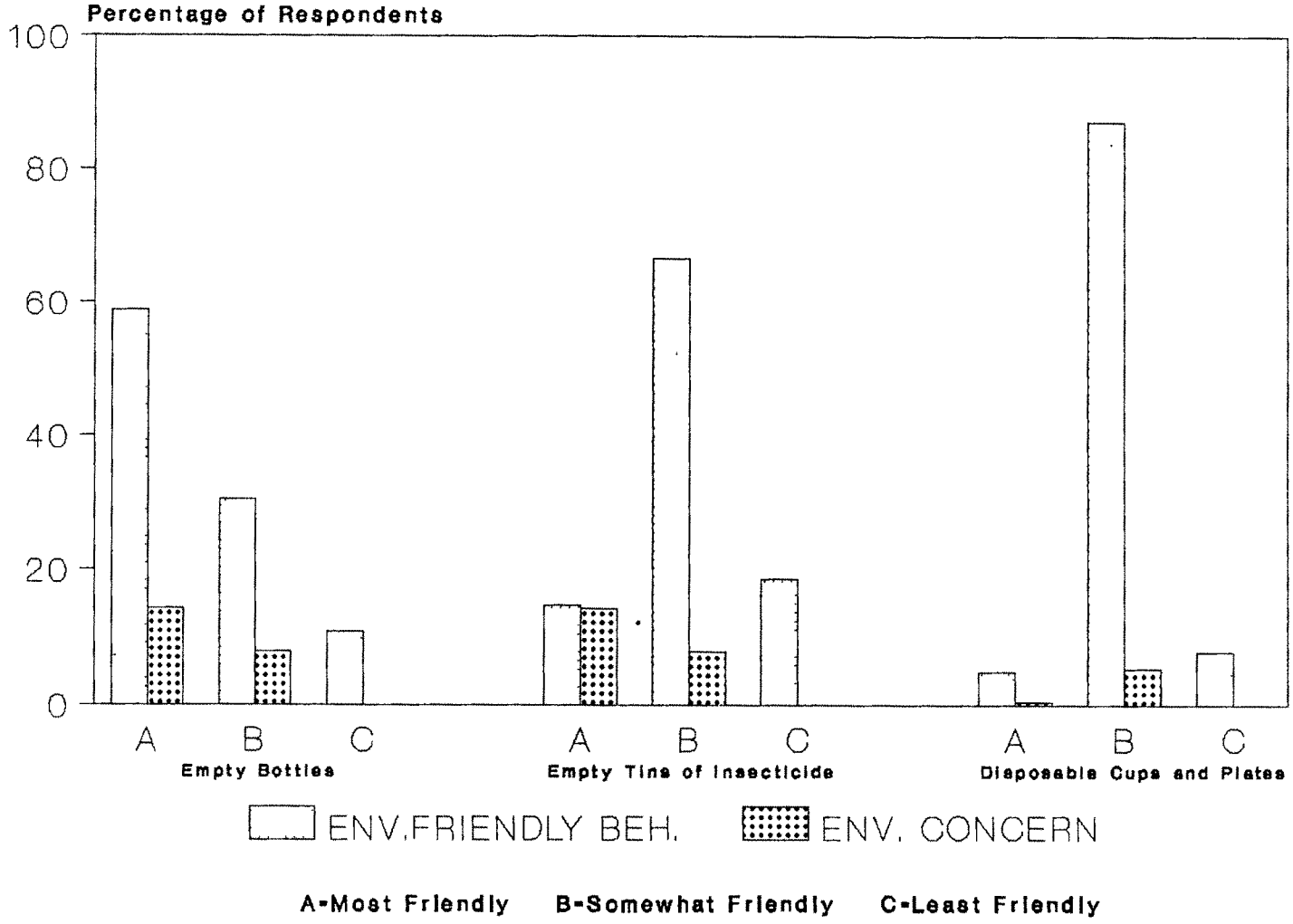
Table 88 : Disposal of Throw-Away Cups and Plates.

No.	Disposal of throw-away cups and plates	Respondents n=204 f	%	Reasons for the choice	Respondents f	%
1.	Sell	10	4.9		(n=10)	
				* To get money in return	10	4.90
				## So that they can be sent for recycling	1	0.49
2.	Collected and thrown separately in the garbage can provided by the corporation	178	87.3		(n=178)	
				* For cleanliness	163	79.90
				* They should not be misused	7	3.43
				## So that they can be sent for recycling	11	5.39
3.	Thrown in open space near the house	16	7.8			
				* There is much open space around the house	7	3.43
				* Convenient	4	1.96
				* Everyone throws there	7	3.43

(The reasons with ## sign show environmental concern)

The practice of collecting the used disposable cups/plates in one bag/basket and throwing them separately in the garbage can provided by the Corporation was considered as somewhat environment friendly practice. Eighty seven per cent of total respondents followed this practice. Among these, nearly 80 per cent respondents, did so for cleanliness, and 5.39 per cent did this so that such material could be sent for recycling from corporation.

Fig : 15 Distribution of Respondents Showing Environment Friendly Behaviour and Environmental Concern in Disposal of Bottles/ Tins and Disposable Cups/Plates



There were 7.8 per cent respondents who used to throw such material near their house, reflecting the least environment friendly behaviour. About 3.43 per cent respondents did so because there was much open space around their house and every one in their neighbourhood used to throw the garbage there only. Nearly two per cent of the respondents found this practice convenient. Thus, it could be observed that in relation to disposal of "throw-away" cups and plates, majority of the respondents exhibited environment friendly behaviour to some extent. Only 0.49 per cent of those who reflected most environment friendly behaviour, 5.3 per cent of those who reflected environment friendly behaviour to some extent and 8.33 per cent from the total sample reflected environmental concern in the disposal of throw away cups and plates (Table-87). Nearly 92 per cent respondents did not reflect any concern for environment (Fig.15)

8.5 Environment Friendly Behaviour and Environmental Concern Reflected in Disposal of General Waste Material

The practices regarding disposal of general household material made of plastic, glass, tin, paper, etc. were studied. Along with this, it was also found out that after consuming eatables from plastic and/or paper packet on roadside/parks where the empty packets were disposed off.

8.5.1 Disposal of General Waste Material of Plastic, Glass, Paper, Tin and Other Such Material

Waste in the households, constitutes of various materials such as plastic, paper,glass, tin and similar ones.

Table 89 : Disposal of Various Waste Material Together or Separately

No.	Disposing various waste material together or separately	Respondents n=204 f	%	Reasons for the choice	Respondents f	%
1.	Collected separately and sold	123	60.3		(n=123)	
				* To obtain money	91	44.60
				* To keep house clean	21	10.29
				* Selling price of each type of waste is different	18	8.82
				## So that it can be recycled	9	4.41
				## It helps to solve solid waste disposal problem	5	2.45
2.	Collected separately and thrown separately.	22	10.8		(n=22)	
				* It is necessary in some cases eg. glass	13	6.37
				* Habit	6	2.94
				* Convenient for the sweeper	4	1.96
				## They can be sent for recycling	1	0.49
3.	Thrown all togethere in the dust bin	59	28.9		(n=59)	
				* No time to separate out	25	12.25
				* Habit	11	1.96
				* Sweeper cleans every day	7	3.43
				* Convenience	16	7.84

(The reasons with ## sign show environmental concern)

If they were separated out at the time of disposal and sold later on, it was considered the most environment friendly because this facilitated recycling of various materials. If such materials were collected as well as thrown separately, then the respondents were considered to be exhibiting environment friendly behaviour to some extent. It was assumed that such a practice might help in recycling of the materials sometimes. But those homemakers who threw all the materials together in the dust-bin exhibited comparatively the least environment friendly behaviour. Such a practice made it difficult to separate out various material. One can not be sure that, the rag-pickers would pick the materials. If not, then, such material increased the waste and pollutes soil.

In the present investigation, 60.3 per cent of the respondents collected and sold the materials separately. Nearly 44 per cent of them did so to obtain maximum possible money and 8.8 per cent of them did so because selling price of each material was different. There were 2.45 per cent respondents who said that selling separately helps to solve solid waste disposal problem and 4.41 per cent respondents said that by doing so the material could be sent for recycling, thus they reflected the environmental concern. About one-tenth of respondents collected and threw the material separately. About 6 per cent among them said that it is necessary in some cases such as glass, to separate out. One respondents said that this way the materials can be sent for recycling (Table-85).

Nearly 29 per cent respondents followed the practice of throwing all the materials together in the dust bin because 12.25 per cent of them had no time to separate out various materials. About 7.8 per cent of them found this method convenient.

About 6.84 per cent of those respondents who exhibited most environment friendly behaviour and 0.49 per cent (one respondent) from those who exhibited somewhat friendly behaviour, reflected the environmental concern in the reasons for disposal of various household waste material together or separately (Table-87). From the total sample 93 per cent did not reflected environmental concern.

8.5.2 Disposal of Waste Paper/Packets After Consuming Eatables on Roadside or Parks

Those homemakers who definitely used to throw the waste paper/packets in the garbage bin after consuming eatables on roadside/in parks, were considered to be exhibiting most environment friendly behaviour. Those who used to leave behind such waste paper/packet on the road/in the park, were considered to be reflecting the least environment friendly behaviour. Those who said that they used to throw away waste paper/packet in garbage bin only if it was available nearby, otherwise left behind anywhere, were considered to be reflecting environment friendly behaviour to some extent.

Two-third of respondents followed the most environment friendly behaviour. Sixtyone per cent of them said that it

was done for cleanliness. There were nearly 10 per cent respondents who said that it is a sign of a good citizen. Nearly 2 per cent said that to reduce pollution they followed this practice (Table-86).

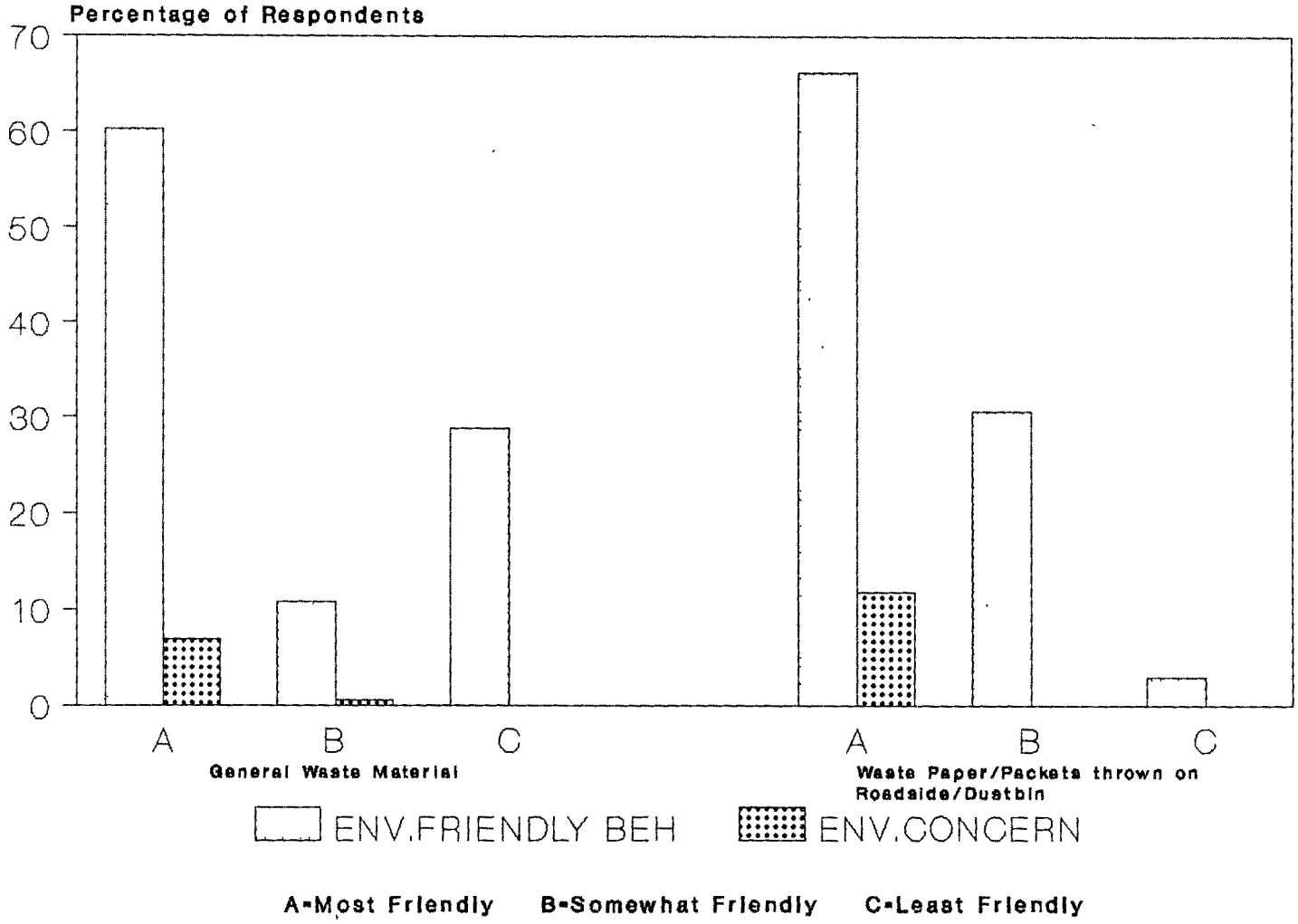
Table 9o : Disposal of Waste Paper/Packets After Consuming Eatables on Roadside or in Parks.

No.	Disposal of waste paper/packet on road or parks	Respondents n=204 f	%		Reasons for the choice	Respondents f	%
1.	Definitely thrown into garbage bin	135	66.2			(n=135)	
				*	Cleanliness	125	61.27
				##	It is a sign of good citizen	20	9.80
				##	To reduce pollution	4	1.96
2.	Thrown in garbage bin only if available near by	63	30.9			(n=63)	
				*	Bins are not easily available near by	63	30.88
3.	Left behind on the road/park	6	2.9			(n=6)	
				*	Do not go about finding a garbage bin.	6	2.94

(The reasons with ## sign show environmental concern)

About 30.9 per cent of respondents followed the practice of throwing waste paper/packet in the garbage bin only if it was available nearby. All of them said that as the garbage bins are not easily available, they followed this practice. Very few (2.9 per cent) respondents from the total sample used to leave behind the waste paper on the road/in the park. All of them said that they did not go

Fig : 16. Distribution of Respondents Showing Environment Friendly Behaviour and Environmental Concern in Disposal of General Waste Material and Packets on Road Side



about finding a garbage bin. Thus, they reflected the least friendly behaviour for the environment.

Nearly 11.76 per cent of those respondents who exhibited most environment friendly behaviour, and only these from the total sample reflected environmental concern in the reasons for the disposal of waste paper/packets of eatables consumed on roadside/parks.(Fig. 16)

8.6. Overall View of the Environmental Concern Reflected Through the Practices Regarding Disposal of Various Waste Materials

With regard to disposal of waste paper majority of the respondents exhibited environment friendly behaviour to some extent but in the case of gift wrapping paper many respondents reflected environment friendly behaviour to a great and as well as to a lesser extent (Table-87). Environmental concern was reflected by 81.86 and 50 per cent respondents respectively.

Environment friendly behaviour to a great extent was exhibited in disposal of empty milk bags and empty shopping/packaging bags made of plastic by most of the respondents, but environmental concern was reflected by only 5.39 per cent in case of empty milk bags. Many respondents exhibited most environment friendly behaviour in relation to disposal of empty bottles of glass/plastic.

Table 87 : Environment Friendly Practices Regarding Disposal of Certain Waste Material and Environmental Concern Reflected by Respondents

Items of waste disposal	Respondents (n=204) Most Friendly f	%	Somewhat Friendly f	%	Least Friendly f	%	Total f	%
A. Paper								
1. Bits of waste paper	31	15.2	166	81.4	7	3.4	204	100
Environmental Concern	1	0.49	166	81.37	0	0	167	81.86
2. Gift wrapping paper received	81	39.7	87	42.6	36	17.6	204	100
Environmental Concern	15	7.35	87	42.6	0	0	102	50.0
B. Empty milk bags and shopping bag								
1. Empty milk bags	138	67.6	13	6.4	53	26.0	204	100
Environmental Concern	5	2.45	0	0	6	2.9	11	5.39
2. Empty shopping or packing bags	140	68.6	59	28.9	5	2.5	204	100
Environmental Concern	8	8.82	41	20.09	0	0	59	28.91
C. Bottles and tin containers								
1. Empty small bottles of glass/plastic	120	58.8	62	30.4	22	10.8	204	100
Environmental Concern	29	14.21	16	7.84	0	0	45	22.06
2. Empty tins of pesticide/ insecticide	30	14.7	136	66.7	38	18.6	204	100
Environmental Concern	10	4.9	0	0	0	0	10	4.9
D. Disposable cups and plates	10	4.9	178	87.3	16	7.8	204	100
Environmental Concern	1	0.49	11	5.39	0	0	12	5.88
E. General waste material								
1. General waste material of plastic, glass, paper, tin etc.	123	60.3	22	10.8	59	28.9	204	100
Environmental Concern	4	6.86	1	9.49	0	0	15	7.35
2. Empty waste paper/packet after consuming eatables in parks or on roadside.	135	66.2	63	30.9	6	2.9	204	100
Environmental Concern	24	11.76	0	0	0	0	24	11.76

But in relation to disposal of empty tins of insecticides, most of the respondents showed environment friendly behaviour to some extent and environmental concern was shown by only about 5 per cent respondents.

A vast majority of the respondents showed environment friendly behaviour to some extent regarding disposal of throw-away cups/plates but environmental concern was reflected by only about 6 per cent respondents.

In relation to general waste material from the house constituted of plastic/glass, paper and so on, most of the respondents reflected most environment friendly behaviour. Similarly for the disposal of empty waste paper/packets after consuming eatables in parks or on roadside, most of the respondents exhibited most environment friendly behaviour. Nearly only 12 per cent of these respondents reflected environmental concern. Except in disposal of paper, 88 to 95 per cent respondents did not reflect environmental concern while disposing waste from the house.

8.7 Extent of Environment Friendly Behaviour Exhibited in Waste Disposal Practices of Respondents

The respondents were distributed in the three categories based on their scores obtained on the Waste Disposal Practice Scale. The categories showed the extent of environment friendly behaviour in waste disposal practices. Higher scores indicated more friendly behaviour for the environment. The possible score on the environment

friendly waste disposal practice scale was ranging from 9 to 27. The range of scores obtained by the respondents was 12 to 25 with a mean of 20.77 and S.D. of 2.33 (Table-88). It was observed that 71 per cent of the respondents exhibited environment friendly behaviour to a medium extent. More percentage of respondents had lower environment friendly behaviour than those who had it to a higher extent.

Table 92 : Extent of Environment Friendly Behaviour in Waste Disposal Practices of Respondents

No.	Extent of Environment Friendly Behaviour	Range of Scores	Respondents f (n=204)	%
1.	Lower Extent	9 - 27	37	18.1
2.	Medium Extent	18 - 22	145	71.1
3.	Higher Extent	23 - 27	22	10.8
	Mean	20.77		
	S.D.	2.33		

8.8 Variation in the Mean Environment Friendly Waste Disposal Practices

Analysis of variance was computed to find out the variation in the environment friendly waste disposal practices due to selected variables. Wherever `F' ratio were found significant t-tests were computed.

Education : The F=11.6779 (Sig.0.01). The mean score of environment friendly waste disposal practices were higher among graduate than below graduate homemakers (Table-91). But there was no difference in the mean score of graduate and post graduate homemakers.(Fig.17)

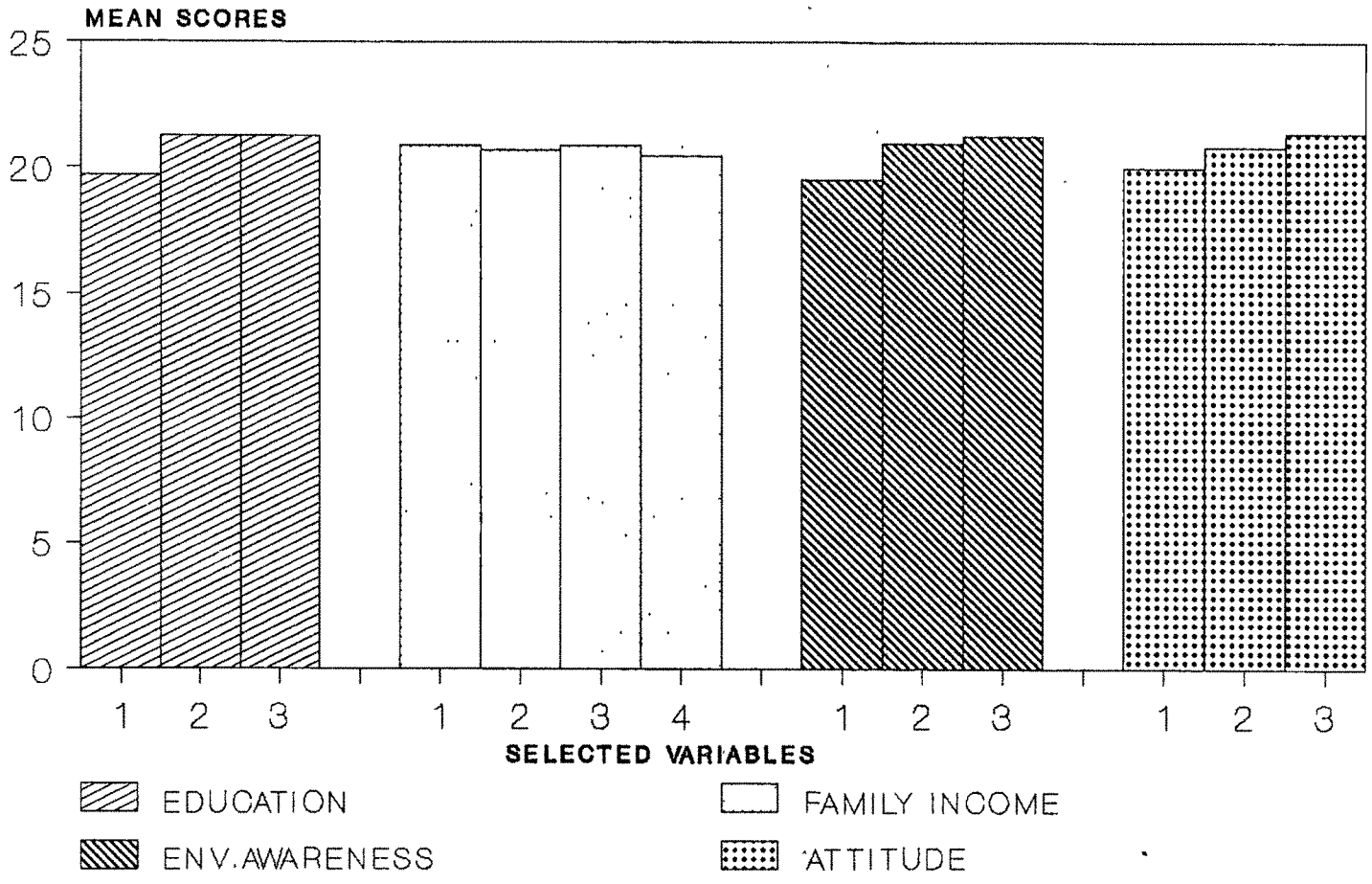
Table 93 : Mean Score of Environment Friendly Waste Disposal Practices by Selected Variables

Variables	Respondents (n=204)	Mean Score
1. Education		
Below Graduation	63	19.7
Graduates	72	21.27
Post Graduate	69	21.27
2. Family Income		
Below Rs.5000	42	20.9
Between Rs.5001 and Rs.9000	72	20.7
Between Rs.9001 and Rs.13,000	57	20.9
Above Rs.13,001	33	20.5
3. Environmental Awareness		
Low level	36	19.55
Medium level	137	20.98
High level	31	21.26
4. Attitude Towards Environmental Responsibilities		
Less favourable	34	20.0
Moderately favourable	145	20.84
Highly favourable	25	21.40

Family Income : The mean score of homemakers from various income groups was almost same (Table-91). The `F' ratio was not found significant.

Environmental Awareness : The mean score of waste disposal increased with increasing environmental awareness. F=6.4658 (Sig. 01). The t-test revealed there was a difference in waste disposal behaviour between those homemakers who had low and those who had medium level of environmental awareness. It was also different between those who had low and those who had high level of environmental awareness.

Fig : 17. MEAN SCORE OF ENVIRONMENT FRIENDLY WASTE DISPOSAL PRACTICES BY SELECTED VARIABLES



Education :
1. Below Graduation
2. Graduates
3. Post graduate

Family Income :
1. Below Rs. 5000
2. Between Rs. 5001 & 9000
3. Between 9001 & 13000
4. Above 13000

Environment Awareness
1. Low level
2. Medium level
3. High level

Attitude
1. Less favourable
2. Moderately favourable
3. Highly favourable

Table 94 : Analysis of Variance for Environmental Friendly Waste Disposal Practices

Sources of Variation	df	Sum of Squares	Mean Square	F Ratio	Level of Signifi-cance
1. Education					
Between Groups	2	115.0974	57.5487	11.6779	0.01
Within Groups	201	990.53	4.928		
2. Family Income					
Between Groups	3	3.2280	1.076	0.1952	N S
Within Groups	200	1102.3994	5.512		
3. Environmental Awareness					
Between Groups	2	66.8323	33.4161	6.4658	0.01
Within Groups	201	1038.7952	5.1681		
4. Attitude Towards Environmental Responsibilities					
Between Groups	2	30.9654	15.4827	2.8958	N.S.
Within Groups	201	1074.6621	5.3466		

N.S. = Not Significant

Attitude Towards Environmental Responsibilities : The mean score of waste disposal practices increased with the increasing favourableness of attitude. But `F' ratio was not found significant.

Thus, it could be concluded that education and environmental awareness influenced the environment friendly waste disposal practices.

Table 95 : t-values Showing Environment Friendly Waste Disposal Practices and Selected Variables

Variables	Mean Scores on Waste Disposal Practices	t-Value	df	Level of Significance
A. Education				
Below graduation	19.65	3.84	130	0.01
Post graduate	21.27			
Below graduate	19.65	4.16	133	0.01
Graduate	21.2778			
Graduate	21.2778	0.01	139	N.S.
Post graduate	21.2754			
B. Environmental Awareness				
Low level	19.55	3.33	177	0.01
Medium level	20.98			
Medium level	20.92	0.65	166	N.S.
High level	21.23			
Low level	19.55	2.69	65	0.01
High level	21.25			

9. TESTING OF HYPOTHESES

In order to test the hypotheses formulated for the present investigation, canonical correlation and coefficient of correlation analysis were computed.

Null Hypothesis - 1

There will be no relationship between the extent of environmental awareness of the homemakers and their age, education, employment status and extent of use of sources of information.

The canonical correlation analysis revealed that there were four pairs of canonical variables giving the correlations as 0.549, 0.203, 0.122 and 0.051 which explained 30.1%, 4.1%, 1.5% and 0.3% of the loading variance respectively. Thus, it explained 36% of the loading variance.

The Dimension Reduction Analysis suggested that all the four correlations were to be considered at 5% level of significance. According to Comrrey (1973), 36% of loading variance is considered to establish very good relationship between the dependent and independent variables, under consideration. Thus, the null hypothesis under consideration was rejected. It was concluded that there was a relationship between the extent of environmental awareness of homemakers and their age, education, employment status and extent of use of sources of information.

Null Hypothesis - 2

The homemakers' attitude towards environmental responsibilities as consumers will not be influenced by their education, family income, extent of use of source of information and environmental awareness.

The canonical correlation analysis revealed that there were four pairs of canonical variables giving the correlations as 0.593, 0.343, 0.210 and 0.189 which explained 35.2%, 11.7%, 4.4% and 3.6% of the loading variance respectively. Thus, it explained 54.9% of the loading variance.

The Dimension Reduction Analysis suggested that all the four correlations were to be considered at 5% level of significance. According to Comrrey (1973), 54.9% of loading variance is considered to establish very good relationship between the dependent and independent variables under consideration. The null hypothesis under consideration was rejected. It was concluded that he homemaker's attitude towards environmental responsibilities as consumers was influenced by their education, family income, extent of use of source of information and environmental awareness.

Null Hypothesis - 3

The environment friendly buying behaviour of homemakers will not be affected by their education, employment status, family income, extent of use of sources of information,

environmental awareness and attitude towards environmental responsibilities as consumers.

The canonical correlation analysis revealed that there were four pairs of canonical variables giving the correlations as 0.421, 0.292, 0.191 and 0.162 which explained 17.7%, 8.5%, 3.7% and 2.6% of the loading variance respectively. Thus, it explained 22.5% of the loading variance.

The Dimension Reduction Analysis suggested that all the four correlations were to be considered at 7.4% level of significance. According to Comrrey (1973), 22.5% of loading variance is considered to establish fair relationship between the 2 sets of dependent and independent variables under consideration at 5% level of significance. Hence, the null hypothesis under consideration was rejected at 7.4% level of significance. The environment friendly buying behaviour of homemakers was affected by their education, employment status, family income, extent of use of sources of information, environmental awareness and attitude towards environmental responsibilities as consumers.

Null Hypothesis - 4

Environment friendly consumption behaviour of homemakers will not be influenced by their education, employment status, family income, environmental awareness and attitude towards environmental responsibilities as consumers.

The canonical correlation analysis revealed that there were five pairs of canonical variables giving the correlations as 0.590, 0.308, 0.279, 0.223 and 0.120 which explained 34.8%, 9.5%, 7.8%, 5.0% and 1.5% of the loading variance respectively. Thus, it explained 58.6% of the loading variance respectively. The Dimension Reduction Analysis suggested that all the four correlations were to be considered at 5% level of significance. According to Comrrey (1973), 58.6% of loading variance is considered to establish very good relationship between the 2 sets of variables at 5% level of significance and therefore, the null hypothesis under consideration was rejected. It was concluded that the environment friendly consumption behaviour of homemakers was influenced by their education, employment status, family income, environmental awareness and attitude towards environmental responsibilities as consumers.

Null Hypothesis - 5

The environment friendly waste disposal practices of homemakers will not be influenced by their education, family income, environmental awareness, and attitude towards environmental responsibilities.

The canonical correlation analysis revealed that there were five pairs of canonical variables giving the correlations at 0.329, 0.275, 0.132 and 0.126 which explained 10.8%, 7.6%, 5.7%, 1.8% and 1.6% of the loading variance respectively. thus, it explained 27.5% of the

loading variance. The Dimension Reduction Analysis suggested that all the four correlations were to be considered at 45% level of significance. Therefore, the hypothesis under consideration was accepted at 5% level of significance. The null hypothesis was accepted and it was concluded that the environment friendly waste disposal practices of homemakers were not influenced by their education, family income, environmental awareness and attitude towards environmental responsibilities.

Hypothesis - 6

There will be no interrelationship between homemakers' environment friendly buying, consumption and waste disposal practices.

Pearson product moment coefficient of correlation were computed to find out the relationship between the three variables. A significant correlation was found between buying behaviour and consumption behaviour (r=0.4241; Sig. at 0.001 level); between buying behaviour and waste disposal practices. (r=0.2878; Sig. at 0.001 level) and between consumption behaviour and waste disposal behaviour (r=0.3744; sig. at 0.001 level). It could be inferred that if there was more environmental concern in buying behaviour, it is more in consumption and waste disposal behaviour also. The null hypothesis was rejected and it was concluded that there was an inter-relationship between homemakers' environment friendly buying, consumption and waste disposal practices.

10. DISCUSSION OF FINDINGS

Major findings in relation to interrelationships of variables studied are discussed here.

10.1 Environmental Awareness

Majority of the respondents had medium level of Environmental Awareness on total and each of the sub-scales. About 67 per cent homemakers had medium level of environmental awareness for the total scale. More respondents had high level of awareness than those who had low level. Pawar (1993) reported similar observations for slum homemakers.

On each of the sub-scale, medium level of Environmental Awareness was observed among 85.8, 62.7, 61, 60.3 and 57.6 per cent of respondents for the aspects of ecological balance, quality of environment, pollution of the environment, resources of the earth and Ozone layer, green-house effect and global warming respectively. Nearly 83 per cent homemakers gave correct answers regarding meaning of environmental pollution. But Pawar (1993) reported that 71 per cent of slum homemakers had no knowledge about meaning of environment, 83 per cent did not know the meaning of environmental pollution and 73 per cent did not know about impact of environmental pollution and man's role in it.

Kaur (1984) found low level of knowledge regarding air and water pollution and Chaturvedi (1984) found low or just

average knowledge regarding fuel management, Ramdas (1988) found average knowledge regarding air and water pollution.

In the present investigation environmental awareness was found to be influenced by education, age, employment status and extent of use of sources of information. The level of environmental awareness clearly increased with the rise in educational level. The review of literature revealed similar findings.

Educational level of the respondents was found to be the most common variable influencing knowledge regarding environmental condition (Pawar, 1993) regarding air and water pollution (Ramdas, 1988; Kaur, 1984), energy resource (Kaul, 1984); sanitation and hygiene (Bhatnagar, 1968; Pendse 1969; Rana, 1971; Bora, 1974; Shukla, 1975); perceptional level regarding energy crisis (Goel, 1986). Thus importance of education is highlighted in increasing environmental awareness.

In the present study no significant association was found between age and environmental awareness, however, earlier studies revealed a negative correlation was found between age of the respondents and knowledge regarding energy resources (Kaul, 1984); fuel management (Chaturvedi, 1984); adoption of improved technology (Borah, 1991). Pawar (1993) found an association between age and practices of homemakers in maintaining environmental conditions.

The mean environmental awareness score obtained by the employed respondents was little higher than that of non employed group, but the difference statistically significant. Though environment awareness mean scores did increase with the extent of use of sources of information, but the difference was very small between moderate users and high users of the sources. Only those homemakers who used the sources to a low extent and those who used to a high extent differed on environmental awareness significantly. Kaul (1984) also found positive correlation between knowledge regarding energy resources and exposure to mass media. Borah (1991) too found positive relationship between exposure to mass media and knowledge regarding improved technology. But Pawar (1993) found no significant association between exposure to mass media and knowledge about environment.

Viewing the mean scores for the extent of use of various sources of information, Television was found to be the most used source and newspaper being next in order and friends ranked the third. Kotler (1980) also found that television is the most popular source of information. Nearly half of the homemakers watched T.V. either always or sometimes as reported by Pawar (1993). Nearly 5 per cent of her respondents watched programmes regarding pollution and environment on T.V.

Many respondents did not know about environmental impact of use of chlorofluorocarbons and even carbon dioxide

which are commonly used/emitted from the households. Similar responses on the aspects related to Ozone layer, global warming and greenhouse effect reflected a need to create more awareness regarding these issues.

10.2 Knowledge Regarding Environmental Organizations, "Eco Mark", and Harmful Effect Created by Certain Goods on Environment

"Eco mark" is a symbol meant to identify environment friendly products, which are made, used or disposed of in a manner that is significantly less harmful to the environment than others of the same type (Suresh, 1992). These marks are much used in foreign countries and yet to be found in Indian market, though the scheme is in process. The present investigation revealed that 83.3 per cent respondents did not have any knowledge about it. From the 16.7 per cent homemakers who knew about it, only few had correct information about meaning, purpose and the type of product on which they are and will be given. Nearly three-fourth of the respondents showed their unwillingness to buy products bearing eco-mark. This reflected a need to educate people in India correctly in this direction for the purpose of saving environment. In Germany, "Blue Angel" logo was recognised by 80 per cent of the consumer (King, 1990).

An attempt was also made to find out whether the homemakers had correct information about the stages - from manufacturing to disposal of goods - in which certain processes harm/pollute the environment. It was revealed that

generally they did not have correct information about this aspect. For example, 11 per cent did not know that plastic goods harm the environment during production as well as disposal stage and 8.8 per cent had wrong impression that it harmed environment during use stage. There were other similar observations. It showed a need to make homemaker aware of harmful effect of goods and on the environment so that they can be selective about goods to reduce further deterioration of the environment.

Generally, homemakers did not have correct information regarding pollution or harmful qualities of various goods in their life style, but there were quite a few who had correct knowledge on this aspect.

A little more than half of the respondents were aware about voluntary organizations working for the betterment of environment. Among them `Socleen' was known to about one-third of the respondents, but only 3 per cent were member in any of such organization.

10.3 Attitude of Homemakers Towards Environmental Responsibilities as Consumers

The distribution of respondents showed that majority of the respondents had moderately favourable attitude towards environmental responsibilities as consumers.

The sub-scales of attitude scale showed similar observations, that majority of the respondents had moderately favourable attitude. The comparison of group

attitude for each sub-scale with intensity index showed favourable attitude. But Berrora and Roth, (1992) reported that attitude toward national park and natural resources seemed to be negative among Dominican Republic citizens of U.S.A. Knowledge and attitude of 5th graders was investigated by Starr (1977) and found that majority of children had positive attitude toward animals. However, Westervelt and Llewellyn (1985) and Keller (1985) stated that children had more humanistic rather than naturalistic attitude regarding animals.

A relationship was found between attitude towards environmental responsibilities as consumers and education, family income, extent of use of sources of information and environmental awareness of homemakers. These caused variation in the mean attitude scores. The mean attitude scores increased with the increasing educational level and level of environmental awareness. Though it also increased with income level and F ratio showed the variation in attitude due to income, only three income groups differed from each other in their attitude.

The correlation coefficient computed between environmental awareness and attitude scores showed a positive relationship between the two (r=0.4126 (Sig. 0.001, 200 df).

This supports the basic thinking in the field of education. One of the traditional thinking in the field of education has been that the behaviour can be changed by

making human beings more knowledgeable about the environment and its associated issues (Hungerford and Volk, 1991). This thinking had largely been based on the assumption that, if we make human beings more knowledgeable, they will, in turn, become more aware of the environment and its problems, and thus, be more motivated to act toward the environment in more responsible way.

Other traditional thinking has linked knowledge to attitudes and attitude to behaviour (Ramsey and Rickson, 1977). Both of these models are very similar and were illustrated by Hungerford and Volk (1991) as shown in the figure.

Behavioural change system

Knowledge ------> Awareness of -------> Action
or
Attitude

Source : Hungerford and Volk (1991) p.9. Jr. of Environmental Education.

The findings of the present investigation support this basic idea.

10.4 Environment Friendly Buying Behaviour and Environmental Concern of Homemakers

Environment friendly buying behaviour was studied in relation to same or similar products available in different packaging material; throw-away or reusable items, household utensils/appliances and detergents.

Most of the respondents exhibited environment friendly behaviour to moderate extent on the total buying behaviour scale. The environment friendly buying behaviour of homemakers had a fair relationship with their education, employment status, family income, extent of use of sources of information, environmental awareness and attitude towards environmental responsibilities as consumers. But significant variations in environment friendly buying behaviour scores were caused by only education, environmental awareness and employment of respondents.

Viewing the environment friendly behaviour reflected in buying goods packed in various packaging material showed that most of the respondents exhibited least friendly behaviour for environment while buying coffee powder and hair oil, as they selected the packaging material which was most harmful to the environment. As many as 87 to 89 per cent did not reflect environmental concern in their reasons for this practice. Most of them had most friendly behaviour for the environment while buying cooking oil, cold drinks and food grains in bulk as they purchased these products packed in the least harmful packaging material. But environmental concern in reasons was reflected by only 9.0, 20.59 and 25.49 per cent respectively indicating that more than three-fourth of respondents were not concerned about environment. Most environment friendly behaviour was reflected in buying ball pen by most of the respondents but environmental concern was reflected by only 8 per cent. For

buying disposable cups and plates most of the respondents reflected environment friendly behaviour to some extent and 80 per cent did not reflected environmental concern. Though for shopping bag many exhibited most environment friendly behaviour and same percentage of respondents exhibited friendly behaviour to some extent. But 86 per cent did not reflect environmental concern. It was striking that for gift wrapping paper, a vast majority of respondents had least friendly behaviour for the environment as they bought/used new gift wrapping paper every time and at the same time 87 per cent respondents did not reflect environmental concern.

While purchasing household utensils/appliances most of the respondents considered expected energy (gas and electricity) consumption at the time of purchasing mainly to save energy consumption as well as monetary cost. Environmental concern was reflected only 30 to 44 per cent respondents. Gada (1982) found only 4 per cent respondents considering fuel saving at the time of purchasing solar cooker. Wile buying plastic bucket majority of respondents reflected least friendly behaviour and 99 per cent did not reflect any concern for environment.

About more than half of the respondents exhibited least friendly behaviour for the environment while purchasing detergent. There were more than one third respondents who did not know about phosphate content in the detergent which makes it harmful. Only 13 per cent purchased

a product claiming to be "phosphate free" detergent. The reason can be that this product was not publicised extensively, hence, it did not draw attention of many people. Environmental concern was reflected only 8.33 per cent from the total sample. Kinnear and Taylor (1973) tried to identify differences in perception of detergent brands among respondents who indicate different degrees of ecological concern and found that level of ecological concern among buyers of laundry products had a marked effect on their brand perceptions.

On the whole, respondents did exhibit environment friendly behaviour to most or to some extent but environmental concern was reflected by very few respondents. The values of economy, convenience, social acceptance, etc. were more prominently reflected in the reasons given by the majority than the concern for environmental well being. This reflected a need to make homemakers more aware for being more concerned about environment at the stage of buying so that the harmful products will not be purchased and the resources could be saved. In a study by Shanhan and Zetterstrand (1993), it was found that if the homemakers were asked to separate out the household solid waste material, their purchasing behaviour changed.

10.5 Environment Friendly Consumption Behaviour and Environmental Concern of Homemakers

Consumption behaviour was studied through the practices followed by homemakers regarding using various

goods such as plates, cups, napkins made of various base materials; paper, insecticide, fuel and electricity and empty containers. About 70 per cent respondents exhibited environment friendly behaviour to medium extent while using various goods. More percentage of respondents exhibited environment friendly behaviour to higher extent than those who exhibited to a lower extent.

Regarding use of plates and cups made of various base materials, most of the respondents followed some what environment friendly behaviour but in case of napkins, most of the respondents exhibited the least friendly behaviour. They used throw-away paper napkins, which cause waste of paper, leading to reduction of wood resources and energy at national level. It also creates waste disposal problem at local level. Paper constitutes about 30 to 37.5 per cent by volume of household solid waste in America (Makower, 1993; Kut and Hare, 1981). In India, it constitutes only 4.68 per cent of solid waste generated by household (Bhide, 1975). This may be due to the reason that most people use the paper to the maximum extent, reflecting environmental concern. Most of the homemakers used blank pages from old note books to give to children for rough writing work in the present investigation. This reflected environment friendly behaviour to some extent as compared with those who gave slate, reflecting environment friendly behaviour to a greater extent.

Regarding use of cups, plates, napkins made of various base materials, respondents ranging from 73 to 87 per cent did not reflect environmental concern in their reasons. For most of them convenience, decency and economy were more important than environmental considerations.

In Consumption of fuel and electricity, most of the respondents ranging from 53 to 77 per cent showed great concern for the environment. Most of them followed the most environment friendly practice out of the provided ones, basically to save fuel and to save money by conserving fuel. Kaul (1984) also reported similar reasons.

Chaturvedi (1984) found that homemakers had low or average fuel management paractives. Kaul (1984) and Goel (1986) found majority of the homemakers following conservation practices (measures) in relation to fuel and electricity. Kau (1984) also found, as in the present investigation, that,majority of the respondents switched off unnecessary lights and fans. Majority (91 per cent) of the respondents of present study used pressure cooker mainly because it cooks faster and saves time. Chaturvedi (1984) also reported the same reason given by the respondents;; in addition, the respondents said that it was possible to prepare more than one item at a time in a pressure cooker.

Most (68 per cent) of the homemakers of present study soaked grains before cooking, following energy conservation practice and reflecting environment friendly behaviour to a

great extent. Most of the rural homemakers were found to be soaking grains prior to cooking in solar cooker by Gada(1982) and Goyal (1985). Most of the respondents of present study soaked grains as that it cooks faster and saves fuel. Chaturvedi (1984) made similar observations. Only nearly 33 per cent respondents of present study reflected environmental concern in the reasons for soaking grains.

The reasons given by most of the respondents for following most environment friendly practices regarding fuel conservation were quite similar to those found by Chaturvedi (1984). For example, using lid over a cooking vessel helps to cook faster as it does not allow steam (heat) to escape. She further found that, about 41 per cent homemakers did not know that using flat bottom pans help to conserve energy In the present study only 2.5 per cent home makers were ignorant about it. But, environmental concern was reflected by only nearly one-fifth of the respondents.

Most of the respondents followed most harmful methods for the environment to control cockroaches and mosquitoes, They used repellent mat or insecticide spray to kill the insects. For most of effectiveness, cost and convenience were more important than environmental concern, as nearly 98 per cent respondents did not reflect any concern for environment in their reasons. As a measure of prevention from insects and vermin many rural homemakers sprayed D.D.T.

(Bhatnagar, 1968; Kapoor,1977) which is banned in foreign countries.

Majority of the respondents reused the empty containers of glass/plastic obtained as packaging of goods, reflecting most environment friendly behaviour. Nambiar (1995) also made similar observation. Nearly 83 per cent respondents reused them for other reasons than for the concern for the environment.

On the whole, the homemakers did exhibit environment friendly consumption behaviour to some extent, but the environmental concern reflected in their choice of goods was not to that extent.

Viewing the variation in scores obtained for environment friendly consumption behaviour, it was observed that mean scores increased with the educational level of homemakers. The reason can be that they may not be following fuel conservation practices, which were a major part of the consumption scale. The mean environment friendly consumption behaviour score increased with the increase in environmental awareness and favourableness of attitude towards environmental responsibilities as consumers. Thus, the thinking proposed by Hungerford and Volk (1991) that knowledge and attitude influence the action is supported in the present investigation.

10.6 Environment Friendly Waste Disposal Behaviour and Environmental Concern of Homemakers

Waste disposal practices were studied in relation to various waste materials such as paper, empty milk-bags and shopping/packaging bags, empty bottles and tin containers disposable cups and plates and general waste material.

Majority of the respondents exhibited environment friendly waste disposal behaviour to medium extent. The environmental concern was reflected by very few respondents. For example, 7 per cent reflected concern for disposal of general waste material, around 5 per cent in case of disposable cups and plates empty milk bags. Regarding disposal of bits of paper 81 per cent and regarding gift wrapping paper 50 per cent reflected environmental concern. Empty shopping or packaging bags were reused by nearly 68 per cent homemakers. Nambiar (1995) reported similar findings. Several recycling measures were followed by 80 to 90 per cent of homemaker in her study. Makower (1993) recommends to "Reduce, Reuse and Recycle" the materials in order to conserve precious resources of the earth. Nambiar (1995) reported that her respondents expressed eco-conscious behaviour in combating waste generation, together with identifying techniques for reusability or recycling of waste generated.

The mean score of environment friendly waste disposal practices increased with favourableness of the attitude of

homemakers towards environmental responsibilities as consumers; Simmons and Widmar (1991) say that attitudes are useful predictors of who may or may not participate in recycling.

The environment friendly waste disposal practices varied due to education and environmental awareness of homemakers (F=11.67 and 6.46 respectively, Sig. at 0.01 level). But statistically it was found that environment friendly waste disposal practices were not cumulatively influenced by homemakers' education, family income, environmental awareness and attitude towards environmental responsibilities.

10.7 Conclusion

It could be inferred from the discussion that most of the homemakers had medium level of knowledge about various environmental issues/problems. Most of them had poor knowledge about Ecomark and harm created to the environment by various goods and services. They had moderately favourable attitude towards environmental responsibilities as Consumers, exhibited environment friendly behaviour to a medium extent while buying, consuming goods and disposing various waste materials. But less percentage of respondents reflected environmental concern in the reasons for following a particular practice. More than half of the respondents reflected environmental concern only in certain cases such as in packaging material of dry product, while using paper

for rough work and writing letters, generally while using fuel and electricity and while disposing bits of paper and gift wrapping paper. While buying, and consuming other goods and disposing various waste materials of the house more than 50 per cent of respondents reflected no concern for the environment.

As theorised for the present investigation, various personal and situtational variables were found influencing the environmental awareness, attitude towards environmental responsibilities and environmentally concerned consumption and waste disposal behaviour. The environmental awareness influenced the attitude towards environmental responsibilities as well as environment friendly buying, consumption and waste disposal behaviour. The attitude towards envirnmental responsibilities influenced only the consumption behaviour. Environment friendly buying, consumption and waste disposal behaviour were positively correlated with each other. Thus, the theory set for the present investigation can be accepted to a great extent. Since Education of the respondents was one of the significant variable observed influencing various behaviours, it reflects the need of "environment education".