A CROSS-CULTURAL STUDY OF ENVIRONMENTAL CONCERN AND ATTITUDES AMONG GERMAN, DUTCH AND TURKISH PUBLICS

BY

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ABSTRACT

The main purpose of the present study is to provide a framework related to the level of environmental concern, attitudes, and perceptions of Turkish, Dutch and German consumers.

Examined subjects are awareness of the the consumers in the three countries about global and national environmental problems and level of importance of these problems; perceptions of environmentally friendliness and environmentally friendly products and companies as well as the perceived roles of related parties; actual participation level and willingness to contribute to the environmental solutions; perceived causes and solutions of problems; most common sources of environmental information, willingness to pay extra or taxes for an environmentally friendly product; and the impact of environmental friendliness on purchasing behaviour.

After a thorough review of the relevant literature on the subject of 'environment' is made, an empirical research has been conducted on the passengers of the Germany and Holland flights of a Turkish private airline company. A structured and an undisguised questionnaire has been given to a sample of 294 respondents by non-probabilistic judgemental sampling method through which the data for the study has been collected.

Data are entered to Excel 4.0 and frequency analyses are made through this program and cross-tab analyses are made with SPSS-PC.

The major finding of the study is that a great percentage of Turkish, Dutch and German populations exhibit a high level of concern for the environmental problems of the world particularly. At national level, economic and social problems precede environmental ones, especially for the Turkish respondents. Dutch and Germans engage in recycling and careful disposal activities mostly, whereas the Turks mostly perform activities related to saving energy or other resources. Producers are perceived to be the major responsible party for environmental pollution; they and government are expected to work for the improvement of environmental quality.

Implications upon the major findings of the study are discussed referring to four parties related to the subject; ie. producers, governments, consumers, and the researchers.

Major contribution of the study has been to the literature, because of its generic function by offering data, background information and research scope. Another important contribution has been providing implications to the related individuals and organisations.

ÖZET

Bu çalışmanın amacı Türk, Hollandalı ve Alman tüketicilerin çevreyle ilgilenme düzeylerini, bu konudaki davranış ve tutumlarını belirlemektir.

İncelenen konular, halkın dünyada ve ülkelerindeki çevre sorunları konusundaki bilgi düzeyi; çevre dostluğu, ve çevre dostu ürünler ve firmalar hakkındaki düşünceleri ile bu konu ile ilgili organizasyonlara düşen görevlere ilişkin fikirleri; çevre sorunlarının çözümüne katılma istekleri ve daha önce katılmış oldukları çevre etkinliklerinin türleri, halkın gözünde çevre sorunlarının nedenleri ve çözüm önerileri, çevre konusunda bilgi edindikleri kaynaklar; çevre dostu bir ürün için vergi veya fazladan ödeme yapmayı kabul edip etmeyecekleri; ve çevre dostu ürünleri satın alma eğilimleri olarak sıralanabilir.

Konuyla ilgili yurt içinde ve dışında önceden yapılmış olan çalışmalar tarandıktan sonra, özel bir Türk charter havayolları şirketinin Türkiye ile Almanya ve Hollanda uçuşlarındaki yolcularla bir saha çalışması yapılmıştır. Tesadüfi olmayan kolayda örnekleme metodu ile belirlenen 294 deneğe verilen önceden hazırlanmış anketleri deneklerin kendilerinin yanıtlamalarıyla, çalışma için gerekli veriler elde edilmiştir..

Bu veriler, Excel 4.0 programına kaydedildikten sonra frekans analizi testleri bu programda, ki-kare testleri ise SPSS-PC programında yapılmıştır.

Çalışmanın en önemli sonucu Türk, Hollandalı ve Alman tüketicilerin büyük kısmının özellikle dünyadaki çevre sorunları ile oldukça ilgili olmaları olarak belirlenmiştir. Oysa, özellikle Türk tüketiciler için ülkeleri söz konusu olduğunda ekonomik ve sosyal sorunlar çevre sorunlarından önde gelmektedir. Alman ve Hollandalılar genellikle geri kazanma ve çöplerin dikkatli atılması gibi faaliyetlere ağırlık verirken, Türkler enerji ve kaynak tasarrufuna yönelik etkinlikleri tercih etmektedir. Üreticiler çevre kirliliğinin en büyük sorumluları olarak görülmekte; hükümet ile beraber çevre kalitesini artırıcı faaliyetlere girişmeleri beklenmektedir.

Elde edilen sonuçlar üreticilere, hükümete, tüketicilere ve araçtırmacılara birçok görev düştüğünü ortaya çıkarmaktadır.

Yapılan çalışmanın en önemli katkıları, literatüre hazır kaynak sunması ve konuyla ilgili taraflardan beklenen görevlerileri belirlemesidir.

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"The Earth is one but the world is not. We all depend on one biosphere for sustaining our lives." This quatation from the proceedings of the World Commission on Environment and Development (Our Common Future, 1987) signifies the importance of the environment for all human beings. With this important issue in mind, it has been decided to analyse the level of concern of the people about the environment.

The main purpose of this thesis is to analyse ,through a comparative study, the interests of German, Dutch and Turkish publics on the environment as consumers , by measuring the level of environmental concern of these three consumer groups and figuring out (quantitatively) their attitudes towards environmental problems, their willingness to participate in the environmentalist activities and their actual participation level in the solution of the problems, as well as the effect of environmental concerns on consumers' purchasing behaviour. The study is emprical and it also covers descriptive research based on the previous studies related with the topic.

The studies within the framework of this research will be presented in the following order:

This part continues with an introduction explaining the evolution of the environment problem in the world and in Turkey.

In the following part, theoretical background (previous empirical and conceptual studies) of the present study will be reviewed in groups according to their major findings and major areas of study.

In the third part, research design and methodology will be given.

In the fourth part, findings of the research will be presented and interpreted. This will be done in two parts, the first of which will consist of the frequencies of the general public and frequencies of the three publics separately. The second part will include the results of the crosstab analyses where relations of demographic variables with the other variables under study are reported.

In the final part, major conclusions will be made, implications for the related parties will be discussed; and contributions of the study to the literature will be presented.

1.1 ENVIRONMENTALISM IN THE WORLD

After the II. World War, The European World was forced to an economic interdependence among nations and environmental concern rose from the damage caused by the rapid economic growth in this period.

Public concern grew rapidly and forced a debate on environmental conservation and economic growth. By late 1960's, growing awareness of the public led to action by governments and industries in both industrial and some developing countries. Environmental protection and resource conservation policies and programs were established. Industries also responded to problems by developing new technologies and industrial processes which were designed to reduce pollution and other adverse environmental impacts. Expenditures on pollution control measures increased rapidly in some highly polluting industries and corporations began to set up their own environmental policy and control units.

However at the beginning of 1970's, both governments and industries worried about costs of proposed environmental measures. They thought that such costs were very high and slowed down economic growth. However, a 1984 survey by OECD of assessments undertaken in a number of individual countries concluded that expenditures on environmental measures over the past two decades had a positive short- term effect on growth and employment as the increased demand they generated increased

the output of economies operating at less than full capacity (Adams, 1990).

An evaluation of 1980's shows that there has been both failures and successes in this period. Major successes can be listed as the fall in infant mortality ratios, increase in the literate proportions, faster increase in global food production, and faster movement of information and goods around the world. Failures, on the other hand, have been the increase in the number of hungry and homeless people, the widening gap between the poor and the rich, and the false management of environmental resources. For instance each year another six million hectares of productive dry land have turned into worthless desert and more than eleven million hectares of forests have been destroyed and converted into low- grade farmland. In Europe acid precipitation has killed forests, lakes and damaged artistic and architectural heritage of nations. Burning of fossil fuels has put into the atmosphere Carbon dioxide, the accumulation of which causes global warming called the 'Greenhouse Effect'. Industrial gases threaten to deplete ozone layer which would increase number of human and animal cancers, and the oceans' food chain would be disrupted.

It is obvious that the world is passing through a period of dramatic growth and fundamental change. It has a population of five billion and according to United Nations' projections the population will be between eight and fourteen billions by the next century which means that the resources will be consumed

much faster (Our Common Future, 1987). New technology offers potential for slowing the dangerously rapid consumption of finite resources but entails risks such as new forms of pollution. Industries which are heavily reliant on environmental resources and most heavily polluting are growing rapidly. Without the co-operation of the industry with the governments the world will not grow cleaner. Given the right incentives, industry can diminish the quantity of resources used to fulfil human needs.

Industry's task is to find ways to reduce many forms of pollution. This will not only be devising new industrial processes that get more output from each unit of input, but also assuring death of the product from the moment of its conception. The world needs and will increasingly need products that during their lifetime do minimal damage to the Earth and that, at the end of their lives, can either be safely thrown away or put to new uses.

Another important point to be considered is the cost of polluting. These costs are rising in all sorts of ways. Dirty companies risk large bills for cleaning up; their reputations make it harder for them to win permission for expansion, to motivate staff, and more importantly, to attract customers. For the chemical companies, such motives are the strongest since in the industrialised countries they produce between 50- 70% of all hazardous waste- both during the manufacturing process and in the form of the final product. The costs of disposing hazardous waste are especially high.

On the other hand, for the industries 'being greener' has many advantages. A company that takes environmental responsibility more seriously than its competitors can find the opportunity to introduce new technology at its own pace, rather than having to do it quickly and more expensively to catch up with the pioneers. Being there first also allows a company to play a key role in shaping the way the industry is regulated. It may also get in first with new products. The importance of these motives varies from industry to industry and country to country.

However, probably no more than 200 companies worldwide have made environmental performance one of their top concerns. In fact, the most radical corporate thinking on the environment is taking place in large chemical companies in the USA and Europe. Their main boards spend time thinking out green strategies and they set up sophisticated management systems to make sure that these goals are met. In other industries- especially oil and car- there are companies that take 'being greener' seriously but they are rarer. Some companies, especially in the chemical industry are now spending very large amounts on pollution control. Moreover, companies that take environment seriously find themselves changing not only their processes and products, but the way they run themselves as well. Often such changes go hand in hand with the improvements in the general quality of management. Examples prove that companies that try hardest to reduce the damage they do to the environment are usually well-managed. Among the qualities that make it relatively easy for a

company to be green, one of the most important features is caring about employees and product quality (The Economist,1990). Many young, graduate managers are the strongest advocates of greenery. Having an open- minded and youthful management is also of help.

Still, most companies will only be as green as governments make them. The greenest companies will therefore try to ensure that government policies set environmental standards at levels that they can match but their competitors cannot. These pressures will change the way companies manage themselves and their suppliers and consumers. Above all, relations between governments and industry will change. The green revolution will be made through government intervention through setting emission standards, taxing raw materials and assigning liability for polluting accidents. That will encourage industry and government to see a common interest in a cleaner environment. The best companies will want intervention to protect their market from dirty, cheap-skate foreign competitors.

Michael Porter (1992), from Harvard Business School, argues that well- designed regulations can foster technological advance and restrain the cost of meeting green goals. In his view, a company may gain competitive advantage by raising its environmental standards, because others will eventually follow.

However, without a world government no institution can compel international polluters to pay. The rich countries tend to give

priority at home to the environmental problems that harm health and wealth. Having brought their most acute environmental problems under control, the industrial countries have increasingly turned their attention to those that cross international boundaries. Different priorities by different countries make sense for some reasons. A country may decide to pay less attention to protecting its own environment than to other investments. When faced with a choice between clean air and less poverty, many countries will accept more pollution than a rich country would, in exchange for more economic growth. Even when countries are at the same stage of development, environmental standards may not be identical since there are relevant differences in the way the receiving environment reacts to pollution.

The European Commission sees environmental standards as one of the fastest growing kinds of non- tariff barriers. Individual companies that want to ban certain products or apply green conditions to their marketing have an opportunity to make life difficult for competitors from other companies. Setting standards for industrial processes raises different issues. Countries like Germany and Holland which have been the worst enemies of industrial polluters, want their competitors to be as green as themselves. Still cross- border arguments are harder to resolve when many countries are involved, and especially when those countries have widely differing living standards and environmental priorities as mentioned above. International

agreement is the best way to solve environmental problems that transcend national borders.

To ensure an international agreement, the most effective bodies seem to be the environmentalist groups all around the world. There are now around 30 mainstream green groups worldwide. Best known in Europe are Greenpeace, the Worldwide Fund for Nature and Friends of the Earth. In Britain Greenpeace has 300,000 members; Friends of the Earth 200,000. Besides these, thousands of smaller organisations have been established to fight with local problems. Some other big environmental groups in US by 1989 are in the table below:

Table 1.1 Environmental groups in US

Organisation (Date founded)	Members (000s)	Budget (mil. $)
National Wildlife Federation(1936)	5800	85.3
National Audubon Society(1905)	550	35
Sierra Club(1892)	500	32
World Wildlife Fund(1961)	312	1.4
Wilderness Society(1935)	300	20
Natural Resources Defence	125	16
Environmental Defence Fund(1967)	100	15
National Parks & Conser. Ass. (1919)	95	3.8
Izaak Walton League(1922)	50	1.6
Friends of the Earth(1969)	30	2.5

Source: Burson- Marsteller, The Economist, June 6 1992

America's environmentalists first lobby for tough laws and then chase companies and government agencies through the courts to make sure that they are enforced. Thus business has found that what green groups demand today will be enforced by the legislators very soon. In Europe, the environmental lobby relies more on publicity and has helpful legal allies such as the European Commission and the European Court.

On the other hand, shoppers are now growing greener both ›n the US and in Europe. In 1989 a MORI poll said 49% of Britons claimed they had consciously chosen a green product in the past year- more than twice as many as in 1988 (World Development, 1992). Manufacturers and retailers are now enthusiastically labelling products 'green' or environmentally friendly. But it is not always true. Still shaky claims to greenery may mislead the ignorant but they turn off the knowledgeable. Thus, to be effectively green, consumers need to be better informed about environmental cause and effect. As shoppers learn more about environmental issues, they are becoming cleverer at discriminating the companies with honest environmental policies. Consumers will eventually force industries to develop processes and invent products that use nature more carefully.

1.2. ENVIRONMENTALISM IN TURKEY

In Turkey the environmentalist movement has started simultaneously with the parallel movement in the world. The first laws and regulations related to environmentalism (especially about wastes) are as the following (Toprak, 1992):

"Municipality Law (1930), General Health Law (1930), Village Law (1340), Environment Law (1983), Metropolitan Municipalities Law (1984) and Solid Waste Control Regulation (1991). The other legal arrangements can be listed as follows: Agricultural Struggle and Quarantine Law, Water Products Law, Workers' Health and Safety Law, Unhealthy Organizations Regulation, Water Pollution Control Regulation and Air Quality Control Regulation."

General Health Law (1930) determines the principles related to minimizing the adverse effects of unhealthy organizations; controlling and licensing these organizations with the aim of protecting the natural resources.

In 1969, Ministry of Internal Affairs also sent a circular about destruction of the wastes to the provinces. The circular implies that the provinces should inform the Ministry about the ways of benefiting from the wastes and relevant proposals; about whether they want to establish plants to dispose wastes through healthy methods.

In Turkey until 1971, the existing laws related to the environment had emphasized the public health effects of the environmental control and they were not able to cope with the environmental problems caused by rapid industrialization and urban development (Çamlılar, 1984). Hence, the first important law related to environmentalism, "Law on the Protection of Water Products", was enacted in 1971. This law stated that it was prohibited to discharge wastes or construct waste systems in a way that would harm water products and those establishements which did not comply with the law were to be closed. In accordance with this law, a regulation which determined receiving water standards, fines for the breachers of the law, was published in the Official Gazette.

About a decade later, the subject of 'Protection of the Environment' has entered the 1982 Constitution as such: "Everybody has the right to live in a clean and healthy environment. Protecting environmental health and hindering the environmental pollution is the duty of the state and the people". The first "Environment Law" has been enacted in 1983.

Metropolitan Municipalities Law (1984) gives the responsibility of establishing, and managing the plants necessary for revaluation and destruction of wastes; and, of showing places to the producers for disposing their industrial wastes. The same law gives the responsibility of cleaning the public places and collecting and disposing the wastes to the local municipalities.

But as Curi (1985) states 'The regulations in practise in Turkey is insuuficient for protecting the environment and cannot really provide refining of industrial wastes'. The solution lies with more effective legal sanctions.

First national body responsible for the environment has been the Çevre Müsteşarlığı (Environment Under-secretary) that was founded in 1970, and which later on was changed to Çevre Genel Müdürlüğü (General Directorate of Environment)duties of which will be explained in the following parts.

The Ministry of Environment in Turkey was founded in August 1991. The same year in March, before the foundation of the Ministry, 'Solid Waste Control Regulation' was issued in the Official Gazette. The first principle of the regulation implies the prohibition of the activities of storing or disposing waste in a way that would harm the environment; the control of the consumption goods which may harm the environment and hinder the destruction of the nature and natural resources as well as the determination, application and the development of the principles, policies and programs related to the subject. Methods and quotas of recycling have also been discussed within the framework of the same regulation. Article 7 implies that the Ministry of Environment, and municipalities should encourage the usage of products made of recycled materials and usage of bio-degradable materials in the production process. The quotas are determined as shown in the following table on the next page.

Table 1.2 Quotas for collecting metal, aluminum, and plastics

YEARS	METAL AND ALUMINUM %	PLASTICS %
1991	10	15
1992	15	25
1993	20	35
1994	30	45
1995	45	65
1996	60	70

Upon the determination of the quotas, big business organisations in Turkey have founded ÇEVKO (Environmental Protection and Packaging Waste Recycling Foundation) in November 1991. Some of the members are (TOMORROW, June 1993) SASA, SUSA, Pilsa, Tariş, Johnson and Johnson, Mintax (P&G), Lever, Aymar, Efes Pilsen, Pınar Su, Niksar Su,, Cam Pazarlama, Başer Chemicals Industry, Shell Chemicals, and Tetra Pak Packaging. The collected solid waste ratios according to the determined quatas within the previous year has been as follows:

Table 1.3 The solid wastes collected by ÇEVKO as of 1992

TYPE	COLLECTED AMOUNT (TONS)	PERCENTAGE
PET	1955	17.9
PVC	1354	5.6
GLASS	14610	59.2
METAL	3128	12.7
PAPER	2739	11.1
OTHER	875	3.5
TOTAL	24660	100

The development about the environment is not only limited to solid waste disposal regulation. 2. National Health Congress that was held in April in Ankara was very important for the environment (TOMORROW, May 1993). An environmental activity plan for two years has entered the draft Health Law. Decisions taken at the Congress about environmental issues can be grouped in four. About residential areas, it has been decided to prepare a contemporary legal structure; to establish the balance between authority and responsibility in order to control the decision makers and planners; to better the condition of the scatter houses and prevent further foundation. About the control of wastes, it has been decided that waste producers will contribute to the cost of the waste disposal service, present waste storage areas will be closed or rehabilitated; municipalities will establish solid waste recycling plants and they will allocate part

of their budgets for recycling of solid wastes; legislation about disposal of dangerous wastes and hospital wastes will be issued and practiced. About air pollution, it has been decided to form the necessary legal infrastructure about environment and environmental health till the end of 1994. 'Polluter pays principle' will be practiced and economic precautions would aim to prevent pollution. These are some of the important decisions taken.

The most important step taken in 1993 has been the decision to tax the households and industrial organizations for their wastes. The amount of taxes will depend on the place of residence.

Another important attempt in environmentalism has been made by ISKI (İstanbul Water and Drainage Administration) by November 1992 (Kocasoy, 1993). The relevant regulation says that products, plants and activities which minimize water consumption and prevent environmental pollution are to be rewarded as "Friends of Water and the Environment". The firms which are awarded may put the logo of "Friends of Water and the Environment" on the packaging of their products, and their advertisements for a period of one year. This logo is used in İstanbul only for the time being. Its diffusion to the entire Turkey would help to minimize particularly the solid waste problem. Such logos are used in some countries such as Germany (1978), Canada (1988) ,and Japan (1989).

Actually pursuing harmonious policies with the EC member countries and making legal adjustments therefore has become more important for Turkey as the country applied to the EC for full membership on 14 April 1987. Even the developments so far hint no green light for Turkey, the country should refine its political, social, economic and environmental conditions for a future green light or rather a future co- operation with those countries. Accordingly, the environmental issues should be taken as important as any of the other above- mentioned matters. The United Nations Development Program Republic of Turkey Project (1988) is related to the harmonisation of the Turkish Environmental Regulation to the EC standards. Examination of the EC policies related to environment reveals that the Community is interested both in the pollution standards and precautions, and the actual realisation of these and the identity of the national body that will undertake this duty.

About the standards and precautions at the national level the above mentioned laws and regulations are in practice. At the international level, Turkey has been a party to many international environmental agreements. Among them are the Convention for the Protection of the Mediterranean against Pollution (1980), the Vienna Agreement related to the Protection of Ozone Layer (1990), Agreement related to the Technical Cooperation about Environmental Protection between The Ministry of Environment of Turkey and the Environmental Protection Agency of the United States (1992),Agreement on

Biological Diversity (1992). Turkish government also assumes as an obligation 'Agenda 21' which has the characteristics of an action plan comprising the principles of protection and management of resources; and, economic dimensions of development and application mechanisms.

The most authoritative national body which would undertake the duty of environmental conservation in Turkey is the 'General Directorate of Environment' (Çevre Genel Müdürlüğü) which aims protecting environment and improving environmental quality, ensuring that the natural resources in rural and urban centres are utilised and protected in the best way, preventing water, soil and air pollution, and protecting the natural and historical assets of the country. The other authorities are Administration of Special Environment Conservation Region (Özel Çevre Koruma Bölge Başkanlığı), State General Directorate of Water Allocation (Devlet Su İşleri Genel Müdürlüğü), Turkish Standards Institute (Turk Standartları Enstitüsü), and Command of Coastal Security (Sahil Güvenlik Komutanlığı).

Turkish consumers, on the other hand, are day by day becoming more concerned with environmental issues. Mass media has been acting as the best agency in arising interest on environmental problems.

Consequently, the evolution of the environmental problems both in the world and in Turkey indicates the need for conducting studies on this topic for understanding the causes and reaching

solutions. Hence many studies about this have been made in the world and a few studies exist in Turkey and some of these studies which directly or indirectly contribute to the present study will be presented with their findings and results in the following section.

II. THEORETICAL BACKGROUND

In this part of the research, theoretical background of the topic of the study will be presented. Previous empirical and conceptual studies related to the subject are summarised below in five groups:

A) Sociodemographic determinants of environmentalism

B) Attitudinal and behavioural indicators of environmental concern

C) Sociopsychological indicators of environmental concern (environmental perceptions, attitudes and participation in activities)

D) Sociopolitical aspect of environmental concern

E) Impact of environmentalism on business

F) Economic factors affecting the level of environmental concern

Some of the major results of the studies analysed, are shown in tabular formç This part ends with a summary table of all the literature review that has been made.

A) STUDIES RELATED TO SOCIODEMOGRAPHIC DETERMINANTS OF ENVIRONMENTALISM

Sociodemographics has been the primary focus of much research on the determinants of environmental concern. Researchers who have examined sociodemographic correlates of environmental concern suggest that individuals who express the most concern tend to be young and well educated (Tonacci et al., 1972; McEvoy, 1972; Dillman and Christensen, 1972; Buttel and Flinn, 1974, 1978). Pro- environmentalists are also more likely to be urban, with farmers in particular least likely to demonstrate environmental concern (Trenblay and Dunlap, 1978; Buttel and Flinn, 1978; Lowe and Pinhey, 1982; Mohai and Twight, 1986).

Van Liere and Riley E. Dunlap has analysed the social bases of environmental concern on a study they conducted in 1980. They have evaluated existing knowledge regarding the social bases of public concern with environmental quality. First, five popular hypotheses asserting relationships between environmental concern and eight demographic and social variables are reviewed, with particular attention paid to the theoretical explanations offered in support of each hypothesised relationship. Second, the results of 21 relevant studies are evaluated to determine the degree to which the empirical evidence supports the hypothesised relationships.

The five popular hypotheses are the age, social class, residence, political and sex hypotheses. The relevant studies are summarised in the table below:

Table 2.1

A summary of the bivariate relationships between indicators of environmental concern and age, education, income, occupational prestige, residence, sex, political party, and political ideology reported in existing studies (correlation coefficients are given)

Study	Age	Ed.	Inc.	Occ.	Res(a	Sex(b	Pr.(c)	Id(d)
Studies reporting Pearson's r								
Arbuthnot& Lingg, 1975								
Recycling index	-0.05	0.29				0.11		
Env. future orientation	-0.18	0.45				0.07		
Buttel & Flinn, 1976								
Awareness of env. probs.	-0.33	0.2			0.38		0.06	0.1
Support for env. reforms	-0.3	0.23			0.14		0.08	0.23
Buttel & Johnson, 1977								
Ameliorative dimension		0.08					0.14	.35-.34
Redirective dimension		0.26					-0.01	.25-.03
Grossman & Potter, 1977b								
Env. concern(1973)	-0.24	0.17	0.09	0.05	-0.09	0.01	0.1	NA
Env. concern(1974)	-0.26	0.17	0.06	0.07	0.17	-0.01	0.08	0.15
Env. concern(1975)	-0.21	0.09	0.04	0.02	0.11	0.09	0.09	0.15
Env. concern(1976)	-0.23	0.16	0.14	0.04	0.12	0.02	0.03	0.12
Koenig,1975								
Env. concern index	NR	NR	NR	NR			0.15	
Martinson & Wilkening,1975								
Awareness of env. probs	-0.41	0.33						
Malkis & Grasmick,1977								
Env. ideol. -production	-0.32	0.16	-0.21	0.13				
Env. ideol. -consumption	-0.26	0.07	-0.17	0.03				
Springer & Constantini,1974								
Env. concern	-0.17	0.12	0.05		0.08		NR	.01g
Tognacci et al.,1972								
Import. of pure env.	-0.09	0.06					.1h	.1h
Attainment of pure env.	-0.27	0.17					0.01	0.05
Conservation scale	-0.34	0.37					0.001	0.001
Pollution scale	-0.41	0.35					0.001	0.001
Power plant scale	-0.33	0.28					0.001	0.001
Overpopulation scale	-0.38	0.3					0.001	0.001
Pop. control scale	-0.44	0.24					0.01	0.001
Van Liere& Dunlap,1978								
Population scale	-0.04	0.11	0.02	-0.04	0.1	-0.02	-0.04	0.12
Pollution scale	-0.25	0.18	-0.03	0.12	0.04	0.15	0.03	0.19
Resource cons. scale	-0.06	0.15	-0.04	0	0.11	0.08	0.08	0.2
NEP csale	-0.08	0.11	-0.07	-0.02	0.06	0.07	0	0.21

	Age	Ed.	Inc.	Occ.	Res(a	Sex(b	Pr.(c)	Id(d)
Env. funding scale	-0.09	0.17	-0.06	0.09	0.1	0.14	0	0.16
Env. regulations scale	-0.13	0.1	-0.12	-0.02	0.06	0.08	0.07	0.23
Personal beh. scale	0.12	0.01	-0.16	0.07	0.02	0.21	0.04	0.04
Public beh. scale	0.04	0.16	0.07	0.12	-0.04	0.07	-0.06	0.03
Weigel, 1977								
Env. behavior index	-0.24	0.42		0.32				0.34
Studies Reporting 'gama'								
Buttel & Flinn,1974								
Env. as a prob.(1968)		0.51	0.22		-0.12			
Env. as a prob.(1969)		0.28	0.32		-0.08			
Env. as a prob.(1970)		0.22	0.09		0.03		0.02	
Constantini & Hanf,1972								
Env. concern scale	NR	0.2	-0.13					.22-.36
Dillman & Christenson,1972								
Pollution value index	-0.21	0.2	0.12	0.17	0.05		.001g	0.13
Harris,1970a								
Air poll. in state	-0.08	0.11			0.19			
Air poll. in community	-0.19	0.26			0.57			
Water poll. in state	NA	0.05			0.07			
Water poll. in community	NA	0.22			0.41			
Harris,1970b								
Air poll. in state	-0.15	0.2			0.15			
Air poll. in community	-0.2	0.19			0.35			
Water poll. in state	-0.12	0.15			-0.06			
Water poll. in community	-0.23	0.25			0.06			
Hornback,1974								
Env. most imp. prob.(1970)	-0.19				0.04	0.04	-0.06	NA
Env. most imp. prob.(1972)	-0.14				NA	0.03	-0.12	0.11
McEvoy,1972								
Env. concern	-0.06	0.3	0.22		0.06	-0.16		
Murch,1974								
Env. concern		0.15		0.01		0.07		
Murdock & Schriner,1977								
Support env. protection	-0.26	0.24	0.04	0.15				
Nat'l Wildlife Fed.,1972								
Env. concern	-0.08	0.27	0.15		0.12	-0.08		

(a) A positive coefficient means that urban residents are more "environmentally concerned than rural residents.

(b) A positive coefficient means that women are more "environmentally concerned " than men.

(c) A positive coefficient means that Democrats are more "environmentally concerned" than Republicans.

(d) A positive coefficient means that liberals are more "environmentally concerned" than conservatives. Where two coefficients are reported, the first refers to 'Anti-laissez-faire liberalism' and the second refers to 'Welfare state liberalism'.

(e) NA means that data were not available for that year

(f) NR means that the actual coefficient was not given, but the author reported 'no relationship.

(g) Chi-square analysis was used and the chi-square statistics was reported as significant as the given level.

(h) A difference-of-means test was used and the difference of means was reported as significant at the given level.

Critics of the sociodemographic studies suggest that sociobiological cohorts may be more effective than age in predicting environmental concern (Honnol, 1981). Neuman (1986) found that demographic attributes such as gender, age, educational level, income, political stance were unrelated to behavioural commitment to conservation practices. Buttel and Flinn (1976, 1978) cautioned that there may be an interaction between environmental concern and education and social class. Van Liere and Dunlap reviewed a wide range of studies reporting the sociodemographic correlates of environmental concern and concluded that this line of research has had limited success in explaining environmental attitudes. Van Liere and Dunlap (1981) suggest that the limited utility of sociodemographics shows evidence of widespread environmental concern within contemporary American society. Samdahl and Robertson restate the findings of previous studies within a broader causal model and tests that model using data from a general population survey(Samdahl and Robertson, 1989).

Schahn and Holzer,(1990) deal with analyses concerning the interaction between environmentally relevant knowledge, attitudes, and behaviour as well as the gender differences in environmental concern. Results of the study conducted in 1987 in Germany show that knowledge, age and gender moderated the relationship between attitudes and behaviour. Women are more environmentally concerned in those topical areas that refer to the household behaviour, whereas men know more about

environmental problems. Men proved to have a higher concrete knowledge about environmental problems than women do. Women, in turn have significantly higher values on all other conceptual scales

Environmentalists were significantly younger than the comparison sample ($E(\mu)=36$ years, $Sd=12$; $C(\mu)=42$ years, $Sd=16$). The environmentalists had a higher education ($E(\mu)=15.7$ years, $Sd=4.6$; $C(\mu)=13.4$ years, $Sd=3.8$), and were found on the "left wing" of the political spectrum as measured by a 7- point Likert type scale ($E(\mu)=2.9$, $Sd=1.2$; $C(\mu)=3.6$, $Sd=1.4$, with 1= maximum left orientation.

Van Liere and Dunlap (1980) report that the empirical evidence on the relationship between a person's sex and concern for the environment is mixed since some studies report modest correlations between being female and environmentalism while others see no differences based on sex. In contrast, Milbraht(1984) concludes that 'studies using gender as a variable show that females are more environmentally oriented than males'. Similarly, national opinion surveys show that women tend to support environmental policies more than men do(Shapiro and Mahajan, 1986; Public Opinion, 1982). A number of feminist writers argue for the convergence of ecology and feminism into a new 'eco feminist' movement (Keller,1983; King,1983). This argument takes its root from the belief that women are more closely tied to nature because of their nurturing and reproductive

roles. In short, the evidence leads to the expectation that women are more likely to protect the environment.

Blakie,(1992) has analysed level of commitment to an ecological world view, and some sociodemographic basis in Australia. Female scores have been consistently higher than male scores. The greatest differences between females and males are concentrated on items dealing with science and technology; females are less confident than males about technical solutions for environmental problems. The relationship between ecological world view and age shows a curve which climbs from a moderate position in the 18-24 age category to a peek in the 25-34 category, and then declines to the 65 and over category. This suggests that young people are less concerned about the effects of economic growth on the environment than is the all generation. Similar distributions are evident both for males and females. Gender differences are generally greatest in the middle age.

Steger and Witt,(1988) focus on women and men in general public and in environmental organisations separately. Their study analyses gender differences in the environmental orientations of female and male publics and environmental activists in two post-industrial nations- Canada and the United States. Results show that women hold a more protective attitude toward the environment and perceive higher risks from acid rain pollution, support more the beliefs of the New Environmental Paradigm, express higher levels of perceived policy influence and political participation. On the other hand, men acquire more policy

specific information on the sources of acid rain and abatement technologies.

Relations between demographic variables and environmental concern were also analysed in Turkey by Arabacioglu Zeynep (1992). Her study indicates that women are more aware of environmental problems them men are. Women consider extroverted activities as easier to do whereas man consider more passive or inside house activities as easier. Environmental concern plays a more important role in the purchasing decision of women than that of men. Other than gender differences, age group differences are also obvious. Young and middle age groups complain more than elders about environmental problems and they also believe more that they can contribute to the solutions of global environmental problems. Marital status, on the other hand, did not come out to be statistically significant determinant of environmental concern.

Some studies indicate positive associations between factors such as age, social class, and income, whereas others show negative or negligible associations. Van Liere and Dunlap(1980) documents that well- educated people and people with high income are more likely to engage in conservation behaviour, including recycling. Vining and Ebreo (1990) has made a study related to recycling activities. Few demographic characteristics distinguished recyclers from nonrecyclers. Recyclers were somewhat older, (μ=42), than nonrecyclers,(μ=35). Recyclers also reported slightly higher income levels. There were no differences in

familiarity with the sources of information about recycling attributable to the respondents' gender. However, respondents' educational level was related to the kinds of information sources mentioned. Highly educated individuals were more likely to have received information from newspapers and less educated individuals were more likely to have received their information from television. In addition familiarity with information sources varied across households of different income levels. Respondents with higher income levels (above $30,000) were more likely to use newspaper as a source of information about recycling, whereas lower and middle income respondents (below $14,000) were more likely to have heard about recycling from school programs.

Race is another demographic variable, on which there were quite a number of research made. These studies are valuable for the present study since differences in the level of environmental concern with respect to demographic variables will be an important part of the study. In the past, social psychological and cultural theories have been used to explain why blacks display lower levels of environmental concern than whites. Some studies indicate lower levels of concern and involvement among blacks than whites regarding environmental quality issues. Mitchell (1980) found that a smaller percentage of blacks than whites claimed that they were sympathetic or active in the environmental movement (43 versus 64 %). From a sample of Los Angeles area residents, Van Ardsol. Sabagh, and Alexsandra

(1965) found that whites were more likely than non whites to view smog and air traffic noise as more serious problems in the area of their residence. Hohm (1976) similarly found from a Los Angeles County sample that blacks perceived air pollution to be a less serious problem than whites. Hershey and Hill (1977-78) found from a survey of over 2000 elementary and high school students in Florida that black students consistently scored lower than white students on a range of environmental awareness and concern indicators.

Data also exists showing contrasting trends. Mitchell (1979) found that blacks were as likely as whites to claim that they were sympathetic or active in the environmental movement (64 versus 63%). Blacks were also as likely as whites to indicate they supported environmental protection at any cost (55 versus 54%). Cutter, from a Chicago survey, found that community measures of concern were positively correlated with the percentage of blacks in the community. Molah (1990) took three indicators on which the differences between the whites and the blacks according to their income, education levels and occupational status were investigated. These are 'perceived seriousness of environmental problems, perceived shortages of environmental amenities and importance of allocating resources to environmental protection'. It was found no statistical differences in the three concern indicators. This study shows that blacks are as concerned about environmental quality as whites.

In a study of university students, Taylor (1982) found that whites were more likely to list environmental problems as top world problems than non whites, donate money to environmental organisations, take environmental studies courses in the future, or join an environmental organisation if one existed in the campus. Other studies have also found that blacks were less informed, less aware, and less concerned with environmental issues than whites (Ostheimer and Ritt, 1976; Crenson, 1971; LaHart, 1978; Giles, 1957) and less likely to consider environmental quality a problem worthy of community support or to favour environmental goals (Hershey and Hill, 1977- 78; Horvat, 1974).

Taylor (1989) argues that the environmental concern gap that exists between blacks and whites can be better understood by exploring the gap that exists between concern and action. In addition, several factors that influence the existence of an action gap, and the extent to which black groups can be mobilised around environmental issues, are identified. These are the level and type of affiliation with voluntary associations, political efficacy, recognition of advocacy channels, access, acquisition of social prerequisites, psychological factors, collective action and resource mobilisation.

B) STUDIES RELATED TO ATTITUDINAL AND BEHAVIOURAL INDICATORS OF ENVIRONMENTAL CONCERN

The research on environmental attitudes has focused on identifying the social bases of ecological concern, and developing and improving measures of such concern, and investigating the effects of concern on environmental planning, public policy making, and citizen' behaviour. (Van Liere and Dunlap, 1980, 1982). Gill, Crosby, Taylor (1986) also have a parallel work reviewed by Van Liere and Dunlap. Using a theoretical framework not previously tested in environmental research, they investigate the direct relationship between ecological concern and voting behaviour. Results indicate that the effects of ecological concern are mediated by attitudinal, normative, and behavioural intention variables.

Previously, there have been numerous attempts to determine the antecedents of ecological concerns, especially as they relate to the bases of market segmentation(eg. Crosby and Gill, 1981; Murphy, 1978; Brooker, 1976; Henion and Wilson, 1976; Webster, 1975; Kinnear, 1974). And afterwards, efforts have been made to develop or improve ecological concern measures(eg. Antil and Bennet, 1979; Henion, 1976; Kinnear and Taylor, 1973). Then assessments of the impact of ecological concern on consumption and voting behaviour have been made

(Crosby and Taylor, 1982, 1983; Lepisto, 1979; Henion, 1976; Kinnear and Taylor, 1973; Herberger and Buchanan, 1971; Kassarjian, 1971). Generally the research indicates that ecological concern is related to, but is not highly correlated with, consumption behaviour. Van Liere and Dunlap state that "since progress toward the solution of environmental problems is likely to depend more on pro environmental behaviours than attitudes, the reason for the weak relationship between environmental attitudes and behaviours and the conditions under which it can be strengthened clearly deserve examination.

Introduced in 1967 (Fishbein, 1967) a theory has been developed and tested and applied in numerous contexts, including voting behaviour, occupational choice and brand choice. Theory poses that people consider implications of their actions and form intentions before engaging in a behaviour. A test may show how generalised environmental attitudes are translated into specific environmental behaviours according to the theory. Van Liere and Dunlap (1990) have found that existing measures of ecological concern differ in terms of the extent to which they incorporate different environmental issues and assumptions of what constitutes an 'expression' of concern.

Emergence of new political groups indicates the increasing importance of environmentalism in Western Europe, but to understand the political implications of the environmental movement, one needs to know the origin of citizens' attitudes towards environmental issues. Rohrschneider (1988) has

examined three alternative explanations for the rise of environmental concerns. First one is whether value priorities or ideologies explain the popularity of environmental issues('symbolic politics' by Sears, 1980). Second is whether people experience pollution problems in their local environment and translate this direct experience into a positive attitude toward protection of nature('self- interest' model by Sears and Citrin, 1982). The third one is whether citizens feel threatened by the increasing extent of the destruction of the national environment('sociotropic origin of attitudes' by Kinder and Kiewit, 1983).

Ronald Inglehart's model of generational value change(1977, 1981, 1985) is one of the most systematic 'symbolic politics' model. According to the model, citizens are increasingly concerned with the environment because the value priorities of the Western publics are shifting from material to post material goals. Inglehart received support by other researchers like Hildebrandt and Dalton, 1977; Cotgrove, 1982; Dalton, 1985.

The 'self-interest' model holds that people become concerned with issues only by the effect of an external force. Thus the increasing concern of European publics with their environment has its origin in the extent to which the local environment of the citizens is polluted.

The 'sociotropic model' claims that citizens consider national circumstances as a basis in formulating issue opinions. The

argument is that Western European Publics are concerned with the environment of their nations as a whole and not just with their local environment.

Rohrschneider's analysis includes three variables that represent the above- mentioned dimensions. He selected five European countries for his analysis; namely, Belgium, Italy, West Germany, the UK, and France. Results show that a majority in each country supports the protection of the environment.

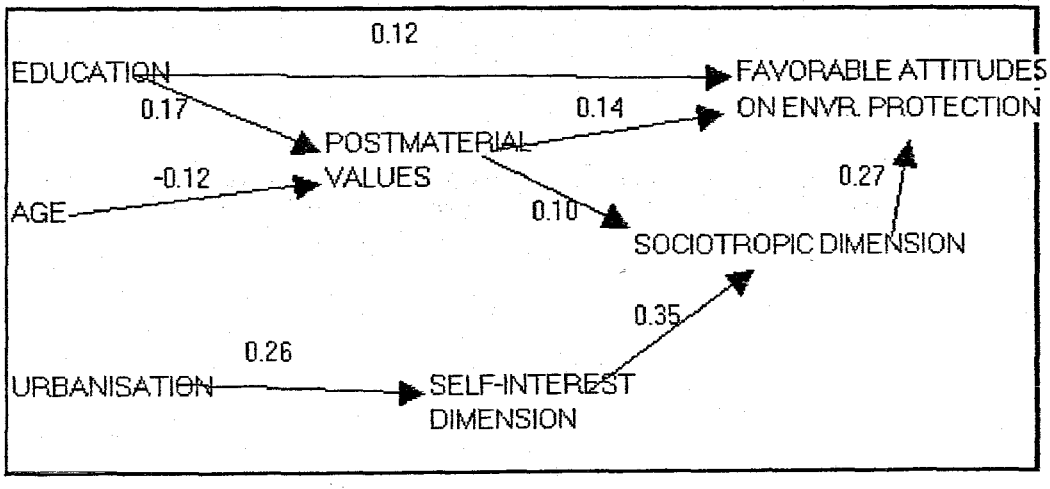
TABLE 2.2 Attitudes of European Public Towards Environmental Protection

	Belgium	Italy	France	UK	Germany
Favorable	47.5	60.7	52.8	43.5	58.3
Mixed	29.4	27.6	33.3	38.2	31.3
Unfavorable	23.1	11.7	13.9	18.3	10.4
Total	100%	100%	100%	100%	100%
(N)	(830)	(634)	(836)	(1200)	(850)

The strongest support exists in Germany(58.3%) and Italy(60.7%) whereas the support is lowest in Belgium(47.5%) and the UK(43.5%). Further analyses of results indicate that the sociotropic dimension is the single strongest predictor of environmental issues in each nation. This finding indicates that people who favour environmental protection do so partly because they are concerned with the destruction of nature as a national

issue. The 'value change' model is also rather strongly related to citizens' attitudes on environmental issues. Experience with ecological problems in one's immediate environment generally does not have a large effect on attitudes toward environmental protection. On the other hand, the self- interest dimension does not make a significant effect on citizens' attitudes on environmental issues. Whether the neighbourhood of citizens is polluted or not, does not effect attitudes on the trade- off between environmental and economic goals. Another observation is that the sociotropic dimension exercises a rather strong influence across all nations. If citizens are worried about the environmental problems of the national environment, then they are much more likely to favour measures to protect nature, even if these measures have negative effects on the economy.

FIGURE 2.1



A causal Model of Attitudes Toward Environmental Protection

NOTE: Entries are standardized regression coefficients (beta weights). The coefficients are based on the pooled samples of the five nations under study. The coefficients appear above the paths.

The general conclusion is that citizens hold favourable attitudes toward environmental protection because their value priorities have changed, and they are worried about the true state of ecological problems.

The theoretical basis for differences in the decisions of natural resource managers and their constituents rests primarily on the notion that managers perform different social roles and thus have different normative systems for environmental decision making process. Craik (1970) and Mc Kechnie (1977) suggested that the decisions made by managers may differ from the public because of the characterological environmental dispositions. Vining, (1992) found that decisions and emotions of the environmental group and public sample were similar to each other but different from managers. Decisions were predicted accurately by all three groups but managers and environmental group members perceived public sample to be less emotional than it actually was.

Waste management and recycling are two of the major activities under study in this thesis. Strategies for dealing with waste problems include source reduction, recycling. landfills and incineration. Opinions of environmentalists and administrators were analysed based on a random survey (West, Lee, Feiock,1992) in Florida. Four major differences were found among the members of the two groups. First, environmentalists were more supportive of the preventive strategies, particularly recycling, than managers; second, environmentalists were more supportive of recycling for cost avoidance reasons; third,

environmentalists were more critical of state of government policy implementation than solid waste managers; and fourth, environmentalists were more supportive of private organisations' involvement in solid waste management.

An interesting relationship analysed by Arabacioglu (1992) is the difference in the environmental attitudes of the modern and traditional people in Turkey. Modern people are concerned about the danger of global environmental problems at a higher level. But there is a negative relationship between modernity level and actual participation in environmental activities. General conclusion of the study is that big percentage of the population are highly concerned about environmental problems and want to participate in environmentalist activities but they have not taken the necessary steps yet due to financial and convenience factors.

C) STUDIES RELATED TO SOCIOPSYCHOLOGICAL INDICATORS OF ENVIRONMENTAL CONCERN

(ENVIRONMENTAL PERCEPTIONS, ATTITUDES AND PARTICIPATION IN ACTIVITIES)

The ecological perspective in psychology holds that the attributes of environmental settings relate to a wide range of cognitive, affective, and behavioural responses (Barker,1968; Bechtel,1977; Bronfenbrenner,1979; Kelly,1966; Williems,1976). Richards (1990) determines the number of environmental settings required to detect various ecological correlations for different significance and power levels.

Level of environmental concern may be affected by some sociopsychological factors such as individual perceptions and may come out in the forms of different perceptions and various participation in the activities. Below studies aim finding this relationship.

Prester, Rohrman and Schellhammer (1987) analysed how people respond to environmental problems in a social- psychological field study. The presupposed theoretical framework combines perspectives of environmental research and of political science, and attempts to explain the relationship between the environmental stressors and participatory activities. The data analyses were oriented towards a description and prediction of

environmental evaluations and participatory behaviour. The results demonstrate that participation is mainly influenced by evaluations of present environmental quality, the expected condition of the environment in the future, the knowledge and assessment of participation and general interests in politics. The environment related attitudes (eg. environmental awareness or desired environmental quality) and personal characteristics (eg. education) act as the first determinants of participation. Some essential findings related to participation and the conclusions drawn from the gathered quantitative and qualitative data are as the following:

There is a considerable gap between the amount of information issued by the responsible authorities or published by local newspapers and the proportion of that information registered by persons affected. Residents tend toward a critical evaluation of the utility of legally provided participatory acts. The mobilisation of concerned people is more likely if low- cost steps of participation with respect to time, initiative, etc. are encouraged.

Dap/ Yankelovich (1991), a research and direct marketing company has made surveys in 16 countries aiming to measure the level of environmental consciousness and forming a consumer typology in these countries. According to this empirical study, environmental issues are the fourth important among the 13 issues listed according to US consumers. The first five issues are high medical costs, quality of education, drug abuse,

environment and AIDS problem. Among the extremely serious environmental issues, the most important are air pollution, water pollution and oil spills. Forty-eight percent of respondents believe he is more concerned for environment, 49% claim no change and 2% is less concerned.

The consumer typology shows that 10% are evergreens, 22% are good intenders, 27% are fatalists, 15% are easy goers, 24% are apathetic and 2% are unclassifiable. Among the evergreens 83% buys products endorsed as environmentally safe, 80% looks for brands that are environmentally friendly, 84% boycotts the products made by polluting companies.

Environmental perceptions are also analysed for different product groups. Detergents are an important part of this analysis. Ecological problems, and the consumers' rising concern for the environment, have led to changes in the detergents market. While industry has taken some actions to protect the environment, consumer groups argue that further changes must be made, and that consumers must be involved in the process. Eva Kolber (1990), from the Austrian Consumer Information Association, has made a case study on consumers' feelings about detergents and environmental protection. Results show that 49% of the population think that detergents have a profound effect on the environment, 42% fear widespread, negative environmental effects, which may not be clearly defined at present, and 70- 80% believe that environmental protection is more important than growth in the economy.

Recycling, which is analysed in the present study as one of the most important indicators of environmental activism, has been examined previously by quite a number of researchers. Vining and Ebreo (1990) indicate that recyclers in general are more aware of publicity about recycling(Table 2.3) and more knowledgeable about materials that were recyclable in the local area(Table 2.4) and the means for recycling these materials than were nonrecyclers. Nonrecyclers were more uncertain of their knowledge about recycling. While both recyclers and nonrecyclers were motivated by concerns for the environment, nonrecyclers were more concerned with financial incentives to recycle, rewards for recycling, and with matters of personal convenience. Both groups rated social factors as being lowest in importance. The two groups differed in the extent to which they rated the importance of nuisance, household, and economic factors against recycling. Nonrecyclers find convenience and monetary issues more important reasons for not recycling than recyclers would.

TABLE 2.3 Percentage of Nonrecyclers and Recyclers who had heard about recycling from several sources and about various programs

%	Nonrecyclers	Recyclers
Source		
Newspapers	63.1	71.7
Radio	32.9	55.2
TV	27.1	26.9
Posters	35.3	46.6
Mailing	34.1	41.3
Friends	36.5	59.4
School	25.3	18.6
Work	33.3	45.2
Newsletters	15.3	22.1
Program		
Buy-back	38.4	63.6
Drop-off	70.9	96.4
Private hauler	11.6	13
Fund-raiser	46.5	60
Business collection	22.1	33.6
School collection	26.7	32.7
Curbside collection	19.8	33

TABLE 2.4 Percentage of Nonrecyclers and Recyclers who believed each material was recyclable

Material	% Nonrecyclers	Recyclers
Glass	94.6	99
Newspaper	100	99.1
Cardboard	95.5	96.1
Magazines	63.4	41.3
Office Paper	95.3	94
Aluminium cans	98.7	98.1
Rubber tyres	56	40
Tin cans	83.3	78.6
Plastic	31.6	19.1
Food	5.7	5.4
Motor oil	84.3	97.8

Vining and Ebreo have examined the differences in knowledge, motives and demographic characteristics of people who have the opportunity to recycle voluntarily. Three potential differences between recyclers and nonrecyclers were examined. First, their level of knowledge about recycling and the ways they acquired this knowledge was analysed. Second, their perception of the importance of various reasons for recycling or for not recycling was examined. There are a number of reasons why one might recycle, encompassing concerns for financial reward, environmental quality, social pressure and convenience. Luyben and Bailey(1982) examined the effects of a lottery, information in a flyer, payment and increased collection frequency on newspaper recycling rates. The lottery produced the greatest response an 11% recycling rate. Intrinsic motives have also been analysed before. De Young (1985-86, 1986) found that intrinsic motives such as feeling good about doing something for the community or the environment were significant incentives for recycling. Similarly, Vining and Ebreo found that a community recycling education program resulted in greater concern for the environment as a motive for recycling. Dunlap (1983) suggested that concern for the environment would be a significant motivation for recycling or other pro- environmental behaviour when basic economic or survival needs are met. In a study conducted in 1973, he found that higher order values such as a desire for high quality environment, were more likely to be held by recyclers than nonrecyclers. Conversely, lower order values such as safety and security were as more important by

nonrecyclers. The suggestion was that as awareness of the health effects of environmental pollution increases, the difference between the importance of environmental quality and lower order values related to basic health could narrow.

And third, social influence on recycling was analysed. Vining and Ebreo (1988) found that social pressure was reported to be an important reason for recycling . An important reason for not recycling is the time and trouble it takes to prepare, store and transport materials. Even if an individual believes that recycling will have favourable environmental results, the time and space it takes to recycle may discourage such behaviours.. Similarly, the incentive of receiving payment for recycled materials may not outweigh the trouble of preparing, saving and transporting recyclables. The importance of convenient containers for recyclable materials has been found by Reid (1976) and Luyben and Bailey (1979).

Dunlap and Scarce (1992) aims determining the trends about environmental problems. Results show that majorities typically see environmental problems as serious and environmental quality as deteriorating and as likely to continue to deteriorate. Environmental problems are increasingly viewed as representing a threat to human well- being.

The results also reveal considerable correspondence between the perceived threat to oneself and to the environment posed by the various problems. A large majority believes that government is

spending too little on the environment and majorities say that government regulations have not gone far enough and that there is little government regulation in the area of environmental protection. Contributing to the high level of support for environmental regulations is the growing belief among the public that business and industry will not voluntarily protect the environment. The private sector is increasingly viewed as doing a poor job of protecting the environment. The public's support of environmental regulations on business and industry is also compatible with their increasing preference for environmental quality over economic growth. The pro- environment orientation is also reflected in public's strong support for the environmental movement and high levels of behaviour on behalf of environmental protection. Majority of the public identifies themselves as 'environmentalists'. But results also show that even though most Americans have taken environmental considerations into account when shopping, few have made the substantial changes in life- style that many environmentalists see as necessary.

The most important trends determined at the end of the study are the public's increasingly positive orientation toward environmentalism and the growth in both political and consumer actions on behalf of environmental protection.

The tables below show some of the results of the studies conducted:

Table 2.5 Results of some of the studies related to attitudinal and behavioral indicators of environmental concern (Dunlap and Scarce, 1992)

Relative importance of environmental issues	1987	1988	1989	1990
1.Environmental problems are the most important	5	6	15	21
2.Which problems are you concerned the most about?				
Pollution of air and water	15	14	19	21
Perceived seriousness of environmental issues				
Compared to five years ago:				
1.Overall quality of the environment is;				
better	41	32	28	31
about the same	27	21	23	13
worse	32	46	49	55
2.Quality and safety of drinking water is;				
better	30	24	22	25
about the same	43	42	35	30
worse	34	45	45	46
3. Plastics present a serious environmental threat;				
yes	38	40	59	57
no	37	40	19	22
not sure	25	20	22	21
4. Benefits of using plastic products outweigh environmental				
benefits outweigh risks	45	27	27	n/a
risks outweigh benefits	31	43	45	n/a
neither	9	13	13	n/a
No idea	15	17	15	n/a
Support for government actions				
1. For protecting the environment, we are spending;				
too little	61	65	70	71
right	27	26	20	21
too much	6	5	4	4
No idea	6	5	5	4
2.Environmental protection policies have;				
gone too far	n/a	n/a	11	11
not far enough	n/a	n/a	55	54
struck right balance	n/a	n/a	27	26
No idea	n/a	n/a	7	9

Table 2.6 Results of the studies which have anaysed willingness to pay for an environmental protection (Dunlap and Scarce, 1992)

	1987	1988	1989	1990
1.I will pay 105 more a week for grocery items for env;				
strongly agree	7	8	10	14
agree	40	40	54	50
disagree	44	43	31	31
strongly disagree	9	10	5	5
2.I can pay more for goods to help industry to preserve the env;				
yes	56	55	52	72
no	26	29	29	23
not sure	19	16	19	5
3.To help industry protect env., monthly I can pay (more)	1985	1986	1987	1990
none	32	23	26	16
$1 to $10	36	34	34	12
$11-$20	7	7	12	5
$21-$30	4	5	4	5
$31-$40	1	2	1	1
$41-$50	2	3	3	6
more than $50	4	5	4	18
no idea	15	20	16	37
median	7.70	8.09	9.05	39.99

Table 2.7 Degree of threat posed by environmental problems (Dunlap and Scarce, 1992)

	1984	1989
Environmental pollution;		
very serious threat	44	62
moderately serious	40	30
no much	13	5
no threat	2	0
no answer	1	3

Table 2.8 Potential problems facing the society (Dunlap and Scarce, 1992)

(by 1989/ as personal threat)	Clear threat	Possible threat	Minimal threat
1.Air pollution	85	6	7
2.Air pol. caused by industry	78	9	11
3.Air pol. caused by cars and trucks	73	13	13
4.River,lake,ocean pollution	78	9	10
5.Acid rain	63	13	15
6.Greenhouse effect	66	12	11
7.Disposal of hazardous waste material	82	7	7
8.Using additives in food production	78	11	9
9.Contamination of underground water	81	8	7
10.Depletion of ozone layer	74	10	8

Table 2.9 The government should take action for the below mentioned environmental issues (Dunlap and Scarce, 1992)

%				
1989	Urgent	Prompt	Limited	No action
Air pollution	32	50	15	2
Pollution of drinking water	52	37	8	1
Pollution of oceans	43	43	11	1
Acid rain	43	37	11	2
Toxic waste disposal	63	28	4	1
Greenhouse effect	39	33	13	2
Deforestation	43	35	13	3
1990	Urgent	Prompt	Limited	No action
Air pollution	33	47	17	2
Pollution of drinking water	57	33	9	1
Pollution of oceans	43	40	14	2
Acid rain	41	36	16	2
Toxic waste disposal	65	27	5	1
Greenhouse effect	34	34	20	4
Deforestation	39	36	18	2

No information was given about the answers of the remaining 1 or 2%.

Table 2.10 The respondent or other members of the family have done the following actions beforehand (Dunlap and Scarce, 1992)

1989	YES	NO
Contributed money to env. conservation group	49	51
Boycotted a company's products	29	71
Did volunteer work for an env. protection group	16	84
Recycled papers,glass,aluminum,motor oil	78	22
Recycled used cans	66	31
Bought bottled drinking water	30	66
Stopped using aerosol spray cans	41	55
Bought products made of recycled material	44	45
1990	**YES**	**NO**
Contributed money to env. conservation group	49	51
Boycotted a company's products	28	72
Did volunteer work for an env. protection group	18	82
Recycled papers,glass,aluminum,motor oil	85	15
Recycled used cans	84	16
Bought bottled drinking water	26	73
Stopped using aerosol spray cans	71	27
Bought products made of recycled material	82	15

D) STUDIES RELATED TO SOCIOPOLITICAL ASPECT OF ENVIRONMENTAL CONCERN

The new middle- class social composition of the green movement has become a matter of increasing interest in the wake of success of green parties and the growth of an international green movement. Eckersley (1989), in his theoretical paper, considers the concept of 'new class' in relation to two explanations for the social composition of the green movement. The class- interest argument seeks to show that green politics is a means of furthering either middle- class or new- class interests while the 'new childhood' argument claims that the development of the green movement is the result of the spread of post- material values, the main bearers of which are the new class.

Howell and Laska (1992) examine changes in the environmental coalition over the 1980's. During these years, concern over environmental problems has increased. In brief, part identification and edge became less important as determines of support for increased environmental spending and education and urban residence became more important.

Changes over time unpredicted proportional change reflect the changes in the environmental coalition. In 1980 ideology and edge had the most influence on a person's willingness to spend more on the environment. A person 18 to 25 years old is 25% more likely to favour increased spending than someone over 60.

The difference between strong liberals and strong conservatives is even more impressive, 38%. Party identification also affects willingness to spend on the environment, but more modestly. Both urban residence and education are insignificant. In 1984, edge becomes insignificant and remains so through 1988. In contrast, ideology and partisanship retain their effects. By 1988, the revised environmental coalition is observed. Most notable is the increased importance of education and urban residence. The logistic coefficient for education is six times its standard error, whereas in the previous years education did not achieve even minimal significance. Someone with education beyond the college is 26% more likely to support increased spending on the environment than someone with an eighth grade education. Urban residence are 10% more likely than rural residents to favour increased spending. By 1988, the best predictors of opinion on the environment are education, ideology, and urban residence.

One of the most visible expressions of recent political changes in Western Europe is represented by the evolution of the environmental movement. Rohrschneider (1991) focused his attention on the environmental movement in four of the Western Europe nations; namely, Germany, France Great Britain and the Netherlands, thinking that these nations represented several of the sociopolitical characteristics that can be found in Western Europe. The main database has been Eurobarometer 17, 21 and 25 conducted in 1982, 1984 and 1986 respectively. These surveys

are conducted in all member states of the European Community and measure the extent to which individuals support environmental organisations.

These surveys show that European public opinion in the time period from 1982 to 1986 remained supportive of environmental organisations. The group of activists is relatively small. The largest percentage of activists can be found in the Netherlands where 12.3, 11.1 and 9.4% of the Dutch public in 1982,1984 and 1986 respectively, claimed to be the members of nature conservation organisations. These levels are the lowest in France, reflecting the unwillingness of French citizens to translate political attitudes into political behaviour. Second, levels of public support are the largest for nature conservation organisations in all four nations, followed by citizens' support for political ecology and anti- nuclear energy organisations. These show that citizens largely agree with the goals of nature conservation organisations, but they are also less willing to support political ecology and anti- nuclear energy organisations because ecology and anti- nuclear energy groups are more critical os sociopolitical institutions than nature conservation groups. Relevant data are depicted in Table 2.11.

TABLE 2.11 Public opinion toward Environmental Groups in Western Europe,

1982- 1986

	Nature Conservation			Political Ecology			Anti- nuclear Energy		
GERMANY %	1982	1984	1986	1982	1984	1986	1982	1984	1986
Activists	3.30	2.90	1.90	1.90	0.70	0.60	1.90	0.50	0.50
Potential activists	51.40	55.40	59.00	21.30	26.50	25.10	18.60	20.40	21.50
Supporters	25.00	24.50	26.00	17.30	18.40	22.10	15.20	12.60	15.00
Indifferent	14.40	11.10	9.00	17.60	14.20	10.30	16.60	15.20	12.30
Weak opponent	4.90	5.40	2.00	27.40	21.70	26.20	26.20	28.90	28.20
Strong opponent	1.00	0.70	0.60	14.50	18.50	15.70	15.70	22.40	22.50
FRANCE %	1982	1984	1986	1982	1984	1986	1982	1984	1986
Activists	1.70	1.40	1.40	0.60	0.30	0.40	0.30	0.30	0.10
Potential activists	19.00	17.20	19.60	13.60	11.20	10.00	7.30	4.70	5.50
Supporters	72.00	73.10	75.30	55.50	64.90	62.30	33.40	36.80	36.90
Indifferent	0.60	1.50	1.30	2.30	2.30	3.70	3.00	3.00	4.90
Weak opponent	5.30	5.90	1.90	21.90	17.60	18.80	37.90	40.50	32.90
Strong opponent	1.40	0.90	0.50	6.10	3.70	4.80	18.10	14.90	19.70
GREAT BRITAIN %	1982	1984	1986	1982	1984	1986	1982	1984	1986
Activists	1.00	3.20	2.70	0.40	0.70	1.00	0.50	0.30	1.10
Potential activists	41.00	26.00	29.80	17.70	14.80	17.40	20.60	10.00	14.80
Supporters	52.20	55.00	57.30	41.60	51.50	46.80	27.50	27.50	39.10
Indifferent	1.70	2.70	3.40	13.10	5.00	10.90	5.40	3.80	4.10
Weak opponent	3.80	11.60	5.70	20.70	22.30	20.90	24.50	37.50	26.70
Strong opponent	0.30	1.50	1.10	6.50	4.70	3.00	21.50	20.90	14.20
NETHERLANDS %	1982	1984	1986	1982	1984	1986	1982	1984	1986
Activists	12.30	11.10	9.40	3.00	2.40	2.70	1.00	0.40	0.60
Potential activists	34.20	27.70	25.90	26.30	29.30	28.40	15.50	16.20	13.60
Supporters	45.20	42.20	46.40	53.30	49.60	55.40	39.70	40.70	42.30
Indifferent	0.90	1.60	1.50	2.00	2.80	2.30	2.10	1.70	1.30
Weak opponent	4.30	5.10	4.90	10.00	11.30	8.00	18.90	18.80	19.40
Strong opponent	3.10	2.30	1.90	5.40	4.50	3.20	22.80	22.20	22.80

SOURCE: Eurobarometer 17,21 and 25

The results show that while supporters of nature conservation, political ecology and anti- nuclear energy groups differ to some extent, the main differences emerge between young and old environmentalists. Young environmentalists and old ones both support a diverse set of environmental groups, but youngs also hold culturally liberal positions.

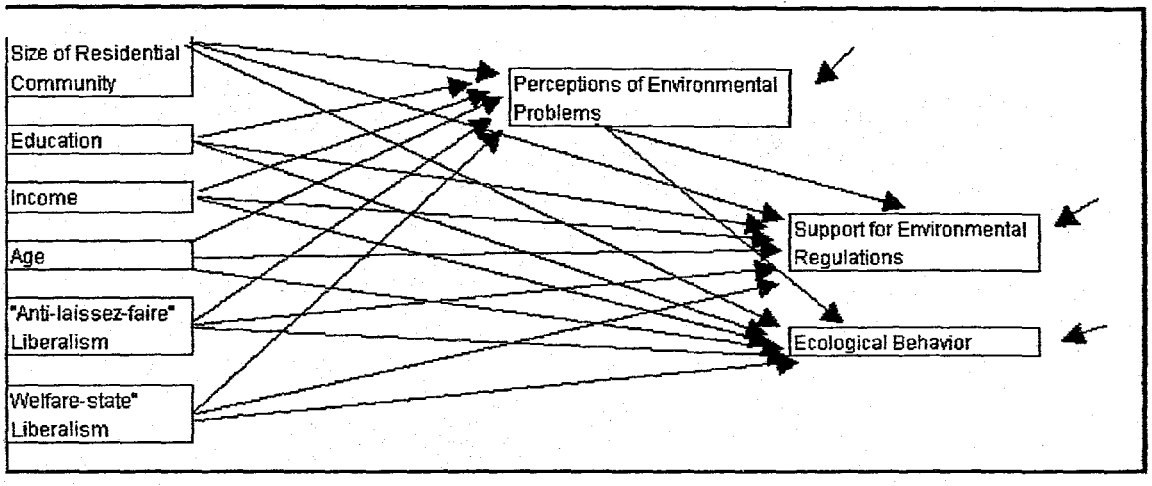
As the goal of the environmental protection entered the political arena, the nature of the environmental movement changed (Buttel and Flinn, 1976; Schnaiberg, 1980). Researchers predicted that ideological differences toward business and government would differentiate liberals from conservatives in their support for environmental issues (Constantiti and Hanff, 1972; Dunlap and Gale, 1972). However, there was no association found by research between environmental concern and political party identification (Dillman and Christensen, 1972; Buttel and Flinn, 1978; Lowe and Pinhey, 19882; Honnold,1981).

In later studies Dunlap (1975) and Mazmanian and Sabatier (1981) found within the general public a strong association between measures of liberal ideology and an expression of environmental concern. Further specification of liberal ideology by Buttel and Flinn (1978) led to the distinction between "anti-laissez- faire" liberalism and "welfare state" liberalism". Although both correlate positively with environmental concern, "anti- laissez- faire" liberalism has shown a significantly stronger

association (Buttel and Flinn, 1978; Buttel and Johnson, 1977; Mazmanian and Sabatier, 1981).

The proposed causal model is depicted in Figure2.2

FIGURE 2.2



Age, education, income and size of residual community are the major sociodemographic variables shown by previous research to be related to environmental concern, and appear in this model as exogenous variables. Both forms of liberalism have been specified in order to test Buttel and Flinn's distinction between "anti-laissez- faire" and "welfare state" liberalism. Although sociodemographic variables typically preceded ideology, the two measures of liberalism are placed with sociodemographics as exogenous variables in order to simplify the model and retain focus on environmental concern as the dependent variables of interest.

Samdahl and Robertson (1989) have analysed relationship between political ideology and environmental concern with the

proposed causal model. Social liberalism did not predict any of the three measures of environmental concern; residence, education and perceptions of environmental problems did not significantly predict ecological behaviour; and age did not significantly predict perceptions of environmental problems. All remaining paths were significant at 0.10 or better.

E) STUDIES RELATED TO IMPACT OF ENVIRONMENTALISM ON BUSINESS

The Advertising Age/ Gallup Organisation green marketing survey (1990) of 1514 consumers, is conducted by Chase. The maximum expected margin of error is +/- 2.5%. Characteristics of the sample are 48% male, 52% female; ages 12-17, 10%; 18-24, 13%; 25-34,21%; 35-44,17%; 45-54, 12%; 65 and older, 15%.

The survey measures consumer opinion- not behaviour- and determines persons' value systems. Respondents were asked to rate individual product categories and companies by their concern for the environment. Cereal marketers received the highest average ratings, followed by soft drinks, retailers, toothpaste and laundry soaps and detergents. The bottom five categories, with relatively low ratings for environmental concern, are beer, automotive, fast- food restaurants, cosmetics and disposable diapers.

Overall, the company which comes to mind as being the most environmentally conscious is Procter & Gamble with 6% and the second one is McDonald's with 4%. (None/ Don't know results were 66%).

Results show that consumers are looking for marketers to do more for environment and say they will change their buying

behaviour to favour the companies that are environmentally sensitive.

Besides, consumers' green activities were also questioned. 86% of consumers voluntarily recycled newspapers, glass, aluminium, motor oil and other items; 82% bought products made from or packaged in recycled materials; 71% improved insulation or the heating or air conditioning system in their homes; 68% bought biodegradable plastic garbage bags and the same percentage bought products in refillable packages.

F) STUDIES RELATED TO ECONOMIC FACTORS AFFECTING THE LEVEL OF ENVIRONMENTAL CONCERN

Empirical and theoretical studies have also focused largely on the relationship between economic factors and the level of environmental concern. Since the present study analyses the same relationship as well, previous studies have been searched.

Ketkar (1984), has established three models to analyse the combined impact of income generation- distribution and price changes on pollution. His aim is to analyse the policy of taxation on polluters. His hypothesis is that tax policy would save time and money because instead of forcing industries to comply with pollution guidelines, they can be given a choice as to pollution abatement equipment or paying the pollution tax.

Adams (1990) provides a framework for the discussion of environmental issues as they relate to the question of development in the Third World. His goal is establishing a connection between environmentalism and development theory and illustrating the effects of these theories in practice in the developing nations. While most of the issues are applicable to most of the developing countries, the experience of a number of Asian nations has important applications for both development and environment theory.

Beckerman (1992), in his theoretical study, analyses the relation between economic growth and the environment in five stages; namely, conflicting interests in the environment- growth relationship, economic growth and resource constraints, the greenhouse effect, economic growth and the environment in developing countries, and the intergenerational conflict. The main theme of the paper is that concentration on resource constraints or global warming is not merely unjustified taken in isolation but is a distraction from more serious environmental problems, particularly the urgent environmental problems of the poorest sections of today's population. The most important conclusion that can be drawn from his study is that the loss of the welfare of the population in developing countries as a result of inadequate access to safe drinking water and sanitation, or of urban air pollution is far greater, and should be given priority over the interests of future generations. The sustainable growth concept is either morally indefensible or totally non operational.

Eckersley (1992) focuses on two main competing economic programs for social and ecological renewal within Green and related circles: The Green market economy and the democratically planned eco socialist economy. Although both of these economic programs enlist the values of participatory democracy, ecological responsibility, social justice, decentralisation, they differ over how these values are to be interpreted and applied. Whereas Green economists tend to emphasise the importance of central planning, and seek to ecologize the institutions of the market

economy, eco socialists tend to emphasise the importance of the market economy and try to ecologize state and local economic planning institutions.

Dunlap and Scarce (1992) have analysed whether people believed that environment was more important than economic growth or vice versa. Results depicted on the following table show that every year percentage of respondents who support environmental protection increases. Their study also shows that majority believes that environment must be improved regardless of cost.

Table 2.13 Environment versus economy

Environment versus economy	1987	1988	1989	1990
1.We must sacrifice economic growth for environmental	57	52	52	64
2.We must sacrifice environment for economic growth	23	19	21	15
3.Environment must be improved regardless of cost;				
agree	66	65	74	74
disagree	27	22	18	21
No idea	7	13	8	5
4.We can have both economic groth and clean environment				
Yes	56	49	49	59
Cannot have both	31	31	33	32
No idea	13	20	18	9

Results of the studies in the literature review part are summarised in the below tables.

Table 2.14 Summary of Relevant Studies in the Literature

Author (Year)	Variables Studied	Major Results
SOCIODEMOGRAPHIC DETERMINANTS	Environmental concern vs.	
VanArdsol, Sabagh, Alexandra (1965)	race	whites vieww smog/traffic noise more important
Tognacci et al. (1972)	age	moderate negative association
	education level	strong positive relation
Mc Evoy (1972)	age	low negative association
	education level	strong positive relation
Dillman & Christensen (1972)	age	moderate negative association
	education level	strong positive relation
Buttel& Flinn (1974)	education level	moderate strong positive relation
Hohm (1976)	race	whites view airpollut. more imp
Hershey & Hill (1977-8)	race	black students less aware/ less concerned
Buttel & Flinn (1978)	education	moderate strong positive relation
	social class	moderate strong positive relation
Van Liere & Dunlap (1980)	(review of studies)	this line of research had limited
	age, education, income, occupation,residence,sex, political party,ideology	success in explaining environmental attitudes
Taylor(1982)	race	whites perceive env. pr. more important/donate money/take env. courses/ join env. group
Neuman (1986)	gender,age,education level, income, political stance	unrelated to behavioral commotment to conservation practices
Shapiro & Majahan (1986)	gender	women support env. policies more
Steger & Witt (1988)	gender	women have more protective attitude & perceive more risk
Samdahl & Robertson (1989)	age	positive association
	education	negative association
Schahn & Holzer (1990)	knowledge	women more concern.
	gender	household envir./ men more
	age	aware/informed of env. prob.
	education level	environmentalists are young,
	political stance	well educated, on left wing politically

Author (Year)	Variables Studied	Major Results
Vining & Ebreo (1990)	recycling & gender,income level,education level,	gender: no association recyclers are older recyclers have slighlty more income/ highly educ. get info fr papers, low educ. fr TV
Molah (1990)	race/income- education level and occupational status	no difference in level of perception of env. pr.
Blakie (1992)	gender age	females less confident abt technical solut. to env. pr. young less concern abt effect of econ growth on env.
Arabacıoğlu (1992)	gender age	women more aware of env.pr. young /middle aged complain moreabt pr./believe more in contribut. to solutions
ATTITUDINAL & BEHAVIORAL INDICATORS	Environmental concern vs.	
Rohrscheneider((1988)	personal values 1.sociotropic 2.postmaterial 3.self-interest	 strongest predictor of env.con. moderately related weak relation
Vining (1992)	Manegerial position	env. decisions of managers differ
West, Lee, Feiock (1992=	Environmentalists vs. solid waste Managers in recycling/strategies/government policy implem./private org. involvement	environmentalists support preventive strateg.& more critical of state govt policy implementation/ support more private organisation involvement
Arabacıoğlu (1992)	social responsibility env. attitudes of modern & traditional people	peop with more soc.res. think env. activities easy to do /modern peop. more concernabt danger of global env. pr.
SOCIOPYCHOLOGICAL INDICATORS		
Dunlap (1973)	higher order values lower order values	recyclers desire a high quality env. more / safety and security more imp. for nonrecyclers
De Young (1985- 86)	intrinsic motives and recycling	int. motives are significant incentives for recycling
• Prester, Rohrman, Schellhammer (1987)	Participatory behavior (env.9	affected by evaluations of env. quality, expected condit. of env. in future, interest in plitics

Author (Year)	Variables Studied	Major Results
Vining & Ebreo (1988)	social pressure	soc. press. forces recycling
Vining & Ebreo (1990)	role of motives in recycling beh.	nonrecyclers uncertain of their env. kowledge nonrecyclers more concer. wt financial incentives and personal convenience
Kolber (1990)	consumer feelings abt detergents & env. protection	49% thinks detergent has no deep effect on env.
Dap/ Yankelovich (1991)	consumer typology made	10% evergreens/ 27% fatalista/ 24% apathetic
Dunlap & Scarce (1992)	trends abt env. pr.	strong relation between perceived threat to oneself and to env./ majority think government spends little on env. and govt. protection not enough
SOCIOPOLITICAL ASPECT		
Dunlap (1975) & Mazmanian & Sabatier (1981)	liberal ideology	strong association btw lib. ideol. & expression of env. concern
Buttel & Flinn (1978)	anti-laissez faire liberalism welfare-state liberalism	both correlate positively wt env. concern/ anti-l.f. has significantly stronger association
Samdahl & Robertson (1989)	relation btw political ideol. & env. concern	social liberalism did not predict env. concern
Rohrschneider (1991)	public support of env. policies	activists are most in Netherlands and least in France/ main difference is btw young & olds.
Howell & Laska (1992)	change in env. coalition	liberals support env. spending more/ modest relation btw. party identification & spending
IMPACT ON BUSİNESS & ECONOMIC FACTORS		
Ketkar (1984)	impact of income generation & distribution and price changes on pollution	tax policy saves time & money
Advertising Age/ Gallup survey (1990)	product categories and companies which are envi. friendly	cereal marketers are the most env. fr./ P&G is the most env. conscious firm
Beckerman (1992)	relation btw eco. growth & envi.	loss of welfare in developing countries results from inadequate access to safe drinking water & sanitation
Dunlap & Scarce (1992)	env. vs. econ. growth	64% sacrifices eco. for env./ env. must be improved regardless of cost

2.G LIMITATIONS OF THE STUDY

There have been some limitations to the study. Sample size was the first limitation. Since a cross-cultural study was aimed, the passengers of a private charter airline company was taken as the target population; hence sample size was determined considering the proportion of the passengers on Germany and Holland flights (from Turkey) to the totality of the passengers of this company annually. Thus sample size has been relatively small for such a study. Results could have been more clear if that had study could have been made in all three countries. The second limitation has been the incomme level. Since charter flights offer relatively cheaper prices, majority of the passengers are earners of middle level income. Thus in this study, middle income earningconsumers are represented at a higher degree than both low and high income earning consumers.

Another very important limitation for the study has been the time constraint while filling in the questionnaires in Germany flights which were shorter than Holland flights. Filling a questionnaire necessitated at least 30 minutes and they were to be given to the passengers after the inflight service was finished. Duration of the in-flight service was approximately one and a half hours. In many Germany flights there was not enough time to distribute questionnaires and take them back since during the last half an hour the flight attendands had to be preparing the cabin and the

passengers for landing. The interviewer had been the cabin chief who had all the responsibility of the passengers to the pilot in command and the company. Thus time had been a very important constraint and as a result the questionnaire were completed in two and a half months.

The other limitation has been the education level of the Turkish passengers particularly. Approximately 95% of the Turkish passengers on these charter flights are Turkish workers and their education level is lower than German and Dutch passengers on the same flights. The first problem with them has been that they did not want to fill in a questionnaire claiming that they did not know much about the subject; but the interviewer has persuaded them that the questionnaire did not aim measuring level of their knowledge, but learning their ideas about the subject. The results have been interesting though. For instance the percentage of the less educated respondents who think that destruction of cultural monuments and noise pollution are very important problems for the world, is higher than both middle level and highly educated ones. There are some such interesting results related to less educated ones. A reason might have been that less educated and highly educated respondents might have different social perceptions and less educated ones might want to look different than they are.

This part consisted of a thorough review of the relevant literature and a discussion of the limitations of the present study, The following part describes the research design and methidology.

III. FIELD STUDY ON ENVIRONMENTAL CONCERN

This part consists of two sub- sections. Research design and methodology used in the present study will be described in the first section; the research findings will be reported in the second section.

3.1 RESEARCH DESIGN AND METHODOLOGY

In this section, the research objectives and questions, and the data collection procedure will be presented respectively.

3.1.1 RESEARCH OBJECTIVES AND RESEARCH QUESTIONS

The main objective of the present research is to determine the levels of environmental concern of general Turkish, Dutch and German publics and to find out the similarities and differences among their environmental perceptions and attitudes. With this objective, the answers to the below- mentioned questions have been investigated:

a. What is the significance of environmental issues for the consumers when compared with other important issues both at local and global levels?

b. What is the degree of consciousness of consumers about environmental problems?

c. Which environmental problems are of greatest importance in the eyes of consumers?

d. To what degree, do the consumers believe, can they participate in the solution of environmental problems? (Level of willingness)

e. What is the perceived cause and the solution of environmental problems?

f. According to the consumers, who or which body has the responsibility for environmental protection and to what degree?

g. What is the actual participation level of consumers to the solution of environmental problems, at personal, local, national and global levels?

h What is the level of sacrifice, do consumers think they can do, for improving environmental quality?

The secondary objective of the research is to find out the effect of environmental concern on purchasing behaviour of the consumer in all three publics. For this purpose the answers to the following questions have been sought:

a. Does the consumer know what products/ materials are environmentally friendly?

b. Does the consumer know which companies/ industries consider environmental protection seriously?

c. While purchasing a product, what is the importance of its green impact among other criteria for the consumer?

d. Do consumers react against the companies/ industries, which they believe, pollute the environment?

e. How willing is the consumer to pay extra (taxes, extra costs of products, and the like) for a cleaner environment?

f. Who, the consumer thinks, should pay for the extra cost of environmentally friendly products?

Finally, the effect of nationality and demographic differences on the level of environmental concern will be analysed in the present study.

3.1.2 RESEARCH DESIGN AND METHODOLOGY

The present research aims explaining the level of environmental concern of three different publics which are Turkish, Dutch and German,In this respect the study is explaratory. But since as the first step, a descriptive study is discussed by relating it to the findings in literature study, the study has a descriptive characteristics as well.The goal of the study is to determine the frequency of some environmentalist behaviour manifested by the consumers in relation to some demographic variables such as gender, age, marital status, education level. By other two important characteristics, the study proves to be a cross-sectional analysis. First, measurement of the studied variables is taken at a single point of time; and secondly, the sample of elements are selected to be representative of the airline passengers on the routes from Turkey to Germany and Holland which also are considered to be representing the German and Dutch publics and the Turkish minority living in those countries. Data for the study have been collected through a structured questionnaire over a period of two and a half months(May1-July15).

The population and the sample: In this study the target population is determined as the passengers of a private Turkish Charter Airline Company's on Germany and Holland flights. German and Dutch people with average income and Turkish workers living in Germany and Holland represent the target

population.The chosen charter airline company is Sultan Air which is one of the major charter companies in Turkey, thus it has been decided that passengers of this company would be representative of the target population. The study aims a cross-cultural approach, thus passengers with relatively similar income levels who fly with charter flights are considered to represent all three cultures living in those countries. Hence, this study will not be comparing the attitudes of German and Dutch publics with the Turkish public living in Turkey, but with the Turkish public living in Germany and Holland. The main reason behind such a comparison is to test whether the level of environmental consciousness of Turkish workers living in these two countries (which are well- known to be environmentally conscious) is close to that of the national publics.

The sample is a non- probability sample since there is no way of estimating the probability that any population element will be included in the sample. The sample is also a judgemental one since the elements are hand picked because it is expected that they can serve the research purpose. In this study sample elements are selected to be representative of the German, Dutch, and Turkish publics living in Germany and Holland.

Data Collection Method and Questionnaire Design: The primary data collection instrument of the present study has been a structured and an undisguised questionnaire. The previous year a similar (less comprehensive) study had been made in Istanbul as a research project (Arabacıoglu, 1992). With the help of this

study (and its questionnaire) and after a complete literature survey about the topic (Rohrschneider,1988,1991; Dunlap and Scarce,1992; Chase,1991; Yankelovich Green Action Survey,1991) has been made the questionnaire has been developed. The pilot study to test the questionnaire was applied to a convenience sample of 20 persons and the related changes were made afterwards. This helped to restructure and rewrite the questionnaire aiming to prevent vagueness and avoid misunderstandings which could happen due to the errors in wording or format. This pilot study also helped to prove the validity of the questionnaire and the study.

The final form of the questionnaire has been distributed to 294 persons by the above- mentioned non- probabilistic judgemental sampling method and all of the questionnaires were collected back, thus none of them was discarded. The sample size is 294 which is determined through confidence interval approach based on proportions.Questionnaire was filled in by the respondents approximately in thirty minutes, but was longer with most of the Turkish respondents, around 45 minutes. The ratio of the annual total number of passengers on Germany and Holland flights to the annual total number of passengers on all flights was 26% (Sultan Air,1992). With 95% confidence and 5% error, the sample has been determined to be 294. The formula used to determine the sample size is the formula of the confidence interval approach based on proportions which is $n=z^{2}*(p*(1-p))/e^{2}$ where z stands for z value of the normal disribution with error term .05; n

stands for the sample size, p stands for the ratio of the population of the Turkish, Dutch and German passengers to the total number of passengers annually and e is the error term which is chosen as .05 in this study. With z=1.96, p=.26, and e=.0 the sample size comes out to be 294.

$$1.96^2*(.26*.74)/.05^2=294$$

Questionnaires were given to the airline passengers during the flights after every in-flight service was finished. The major problem was the shortage of time since in many of the flights (especially in the ones to Germany) the flight time was not long enough for giving the questionnaires and taking them back. The questionnaire required about 30 minutes to complete. The second problem has been the seasonality of flights since during the months May, June and July charter flights change destinations to Italy, Spain and Austria. The lessening of flights to Germany and Holland had also political reasons such as Neo-nazism in Germany and bomb attacks in Antalya.

Different attitude measurement scales such as ' nominal, ordinal and interval ones' were used. The scale types were determined by the nature of the questions and information sought. Open- ended questions were also used aiming to get direct answers without the aid of the researcher. Before the data analysis the responses to the open- ended questions in the majority of the questionnaires were edited and categorised. Master response

tables were prepared and these questions were then coded according to those tables.

The questionnaire (Appendix 1) consists of two main parts:

PART 1: In the first part, questions related to environmental attitudes, the level of environmental concern and the impact of environmental concern on the purchasing behaviour were asked. The analysis of separate sections is as the following:

SECTION 1: Respondents were asked to indicate the level of importance of ten problems for the world, (Question 1). Then they were asked to write the most important three problems, (Question 2).

SECTION 2: Respondents were asked to identify their level of awareness with 16 global environmental problems, (Question 3) and they were also asked to identify the level of importance of those problems, (Question 4).

SECTION 3: Whether the level of interest of the respondents in environmental issues changed or not was questioned, (Question 5).

SECTION 4: Twenty-two important issues were presented. These issues contained problems about national, economical and social topics. The respondents were asked to determine the most important six issues for their countries, (Question 6) and choose the most important three issues among them, (Question 7).

SECTION 5: Five statements related to the relative importance of environmental protection with respect to economic and military issues were given and respondents were requested to indicate their level of agreement with those statements, (Question 8). The respondents were then asked to put in order of importance the conditions to be improved in their countries, (Question 9).

SECTION 6: Respondents were given four reasons (causes) of environmental problems in the world and were asked to put these in order of importance, (Question 10).

SECTION 7: The role of individuals, governments and industries is questioned through clear statements and respondents were asked to indicate their level of agreement with those statements, (Question 11). Respondents were also asked later to what degree governments, producers and consumers should participate to the cost of an environmentally- friendly product, (Question 30).

SECTION 8: 21 environmentalist activities that the individuals can engage in were listed and respondents were asked how often they thought people in their country did those activities, (Question 12). Later they were asked how often they did those activities, (Question 18).

SECTION 9: Three definitions of an environmentally friendly product was made and respondents were requested to put those definitions in order of importance, (Question 13). Respondents were then asked how they recognised an environmentally friendly product, (Question 14). The following two questions aimed to

find out the names of the product class or materials, (Question 15) and the companies which the respondents believed to be environmentally friendly, (Question 16).

SECTION 10: Respondents were given a total of nine environmentalist activities and asked if they had engaged in any of those activities up to that date, (Question 17) and later they were asked whether they would participate in some activities for a better environment, (Question 19). Another question (Question 20) was asked to find out what the reaction of respondents would be to an environmental damage which happened in another country if it affected their country as well.

SECTION 11: Respondents' level of sacrifice was measured with the help of Question 21. Respondents were asked how much more would they personally be willing to pay for all the goods and services they use as a consumer, if they knew as a result of this, industry would be able to operate in a way that did not harm the environment.

SECTION 12: Respondents were asked to choose the most effective way of solving the environmental pollution problem among five alternatives, (Question 22) and later they were asked to indicate the level of sufficiency of information about environmental issues they receive from the given nine sources of information, (Question 23). The three sources from which respondents would be willing to get information about environmental issues were asked in Question 24.

SECTION 13: In this section, the very basic knowledge of respondents was aimed to be measured. Series of YES- NO type of questions were asked about the environmentalist characteristics of the cars respondents own (if they do own), (Question 25) and about the existence of an environmental law in their country, (Question 26). Later two open- ended questions were asked about kind of packaging respondents prefer, (Question 27) and about their attitudes towards using fur coats, (Question 28).

SECTION 14: In the final section of the first part, respondents were asked to indicate the importance of some factors (characteristics) of a frequently purchased food item while purchasing it (Question 29). Importance of its environmental impact is investigated in this section.

PART 2: This part consists of questions which identifies demographic characteristics of the respondents. These variables are gender, age group, education level and field, marital status, number of children, number if people living in the household, working status, ownership and size of enterprise and total monthly household income.

3.2 RESEARCH FINDINGS

3.2.1 DEMOGRAPHIC FINDINGS ON THE SAMPLE

Research findings of the demographic characteristics of the sample are summarised in Table 3.1 and Table 3.2:

Table 3.1a- Demographic characteristics of the sample

Demographic Characteristics	GENERAL	TURKISH	DUTCH	GERMAN
Gender				
Female	41%	36%	46%	43%
Male	59%	64%	54%	57%
Age group				
Below 17	2%	3%	2%	1%
17-24	23%	30%	18%	21%
25-34	40%	27%	45%	49%
35-44	18%	24%	17%	13%
45-54	11%	9%	11%	12%
55 and above	5%	7%	6%	3%
Education Level				
Literate	1%	2%	0%	0%
Graduate of primary school	7%	20%	0%	0%
Graduate of secondary school	23%	23%	27%	18%
Graduate of highschool	33%	26%	35%	39%
Graduate of university	24%	19%	23%	30%
Graduate of graduate	2%	1%	2%	2%
University student	8%	7%	9%	7%
Graduate student	2%	0%	4%	2%
Marital status				
Bachelor	44%	27%	43%	61%
Married	50%	67%	47%	37%
Divorced/ Widowed	6%	6%	10%	2%

Demographic Characteristics	GENERAL	TURKISH	DUTCH	GERMAN
Number of children				
no children	61%	42%	67%	71%
one child	9%	13%	9%	5%
two children	17%	15%	17%	19%
three children	8%	14%	5%	4%
four children	3%	9%	0%	0%
five children	1%	2%	1%	0%
six children	1%	4%	0%	0%
Number of people living in the house				
Alone	13%	6%	13%	20%
2 persons	35%	24%	41%	38%
3 persons	22%	24%	23%	16%
4 persons	20%	14%	20%	23%
5 persons and above	10%	29%	1%	2%
Working Status				
Part time	11%	7%	17%	8%
Full time	64%	52%	67%	70%
Not working	25%	41%	14%	20%
Ownership of enterprise				
Own enterprise	15%	14%	13%	16%
Salary earner	57%	45%	69%	58%
Size of enterprise				
Large enterprise	30%	24%	35%	31%
Medium-size enterprise	12%	7%	16%	12%
Small- size enterprise	27%	29%	27%	26%
Government	2%	0%	1%	5%
Monthly total net household income				
Lower than 1000DM	3%	4%	2%	2%
1000DM- 2000DM	26%	33%	19%	27%
2001DM- 4000DM	42%	38%	43%	46%
4001DM-6000DM	17%	16%	19%	16%
6001DM- 8000DM	5%	6%	7%	2%
More than 8000DM	2%	3%	0%	3%

Sample size is 294 with each sub- group consisting of 98 respondents.

Table 3.1b Demographic Characteristics of the Sample based on MODE

MODE	GENERAL	TURKISH	DUTCH	GERMAN
Gender	Male	Male	Male	Male
Age group	25-34	17-24	25-34	25-35
Education	High school	High school	High school	High school
Field of education		Business	Engineering	Architecture
Marital Status	Married	Married	Married	Bachelor
Number of children	2	2	2	2
Number of people in the house	2	2	2	2
Working status	Full time	Full time	Full time	Full time
Not working, because	Student	Student	Student	Student
Working at/as	Salary earner	Salary earner	Salary earner	Salary earner
Sort of enterprise	Small	Small	Small	Small
Job or current position		White collar	Technician	Manager
Monthly total net household income		8-12m.TL	2500-4500HFL	2000-4000DM

Sample size is 294 with each sub- group consisting of 98 respondents.

In general, 41% of the sample is female and 59% is male. These percentages quite well represent the target population since the percent of airline passengers on the two lines; namely, Germany and Holland, are distributed in a similar way. However percentages on a national basis differ from the general since the percentage of the female passengers(36%) in the Turkish group is less than those in both Dutch(46%) and German(43%) groups.

Age groups, on the other hand , are distributed as such: 23% are between 17-24, 40% is between 25-34 and 18% between 35-44 years old. Majority of Dutch and German passengers were

between 25-34 ages. The Turkish passengers again exhibit a minor difference than the other two groups. Majority of them are aged between 17-24(30%), but again the percentage of Turkish passengers between ages 25-34 is very high, 27%.

Education level in general shows that in all three groups majority are high school(lycee) graduates. But the general pattern of the percentages is such that the education level of Germans is higher than the other two and that of Turkish is lower than the remaining two. The distribution of the university or graduate students/ graduates differ in all three groups (Table 3.1a) and in Table 3.1c, it is seen that different branches were in majority. The most frequently obsered field of education is Business Administration with the Turkish sample. Neither in Holland nor in Germany the percentage of people studying Business is high. But since our sample group consisted of a charter airline company's passengers on Holland and Germany routes, it was inevitable not to include Turkish yuongsters going on a holiday, especially during the long religious fest, with their friends with the cheaper charter companies. Thus it is obvious that those business students or graduates are not from the workers' families. Majority of Dutch and Germans, on the other hand, are studying or have studied 'engineering' and 'architecture', respectively.

Forty-four percent of the passengers are bachelor and 50% are married. The percentages differ a lot in the three groups. 67% of the Turkish are married whereas this percent falls to 47% in Dutch and 37% in German respectively. While analysing the

results of the number of children question, all 'no answer's were considered as having 'no children' since all bachelors skipped this question. Thus the ratio of 'no children ' is quite high. 61% in general has no children. 42% of Turkish passengers have no children. As expected the percentages of Dutch and German passengers without children are greater than Turkish, they are 67% and 71%, respectively. Turkish respondents have up to six children whereas Dutch and German passengers have up to three children only. All three groups have two children in majority.

Number of people living in the household is two for the majority of the Dutch(41%) and German(38%) passengers. Most of the respondents who are bachelor are living together with their boyfriends or girlfriends, therefore the percent of people living alone is lower than expected. The condition with the Turkish group is quite different, 29% live with four people or more since most bachelors live with their families.

In general, 64% work full-time and 25% do not work, these are mostly the students. This ratio is higher with the Turkish respondents since most women are not working, they are 'housewives'.

Fifteen percent of respondents have their own enterprise and 57% are salary earners. Percentage of people who have their own enterprises are similar for all the groups. The striking result in this variable comes to the scene when the ratio of ownership is compared with the ratio of working people. 59% of the Turkish

respondents work and 14% have own enterprise. 86% of Dutch work and 13% have own enterprise and 98% of the Germans work and 16% have own enterprise. Ownership among the Turkish people is greater.

In general 30% work at/or owns a large enterprise with more than 50 employees. 12% work at/or own a medium- size enterprise with 25 to 50 employees. 27% work at/ or owns a small enterprise. Only 2% work for the government. Majority of the Turkish(29%) work at/ or own a small enterprise, whereas the majority of the Dutch(35%) and German(31%) respondents work at or own large enterprises.

Monthly total household income is an important variable as will be seen in the following sections. When all three groups are considered together majority (42%) has income between 8-12 million Turkish Liras or the equivalents: 2500- 4500 Dutch Gilders(Florins) and 2000- 4000 Deutsche Marks. (These ranges are not exact exchange rate equivalents, but approximations made by considering the social welfare levels in these countries such as the purchasing power of a certain amount of money.)

3.2.2 FREQUENCY DISTRIBUTIONS ON THE LEVEL OF ENVIRONMENTAL CONCERN

Results of the field study will be summarised in this section through frequency distributions. Both the level of environmental concern and the effect of this concern on purchasing behaviour will be analysed in this section. Frequency distributions of the general public will be analysed first, then a comparative study will be conducted on the frequencies of three different groups- Turkish, Dutch and German respondents.

3.2.2.1 FREQUENCIES OF THE GENERAL PUBLIC

Results of the emprical study are summarised in this section under three subtitles which are the level of concern for the global environmental problems, the level of concern for the national environmental problems, and environmental perceptions and attitudes.

3.2.2.1.a The level of concern for the global environmental problems

Respondents were first asked to rate the importance of some problems for the world. Table 3.2 shows that the highest mean values belong to hunger and environmental pollution. Since the respondents were informed at the very beginning of the questionnaire that the survey was about environmental concern, social desirability bias could have affected the results of this

question. Wars follow the first two issues. 96% of the respondents rate hunger as important and 95% rate environmental pollution as important. Education has been stated as an important problem by 95% of the respondents although its mean value is much lower (3.54). This shows that more respondents valued education as 'somewhat important' when compared with environmental pollution. Health is another issue which has been valued as important by 94% of the respondents.

It is obvious that all the listed problems were considered to be important since the lowest importance frequency which belongs to inflation is 81%, which is still a very high percentage. It is quite natural that respondents viewed inflation as the least important item among all others when problems of the world are considered.

TABLE 3.2 Importance of the problems of the world

	MEAN*	IMPORTANT
Hunger	3.70	96%
Environmental pollution	3.70	95%
Health	3.62	94%
Education	3.54	95%
Wars	3.52	88%
AIDS	3.48	89%
Rapid population increase	3.31	88%
Unemployment	3.30	85%
Economic problems	3.28	85%
Inflation	3.19	81%

*1=not important at all / 4= very important/ Sample size is 294
Important values include somewhat and very important figures..

When the respondents were asked to write out the most important three issues, 22% said that hunger was the most

important problem of the world. The second most important issue is wars and the third one is environmental pollution. Results are consistent with the results of the previous question. Economic problems and unemployment are the least important issues according to the respondents.

TABLE 3.3 The most important problem of the world

	PRIORITY
Hunger	22%
Wars	19%
Environmental pollution	17%
Health	9%
Education	8%
AIDS	6%
Rapid population increase	6%
Inflation	5%
Economic problems	3%
Unemployment	3%

Sample size is 294

Next, respondents' level of awareness with some important environmental issues were examined. Table 3.4 shows that air pollution has the highest mean value. The reason may be that for many people air pollution is the most widely known environmental problem about which they hear everyday on the radio, TV or read in the papers. Another prominent problem, destruction of ozone layer, gets the second highest mean value. The results indicate the important role of mass media in the identification of problems. Destruction of forests is the third environmental problem the respondents are aware of. Erosion, soil pollution, transboundary movement of hazardous wastes are the three issues about which the respondents are least aware.

Many people may not be perceiving erosion as an environmental problem and the term 'transboundary movement of hazardous wastes' might have no meaning to many of the respondents but if the term could have been explained clearly, they could have exhibited a higher level of awareness.

TABLE 3.4 Awareness about environmental problems

	MEAN*	AWARE
Air pollution	3.46	92%
Destruction of ozone layer	3.38	89%
Destruction of forests	3.33	85%
Chemical wastes	3.24	84%
Water pollution	3.18	82%
Household wastes	3.04	75%
Acid rains	2.91	68%
Greenhouse effect	2.83	62%
Noise pollution	2.79	62%
Endangered species	2.76	61%
Destruction of agricultural areas	2.74	62%
Destruction of cultural monuments	2.73	57%
Soil pollution	2.71	55%
Visual pollution	2.66	56%
Erosion	2.63	53%
Transboundary movement of hazardous waste	2.57	53%

*1=not aware at all/ 4= very much aware/ Sample size is 294
Aware includes very much aware and aware values

Table 3.5 shows that respondents chose the three environmental problems about which they were most aware as the most important problems for the world. To avoid biased answers, order of the environmental problems were changed. Still another

problem could not be avoided. Most respondents rate the first three or more items higher than the rest. The falling mean value of the air pollution can be attributed to this condition. Destruction of cultural monuments, noise pollution and transboundary movement of hazardous waste are the least important problems according to the respondents. It is highly possible that many respondents did not consider the first two issues as important environmental problems since they do not have a clear polluting effect. 'No answers' were also included among the not important at all answers since it was observed that some respondents who said they were unaware of a particular problem did not attribute any importance value to that problem, but most of the others attributed such problems as unimportant.

TABLE 3.5 Importance of the environmental problems for the world

	MEAN*	IMPORTANT
Depletion of ozone layer	3.82	97%
Depletion of forests	3.78	99%
Air pollution	3.77	97%
Water pollution	3.71	96%
Chemical wastes	3.67	97%
Acid rains	3.41	91%
Greenhouse effect	3.38	86%
Depletion of agricultural areas	3.35	92%
Soil pollution	3.33	88%
Household wastes	3.25	88%
Endangered species	3.22	83%
Erosion	3.21	82%
Transboundary movement of hazardous waste	3.16	81%
Visual pollution	3.05	79%
Noise pollution	3.03	76%
Destruction of cultural monuments	2.92	67%

4= very important and 1= not important at all/ Sample size is 294

Respondents were asked about the change in the level of their environmental concern compared to the previous year. As seen in Table 3.6, 67% claimed more interest, 27% said there was no change. It is obvious that many people see themselves as more interested in environmental issues. Even if they have no personal interest in the environment, every day they are subject to the effect of mass media which brings them vis-a-vis with environmental problems. It is inevitable to claim more interest or no change. 5% of the respondents are less interested in the environmental issues. Most probably these are from the 'apathetics' (with reference to the DAP/ Yankelovic's Green Action Survey) group which have got bored of the intense

interest of public, mass media, industry and government in environmental issues. In every country there exists some people who get bored of the repetition of some problems and get completely uninterested or less interested in those problems. Environmental problems are also always on the agenda and this may result in a negative reaction about the subject.

TABLE 3.6 Degree of concern in environmental issues as compared to the previous year

	FREQUENCY
More interested	67%
No change	27%
Less interested	5%
No Answer	1%
Undecided	1%

Sample size is 294

3.2.2.1.b Level of concern for the national environmental problems

The environmental responsibilities and roles of individuals, businesses and governments according to the respondents are an important part of the present study. It is seen that industry is considered to be the most irresponsible body that causes worldwide environmental problems (Table 3.7). Governments and publics' irresponsibility is also very close to that of

industry's. The expected roles of governments, industrial organisations and individuals are observed on Table 3.8. 93% believe that it is the government's duty to force industries to care for the environment and 92% wants industrial organisations to make extra expenses for the protection of the environment. Confidence in the role that the individual can play in the solution of the environmental problems is less. Many people do not believe in the effect of personal efforts. Respondents also have no confidence in the industries about protecting the environment.

TABLE 3.7 The most important reason (cause) of environmental problems in the world

	PRIORITY
_____irresponsibility of industries	33%
_____irresponsibility of the public	32%
_____irresponsibility of governments	32%
_____irresponsibility of local administrations	5%

Sample size is 294

TABLE 3.8 Roles of government, industry and public according to the respondent

	MEANS*	AGREE
-Government has to force industries to care for the environment	4.59	93%
-Industrial organisations should make extra expenses for environment	4.46	92%
-Personal efforts may contribute to the solution of environmental problems	4.09	81%
-Most industries are interested in protection of the environment	3.06	30%

1=have no idea/ 5=strongly agree/ Sample size is 294

From among twenty given issues such as economic, social, environmental,etc. problems, respondents were asked to tick the six most important for their own country. Table 3.9 shows the first six of them which were ticked by majority of the respondents. 64% have ticked unemployment and 44% have ticked economic condition and air pollution. Unemployment and economic condition were rated the lowest when their importance for the world was questioned, but for Germany, especially after the reunification-, Turkey and Holland, these are the problems on the agenda. The recession also affects the wealthy countries of Europe and their publics are now more interested in economic problems than they were before. Air pollution is the only environmental problem among the first six issues. Air pollution also received a high number of mentions among the problems in the world.

TABLE 3.9 Most important issues for respondent's country

	PERCENTAGE
Unemployment	64%
Economic condition	44%
Air pollution	44%
Education	43%
Inflation	42%
Traffic problem	40%

Table values indicate the percentage of respondents who have ticked the above issues as one of the most important six issues of their country. Sample size is 294

As seen in Table 3.10, 65% of the respondents agree that growing use of plastics presents a serious environmental threat. The rate could be much higher if the survey had been done in Turkey, because many respondents wrote as a personal note on the questionnaire sheet that plastics were recyclable. Thus these notes have made clear why only 53% agreed with the second statement. Majority of the respondents disagree that economic development and military expenses are more important than environment. This is verified in all three last statements. However, Table 3.11 shows that when the respondent's country's development is in question, it becomes harder to distinguish between economic and environmental development. The two issues receive the same priority before social, political and military conditions. But analysis of modes show that environmental condition is the first important condition to be improved even though the difference is minor.

TABLE 3.10 Risk of plastics; and economic, military and environmental issues in comparison

	MEAN*	AGREE
___Growing use of plastics presents a serious environmental threat	4.07	65%
___Benefits of using plastic products outweigh environmental risks created by the difficulties of disposing these products	3.30	53%
___Economic development is more important than environmental concerns	2.85	39%
___Military expenses cannot be cut for the sake of environmental concern	2.77	35%
___Protection of the environment should be considered more important than both	3.68	56%

1=have no idea/ 5=strongly agree/ Sample size is 294

TABLE 3.11 The first condition to be improved in the respondent's country is...

	PRIORITY
____Economic	First
____Environmental	First
____Social	Second
____Political	Third
____Military	Forth

It is seen in Table 3.12 that 41% of the respondents believe that people in their country always collect glass to recycle and 36% believe that they collect papers for recycling. 31% think that they always collect batteries to dispose separately. 29% think they always dispose harmful household wastes separately. The negative thinkers, on the other hand, do not believe that people in their country act in an environmentally friendly way. 16%

think they never boycott the products of a firm which pollutes the environment, 14% think they never warn other people who pollute the environment, again 14% think they never collect batteries to dispose separately and they never dispose old medicines and used injectors separately. Table 3.17 shows that the effect of self- identification is clear. Most respondents believe that most people in their country act like themselves. For instance at Table 3.17 it is observed that 64% of the respondents always collect glass to recycle and 41% believes that other people in his/ her country collects glass as well. These are both the highest percentages in the 'always' column in both tables. Disposing harmful household wastes and collecting papers for recycling also receive very high ratings from the respondents since they almost always do these activities.

TABLE 3.12 How often people in respondent's country act as

	MEANS*	NO IDEA	NEVER	ALWAYS
__Collecting glass to recycle	4.07	1%	6%	41%
__Collecting papers for reuse or recycling	3.93	2%	8%	36%
__Reading articles in papers about environmental issues	3.79	1%	5%	17%
__Collecting batteries to dispose separately	3.75	4%	13%	31%
__Using the back of the paper as well	3.66	3%	9%	20%
__Disposing harmful household wastes (paint, etc) carefully	3.65	4%	14%	29%
__Buying environmentally friendly products although it is more expensive	3.64	2%	11%	17%
__Disposing old medicines and used injectors separately	3.63	6%	14%	28%
__Using public transportation instead of car	3.61	2%	8%	15%
__Using unleaded gasoline	3.61	9%	9%	28%
__Warning other people who pollute the environment	3.59	2%	9%	21%
__Using less detergent whenever possible	3.58	7%	6%	18%
__Buying products with less packaging	3.57	5%	9%	13%
__Using less water during periods of water shortage	3.53	3%	12%	17%
__Having heaters at a lower temperature in winter	3.48	3%	12%	16%
__Using less electricity	3.46	2%	14%	17%
__Boycotting the products of a firm which pollutes the environment	3.46	2%	16%	17%
__Writing or warning authorities about environmental problems	3.45	3%	10%	15%
__Participating activities of environment groups	3.38	3%	10%	13%
__Attending seminars, conferences on environmental issues	3.33	4%	11%	13%
__Using high quality(sulfur-free) coal even though it is more expensive	3.30	11%	11%	14%

1=have no idea/ 2=never/ 5=always / Sample size is 294

Whether the respondents were environmental 'activists' or not when the problem threathened their country as well, was clarified by the results on Table 3.13. When the respondents were asked what their reaction would be to an environmental

damage which happens in another country affecting their country as well, 35% said their reaction would depend on the condition. 33% mentioned that he / she would react the condition and 30% said he/ she would care but not react. Actually the answers are equally distributed among these three type of answers. Whether the respondents choose remaining silent or not, the amount of respondents who cares such a damage is quite high. Thus prospective activists' ratio is very high. The ones who claim they would not care may be the apathetics mentioned before.

TABLE 3.13 Respondent's reaction to an environmental damage which happens in another country

	FREQUENCY
__It depends on the condition	35%
__I would react against it	33%
__I do care but I do not react	30%
__I usually do not care	2%

Sample size is 294

3.2.2.1.c Perception of environmentally friendly products

When asked to define an environmentally friendly product, 46% of the respondents see an environmentally friendly product as one which does not pollute the environment during production. However, 36% defines it as a product which does not pollute the

environment when disposed. Only 21% gives the priority to the definition which claims that an environmentally friendly product is a one which does not pollute the environment when consumed. It is obvious that the real definition of the product covers all three definitions, but in order to understand which definition is more dominant in the eyes of the consumers, such an ordering was requested. The results show that for most of the consumers production is the phase during which the environment is polluted. Thus it can be expected that consumers would assign a heavier role to the producers in compensation for the environment. Table 3.28 proves that consumers assign the heaviest role to the producers and the lightest role to themselves for the compensation of the extra cost of an environmentally friendly product.

TABLE 3.14 Order of importance for classifying an environmentally friendly product

	1.	2.	3.
__A product which does not pollute the environment during production	46%	31%	23%
__A product which does not pollute the environment when disposed	36%	34%	29%
__A product which does not pollute the environment when consumed	21%	33%	45%

Sample size is 294

How consumers recognise an environmentally friendly product is a very important piece of information for many firms since they are trying to increase their market shares through various

environmental claims in their advertising campaigns or through using different or some standard logos. Unfortunately, some of these claims are fake, they are used only to attract the 'green consumers'. But results on Table 3.15 show that 50% of the consumers trust logos such as green dot, blue angel more than they do trust advertisements. The reason may be that especially in Holland and Germany these logos are given only to the real environmentally friendly products or packaging. 1% has stated they recognise an environmentally friendly product from other sources. They get consumer information from independent organisations or they get information from the ingredients of the product.

TABLE 3.15 Recognition of an environmentally friendly product

	PERCENTAGE
__From logos(green dot; blue angel; etc.)	50
__From experience	25
__From advertisements	24
__Other(pls. specify)	1

Sample size is 294

3.2.2.1.d Environmental perceptions and attitudes

When asked in what type of environmental activities they have engaged in up to present, 73% of the respondents have tried not to litter and 71% recycled bottles or paper for environmental conservation purposes (Table 3.16). 60% talked with friends about environmental issues. 3% have done none of the mentioned activities 7% joined a conservation group and 7% have written a letter to a politician or an editor. This shows that consumers do not like joining conservation groups or writing letters to authorities. Table 3.17 also depicts that 47% of the respondents have never written to authorities about environmental issues. Table 3.18 shows that even though the rate of consumers who have joined conservation groups is very low, 66% of the respondents say he/ she would support the activities of an environment group. It seems like environmental conservation groups are seen as political parties, especially after the emergence of the Greens Parties and rather than being members to these organisations, giving support to them is preferred. Table 3.17 also verifies this hypothesis since 30% of the respondents say they have never participated in activities of environmental groups. The reason of such different results is the use of two different verbs- support and participate.

TABLE 3.16 Environmental activities pursued before filling the questionnaire

	PRIORITY
___Tried not to litter	73%
___Recycled bottles or paper	71%
___Talked with friends	60%
___Boycotted some products	38%
___Contributed money	20%
___Voted for a candidate for this reason	16%
___Picketed a store or a business	12%
___Joined a conservation group	7%
___Written a letter to a politician/ editor/etc.	7%
___None of these	3%
___Other	0%

Sample size is 294

Respondents' environmental activities are exhibited in Table 3.17. The most common behaviour is collecting glass and paper to recycle, disposing harmful household wastes and disposing old medicines, batteries and used injectors separately. 42% uses unleaded gasoline which is quite a good amount. The environmental behaviours which the respondents do not engage in are writing or warning authorities about environmental problems, attending seminars and conferences on environmental issues. Since environmental problems have become very prominent within the last two or three decades, many people hear about environmental problems very easily- maybe more than he / she would like to hear. Thus attending seminars or conferences may be seen as a luxury or an unnecessary activity by many people.

TABLE 3.17 The frequency of the general environmental activities pursued

	MEANS*	NEVER	ALWAYS
__Collecting glass to recycle	3.48	4%	64%
__Disposing harmful household wastes (paint, etc) carefully	3.34	7%	57%
__Collecting papers for reuse or recycling	3.29	6%	53%
__Collecting batteries to dispose separately	3.25	10%	54%
__Using the back of the paper as well	3.21	6%	44%
__Disposing old medicines and used injectors separately	3.16	10%	52%
__Buying products with less packaging	3.12	3%	34%
__Reading articles in papers about environmental issues	3.09	4%	30%
__Using unleaded gasoline	3.05	17%	42%
__Using less electricity	3.04	6%	35%
__Buying environmentally friendly products although it is more expensive	2.98	5%	26%
__Using less detergent whenever possible	2.97	8%	32%
__Using less water during periods of water shortage	2.95	12%	36%
__Having heaters at a lower temperature in winter	2.93	9%	29%
__Warning other people who pollute the environment	2.92	7%	31%
__Boycotting the products of a firm which pollutes the environment	2.76	9%	23%
__Using public transportation instead of car	2.71	17%	24%
__Using high quality(sulfur-free) coal even though it is more expensive	2.46	28%	22%
__Participating activities of environment groups	2.13	30%	9%
__Attending seminars, conferences on environmental issues	1.87	45%	8%
__Writing or warning authorities about environmental problems	1.84	47%	6%

Sample size is 294

What the respondents as consumers would do, what actions they would take against pollution is investigated in Table 3.18. 83% says they would boycott the products of a firm which pollutes the environment. 77% would give up using a product since it is not environmentally friendly. 74% accepts paying more for 'green' products. These results are positive from environmentalists' point

of view but not very good news for the producers. Willingness of consumers to take more active roles in protecting the environment or against polluters seems to be very intensive. But there is also good news for the producers as well that majority of the respondents accept paying more for environmentally friendly products. How much more they would like to pay is depicted in Table 3.20. 68% of the respondents also accept paying an extra tax for environmental protection. Only 45% are willing to participate the Greens Party. As mentioned before people do not like the image of a party in environmental matters, thus do not want to be a member of such a party.

TABLE 3.18 Willingness to participate in the environmental activities for creating a better environment

	MEANS*	NO IDEA	NO	YES
__Boycotting the products of a firm which pollutes the environment	4.05	1%	16%	83%
__Giving up using a product since it is not environmentally friendly	3.93	3%	20%	77%
__Paying more for environmentally friendly goods	3.87	2%	24%	74%
__Paying an extra tax for environmental protection	3.76	4%	28%	68%
__Supporting the activities of an environment group	3.73	1%	33%	66%
__Participating the Greens Party	3.20	6%	49%	45%

*1=never/ 4=always / Sample size is 294

On Table 3.18 it was observed that 74% of the respondents accepted paying more for environmentally friendly products. Still it is not easy to determine the percentage consumers would be

willing to pay more. Because such extra payments may differ for all the different types of goods consumers purchase. For instance one may not be willing to pay much extra for the environment while purchasing a durable consumer's good like an oven or a refrigerator, but the same person may accept to pay a higher percentage as extra while buying a frequently purchased food item or the condition may be just the opposite. Thus, it was very hard to decide how to measure the level of willingness of the consumers to pay extra for environmental conservation. It was then decided to ask the percentage respondents would be willing to pay more for all the goods and services they would be using as a consumer, if they knew that as a result of this, industry would be able to operate in a way that did not harm the environment. The results in Table 3.19 are encouraging. Great majority mentioned that they would be willing to pay 6% to 10%. 35% accepts paying more than this percentage. Some of those who are willing to pay less, wrote little notes on the questionnaire sheet claiming that it is the producers who should pay for the extra costs of the products, the only thing to do is to persuade them to spend some of their profits on environmental conservation. As can be observed in Table 3.28, 29% of the respondents think that the producer should pay 100% of the extra costs of an environmentally friendly product.

TABLE 3.19 Amount which the respondent is willing to pay more for all the goods and services if as a result industry operates in an environmentally friendly way

	FREQUENCIES
Less than 1%	4%
1%- 2%	10%
2%- 5%	18%
6%-10%	32%
11%- 15%	14%
16%- 20%	9%
21%-25%	4%
More than 25%	8%

Sample size is 294

Educating people through mass media is perceived as the most effective way to solve the environmental pollution problem (Table 3.20). Education at schools and rules and regulations related to environment are also identified as effective methods. Little notes on the questionnaire sheet revealed that respondents had difficulty in distinguishing between the first three items but the general tendency is towards education rather than rules and fines. Respondents do not believe that mandatory precautions are of any help. They rather concentrate on more intellectual and logical solutions. Preaching at religious centers is also recognised as an effective tool by a minority who most probably are religious people that believe in the power of religion.

TABLE 3.20 The most effective way to solve the environmental pollution problem

	FREQUENCY
Education at schools	26%
Education of people through mass media	33%
Rules and regulations related to environment	28%
Fines and penalties	11%
Preaching at religious centers(mosques; churches; synagogues; etc.)	3%

Sample size is 294

Consumers receive information about environmental issues and problems from various sources. It is well known that mass media is a very effective tool in educating people about any topic. Results on the previous table also reveal how effective the respondents think, mass media is. But mass media is not the only means from which the people get information about any issue. One can get information from his / her immediate environment like family and friends or apply to remote resources such as government, producers or green groups. The information one gets from any of the mentioned sources may or may not be sufficient. What the respondents think about the level of sufficiency of the information they get from these resources is analysed and findings in Table 3.21 show that respondents are most satisfied from the information they get from mass media like television and newspapers, magazines as it was expected. Still the ratios reveal that respondents wish to receive more information even from these commonly used resources. The level

of information respondents get from their immediate environments is insufficient for more than half of them. Results are the same for the other resources like the government, green groups and experts. The most insufficient resource is producers, respondents are not satisfied with what they learn from the producers. This low ratio may be the result of the idea that producers are not interested in protecting the environment which came out to be one of the findings of this study (see Table 3.8).

TABLE 3.21 Level of sufficiency of the information the respondent gets about environmental issues from various sources

	MEANS	I never used	SUFFICIENT
Newspapers, magazines	3.83	0%	65%
Television	3.69	1%	60%
Green groups	3.31	4%	43%
Family	3.24	6%	40%
Friends	3.21	3%	38%
Books	3.17	9%	41%
Experts other than green groups	2.95	8%	32%
Government	2.94	6%	31%
Some producers	2.67	8%	21%

Sample size is 294

Respondents were asked to write down in order the resources from which they would most want to get information about environmental issues. As seen in Table 3.22, they mostly want to get information from the resources which they do believe they

get sufficient information. Respondents might have loaded some other meanings to the word sufficient such as 'true' and have concluded that mass media gives true information and thus want to get more information from these sources or they may prefer mass media since it is the easiest means of information they can reach without spending much effort. It is interesting that they prefer government rather than other more proficient resources of information such as green groups, producers or experts. Government, being a legal body is considered as the most trustworthy organisation among the others. Producers are again the most unwanted organisations which proves that respondents believe that producers are not interested in environmental issues. Books are also the unwanted resources which again shows that respondents prefer spending less time on learning about the environment and they are not interested in investigating about the scientific side or details of the problems.

TABLE 3.22 List of sources from which the respondent wants get information about environmental issues

	PRIORITY
Television	36%
Government	21%
Newspapers	14%
Green groups	6%
Experts other than green groups	5%
Family	3%
Books	3%
Some producers	2%
Friends	1%

Sample size is 294

Motor vehicles are one of the worst enemies of the environment. Any vehicle which uses coal or derivatives of petroleum, whether it is an aircraft or a personal car, pollutes the environment to a degree. Thus, ownership of a car necessitates more environmental awareness. Results on Table 3.23 show that 60% of the respondents have a car. Calculations show that only 23% of those who have car uses unleaded gasoline, 18% have asbestos free brakes and 16% have catalyser in their cars. 33% of the respondents are Turkish, but about 90% of these people live in Germany or Holland, thus they have access to unleaded gasoline, asbestos- free brakes and catalyser. The remaining 66% are Dutch and Germans who also can easily reach these items. These results show that even though people claim high environmental awareness, they do not prove this awareness while purchasing or driving cars. However, in Table 3.17 it was observed that 42% of the respondents claimed they always used unleaded oil. But when the same question was asked in a different method, the ratio fell to 23% and this 23% includes the 'sometimes' answers as well. Thus using a control question revealed that respondents were not very sincere at first. Some of the respondents have not heard of asbestos- free brakes or catalyser. This shows that environmentalists should bring these problems more into the scene. Most people who try to do something for the environment buy unleaded gasoline only and do nothing else since they are

not well informed about other ways of protecting the environment.

TABLE 3.23 Environmental friendliness of the respondent's car

	YES	NO	NO IDEA	NO ANSWER
Ownership of a car	60%	38%	0%	1%
Using unleaded gasoline	38%	16%	0%	46%
Having asbestos-free brakes	29%	13%	7%	51%
Having catalyser	27%	20%	3%	50%

Sample size is 294

From the first question of the study, environmental awareness of the respondents is investigated through many methods and variables. But even though some people claim high levels of environmental awareness and concern, it may be easy to deceive the researchers since the questionnaire itself is an informative tool about environmental issues. For instance, some of the respondents might be seeing some environment related behaviour types on the questionnaire sheet for the first time in their lives. To test this, it was decided to place some more control questions in the questionnaire which aimed measuring the level of basic environmental knowledge and detecting whether respondents knew one of the most widely known environmental activities. For this end, respondents were asked whether their country had an environmental law or not. All three countries under analysis have environmental laws. As seen in Table 3.24, still 7% stated that

their country did not have an environmental law. Most probably the ones who gave no answer to this question do not know whether their country has a law or not. It can be said that 16% does not know the answer. Only 77% of the respondents have succeeded in this little test. The distribution of these people on a national basis can be observed in the following section. It can be hinted here that Turkish respondents have the lowest level of knowledge. The second question was about the preference of the kind of package while purchasing a beverage. Most of the respondents preferred glass bottles (Table 3.25). Glass and paper are the most environmentally friendly products in the eyes of the respondents. It is very interesting that many respondents wrote little notes clarifying that cans or plastics were recyclable. Therefore it can be concluded that respondents receive information about environmental issues from the easily accessed resources which was depicted on the tables above. Learning about the existence of an environmental law necessitates some more investigation and respondents do not seem to be inclined to do such investigation.

TABLE 3.24 Does your country have an environment law?

YES	NO	NO IDEA	no ans
77%	7%	6%	10%

Sample size is 294

TABLE 3.25 Preference of the type of packaging while purchasing a beverage

Glass bottle	Cartoon boxes	Plastic bottle	Cans	No matter	No answer
53%	19%	8%	5%	5%	1%

Sample size is 294

Impact of environmental concern on purchasing behaviour has been analysed with various questions. First finding was that majority of the respondents accepted paying 6-10% more for an environmentally friendly product. Secondly, among all other criteria, the importance of the product's and its package's environmental concern was inquired (Table 3.26). Durability, price and environmental impact of the product and its healthiness and the respondent's habits have come out to be the most important criteria while purchasing a frequently purchased food item. But environmental impact of its package was not as important as those factors. Still 81% of the respondents named this factor important. Recommendation by experts is also as important. Attractiveness of the package, charm of the product's commercial and its novelty are of least importance in the eyes of the respondents. The results indicate the rationality of the respondents as consumers is high since their purchasing behaviour is based on convenience and (environmental) quality

and they also take the economic side of the issue into consideration.

TABLE 3.26 Importance of various factors while buying a frequently purchased food item

	MEANS*	IMPORTANT
__its healthiness	3.49	89%
__its durability	3.41	91%
__its environmental impact	3.30	90%
__its price	3.29	90%
__my habits	3.27	87%
__environmental impact of its package	3.24	81%
__charm of its commercial	2.21	34%
__recommendation by experts	3.10	81%
__recommendation by friends	2.78	65%
__its novelty	2.48	48%
__attractiveness of the package	2.05	28%

*1=not important at all/ 4=very important / Sample size is 294

It is obvious that an environmentally friendly product implies an extra cost to the producer. Who and to what degree should participate in the cost of this product is examined. Results on Table 3.28 indicate that the participation level respondents attribute to the consumers is lower than they do to government and producers. Producers are expected to carry the heaviest share of the total load since many people believe that producers have enough profits from which they can share an amount for such environmental conservation activities.

TABLE 3.27 Expected degree of participation from the government, industry and individual to the cost of an environmentally friendly product

	less than 5	6	7	8	9	10	no ans
Government	38%	4%	7%	11%	0%	26%	14%
Producer	25%	7%	6%	13%	0%	29%	20%
Consumer	57%	5%	5%	10%	0%	16%	17%

Answers were given on a scale from 0 to 10 points / Sample size is 294

3.2.2.2 COMPARISON OF FREQUENCIES OF TURKISH, DUTCH AND GERMAN RESPONDENTS

In this part, relation of each variable with nationality is analysed. Since equal number of respondents (98) from each nationality group filled in the questionnaire, results of each group are analysed separately with frequencies. Thus the following tables do not show the results of the crosstabs tables and statistically significant relations. This part includes merely the results of the frequency tests which were done with each group separately. In the following section, however, the significant relationships will be analysed.

3.2.2.2.a Level of concern for the global environmental problems

In general, hunger and environmental pollution are the most important problems for the world according to the respondents.. Turkish respondents rate environmental pollution as the most important issue, health and unemployment follow with a very small difference. Dutch respondents rate health as the most important, hunger and environmental pollution follows. For the German respondents the most important issue is hunger and environmental pollution and wars follow. Most probably Turkish respondents were affected by the social desirability bias and

therefore chose environmental pollution as the very first item, this condition may be valid for Dutch and Germans as well. If this bias is ignored, environment is among the first three items for all three groups. It seems like the Turkish respondents did not read the first question very carefully since they included inflation among the most important problems of the world, most probably they have answered the question thinking at national level. Nearly all mean values are higher than three, this shows that respondents think that all the mentioned issues are very important.

TABLE 3.28 Means frequencies of the importance of the given issues for the world

	MEAN*			IMPORTANT		
	TURKISH	DUTCH	GERMAN	TURKISH	DUTCH	GERMAN
Inflation	3.66	3.11	2.79	95%	82%	66%
Hunger	3.66	3.77	**3.67**	95%	97%	**97%**
Health	3.81	**3.80**	3.24	97%	**98%**	86%
Education	3.71	3.59	3.31	96%	97%	91%
Wars	3.41	3.52	3.62	86%	86%	92%
Environmental pollution	**3.84**	3.61	3.65	**99%**	90%	93%
AIDS	3.54	3.53	3.37	88%	91%	89%
Rapid population increase	3.27	3.37	3.29	78%	96%	90%
Economic problems	3.51	3.18	3.15	89%	83%	85%
Unemployment	3.68	3.22	2.99	93%	85%	78%

*4=very important / 1= not important at all/ Each group consists of 98 respondents
Important percentages include 'very important' and 'important' values

Frequency results change the scene a little. The difference between the highest mean values and highest percentages comes

from the fact that percentages under the important title show both the 'very important' and 'somewhat important' answers together. In this case mean values become more reliable sources in choosing the first three items. It will be the case for the rest of the study as well. For all three groups the most important items are the same but second and third ones may change.

It would be better to continue the analysis with Table 3.29 which depicts the results of the second question that asks the respondents to rankorder the most important three issues. Results of the second question are very interesting since different issues come to the scene when respondents are asked to identify the most important issues. Wars become the most important issue for the Turkish respondents but environmental pollution and inflation follow very closely as can be seen on Table 3.29. Health and unemployment which received the highest importance values are taken out of the list when the respondents are directly asked to put the most important three issues in order. With Dutch respondents hunger, health and environmental pollution have been the most repeated answers. They are very consistent in their importance rating. Germans identified wars, environmental pollution and hunger as the most important three issues for the world. Germans are also consistent in determining their first three important issues.

TABLE 3.29 The most important issue for the world

	TURKISH	DUTCH	GERMAN
Inflation	16%	0%	0%
Hunger	11%	**37%**	17%
Health	8%	14%	5%
Education	10%	8%	6%
Wars	**17%**	9%	**32%**
Environmental pollution	**17%**	12%	21%
AIDS	5%	9%	5%
Rapid population increase	5%	4%	9%
Economic problems	1%	5%	3%
Unemployment	8%	1%	1%

Each group consists of 98 respondents

Tables 3.30a and 3.30b depict the results of question three which asked the respondents to identify their level of awareness about some environmental issues. Turkish respondents were aware of air pollution, chemical wastes, destruction of forests and destruction of ozone layer. Awareness of Turkish respondents about the chemical wastes is surprising but the explanation may be that nearly 90% of the Turkish respondents were workers in Germany and Holland, thus they may be very closely observing the pollution created by chemical wastes. Dutch respondents are aware of air pollution and destruction of ozone layer with the same mean value, and destruction of forests and acid rains follow. Germans, on the other hand, state that they are aware of air pollution, destruction of ozone layer, destruction of forests and greenhouse effect. Air pollution is the most widely known issue among all the respondents. It is surprising that respondents were mostly aware of the global environmental problems such as

destruction of forests, destruction of ozone layer , acid rains and greenhouse effect. This shows that mass media helps to create a public opinion about environmental issues. Otherwise issues like destruction of ozone layer or greenhouse effect would not take place in the glossaries of the respondents.

TABLE 3.30a Awareness about environmental problems

MEANS*	TURKISH	DUTCH	GERMAN
Air pollution	**3.47**	**3.47**	**3.45**
Water pollution	3.01	3.24	3.30
Greenhouse effect	2.29	3.04	3.17
Destruction of ozone layer	3.22	**3.47**	**3.44**
Destruction of forests	3.23	3.39	3.37
Destruction of agricultural areas	2.87	2.77	2.60
Endangered species	2.94	2.75	2.59
Chemical wastes	3.26	3.30	3.16
Household wastes	3.09	3.13	2.89
Visual pollution	2.77	2.69	2.53
Destruction of cultural monuments	3.08	2.76	2.37
Transboundary movement of hazardous waste	2.67	2.62	2.43
Acid rains	2.67	3.26	2.81
Soil pollution	2.65	2.94	2.55
Erosion	2.56	2.69	2.64
Noise pollution	2.95	2.72	2.70

1=not aware at all/ 4=very much aware / Each group consists of 98 respondents

TABLE 3.30b

AWARENESS FREQUENCIES*	TURKISH	DUTCH	GERMAN
___Air pollution	90%	90%	96%
___Water pollution	72%	85%	89%
___Greenhouse effect	40%	70%	74%
___Destruction of ozone layer	84%	92%	92%
___Destruction of forests	81%	87%	88%
___Destruction of agricultural areas	66%	66%	54%
___Endangered species	67%	63%	51%
___Chemical wastes	84%	85%	84%
___Household wastes	77%	83%	65%
___Visual pollution	64%	55%	49%
___Destruction of cultural monuments	71%	58%	41%
___Transboundary movement of hazardous waste	61%	51%	48%
___Acid rains	56%	80%	67%
___Soil pollution	55%	59%	50%
___Erosion	51%	54%	54%
___Noise pollution	68%	58%	60%
___Other(pls. specify)	0%	0%	0%

*Awareness frequencies include 'very much aware' and 'somewhat aware' values
Each group consists of 98 respondents

After the level of awareness of the respondents about some environmental problems threatening the world was seen, identification of the importance levels of the mentioned problems were requested. In order to avoid the order bias, the order of the variables were changed. This also helped seeing whether the respondents had a tendency to rate the first variables on the table higher as seen in Tablw 3.31. Turkish respondents seem to have such a tendency since even though the depletion of forests, depletion of ozone layer and air pollution(the most important problems in order) were among the first four problems which the

Turkish respondents were aware of, the order within themselves was changed with the changed arrangement of the variables. With the Dutch respondents, however, no such tendency was observed but the order of the problems among themselves was again different from the order of the awareness levels. Greenhouse effect, air pollution and water pollution are the most important environmental problems according to the Dutch respondents. Depletion of ozone layer and forests share the same mean value as the fourth important problem. The German respondents also portrayed a tendency like the Turkish. Depletion of ozone layer and forests became the most important problems, and air pollution the third important one. Chemical wastes and water pollution problems followed the first three.

Whether the order among the first three or four issues is changed or not, results show us that the respondents were very much aware of the fact that both their level of awareness and the importance level they attributed to the problems were questioned at a global level and they rated the issues at a global level, without a local or national view.

TABLE 3.31a Importance of environmental problems for the world.

MEANS	TURKISH	DUTCH	GERMAN
___Depletion of ozone layer	3.85	3.76	**3.86**
___Depletion of forests	**3.87**	3.76	3.70
___Depletion of agricultural areas	3.45	3.32	3.28
___Visual pollution	3.13	3.01	3.00
___Destruction of cultural monuments	3.35	2.80	2.61
___Transboundary movement of hazardous waste	3.49	2.96	3.00
___Acid rains	3.37	3.63	3.22
___Soil pollution	3.35	3.43	3.22
___Erosion	3.31	3.18	3.14
___Endangered species	3.48	3.20	2.97
___Chemical wastes	3.67	3.70	3.64
___Household wastes	3.33	3.30	3.12
___Air pollution	3.83	3.82	3.66
___Water pollution	3.74	3.81	3.59
___Greenhouse effect	3.06	**3.89**	3.48
___Noise pollution	3.28	2.88	2.94

Each group consists of 98 respondents

TABLE 3.31b

FREQUUENCIES OF IMPORTANCE	TURKISH	DUTCH	GERMAN
___Depletion of ozone layer	98%	96%	98%
___Depletion of forests	100%	98%	99%
___Depletion of agricultural areas	93%	91%	92%
___Visual pollution	83%	77%	77%
___Destruction of cultural monuments	83%	63%	55%
___Transboundary movement of hazardous waste	90%	66%	76%
___Acid rains	87%	95%	90%
___Soil pollution	86%	86%	85%
___Erosion	84%	84%	78%
___Endangered species	91%	78%	74%
___Chemical wastes	95%	97%	99%
___Household wastes	88%	90%	87%
___Air pollution	98%	99%	95%
___Water pollution	96%	99%	93%
___Greenhouse effect	76%	89%	93%
___Noise pollution	84%	70%	74%

Most respondents display positive levels of environmental concern. With the help of the various variables, the study aims measuring their real level of concern. Asking the respondents where they stand when compared with the previous year according to their own views, also provides an important input for this study. A great majority (over 70%) of Turkish and German respondents state that they are more interested in environmental issues when compared to the previous year (Table 3.32). Less of Dutch respondents, however claim more interest, they claim no change in the level of interest as well. 8% of the Dutch respondents, cited less interest, these respondents are

either apathetic ones or the ones who sincerely confess that their level of concern has decreased.

TABLE 3.32 Change in level of concern for the environment

	TURKISH	DUTCH	GERMAN
More interested	72%	50%	77%
No change	20%	41%	18%
Less interested	2%	8%	4%
Undecided	1%	1%	1%
No Answer	4%	0%	0%

Each group consists of 98 respondents

3.2.2.2.b The level of concern for the national environmental problems

The following tables will be displaying the level of concern of the respondents at national level. It may be expected to get more striking results at this point since main goal in this research is making a cross- national study at which the levels of concern of Turkish, Dutch and German respondents are recognised and compared.

A very large percent of Turkish respondents (85%), recognises inflation as the most important problem (Table 3.33). Education, unemployment and traffic problem are noted as the succeeding important issues. Chronic inflation problem in Turkey takes the priority. Education problem which comes to the agenda every year at least once, is another chronic issue for the country.

Unemployment and traffic problems are also the never ending problems. It can be said that even though majority of the Turkish respondents live in Germany and Holland, they are very well aware of the main issues of Turkey. Mass media has an important role since by the entrance of the Turkish TV channels to Europe with the help of satellites, Turkish citizens abroad can watch the events ongoing in their country. Turkish daily newspapers are also available to those Turkish citizens.

Dutch respondents and German respondents identify some common important issues for their countries since their social, economic and political structures display similar characteristics. Unemployment is defined as the most important issue for both countries. AIDS and economic condition are also among the common issues. Dutch identify air pollution as the third important issue for their country which is the only environmental problem chosen among all other issues. Germans, on the other hand, think that immigrants are the second most issue for their country. After the demolition of the Berlin wall, Europe has entered into a different era since all the economic, social and political balances have changed. Economic conditions are worsened, especially in Germany the immigration from East Germany created problems of unemployment and Nazism showed up nearly a half century later in the country mostly because of this unemployment effect since the unemployed ex- east Germans think that foreigners in Germany occupy the jobs which could otherwise be free for them. Since Europe is kind of a knitted

body, change in economic condition in one country affects the others immediately. Especially the integration process of the EC by all means (political, economic and social) necessitates determining common policies for the solution of the problems in one or all of the EC member countries. Thus the effect of the immigration in Germany and the resulting negative impacts have also influenced the other European countries.

AIDS is also a common important issue but the EC integration has nothing to do with this problem. This problem has its origins in the change in social structure in 1968's. Youth in those years wanted radical changes in their social lives and their protests or rather the revolution started in France and diffused to other European countries and freedom was the most important issue for them. This was the time when freedom in sex came to the scene. From then on, marriage or monogamy become less important for the European publics. Even though the scientist see Africa as the starting point of the AIDS problem, the popularity of free sex in Europe and also in the US has contributed a lot to the diffusion of the illness. German and Dutch publics fear from this dreadful illness and the answers display this fear.

Surprisingly, this time respondents added some more issues to the 'others' item. Turkish respondents recognise terror as one of the most important issues of the country. Dutch respondents note the important issues for Holland as increase in population, homeless, and erosion. German respondent, on the other hand, are affected by the political condition and racism.

TABLE 3.33 Importance of some issues for the respondents at a national level

	TURKISH	DUTCH	GERMAN
____Inflation	85%	20%	20%
____Education	74%	28%	28%
____Health	59%	30%	18%
____Economic condition	36%	51%	44%
____Unemployment	68%	62%	60%
____Relations with ex- USSR states	21%	2%	7%
____EC integration	12%	13%	5%
____Budget deficit	23%	14%	17%
____AIDS	20%	46%	42%
____Air pollution	35%	47%	49%
____Water pollution	10%	35%	41%
____Emmigrants	2%	27%	56%
____Depletion of ozone layer	15%	43%	47%
____Water shortage	8%	3%	4%
____Noise pollution	8%	9%	5%
____Acid rain	6%	32%	16%
____Industrial Development	16%	7%	14%
____Chemical wastes	8%	38%	37%
____Traffic problem	43%	42%	35%
____Greenhouse effect	0%	32%	33%
____Income distribution	24%	12%	7%
____Fumes	11%	4%	6%
____Other(pls specify)	2%	3%	6%

Each group consists of 98 respondents

After the respondents identified the most important six issues for their country, they put the first three most important issues in order. The results have differed since in the previous question they have chosen (ticked) the most important six issues without giving them an order of significance. Table 3.34 shows the issues which were seen as the most important problems by the majority

of the respondents. For the Turkish respondents inflation preserves its position, health and unemployment follow respectively. Dutches identify unemployment and depletion of the ozone layer as most important issues. The second problem was identified by the Dutch as important at global level as well. Germans, on the other hand, see air pollution, immigrants and depletion of ozone layer as the most important issues. Air pollution and depletion of ozone layer were also among the global problems identified as important by them. Immigration, as mentioned, is seen as the major reason of economic and social problems in the country.

TABLE 3.34 Most important three issues in order at national level

MODES		
TURKISH	DUTCH	GERMAN
Inflation	Unemployment	Air pollution
Health	Unemployment	Immigrants
Unemployment	Depltion of ozone layer	Depltion of ozone layer

Table 3.35a shows that Turkish respondents strongly agree that plastics present serious environmental threat but Dutch and German respondents do not support this idea as much since they do not see such a great threat thinking that plastics are recyclable. But still, they do not insist on the benefits of plastics which is made clear by the answers to the second statement. The next three statements try to learn the opinion of the three publics

about the position of the environmental conservation issue against economic and military issues. Thus two statements support economic and military development and the third statement supports environmental conservation. Turkish respondents' answers show that they were indecisive, since Turkey is a developing country and its economy is yet not strong enough so that economic development is also considered as a very important issue. 'Military expenses cannot be cut' idea may be the result of the increased terrorist attacks by the PKK and the pervading fear among the Turkish people. Still, even with a minor difference in the mean values, Turkish respondents agree that protection of the environment should be considered more important than both economic and military issues.

Dutch and Germans again exhibit similar results. Even though they are suffering some economic problems, these problems are viewed as temporary and therefore, not as important as the permanent environmental problems. These two countries are not faced with threats against their unity, so military expenses may not seem essential. Consequently, protection of the environment becomes more important than both economic and military issues.

TABLE 3.35a Threat posed by plastics and the trade- off between environmental conservation and economic development and military expenses

MEANS*	TURKISH	DUTCH	GERMAN
___Growing use of plastics presents a serious environmental threat	4.36	4.02	3.84
___Benefits of using plastic products outweigh environmental risks created by the difficulties of disposing these products	3.61	3.31	2.97
___Economic development is more important than environmental concerns	3.34	2.64	2.58
___Military expenses cannot be cut for the sake of environmental concern	3.39	2.33	2.6
___Protection of the environment should be considered more important than both economic and military issues	3.84	3.68	3.52

*1=have no idea/ 2=do not agree/ 5=strongly agree

TABLE 3.35b

FREQUENCIES	TURKISH	DUTCH	GERMAN
___Growing use of plastics presents a serious environmental threat	85%	70%	63%
___Benefits of using plastic products outweigh environmental risks created by the difficulties of disposing these products	55%	43%	27%
___Economic development is more important than environmental concerns	41%	21%	15%
___Military expenses cannot be cut for the sake of environmental concern	48%	10%	14%
___Protection of the environment should be considered more important than both economic and military issues	71%	51%	52%

Each group consists of 98 respondents

Standing of environmental conservation with respect to economic development and military expenses was identified. To prove the credibility of the previous findings and to determine the positioning of the environmental issues more clearly, respondents were asked which of the conditions in Table 3.36 were to be improved in their countries. The table values indicate the percentages of the respondents who have attributed different priorities to these five conditions. For purposes of this study, ranking of the first priority are taken into consideration. By the Turkish respondents, improvement of the economic condition is the most desired item; political and social conditions follow. Improvement of the environmental condition gets the fourth position which is still before improvement of military condition. This shows why Turkish respondents were indecisive in the previous question, most probably since the third statement defended environment against both economic and military issues, they could not differentiate between the two. Table 3.36 depicts that environmental development is less important than economic issues, but more important than military issues.

Dutches and Germans state that environmental conditions are the first to be improved in their countries. For the Dutches, the second condition that necessitates improvement is economic, whereas the Germans identify the social condition. Immigration and racism may be the social problems to be fought with.

Military conditions do not need much improvement in both countries as was expected.

TABLE 3.36 Priority for improvement for a better future at the national level

TURKISH	DUTCH	GERMAN
Economic	Environmental	Environmental
Political	Economic	Social
Social	Social	Economic
Environmental	Political	Political
Military	Military	Military

Causes of environmental problems in the world may be many, but for purposes of the present study these causes were collected under four headings and the respondents were asked to rank them. According to the results in Table 3.37. Turkish respondents accuse public at most and the second guilty body is identified as the government. It should be remembered that accusing the Turkish public and the government is the general attitude of Turkish people since most Turkish people are not well educated and cannot see the main reasons of the problems clearly. Majority of German and Dutch respondents claim that irresponsibility of the industries is the main reason of environmental problems. Dutch then accuse governments and public respectively and Germans accuse the same two but the order is different. By all three groups local administrations come to the scene as the least accused bodies.

TABLE 3.37 Most important cause(reason) of the environmental problems in the world

	TURKISH	DUTCH	GERMAN
Irresponsibility of	public	industries	industries
	governments	government	public
	industries	public	government
	local administrations	local adm.	local adm.

As seen in Table 3.38, all respondents, strongly agree that government has to force industries to care for the environment. With slightly lower mean values they also claim that industrial organisations should make extra expenses for environment. Again with slightly lower means, they believe that personal efforts may contribute to the solution of the environmental problems. All three groups believe that the role of the government and industrial organisations in environmental conservation has to be more than the role of the individuals. The most important reason may be that personal efforts may be seen us insufficient. But the respondents' belief in industrial organisations is weak as mean values of the last statement on Table 3.38 indicates us. The rating scale ranged from one to five and a value of 'three' was 'I do not agree', thus results under 'three' are negative ones showing that the respondents do not agree with the statements mentioned.

TABLE 3.38 Expected environmental roles of the governments, industrial organisations and individuals

	MEANS*			AGREE**		
	TURKISH	DUTCH	GERMAN	TURKISH	DUTCH	GERMAN
___Government has to force industries to care for the environment	4.69	4.54	4.54	95%	92%	92%
___Industrial organisations should make extra expenses for environment	4.50	4.50	4.37	91%	93%	92%
___Personal efforts may contribute to the solution of environmental problems	4.24	4.14	3.88	82%	88%	74%
___Most industries are interested in protection of the environment	3.30	2.97	2.92	49%	23%	17%

*1=have no idea / 2=not agree at all/ 5=strongly agree
**'Agree' percentages include 'strongly agree' and 'agree' values/ Each group consists of 98 respondents

It is obvious that an environmentally friendly product necessitates some extra spending and it is not only the consumer's duty to pay for the extra cost. Thus with a question, respondents were asked to rate the responsibility level of the government, producers and consumers on a scale from '0' to '10'. It was not necessary that the total of the three would sum up to three. The frequencies are displayed in Table 3.39. Taking the percentages of '10' as the basis would help to identify better the shares of the three bodies in the cost of an environmentally friendly product. Turkish respondents mostly see government as responsible. Producer's responsibility is also very high. Dutch and German respondents both see the producer as the most responsible body and government is identified as the second great participant of the extra cost. All three groups believe that

the consumer has to participate less than the government and the producer.

TABLE 3.39 The degree to which the respondent thinks the government, producer and consumer should participate to the cost of an environmentally friendly product

	TURKISH			DUTCH			GERMAN		
	GOV	PRO	CON	GOV	PRO	CON	GOV	PRO	CON
0	1%	0%	0%	1%	0%	0%	1%	2%	1%
1	1%	1%	3%	1%	0%	2%	6%	1%	14%
2	5%	4%	13%	9%	0%	13%	9%	2%	15%
3	7%	3%	5%	5%	1%	7%	12%	4%	13%
4	2%	4%	4%	5%	5%	3%	12%	8%	13%
5	13%	12%	11%	10%	13%	11%	12%	13%	12%
6	2%	7%	4%	3%	5%	5%	7%	8%	7%
7	4%	5%	2%	8%	5%	7%	8%	8%	5%
8	11%	8%	12%	11%	15%	14%	9%	14%	2%
9	0%	0%	0%	0%	0%	0%	0%	1%	0%
10	33%	27%	20%	30%	36%	18%	16%	26%	8%
no ans	20%	29%	24%	16%	19%	18%	6%	12%	8%

'Gov' stands for 'Government, 'Pro' stands for 'Producer', and 'Con' stands for 'Consumer'
Each group (Turkish, Dutch, German) consists of 98 respondents

Table 3.40 shows that Turkish respondents think people in Turkey at most warn the other people who pollute the environment, use the back of the paper as well, use less water during periods of water shortage, use less electricity and use less detergent whenever possible. Except for the first action, the other four items are mostly done by the Turkish people for economical reasons. From childhood on, Turkish parents tell their children to use the back of the paper as well since notebooks are expensive items and the parents want their children to be

economical. In Turkey, water, electricity and detergents are also expensive items. Thus most people try not to use excessive amounts of all three.

Dutch and German respondents, on the other hand, believe that people in their countries at most collect glass and papers for recycling. Dutches collect batteries to dispose separately and dispose harmful household wastes, old medicines and used injectors separately according to the respondents. Germans read articles in papers about environmental issues, collect batteries to dispose separately and buy products with less packaging. These are seen as the most common attitudes of Dutches and Germans. It is obvious that they are more informed than Turkish people about environmental issues and they do especially care disposing their household wastes separately. Since the utilisation of coal is not very common in these two countries, using high quality coal even though it is more expensive item did not mean much to them. They also do not have water shortages and all the detergents they use are phospat-free, thus they did not give high ratings to the items related to using less water during periods of water shortage and using less detergent whenever possible.

TABLE 3.40 How often the respondents think the people in their country act the following ways

	MEANS*			A**		
	TURK.	DUTC.	GERM.	TURK.	DUTC.	GERM.
__Using public transportation instead of car	3.78	3.53	3.52	34%	2%	8%
__Using high quality(sulfur-free) coal even though it is more expensive	3.57	3.05	3.28	32%	6%	4%
__Attending seminars, conferences on environmental issues	3.52	3.35	3.11	29%	7%	3%
__Reading articles in papers about environmental issues	3.67	3.88	3.81	28%	15%	9%
__Using less water during periods of water shortage	3.82	3.4	3.36	37%	11%	4%
__Participating activities of environment groups	3.58	3.35	3.21	29%	6%	3%
__Buying products with less packaging	3.34	3.65	3.72	22%	10%	7%
__Writing or warning authorities about environmental problems	3.59	3.53	3.23	33%	11%	1%
__Using less electricity	3.81	3.23	3.34	39%	6%	5%
__Having heaters at a lower temperature in winter	3.66	3.43	3.36	29%	13%	6%
__Warning other people who pollute the environment	**3.94**	3.57	3.26	44%	15%	3%
__Using unleaded gasoline	3.34	4	3.48	32%	32%	20%
__Using the back of the paper as well	3.86	3.49	3.63	39%	7%	13%
__Boycotting the products of a firm which pollutes the environment	3.68	3.42	3.28	38%	7%	5%
__Using less detergent whenever possible	3.78	3.5	3.47	34%	13%	8%
__Collecting papers for reuse or recycling	3.64	4.23	3.92	37%	44%	27%
__Collecting glass to recycle	3.76	**4.43**	**4.03**	39%	53%	30%
__Buying environmentally friendly products although it is more expensive	3.48	3.81	3.63	31%	13%	7%
__Collecting batteries to dispose separately	3.38	4.13	3.73	35%	41%	17%
__Disposing old medicines and used injectors separately	3.45	4.03	3.4	38%	33%	12%
__Disposing harmful household wastes (paint, etc) carefully	3.42	4.05	3.49	39%	36%	11%

*1=have no idea/ 2=never/ 5=always /Each group (Turkish, Dutch, German) consists of 98 respondents
A** shows the percentage of the respondents who think that people in their country **always** do these activities

Respondents were not very good at remembering names of the environmentally friendly firms in their countries. Most claimed there were none. In all three groups the percentage of the respondents who answered this question was very low, around 20% or less (Table 3.41). Turkish respondents mentioned Rama and P&G as the most environmentally friendly firms. Rama is only a brand name, the product belongs to the Unilever group, McDonalds and Sisecam are also the green firms according to the Turkish consumers. ECA, Petlas, and Arcelik are also mentioned by one respondent each, therefore they were not added to the relevant table.

Body shop is the only firm which is identified by both Dutches and Germans as one of the environmentally friendly firms. DSM Research which develops unpolluting plastics, Shell which offers unleaded gasoline, Hangovens which produces steel, Smile Plastics which recycle plastics and reform shops are the other well known green firms in Holland. Other firms which were mentioned only once are the following: Vrooms Houp (producing cartoons), producers of washing powders, Cardboard Packaging, Lima and Edet toilet paper producers, Verenigde Glasfabriken, Heineken Bier, Unipapel (recycled paper) and McDonalds.

Germans identify Coca Cola, Frosch detergents, Henneing recyling papers firm, Beiasdof (all kinds of body cleaning products), and Bosch as the most green producers. The other firms which were mentioned once are: Mach Mit (toilet paper), Nature (producing toilet paper from recycled paper), Spinnrod

(producing cosmetics from natural materials and using environmental friendly packaging), ALBA (recycling specialist), FROG (detergent- free washpowder).

TABLE 3.41 Environmentally friendly firms in the respondents country are...

TURKISH	DUTCH	GERMAN
Rama (Lever) 4%	Body shop 7%	Coca Cola 4%
P&G 4%	DSM Research 3%	Frosch Detergents 3%
Sisecam 2%	Shell 2%	Body Shop 2%
McDonalds 2%	Hangovens Steel 2%	Henneing Recycling Papers 2%
Pasabahce 1%	Smile Plastics 2%	Beiasdof 2%
The firms which recycle their products 1%	Reform Shops 2%	Bosch 2%
Nectar 1%	Nefit Heating Systems 1%	Lufthansa 1%
Lever 1%	Unilever 1%	Danke 1%
Turyag 0.6%	Unipapel 0.7%	Spinnrod 1%
no answer 84%	no answer 80%	no answer 83%

Whether the respondents are environmental activists or non activists has been analysed throughout the survey but one general question was placed to identify their positioning more clearly (Table 3.42). Majority of Turkish respondents express themselves as activists since they claim they would react against any environmental damage which happens in another country, but most of these respondents might have misunderstood what the word react (tepki) implied. They might have thought that 'react' did mean 'care'. Therefore these answers may not be well indicating the truth since the Turkish public -even though they

cared and worried about the situation- remained silent when Chernobyl case came to the scene in April 1987.

Dutch and German respondents have quite the same structure.. More than 40% say their reaction would depend on the condition showing that these people are potential activists, 34% in each group agree that they do care but do not react. These are non activists and about 20% are activists who claim they would react against such a damage. It is interesting that the amount of activists, potential activists and non activists are nearly the same for the Dutch and German groups.

TABLE 3.42 Reaction of the respondent to an environmental damage in another country which affects his / her country as well...

	TURKISH	DUTCH	GERMAN
__I would react against it	55%	20%	22%
__It depends on the condition	18%	45%	42%
__I usually do not care	4%	0%	2%
__I do care but I do not react	22%	34%	34%
No answer	0%	1%	0%

Each group (Turkish, Dutch, German) consists of 98 respondents

3.2.2.2.c Perception of environmentally friendly products

Definition of an environmentally friendly product may change from one person to the other. But the general definition should cover all possible classifications. Thus the general definition may

be given as a product which does not pollute the environment during production, consumption and disposition. The respondents were asked to make a classification among the three types of definitions mentioned in Table 3.43. First priority ranking shows that for all three groups an environmentally friendly product is the one which does not pollute the environment during production. Product's disposition and consumption are seen as polluting the environment by less people in all three groups. Consequently, the table values show that all respondents put the blame for environmental pollution on the production process.

TABLE 3.43 An environmentally friendly product is a one which does not pollute the environment...

PRIORITY	TURKISH	DUTCH	GERMAN
...during production	40%	47%	49%
...when disposed	30%	43%	36%
...when consumed	27%	17%	18%

Each group (Turkish, Dutch, German) consists of 98 respondents

Majority in all three groups of respondents recognise the environmentally friendly products from logos such as the green dot or the blue angel (Table 3.44). Turkish respondents then rely on their own experience and Dutch respondents rely on advertisements, but nearly the same percentage of the Germans (20%) rely on their past experience and advertisements. The other means through which Dutch and Germans recognise environmentally friendly products are the consumer information

they get from independent organisations and the ingredients written on the product label. The results indicate the importance of using standard logos for environmentally friendly products since they are more credible than advertisements because there is a belief among most consumers that advertisements are fake, and the firms only make environmental friendliness claims for attracting more consumers. Thus, any product that is to be more credible in the eyes of the consumers, has to have a green logo on it which is approved by the government or a credible organisation.

TABLE 3.44 How consumers recognise an environmentally friendly product

	TURKISH	DUTCH	GERMAN
From logos(green dot; blue angel; etc.)	43%	51%	54%
From experience	38%	13%	21%
From advertisements	16%	33%	20%
Other(pls. specify)	0%	2%	2%
No Answer	3%	1%	2%

Each group (Turkish, Dutch, German) consists of 98 respondents

Definition of an environmentally friendly product was made and how it was recognised by the respondents was made clear. In every country, different products or materials can be can be considered to be environmentally friendly. An open-ended question was asked and respondents identified the environmentally friendly products according to them. Results in Table 3.45 show that neither of the three groups could identify product names. Paper and glass are identified as the most well

known environmentally friendly products. Turkish respondents' third choice is wood and Dutches' choice is unleaded gasoline and Germans' choice is the products without packaging. The other materials/ products chosen by the Turkish people are products with less packaging, natural products, recyclable or biodegradable products, unleaded oil, the products which do not give harm to human health and cotton. The list of the environmentally friendly products created by the answers of the Dutch people contains nearly the same items with the additions of CFC-free cosmetics, products without chemical ingredients and reloadable batteries. The only item added by the Germans is refrigerator without FCKW. It can be observed on Table 3.42 that the 'no answer' ratios are very high since most respondents have written they do not know any environmentally friendly products.

TABLE 3.45 Environmentally friendly products or materials according to the respondents are

TURKISH	DUTCH	GERMAN
Glass 13%	Paper 20%	Paper 18%
Paper 8%	Glass 6%	Glass 10%
Wood 6%	Unleaded gasoline 5%	Products without packaging 9%
Natural products	Natural products	Recycled products
Unleaded gasoline	Recyclable/ biodegradable products	Unleaded gasoline
Products which do not harm human health	Wood	Natural products
Cotton	CFC-free cosmetics	Wood
Products with less/ no packaging	Products without chemical ingredients	Non-chemical products,
Recyclable/ biodegradable products	Products with less/ no packaging	Refrigerator without FCKW
No answer= 55%	No answer= 31%	No answer= 38%

3.2.2.2.d Environmental perceptions and attitudes

The actual participation of the respondents in some environmental activities was questioned (Table 3.46). The most common actions taken are trying not to litter the environment, talking with friends about environmental conservation and pollution and recycling bottles and paper. Recycling action takes the priority for the Dutch and Germans. Another behaviour exhibited by both groups is boycotting some products but it is rare. The least taken action comes out to be writing a letter to a politician/ editor/ etc. Results show that the actions taken by the respondents are the ones which are mostly done without spending much effort except for recycling at which the consumers should spare some room for collecting disposed glass and paper and spend some time to take those materials to the recycling centers or boxes.

TABLE 3.46 The environmental friendly actions respondents have taken...

FREQUENCIES	TURKISH	DUTCH	GERMAN
Tried not to litter	**84%**	72%	62%
Talked with friends	45%	65%	68%
Recycled bottles or paper	53%	**78%**	**84%**
Voted for a candidate for this reason	14%	22%	12%
Contributed money	27%	27%	6%
Boycotted some products	20%	38%	56%
Joined a conservation group	6%	7%	8%
Written a letter to a politician/ editor/etc.	7%	8%	7%
Picketed a store or a business	16%	11%	8%

Each group (Turkish, Dutch, German) consists of 98 respondents

The above table (3.46) shows the respondents' participation in the very basic environmental activities. It only tells whether they take these actions or not. How often they do some environmental activities becomes crucial at the point when they are questioned in a more detailed way. On Table 3.47, it is observed that even though the question related to the respondents' ideas about how often people in their countries did the same actions was positioned well before this question and the order of items was changed in order to avoid similar answers; self- identification have affected the answers to the previous question (Table 3.40).

Turkish respondents, most often use less water during periods of water shortage, warn other people who pollute the environment, use the back of the paper as well, collect glass to recycle and use less electricity. All these actions have mean values above 3.30 meaning that they are done nearly always by the Turks. The only different answer which replaced using less detergents which was expected to be done by all Turkish people, has been collecting glass to recycle (action done by the respondent).

Dutch and German respondents almost always collect glass and paper to recycle, dispose harmful household wastes, batteries separately. German respondents also use the back of the paper as well and buy products with less packaging. The effect of self identification on estimating the behaviours of the people in one's own country becomes obvious again with these results. Table

3.39 results are very similar to the results of Table 3.40. Respondents most often engage in recycling and separate and careful disposition of household wastes.

TABLE 3.47 How often the respondent does the following actions...

MEANS*				A**		
	TURK	DUTC	GERM	TURK	DUTC	GERM
__Using less water during periods of water shortage	3.43	2.73	2.68	54%	33%	21%
__Participating activities of environment groups	2.63	1.72	2.02	21%	3%	1%
__Using less electricity	3.30	2.83	2.99	56%	26%	23%
__Having heaters at a lower temperature in winter	3.05	2.75	2.99	33%	27%	27%
__Buying products with less packaging	3.09	3.06	3.21	38%	31%	34%
__Writing or warning authorities about environmental problems	2.22	1.39	1.91	13%	1%	5%
__Attending seminars, conferences on environmental issues	2.42	1.44	1.74	20%	2%	2%
__Reading articles in papers about environmental issues	3.12	2.99	3.16	36%	24%	30%
__Using the back of the paper as well	3.35	3.01	3.28	58%	32%	43%
__Boycotting the products of a firm which pollutes the environment	2.82	2.53	2.94	39%	10%	21%
__Warning other people who pollute the environment	3.36	2.55	2.85	58%	17%	17%
__Using unleaded gasoline	3.11	3.10	2.94	37%	52%	34%
__Collecting glass to recycle	3.32	3.60	3.52	60%	74%	58%
__Buying environmentally friendly products although it is more expensive	3.04	2.91	2.99	38%	19%	20%
__Using less detergent whenever possible	3.06	2.88	2.96	44%	26%	24%
__Collecting papers for reuse or recycling	3.18	3.37	3.32	52%	59%	49%
__Disposing old medicines and used injectors separately	3.08	3.19	3.20	53%	57%	46%
__Disposing harmful household wastes (paint, etc) carefully	3.21	3.50	3.32	57%	64%	48%
__Collecting batteries to dispose separately	3.07	3.33	3.35	53%	61%	49%
__Using public transportation instead of car	2.89	2.43	2.81	33%	20%	20%
__Using high quality(sulfur-free) coal even though it is more expensive	2.95	1.98	2.40	43%	6%	14%

*1=never/ 4=always / Each group (Turkish, Dutch, German) consists of 98 respondents
A** shows the percentage of the respondents who take the said actions

The kinds of activities which the respondents have already been engaged in are observed in the above tables. These were mostly activities the individuals could pursue by themselves and which did not necessitate spending extra money. However, the level of participation in the activities of a group, whether it is only an environmental group or a party, and whether the respondents would sacrifice some money for environmental conservation are also other important issues.

As seen in Table 3.48, the mean values of Turkish respondents for all the mentioned items are between 3.73 and 3.06. Thus, it shows that they might participate these actions for creating a better environment. They might mostly boycott the products of a firm which pollutes the environment, support the activities of an environment group and give up using a product since it is not environmentally friendly. When it comes to spending some more money for environmental conservation in the form of paying more or paying taxes for green products, the mean values slightly fall, showing that majority say they may not participate in those actions. Participating the Greens party is almost always thought of by the respondents as an activity they may not attend to. This condition is valid for Dutch and German respondents as well. The reason may quite well be that the Greens Party is regarded as a political party by most people and these people do not believe in the sincerity of the party in environmental matters. Therefore in all three groups respondents say they may support the activities

of an environment group, but they reject to be a member of the Greens Party.

Dutch and German respondents have higher mean values which shows that they either would or may do most of the proposed activities. The Dutches mostly would give up using a product since it is not environmentally friendly, pay more for environmentally friendly goods, and pay an extra tax for environmental protection. So they seem to be more willing to spend some money for environmental conservation, more than the Turkish and German respondents are. German respondents, on the other hand, would mostly boycott the products of a firm which pollutes the environment and pay more for environmentally friendly goods, but they may or not pay extra taxes for green products. This shows that the Dutches agree on higher levels of sacrifice, the Germans and The Turkish follow respectively.

TABLE 3.48 Estimated participation of the respondent in some environmental friendly actions

MEANS*				A**		
	TURKISH	DUTCH	GERMAN	TURK	DUTCH	GERMAN
_Boycotting the products of a firm which pollutes the environment	**3.73**	4.13	**4.30**	72%	87%	90%
_Supporting the activities of an environment group	3.69	3.61	3.90	67%	56%	74%
_Participating the Greens Party	3.06	3.29	3.26	42%	44%	48%
_Paying more for environmentally friendly goods	3.28	4.17	4.16	48%	89%	86%
_Paying an extra tax for environmental protection	3.35	4.14	3.78	54%	84%	66%
_Giving up using a product since it is not environmentally friendly	3.45	**4.27**	4.08	60%	91%	80%

(*1=I would not/ 4=I would) / Each group (Turkish, Dutch, German) consists of 98 respondents
A** shows the percentage of the respondents who said they would or may participate the said actions)

It was recognised that Dutch and German respondents were the ones to pay extra for the environmentally friendly products and Turkish respondents were not as willing. Table 3.49 shows that majority of respondents in all three groups would be willing to pay between 6% and 10% more for all the goods and services they use as a consumer, if they knew as a result of this, industry would be able to operate in a way that did not harm the environment. The number of Turkish respondents who accept to pay less is more than those Dutches and Germans. More than 30% in the last mentioned two groups accept paying even greater amounts. It is surprising, however, that the percentage of Turkish respondents who accept paying more than 25% more is greater than that of Dutch and Germans.

TABLE 3.49 The extra amount respondents would pay for all the goods and services they use as a consumer

	TURKISH	DUTCH	GERMAN
Less than 1%	8%	3%	2%
1%- 2%	18%	5%	7%
2%- 5%	17%	20%	17%
6%-10%	28%	28%	40%
11%- 15%	6%	18%	18%
16%- 20%	4%	13%	8%
21%-25%	6%	4%	3%
More than 25%	11%	8%	4%
NO ANSWER	1%	0%	0%

Each group (Turkish, Dutch, German) consists of 98 respondents

Irresponsibility of people was regarded as one of the causes of environmental problems. The most effective way to rehabilitate the problem is questioned and the results on Table 3.50 reveal that education of people through mass media is recognised as the most effective way to solve the problem. Germans and Dutches also believe more in the power of rules and regulations related to environment, since their citizens obey to rules and regulations more than Turkish people do, thus it may be the reason why the Turkish respondents mostly rated education at school before rules and regulations. Preaching at religious centers is seen as the most effective way by a very small minority of Turkish respondents. Some religious Muslims believe that preaching may affect people and let them do the right things since God wants them to do but Dutches and Germans who have weaker beliefs in God do not see the same way as a solution.

TABLE 3.50 The most effective way to solve the environmental pollution problem is...

	TURK	DUTC	GERM
Education at schools	27%	22%	28%
Education of people through mass media	**35%**	**33%**	32%
Rules and regulations related to environment	19%	31%	**33%**
Fines and penalties	12%	12%	8%
Preaching at religious centers(mosques; churches; synagogues;	7%	2%	0%

Each group (Turkish, Dutch, German) consists of 98 respondents

People do have many sources of information, whether external, internal. Results on Table 3.51 show that most of the mentioned sources are declared to be between somewhat sufficient and

sufficient. Turkish respondents mention that newspapers, magazines are the most sufficient sources of information. Family, friends and television follow respectively. This reveals that both mass media and immediate environment are the most sufficient sources for the Turks. But external bodies are not recognised as providing sufficient information.

Dutch and Germans get sufficient information from newspaper, magazines and the TV, green groups also provide them with sufficient information. The role of mass media in awakening the public awareness in environmental issues becomes obvious. The body which is thought as providing insufficient information is 'producer'. Since respondents have exhibited a disbelief in the producers' environmental concern up to this point, this result seems to have been inevitable.

TABLE 3.51 Sufficiency of information the respondent gets about environmental issues from the mentioned sources

MEANS*				A**		
	TURKISH	DUTCH	GERMAN	TURKISH	DUTCH	GERMAN
____Family	3.36	2.99	3.39	45%	34%	43%
____Friends	3.28	3.04	3.32	43%	34%	39%
____Television	3.27	3.95	3.86	38%	70%	70%
____Newspapers, magazines	3.43	4.08	3.98	48%	76%	72%
____Books	3.01	3.22	3.28	34%	49%	39%
____Government	2.72	3.16	2.93	26%	40%	27%
____Green groups	2.92	3.60	3.44	31%	49%	49%
____Some producers	2.51	2.95	2.56	18%	32%	13%
____Experts other than green groups	2.76	3.14	2.94	26%	45%	24%

*5= very sufficient / 1= I never used /Each group (Turkish, Dutch, German) consists of 98 respondents
A** shows the percentage of respondents who think the mentioned sources are either sufficient or very sufficient

As the second part of the above- mentioned question in which the sufficiency level of various information sources were sought, the sources which the respondent wants to get information mostly from were questioned. Results of the first priority (Table 3.52) indicate that all three groups want to get information from the TV, government and newspapers and magazines respectively. The importance of mass media once more comes to the scene. Because mass media is the most practical means of information, most respondents prefer getting information through these channels. Government, on the other hand, might have been identified as the most credible body which would provide the true information.

TABLE 3.52 The source which the respondent wants to get most information is...

TURKISH	DUTCH	GERMAN
Television	Television	Television
Government	Government	Newspapers, magazines
Newspapers, magazines	Newspapers, magazines	Government
Family	Experts other than green groups	Green groups
Green groups	Green groups	Books
Experts other than green groups	Family	Some producers
Books	Books	Family
Friends	Some producers	Experts other than green groups
Some producers	Friends	Friends

As was mentioned before car ownership necessitates higher level of environmental concern. Table 3.53 reveals that more than half of the respondents have cars. Only 15% of the Turkish

respondents who have car, use unleaded gasoline, 8.5% have asbestos-free brakes and 8.7% have a catalyser in his / her car. 23.6% of the Dutches who have a car use unleaded oil, 18.3% have asbestos- free brakes and 16.5% have a catalyser. And 30% of the Germans with a car use unleaded oil, 26.8% have asbestos-free brakes and 23.6% have a catalyser. Results indicate that Germans are the most environmentalist consumers when buying a car and they use unleaded oil more than Turks and Dutches. However, the ratios are very low, showing that consumers have to be well informed about the environmental characteristics of cars before they purchase one. Thus pre- purchasing information should be carefully sought. (In this part of the analysis, 'no idea' answers and no answers may be accepted as negative answers since if the respondents had positive answers to the questions, they would write down 'yes' immediately.)

TABLE 3.53 Is the respondent's car environmentally friendly or not?

	YES	NO	NO IDEA	NO ANSWER
TURKISH				
a) Do you have a car?	57%	40%	0%	3%
b) Do you use unleaded gasoline?	27%	23%	0%	50%
c) Are your brakes asbestos- free?	15%	18%	5%	61%
d) Does your car have a catalyser?	16%	22%	1%	60%
DUTCH				
a) Do you have a car?	59%	41%	0%	0%
b) Do you use unleaded gasoline?	40%	15%	0%	45%
c) Are your brakes asbestos- free?	31%	10%	11%	48%
d) Does your car have a catalyser?	28%	22%	5%	45%
GERMAN				
a) Do you have a car?	64%	35%	0%	1%
b) Do you use unleaded gasoline?	48%	9%	0%	43%
c) Are your brakes asbestos- free?	42%	9%	4%	45%
d) Does your car have a catalyser?	37%	14%	3%	46%

Each group (Turkish, Dutch, German) consists of 98 respondents

As was mentioned in the first part of the analysis in which the general findings were exhibited, respondents were asked some basic questions. The surveyor aimed to find out whether the respondents were aware of very basic environmental issues. Results are on Tables 3.54, 3.55 and 3.56. All no idea and no answers show that the respondent does not know whether there is a law or not. Actually, all three countries have laws related to environmental issues. Only 54% of the Turks know that Turkey has an environmental law. This is a very low rate but thinking that most Turkish people get information from mass media and their immediate environment, they might not have heard of the existence of an environmental law since this information

necessitates some real interest in the issue. 18% of the Germans and 6% of the Dutch are in the same position. Still, it can be concluded that they are more aware about an important basic issue.

The kind of packaging preferred while purchasing a beverage has been identified as the second control question. Results, however, indicate this time that respondents know this subject much better, because more than half of all respondents prefer glass bottles and secondly they prefer cartoon boxes. Most of the ones who preferred plastic bottles stated that they were recyclable, thus there was no point in not using these bottles.

Whether using fur coats is an environmental threat or not was the last control question but results show that most Dutch and German respondents did not understand the question which was asked in English since they did not know the meaning of 'fur coat'. As a general result it can be said that most respondents who understood the question identified using fur coats as an environmental threat, but some avoided such a conclusion and claimed that using fur coats was a threat to the animals but it had nothing to do with the environment. It is obvious that they could not reach the conclusion that extinction of some species could threaten the environment as well since it would give damage to the delicate balance of the nature which would be very hard to establish again.

TABLE 3.54.. The respondent thinks that his / her country has an environmental law

	YES	NO	NO IDEA	NO ANSWER
TURKISH	54%	16%	13%	16%
DUTCH	82%	5%	4%	9%
GERMAN	94%	1%	2%	3%

Each group (Turkish, Dutch, German) consists of 98 respondents

TABLE 3.55 While purchasing a beverage the respondent, prefers...

	GLASS BOTTLE	CARTOON BOX	PLASTIC BOTTLE	ALIMINUM CAN	NO MATTER	NO ANSWER
TURKISH	52%	18%	7%	4%	2%	16%
DUTCH	55%	13%	15%	5%	3%	8%
GERMAN	52%	26%	2%	6%	11%	3%

Each group (Turkish, Dutch, German) consists of 98 respondents

TABLE 3.56 The respondent thinks that using fur coats is an environmental threat...

	YES	NO	NO IDEA	NO ANSWER
TURKISH	52%	12%	15%	20%
DUTCH	61%	9%	5%	24%
GERMAN	42%	9%	6%	43%

Each group (Turkish, Dutch, German) consists of 98 respondents

Consumers' level of concern in environmental issues were identified in the previous part of the survey, and effect of this concern on the purchasing behaviour was observed several times.

This time respondents are asked directly about the importance of some criteria- among which environmental impact takes place- while buying a frequently purchased food item. Turkish respondents think that healthiness, durability, and environmental impact of the product are the most important criteria respectively (Table 3.57). Dutch respondents also perceive the same criteria as important with the addition of its price and the respondent's habits. German respondents also rate the product's price, healthiness and environmental impact as very important factors. Like the Dutches, they are also affected from the shopping habits they developed in time. As was mentioned in the first part of the analysis, respondents seem to be very rational in their purchasing behaviour since they take into consideration economic factors and quality of the product as well as its healthiness.

TABLE 3.57 Importance of the criteria while buying a frequently purchased food item

MEANS				A**		
	TURKISH	DUTCH	GERMAN	TURKISH	DUTCH	GERMAN
__its price	3.31	3.32	**3.24**	87%	95%	89%
__my habits	3.10	3.50	3.21	77%	98%	88%
__its durability	3.69	3.44	3.10	97%	92%	84%
__its environmental impact	3.56	3.22	3.12	95%	91%	84%
__recommendation by friends	2.85	2.71	2.78	67%	58%	68%
__recommendation by experts	3.32	3.02	2.95	86%	81%	76%
__environmental impact of its package	3.38	3.40	2.95	86%	83%	74%
__charm of its commercial	2.38	1.92	2.33	44%	21%	36%
__its healthiness	**3.74**	**3.55**	3.16	92%	94%	81%
__its novelty	2.92	2.24	2.27	68%	40%	35%
__attractiveness of the package	2.32	1.90	1.94	41%	19%	22%

4=very important / 1=not important at all /
Each group (Turkish, Dutch, German) consists of 98 respondents
A** shows the percentage of respondents who think that item is 'important' and 'very important'

3.2.3 INTERRELATIONS AMONG VARIABLES

Interrelations between demographic variables such as nationality, gender, age, level of education, marital status, working status, income level and another group of variables showing the level of environmental concern and environmentally friendly behaviour are analysed in this section by use of cross tabulations and Chi-square statistics.

3.2.3.1 NATIONALITY

The present study aims a cross- cultural examination of environmental consciousness and a comparison of the level of concern of Turkish, Dutch and German publics about environmental issues. This has been done in the previous part (3.2.2.2), However, not all the relations depicted were statistically significant. It was aimed to exhibit all the results of the analysis. Thus, in this part, statistically significant interrelations between nationality of the respondent and his / her level of environmental concern will be analysed, but the interpretations related to this variable will be short cut in this section since they were analysed in depth in the previous part with the aim of avoiding duplication.

Table 3.58 shows that inflation, health and environmental concern were perceived as important problems for the world by all three publics. Inflation is seen as an important problem by the Turkish respondents particularly, since inflation is a chronic

problem in Turkey, thus most Turkish respondents considered the issues on a national basis rather than a global one. It is interesting, however that German and Dutch respondents also rated inflation high. Health and environmental concern are global problems as identified by the respondents and for the purposes of the present study, it is important that its relation with nationality is statistically significant.

TABLE 3.58 Importance of the mentioned issues for the world

	Turkish	Dutch	German	X^2	df	p
Inflation	94.90%	81.60%	66.30%	25.98	2	0.0000
Health	96.90%	98.00%	85.70%	14.96	2	0.0006
Environmental concern	99.00%	90.70%	94.80%	6.80059	2	0.0334

Each group (Turkish, Dutch, German) consists of 98 respondents

When the respondents were asked however to choose the most important issue for the world, 16.3% of the Turkish respondents still insisted that inflation was an important problem for the world (Table 3.59). Hunger was identified as the most important problem by the majority of the Dutches and wars by the Germans. Environmental pollution received the priority by 17.3% of the Turks, 12.2% of the Dutches, and 21.4% of the Germans.

TABLE 3.59 Priority of the problems

	Turkish	Dutch	German	X^2	df	p
Inflation	16.30%			85.61226	18	0.0000
Hunger	11.20%	36.70%	17.30%			
Health	8.20%	14.30%	5.10%			
Education	10.20%	8.20%	6.10%			
Wars	17.30%	9.30%	31.60%			
Environmental pollution	17.30%	12.20%	21.40%			
AIDS	5.10%	9.20%	5.10%			
Rapid population increase	5.10%	4.10%	9.20%			
Economic problems	0.10%	5.10%	3.10%			
Unemployment	8.20%	0.10%	0.10%			

Each group (Turkish, Dutch, German) consists of 98 respondents

Awareness about 9 out of 16 problems have statistically significant relations with nationality (Table 3.60). Water pollution and chemical wastes are the two problems of which the respondents were mostly aware of. Since water pollution is considered as water pollution and pollution of sea every year at the beginning of summer comes to the agenda, all three groups are informed about this problem. Chemical wastes is another issue which is always on the agenda in all three countries. Activities of the environment organisation "Greenpeace" also cover exhibiting the world the industries which pollute the environment through disposal of chemical wastes and the two countries in which this organisation is very prominent and active are Germany and Holland.

TABLE 3.60 Awareness about environmental problems

	Turkish	Dutch	German	X^2	df	p
Water pollution	72.50%	84.70%	88.80%	22.02651	6	0.0012
Destruction of agricultural areas	66.30%	66.30%	54.00%	16.4774	6	0.1114
Chemical wastes	83.70%	84.70%	83.70%	12.75105	6	0.0472
Household wastes	76.50%	82.60%	65.40%	11.14356	6	0.0840
Visual pollution	64.30%	55.10%	49.00%	12.76982	6	0.0468
Destruction of cultural monuments	71.40%	58.20%	40.80%	32.9448	6	0.0012
Acid rains	56.10%	79.60%	67.30%	46.16544	6	0.0045
Erosion	51.00%	54.10%	54.10%	16.05808	6	0.0024
Noise pollution	68.40%	58.20%	60.80%	19.76502	6	0.0030

Each group (Turkish, Dutch, German) consists of 98 respondents

Only the importance of two of the above- mentioned problems came out to be statistically significant (Table 3.61). In both cases Turkish respondents were in majority to name these as important. Destruction of cultural monuments and trans boundary movement of hazardous waste are perceived as the important problems by more than half of the respondents in all three publics.

TABLE 3.61 Importance of environmental problems for the world

	Turkish	Dutch	German	X^2	df	p
Destruction of cultural monuments	82.70%	63.30%	55.10%	17.75478	2	0.0001
Transboundary movement of hazardous waste	89.80%	76.50%	77.10%	7.09696	2	0.0288

Table 3.62 shows that 86.5% of the Turks think that inflation is one of the most important issues for Turkey. Education is another problem perceived as important by majority of the Turkish respondents. AIDS and depletion of ozone layer are most important for Dutches. The reasons were discussed in part

3.2.2.2.b. Immigrants and depletion of ozone layer are perceived as the most important issues of all by the Germans.

TABLE 3.62 Importance of the mentioned issues at national level

	Turkish	Dutch	German	X^2	df	p
Inflation	86.50%	20.40%	20.40%	115.3098	2	0.0000
Education	76.00%	27.60%	27.60%	61.65076	2	0.0000
Relations with ex- USSR States	21.90%	2.00%	7.10%	22.26383	2	0.0000
AIDS	20.80%	45.90%	41.80%	15.15145	2	0.0005
Water pollution	10.40%	34.70%	40.80%	24.39888	2	0.0000
Immigrants	2.10%	26.50%	56.10%	69.86717	2	0.0000
Depletion of ozone layer	15.60%	42.90%	46.90%	24.55425	2	0.0000
Acid rains	6.30%	31.60%	16.30%	21.36146	2	0.0000
Chemical wastes	8.30%	37.80%	36.70%	26.89658	2	0.0000
Greenhouse effect		31.60%	32.70%	39.37638	2	0.0000
Income distribution	25.00%	12.20%	6.10%	13.03763	2	0.0015

Each group (Turkish, Dutch, German) consists of 98 respondents

All the statements related to the usage of plastic products and to the positioning of environmental conservation vis a vis economic and military factors came out to be statistically significant (Table 3.63). More of the Turkish respondents than Dutches and Germans believe that plastics present a serious environmental threat. But still less than half of them believe in the benefits of using plastic products. General scene is that respondents do not believe that plastics present such a great environmental since it is recyclable but still they do not believe that they are beneficial. Dutches and Germans believe that environmental protection is more important than both economic and military issues. Turkish respondents, however do not exhibit such keen results.

TABLE 3.63 The respondent strongly agrees that...

	Turkish	Dutch	German	X^2	df	p
___Growing use of plastics presents a serious environmental threat	64.30%	45.90%	34.70%	25.46314	8	0.0013
___Benefits of using plastic products outweigh environmental risks created by the difficulties of disposing these products	33.70%	22.40%	12.20%	26.19906	8	0.0010
___Economic development is more important than environmental concerns	20.60%	5.10%	5.10%	38.55091	8	0.0000
___Military expenses cannot be cut for the sake of environmental concern	31.60%	5.10%	9.20%	76.6369	8	0.0000
___Protection of the environment should be considered more important than both economic and military issues	37.80%	31.60%	25.50%	24.35828	8	0.0020

Each group (Turkish, Dutch, German) consists of 98 respondents

Table 3.64 shows that improvement of the economic conditions is the only variable which has a statistically insignificant relationship with nationality . The others received priority in different amounts. For the Turkish respondents political and social improvement are the most important among the four. For both Dutches and Germans environmental conditions are the first to be improved. For both, improvement of the social conditions follow.

TABLE 3.64 The respondent believes that the following conditions should be improved in his/ her country

	Turkish	Dutch	German	X^2	df	p
____Social	19.60%	17.30%	31.60%	33.15634	8	0.0001
____Environmental	9.80%	39.80%	35.70%	35.81955	8	0.0000
____Military	6.50%	2.00%	3.10%	28.32959	8	0.0004
____Political	23.90%	13.30%	6.10%	24.41897	8	0.0013

Each group (Turkish, Dutch, German) consists of 98 respondents

Irresponsibility of the public and governments are statistically insignificant, thus the other two variables are taken into

consideration (Table 3.65). Dutch and German respondents blame industries for environmental problems, whereas the Turks put the blame on local administrations to a larger extent. Most Turkish respondents seem to have not yet understood the responsibility that the industry has to have for the environment.

TABLE 3.65 The cause of the environmental problems in the world is...

	Turkish	Dutch	German	X^2	df	p
__irresponsibility of local administrations	34.40%	34.70%	26.50%	20.06402	6	0.0027
__irresponsibility of industries	22.60%	40.80%	34.70%	27.56131	6	0.0006

Each group (Turkish, Dutch, German) consists of 98 respondents

The outcomes of another question on Table 3.66 support the idea that Turkish respondents believe somehow that the industries carry out their environmental roles. However, believers are less from among the other two groups. The expected role of the government to force the industries comes to the scene. Majority of the Turks strongly agree that personal efforts may contribute to the solution of environmental problems.

TABLE 3.66 The respondent strongly agrees that...

	Turkish	Dutch	German	X^2	df	p
___Government has to force industries to care for the environment	81.60%	68.40%	58.20%	42.5862	8	0.0000
___Personal efforts may contribute to the solution of environmental problems	62.24%	34.69%	22.45%	55.87176	8	0.0000
___Most industries are interested in protection of the environment	18.37%	5.10%	4.08%	41.34477	8	0.0000

Each group (Turkish, Dutch, German) consists of 98 respondents

Turkish respondents think that people in Turkey use public transportation instead of car, warn other people who pollute the environment and care for using less electricity (Table 3.67). Dutch and German respondents, on the other hand, believe that other Dutches and Germans mostly collect paper and glass to recycle, use unleaded gasoline and read articles in papers about environmental issues. Environmental activities carried on by them differs from those carried on by the Turks.

TABLE 3.67 The respondent believes that people in his / her country always or sometimes do the following:

	Turkish	Dutch	German	X^2	df	p
__Using public transportation instead of car	65.30%	61.20%	49.00%	5.82844	2	0.0542
__Attending seminars/ conferences on environmental issues	50.00%	34.70%	24.50%	15.94302	2	0.0031
__Reading articles in papers about environmental issues	55.10%	75.50%	72.40%	10.85491	2	0.0044
__Participating activities of environment groups	50.00%	46.90%	29.90%	9.35721	2	0.0093
__Buying products with less packaging	44.90%	68.40%	74.50%	20.42312	2	0.0000
__Writing or warning authorities about environmental problems	49.00%	56.10%	33.00%	10.99933	2	0.0041
__Using less electricity	62.20%	39.80%	38.80%	13.84783	2	0.0010
__Warning other people who pollute the environment	63.30%	55.10%	35.70%	15.71231	2	0.0004
__Using unleaded gasoline	45.90%	81.60%	53.60%	28.93729	2	0.0000
__Collecting papers for reuse or recycling	54.10%	84.70%	72.40%	22.33283	2	0.0000
__Collecting glass to recycle	55.10%	89.80%	79.40%	32.89555	2	0.0000
__Buying environmentally friendly products although it is more expensive	48.00%	72.40%	66.30%	133.5472	2	0.0011
__Collecting batteries to dispose separately	44.90%	80.60%	71.40%	29.89319	2	0.0000
__Disposing old medicines and used injectors separately	48.00%	80.60%	52.00%	25.89483	2	0.0000
__Disposing harmful household wastes (paint, etc) carefully	43.90%	79.60%	54.10%	27.4569	2	0.0000

Each group (Turkish, Dutch, German) consists of 98 respondents

The definition of an environmentally friendly product as 'a product which does not pollute the environment when disposed' came out to be statistically insignificant even though it has received a higher priority when compared with the definition including consumption. Among the remaining two definitions, however, most respondents accepted the definition of an environmentally friendly product as a one which does not pollute the environment during production (Table 3.68). It has been identified before that particularly German and Dutch respondents blame industries for environmental pollution and believe that environmental friendliness implies not polluting the environment during production process.

TABLE 3.68 How does the respondent define an environmentally friendly product

	Turkish	Dutch	German	X^2	df	p
A product which does not pollute the environment during production	39.80%	46.94%	48.98%	10.97513	4	0.0268
A product which does not pollute the environment when consumed	26.53%	17.35%	18.37%	20.21825	4	0.0025

Each group (Turkish, Dutch, German) consists of 98 respondents

Majority of Turkish respondents have tried not to litter their environment, Dutches and Germans have recycled glass or paper (Table 3.69). It becomes clear that these respondents have thought that their community are mostly engaged in the environmental activities that themselves are carrying on. Trying not to litter and talking with friends about environmental issues

are the second common activities done by the Dutches and Germans.

TABLE 3.69 The respondent has done the following activities for the environment...

	Turkish	Dutch	German	X^2	df	p
___Tried not to litter	83.67%	72.45%	62.24%	11.36846	2	0.0034
___Talked with friends	44.90%	65.31%	68.37%	13.24235	2	0.0013
___Recycled bottles or paper	53.06%	77.55%	83.67%	25.2	2	0.0000
___Contributed money	26.53%	26.53%	6.12%	17.18293	2	0.0002
___Joined a conservation group	20.41%	37.76%	56.12%	26.50962	2	0.0000

Each group (Turkish, Dutch, German) consists of 98 respondents

The study aims identifying the level of environmental activism of the respondents as well. Up to this point activism of the Dutch and German publics seemed to be parallel. The results on Table 3.70 also support this view. Dutches and Germans mostly collect glass and paper to recycle, collect batteries to dispose separately, use public transportation, unleaded gasoline and boycott the polluting products. Turkish respondents mostly use less water during shortage periods, the other two groups mostly do not have water shortages thus the percentages are lower. The remaining activities pursued by the Turkish respondents are similar to the other two groups' activities but the percentages are mostly somehow lower than the other two.

TABLE 3.70 The respondent always or sometimes does the following environmentally friendly activities

	Turkish	Dutch	German	X^2	df	p
__Using less water during periods of water shortage	90.80%	56.70 %	62.20%	32.57824	2	0.0000
__Participating activities of environment groups	52.00%	21.60 %	29.60%	21.48501	2	0.0000
__Writing or warning authorities about environmental problems	43.90%	5.20%	26.50%	38.84881	2	0.0000
__Attending seminars, conferences on environmental issues	40.80%	9.20%	19.40%	28.73425	2	0.0000
__Boycotting the products of a firm which pollutes the environment	56.10%	56.10 %	73.50%	8.33654	2	0.0155
__Warning other people who pollute the environment	80.60%	52.00 %	72.40%	19.62831	2	0.0001
__Using unleaded gasoline	55.10%	74.20 %	70.20%	10.23656	2	0.0366
__Collecting glass to recycle	79.60%	86.70 %	95.90%	11.93438	2	0.0026
__Collecting batteries to dispose separately	70.40%	81.60 %	87.80%	9.45719	2	0.0088
__Using public transportation instead of car	71.40%	50.00 %	69.40%	11.84287	2	0.0027
__Using high quality (sulfur-free) coal even though it is more expensive	68.40%	35.20 %	48.90%	21.11759	2	0.0000

Each group (Turkish, Dutch, German) consists of 98 respondents

The level of Turkish, Dutch and German respondents came out to be higher for certain types of activities, however the possible level of activism for some other group of activities (some implying personal sacrifice) is also investigated. The results show that all three publics are strong possible activists (Table 3.71). Majority of the Turks would support activities of an environment group, Dutches and Germans would pay more for environmentally

friendly goods. The level of sacrifice is observed to be higher with the Germans and Dutches.

TABLE 3.71 The respondent would participate in the following actions for a better environment:

	Turkish	Dutch	German	X^2	df	p
__Supporting the activities of an environment group	98.00%	82.70 %	94.90%	38.36594	4	0.0000
__Participating the Greens Party	75.50%	71.40 %	74.20%	21.97616	4	0.0002
__Paying more for environmentally friendly goods	81.60%	94.90 %	98.00%	48.60847	4	0.0000
__Paying an extra tax for environmental protection	83.60%	91.80 %	87.80%	42.62526	4	0.0000

Each group (Turkish, Dutch, German) consists of 98 respondents

The possible activism seems to be at a higher level than the actual activism level. The results on Table 3.72 show that the meaning activism should also cover the word 'care'. Turkish respondents mostly say they would react to a possible environmental damage in another country. Dutches and Germans, however, are more passive but they do also care. The past events proved just the opposite but it is a positive result that Turks claim that they would react to such a damage.

TABLE 3.72 The reaction of the respondent to a possible environmental damage in another country:

	Turkish	Dutch	German	X^2	df	p
__I would react against it	55.10%	20.62%	22.45%	41.23858	6	0.0000
__It depends on the condition	18.37%	45.36%	41.84%			
__I usually do not care	4.08%		2.04%			
__I do care but I do not react	22.45%	34.02%	33.67%			

Each group (Turkish, Dutch, German) consists of 98 respondents

Whether the respondents were willing to sacrifice money was tested beforehand and the positive results were taken. How much they would sacrifice is also an important criterion for this study. Results show that Turkish, Dutch and German respondents mostly accept to pay less than 10% (Table 3.73). Still it can be concluded that a greater majority of Dutches and Germans accept sacrifice at a higher level. It is a surprising result that more Turkish respondents accept paying more than 25%.

TABLE 3.73 How much more the respondent personally is willing to pay for all the goods and services he / she uses as a consumer, if as a result of this, industry did not harm the environment

	Turkish	Dutch	German	X^2	df	p
Less than 10%	72.16%	56.12%	66.33%	34.1033	4	0.002
10%-25%	16.33%	35.71%	29.59%			
More than 25%	11.34%	8.16%	4.08%			

Each group (Turkish, Dutch, German) consists of 98 respondents

For the Turkish respondents the sufficient information sources have been identified as family, newspapers, friends and papers (Table 3.74). For Dutches and Germans mass media tools such as the TV and Newspapers, magazines are the most sufficient sources. The importance of mass media in educating publics in all three countries becomes clear. Other than family and friends, green groups are the fifth sufficient source for Dutch and German

respondents. Producers come out to be the least sufficient sources about environmental issues.

TABLE 3.74 The information the respondent gets about environmental issues from these sources is sufficient

	Turkish	Dutch	German	X^2	df	p
Family	72.40%	68.40%	83.70%	6.53735	2	0.0381
Friends	68.40%	73.50%	83.70%	6.37823	2	0.0412
Television	64.30%	90.80%	92.90%	34.73057	2	0.0000
Newspapers, magazines	71.40%	91.80%	95.90%	28.70551	2	0.0000
Books	59.20%	71.40%	82.30%	12.56934	2	0.0019
Government	39.80%	66.30%	66.30%	18.816	2	0.0001
Green groups	46.90%	81.60%	76.50%	31.80164	2	0.0000
Some producers	32.70%	64.30%	44.30%	20.12474	2	0.0000
Experts other than green groups	44.90%	69.40%	64.30%	13.58118	2	0.0011

Each group (Turkish, Dutch, German) consists of 98 respondents

Less Turkish respondents are aware of the existence of an environmental law in their country (Table 3.75). Dutch and German respondents, on the other hand are more aware.

TABLE 3.75 Does the respondents country have an environmental law?

	Turkish	Dutch	German	X^2	df	p
Yes	64.60%	89.90%	96.80%	38.07264	4	0.0000
No	19.50%	5.60%	1.10%			
I do not know	15.90%	4.50%	2.10%			

Each group (Turkish, Dutch, German) consists of 98 respondents

Majority of the respondents in all three groups prefer glass bottles while purchasing a beverage and most of the rest prefers cartoon box (Table 3.76). But most of the respondents (majority

of the Turks as well) live in Germany and Holland where plastic bottles and cans are also recycled. Thus, respondents who preferred these two explained their reasons quite well.

TABLE 3.76 While purchasing a beverage, the respondent prefers...

	Turkish	Dutch	German	X^2	df	p
PLASTIC BOTTLE	8.50%	16.70%	2.10%	22.59149	8	0.0039
GLASS BOTTLE	62.20%	60.00%	53.70%			
ALUMINIUM CAN	4.90%	5.60%	6.30%			
CARTOON BOX	22.00%	14.40%	26.30%			
NO MATTER	2.40%	3.30%	11.60%			

Each group (Turkish, Dutch, German) consists of 98 respondents

The effect of environmental concerns on purchasing behaviour was questioned through the expected level of sacrifice questions. At Table 3.77, importance of the environmental concern on purchasing behaviour among other criteria is exhibited clearly. The environmental impact of the product's package factor came out to be statistically insignificant, hence does not take place in the following table. For the Turkish respondents, environmental impact of the food item is nearly as important as its durability. Dutch respondents, however give priority to their habits. Environmental impact of the product comes out to be a very important factor for most respondents but not as important as its healthiness, and durability which all exhibit the rationality of the respondents. Majority of the Germans, like the Dutches think that their habits are the most important factor while purchasing a

frequently purchased food item, but its durability and environmental impact also follow very closely.

TABLE 3.77 While buying a frequently purchased food item, what is important is...

	Turkish	Dutch	German	X^2	df	p
__my habits	76.50%	98.00%	87.80%	20.46777	2	0.0000
__its durability	96.90%	91.80%	83.70%	10.52185	2	0.0052
__its environmental impact	94.90%	90.80%	83.70%	6.90455	2	0.0317
__charm of its commercial	43.90%	21.40%	35.70%	11.33054	2	0.0035
__its healthiness	91.80%	93.90%	80.60%	10.03553	2	0.0066
__its novelty	68.40%	39.80%	34.70%	25.88182	2	0.0000
__attractiveness of the package	40.80%	19.40%	22.40%	13.18936	2	0.0014

Each group (Turkish, Dutch, German) consists of 98 respondents

3.2.3.2. GENDER

Among the ten issues, only relationship of inflation with gender came out to be statistically significant (Table 3.78). 44.2% of the male respondents and 36.9% of the female respondents believe that inflation is a very important problem for the world.

TABLE 3.78 Importance for the world

	Female	Male	X^2	df	p
Inflation	36.90%	44.20%	10.10355	3	0.0177

Destruction of the cultural monuments has been identified as important by 76.2% of the females and 60.5% of the males(Table 3.79).

TABLE 3.79 Importance of environmental problems for the world

	Female	Male	X^2	df	p
Destruction of cultural monuments	76.20%	60.50%	7.32605	1	0.0068

It is an interesting result that female respondents believed that irresponsibility of industries was the cause of environmental problems and male respondents to a larger extent blamed public for that (Table 3.80).

TABLE 3.80 The cause of the environmental problems is...

	Female	Male	X^2	df	p
Irresponsibility of public	24.00%	38.10%	8.25459	3	0.041
Irresponsibility of industries	39.70%	28.00%	11.53193	3	0.0212

The relationship between gender and the answers to the statement "industrial organisations should make extra expenses to protect the environment" came out to be statistically significant. It can be observed that the amount of males who support the idea is slightly more than those females (Table 3.81). It is a positive result that more than half of both males and females believe that industrial organisations have a role in the protection of the environment.

TABLE 3.81 The respondent strongly agrees that...

	Female	Male	X^2	df	p
Industrial organisations should make extra expenses to protect the environment	58.20%	62.20%	10.07256	3	0.018

Male respondents are more optimistic than females about the environmental activities carried on by their community (Table 3.82). As can be observed on the table, four of the activities have statistically significant relationships with gender. Using less electricity is believed to be the most commonly done activity.

TABLE 3.82 The respondent believes that the people in his / her country sometimes or always...

	Female	Male	X^2	df	p
Using less water during periods of water shortage	6.60%	21.10%	12.1226	4	0.0165
Participating activities of environment groups	11.50%	20.30%	12.52536	4	0.0138
Writing authorities about environmental problems	12.30%	26.70%	17.06315	4	0.0019
Using less electricity	17.20%	35.70%	19.69315	4	0.0006

More than half of the males always use unleaded gasoline (Table 3.83). This ratio is lower for the females. But since the amount of females who have a car is less than those of men, this ratio may not mean that more men use unleaded oil.

TABLE 3.83 The respondent always...

	Female	Male	X^2	df	p
Uses unleaded gasoline	29.50%	50.30%	16.73144	4	0.0022

Females believe that rules and regulations related to environment are the most effective way to solve the environmental pollution problem (Table 3.84). They secondly believe in the influence of education through mass media. Male respondents, on the other hand, think that education through mass media and at schools are the two most effective tools to fight for the pollution. It was found that females blamed industries and males blamed public for environmental problems. Therefore it is a consistent result that females support the idea of putting rules and regulations for protecting the environment against polluters; namely, industries.

Males, however, support the idea of education of public, as was expected.

TABLE 3.84 The most effective way to solve the environmental pollution problem is...

	Female	Male	X^2	df	p
_____Education at schools	17.20%	31.40%	11.38142	4	0.0226
_____Education of people through mass media	33.60%	32.60%			
_____Rules and regulations related to environment	36.10%	21.50%			
_____Fines and penalties	9.80%	11.60%			
_____Preaching at religious centers(mosques; churches; synagogues; etc.)	3.30%	2.90%			

It was observed in the previous section that habits of Dutch and German respondents were the most important factor while they were buying a frequently purchased food item. The results show that males are somewhat more conservative than females while purchasing food items (Table 3.85). Because habits are more important for them than they are for females. It is a surprising result since men are mostly thought as more innovative than women in shopping. Recommendation by experts is also more important for men. Men are considered to be more rational than women, thus this result shows that they believe more than females in what the experts say since experts are thought of making statements based on scientifically proved facts.

TABLE 3.85 While purchasing a frequently purchased food item, what is very important is ...

	Female	Male	X^2	df	p
My habits	36.90%	44.20%	7.74566	3	0.0516
Recommendation by experts	21.30%	40.70%	17.57114	3	0.0005

3.2.3.3 AGE

Awareness about destruction of the agricultural areas came out to be the only variable which has a significant relationship with age. Elder people are the most aware group, they are followed by middle aged respondents (Table 3.86).

TABLE 3.86 It is important for the world...

AGE	Below 24	25-34	35-44	45 and above	X^2	df	p
Destruction of agricultural areas	16.20%	11.90%	25.90%	33.30%	21.6624	9 1	0.01

Among the given 20 issues only health problem came out to have a statistically significant relation with age (Table 3.87). As would be expected the ratio of the respondents who think health problem is an important issue for their countries increases with age, however, those who care for health problems under age of 24 are more than those between 25-34. This may signify that youngs are more health conscious than their older brother and sisters.

TABLE 3.87 It is an important issue for the respondent's country

	Below 24	25-34	35-44	45 and above	X^2	df	p
Health problem	35.10%	27.10%	45.30%	48.90%	9.46435	3	0.0237

It can be observed that (Tablr 3.88) percentages of the respondents who support military expenses against environmental protection are low. Still the lowest ratio belongs to 25-34 year olds. Elder people seem to support military expenses the most. It may be that most of those who belong to this group have seen a war in their life, thus they might be more nationalist than other age groups.

TABLE 3.88 Respondents strongly agree that...

	Below 24	25-34	35-44	45 and above	X^2	df	p
Military expenses cannot be cut for the sake of environmental concern	18.90%	9.30%	14.80%	25.00%	26.18953	12	0.0101

It is observed that the eldest and the youngest respondents use public transportation instead of car (Table 3.89). It may be concluded that most youngsters do not have a car yet and most elder think that driving is tiresome and prefer public transportation instead, thus environmental concern may not be the main reason of using public transportation for those people.

TABLE 3.89 Respondents always...

	Below 24	25-34	35-44	45 and above	X^2	df	p
Using public transportation instead of car	31.10%	16.10%	24.10%	35.40%	23.24485	9	0.0057

3.2.3.4 LEVEL OF EDUCATION

Level of education is analysed in three groups. The first group includes those respondents who are literate or graduate of primary school, the second group includes those who are graduates of secondary or High school. The third group, on the other hand, includes all the respondents who are either students or graduates of university or graduate. Inflation and wars are the two variables which have a statistically significant relationship with the level of education (Table 3.90). It is an interesting result that as the education level gets higher, the percentage of people who consider inflation as a very important problem for the world decreases. One thing should be made clear at this point. Only Turkish respondents make up the first group, thus belief that inflation is an important problem for the world comes from the Turkish group who were most probably not able to discriminate between the problems of their country and the world. Wars also worry a large amount of the respondents, but less educated people fear war less than the educated ones.

TABLE 3.90 The problems that are very important for the world...

	Literate+ Grad. of Prim. Sch.	Grad. of Secon. /High Sch.	Grad. or stud. of Unv. /Grad.	X^2	df	p
Inflation	90.90%	40.90%	31.40%	27.59701	6	0.0001
Wars	54.50%	72.00%	68.60%	37.42787	6	0.0000

More people from literate and primary school graduates group claim that they are very aware of water pollution, destruction of agricultural areas and endangered species (Tablr 3.91). There can be an explanation for such high levels of awareness. As was mentioned, this group consists of Turkish respondents only. These are most probably of rural origin who have close relationship with nature and natural resources. Thus they are well aware of these problems which have direct relation with the nature.

TABLE 3.91 Level of awareness about environmental problems in the world

	Literate+Grad. of Prim. Sch.	Grad. of Secon. /High Sch.	Grad. or stud. of Unv. /Grad.	X^2	df	p
Water pollution	59.10%	36.60%	39.00%	13.19681	6	0.04
Destruction of agricultural areas	45.50%	17.70%	15.20%	14.79173	6	0.0219
Endangered species	50.00%	22.10%	21.90%	13.57745	6	0.0347

Once more it is the less educated respondents' group who score higher importance ratios (Table 3.92). But this time it is not as easy to explain the reason of such high percentages. Because, normally it can be expected that these people do not consider destruction of cultural monuments and noise pollution as very important problems for the world. It may be such that these people might have a tendency to mark every issue as very important because of two possible reasons; the first one may be the wish to hide their ignorance about some issues which are

listed in the questionnaire as the problems of the world, and the second may be their careless reading habits as a result of the wish to quickly finish up filling the questionnaire.

TABLE 3.92 Importance of the environmental problems for the world

	Literate+Grad. of Prim. Sch.	Grad. of Secon. /High Sch.	Grad. or stud. of Unv. /Grad.	X^2	df	p
Destruction of agricultural areas	77.30%	39.60%	41.00%	11.86129	4	0.0184
Destruction of cultural monuments	72.70%	28.00%	21.90%	24.59345	6	0.0004
Noise pollution	63.60%	28.00%	25.70%	14.77477	6	0.0221

As the less educated group belongs to the Turkish respondents only, the problems of the Turkey once more comes to the scene with very high percentages (Tabl 3.93). These are inflation, health and education problems which are on the agenda almost all the time in the country. Graduates of secondary or High schools attribute importance to depletion of ozone layer, education, inflation and chemical wastes. The third group also thinks that education, inflation, health and depletion of ozone layer are the most important problems for their countries. It can be observed on the table that more people in the second and the third groups (the better educated ones) consider environmental problems as important for their country.

TABLE 3.93 Importance of the problems for the respondents' country

	Literate+Grad. of Prim. Sch.	Grad. of Secon. /High Sch.	Grad. or stud. of Unv. /Grad.	X^2	df	p
Inflation	95.20%	37.40%	39.00%	26.16901	2	0.0000
Education	81.00%	38.70%	43.80%	13.54084	2	0.0011
Health	85.70%	30.10%	35.20%	25.05249	2	0.0000
Relations with ex -USSR States	28.60%	8.60%	9.50%	8.11491	2	0.0173
Water pollution	4.80%	33.70%	25.70%	8.35986	2	0.0153
Immigrants	4.80%	33.10%	25.70%	7.93981	2	0.0189
Depletion of ozone layer	4.80%	39.90%	33.30%	10.27937	2	0.0059
Chemical wastes		35.60%	21.90%	14.74165	2	0.0006
Greenhouse effect		23.30%	22.90%	6.19299	2	0.0452
Income distribution	4.80%	11.00%	22.90%	8.86800	2	0.0119

The ratio of the respondents who strongly agree that economic development is more important than environmental concerns decreases with the increased level of education (Table 3.94). However, the second statement which claims just the opposite also exhibits the same tendency, but in much less amounts. Therefore it can be concluded that as the level of education increases, environment becomes more important than economic issues.

TABLE 3.94 The respondent strongly agrees that...

	Literate+Grad. of Prim. Sch.	Grad. of Secon. /High Sch.	Grad. or stud. of Unv. /Grad.	X^2	df	p
___Economic development is more important than environmental concerns	47.60%	11.00%	1.90%	51.84288	8	0.0000
___Protection of the environment should be considered more important than both economic and military issues	45.50%	31.10%	29.50%	21.81724	8	0.0053

As seen on Table 3.95, almost more than half of the respondents in all three education groups, believe that industrial organisations should make extra expenses for the environment. The ratios are close to each other, thus it is not easy to reach a conclusion but it may be said that less of the Graduates of secondary and High schools believe in this statement.

TABLE 3.95 Role of the industrial organisation in environmental conservation

	Literate+Grad. of Prim. Sch.	Grad. of Secon. /High Sch.	Grad. or stud. of Unv. /Grad.	X^2	df	p
Industrial organisations should make extra expenses for environment	63.60%	54.30%	70.50%	12.26652	6	0.0563

The results on Table 3.96 display a very interesting scene. Literates and graduates of primary school, trust more in their community in carrying out some environmental roles such as disposing old medicines, used injectors and harmful household wastes separately, using unleaded gasoline and buying products with less packaging. And Table 3.98 displays the percentage of respondents who claim to be engaged in the environmental activities listed. There it is seen that the less educated group claims high levels of environmental activism of which the researcher suspects. The above mentioned two reasons; namely, trying to hide ignorance or careless reading might have caused these results. The second group also believes more than the third group that their community acts in an environmentally friendly

way. Thus the belief decreases with the increased level of education.

TABLE 3.96 The respondent believes that people in his / her country always do the following environmental friendly activities:

	Literate+Grad. of Prim. Sch.	Grad. of Secon. /High Sch.	Grad. or stud. of Unv. /Grad.	X^2	df	p
__Buying products with less packaging	45.50%	9.80%	12.40%	33.2551	8	0.0001
__Using unleaded gasoline	63.60%	29.30%	18.30%	211.8252	8	0.0053
__Disposing old medicines and used injectors separately	68.20%	25.00%	21.90%	23.98964	8	0.0023
__Disposing harmful household wastes (paint, etc) carefully	68.20%	28.70%	20.00%	27.7496	8	0.0005

Recycling bottles and paper and joining conservation groups are the two variables who have a significant relationship with the level of education (Table 3.97). The results indicate that better educated respondents were more engaged in such activities and give a clue that the claims by the less educated respondents about environmental activism may not be as true.

TABLE 3.97 The environmentally friendly activities pursued by the respondent

	Literate+Grad. of Prim. Sch.	Grad. of Secon. /High Sch.	Grad. or stud. of Unv. /Grad.	X^2	df	p
___Recycled bottles or paper	36.40%	73.20%	76.20%	14.67992	2	0.0006
___Joined a conservation group	13.60%	40.20%	39.00%	5.94951	2	0.0511

As was mentioned two paragraphs before, the percentage of the less educated respondents who claim environmental activism is much more than those in the other two groups (Table 3.98). Disposing old medicines and used injectors separately and using less electricity is the activities done by the majority in the well educated groups. Using public transportation and boycotting products of a polluter are the other two activities pursued by these groups. As observed up to this point, it is not very easy to discriminate between the answers of the second and third groups since the ratios are very close to each other. The second group seems to have only slightly higher ratios than the third one.

TABLE 3.98 Environmental activities the respondent has engaged in

	Literate+Grad. of Prim. Sch.	Grad. of Secon. /High Sch.	Grad. or stud. of Unv. /Grad.	X^2	df	p
__Participating activities of environment groups	50.00%	8.00%	1.00%	58.83613	6	0.0000
__Using less electricity	63.60%	36.60%	26.90%	15.48092	6	0.0168
__Writing or warning authorities about environmental problems	40.90%	3.70%	3.80%	59.09964	6	0.0000
__Attending seminars, conferences on environmental issues	40.90%	6.10%	4.80%	45.06293	6	0.0000
__Boycotting the products of a firm which pollutes the environment	68.20%	20.10%	20.00%	29.9392	6	0.0000
__Warning other people who pollute the environment	81.80%	24.40%	30.50%	32.811	6	0.0000
__Disposing old medicines and used injectors separately	72.70%	55.20%	43.30%	17.62932	6	0.0072
__Using public transportation instead of car	68.20%	18.90%	23.80%	26.43766	6	0.0002
__Using high quality(sulfur-free) coal even though it is more expensive	63.60%	20.30%	16.70%	26.47447	6	0.0002

More than half of the less educated group says he / she would react against a damage which happens in another country and affects his / her country as well (Table 3.99). Educated group, on the other hand, say that their reaction would depend on the condition. It is also interesting that 9.1% of the less educated group says that he / she would not care. This percent is zero with the well educated group.

TABLE 3.99 The reaction of the respondent to a possible damage in another country.

	Literate+Grad. of Prim. Sch.	Grad. of Secon. /High Sch.	Grad. or stud. of Unv. /Grad.	X^2	df	p
__I would react against it	54.50%	28.80%	34.30%	15.38408	6	0.0175
__It depends on the condition	18.20%	35.60%	38.10%			
__I usually do not care	9.10%	2.50%				
__I do care but I do not react	18.20%	33.10%	27.60%			

Less educated people believe that education is the best way to solve the environmental problems (Table 3.100). The other two groups also believe that education of people through mass media and education at schools are the two best ways of solving the problem, but they also think that rules and regulations are necessary. Preaching at religious centers gets the highest percentage from among less educated once since it is a well known fact that the belief in religion or God decreases among the educated people.

TABLE 3.100 The best way to solve the environmental problem is...

	Literate+Grad. of Prim. Sch.	Grad. of Secon. /High Sch.	Grad. or stud. of Unv. /Grad.	X^2	df	p
_Education at schools	27.30%	25.00%	25.70%	37.39113	8	0.000
_Education of people through mass media	27.30%	34.10%	31.40%			
_Rules and regulations related to environment	4.50%	28.70%	31.40%			
_Fines and penalties	18.20%	9.80%	11.40%			
_Preaching at religious centers(mosques; churches; synagogues; etc.)	22.70%	2.40%				

Mass media have been identified as the most sufficient sources about environmental issues in previous analysis. But they did not come out to have statistically significant relations with the level of education. Therefore other sources are in Table 3.101. The general level of sufficiency attributed to all sources seems to be higher with the less educated group. Family is the most sufficient source from among the listed ones for this group. For the second and third groups, however, environmental groups are the most sufficient sources. Producers are the least sufficient sources as was depicted several times beforehand.

TABLE 3.101 Sufficiency of the source of information about environmental issues

	Literate+Grad. of Prim. Sch.	Grad. of Secon. /High Sch.	Grad. or stud. of Unv. /Grad.	X^2	df	p
My family	45.50%	12.20%	12.40%	24.10984	8	0.0022
Government	27.30%	11.60%	8.60%	16.56984	8	0.0349
Environmental groups	22.70%	27.40%	17.10%	22.13442	8	0.0047
Some producers	27.30%	6.70%	2.90%	27.05735	8	0.0007

For the less educated group, while buying a frequently purchased food item, the most important factors are recommendation by experts and friends (Table 3.102). Recommendation by experts is also an important criterion for the educated groups but to a lesser extent. The factors such as durability, healthiness and environmental impact of the product were not statistically significant, thus it is hard to make rationality claims.

TABLE 3.102 While buying a frequently purchased food item, the important criteria are...

	Literate+Grad. of Prim. Sch.	Grad. of Secon. /High Sch.	Grad. or stud. of Unv. /Grad.	X^2	df	p
__recommendation by friends	40.90%	22.00%	9.50%	17.28664	6	0.0083
__recommendation by experts	68.20%	31.70%	26.70%	18.25989	6	0.0056
__charm of its commercial	36.40%	10.40%	9.50%	19.12325	6	0.004
__its novelty	50.00%	15.90%	9.50%	30.25401	6	0.0000
__attractiveness of the package	31.80%	7.30%	1.90%	29.61715	6	0.0000

3.2.3.5 MARITAL STATUS

Inflation and wars once more are identified as the variables which have significant relationship with marital status (Table 3.103). Married and divorced or widowed people think that inflation is a very important problem. Wars, on the other hand, worry all the three groups very much.

TABLE 3.103 Importance of the problems for the world

	Bachelor	Married	Divorced/ Widowed	X^2	df	p
Inflation	28.10%	52.00%	44.40%	17.393	6	0.0079
Wars	64.80%	73.60%	66.70%	16.23771	6	0.0125

Table 3.104 shows that married respondents mostly rated inflation and health as the most important problems for their country. Most married people have to care for more than one person (themselves) like the wife, husband or the children as well. Thus they feel the financial burden more than the bachelors, especially. Thus financial burden becomes doubled with the increasing inflation. Health, on the other hand, interests married people more because they mostly have children who most probably have health problems more than adults do and they are more familiar with the insufficiencies related to health problems. Bachelors care for water pollution the most and inflation follows. For the divorced and widowed group, the most important two

problems are health and acid rains which is an environmental problem.

TABLE 3.104 Importance of the problems for the respondent's country

	Bachelor	Married	Divorced/ Widowed	X^2	df	p
Inflation	32.80%	52.70%	22.20%	14.22537	2	0.0008
Health	25.00%	45.20%	38.90%	12.16316	2	0.0023
Water pollution	40.60%	19.90%	16.70%	15.71806	2	0.0004
Acid rains	20.30%	13.70%	38.90%	7.56138	2	0.0228
Greenhouse effect	28.90%	17.10%	5.60%	8.50586	2	0.0142

Bachelors and divorced or widowed group are the better recyclers than married ones (Tablr 3.105). Joining a conservation group is also mostly done by the bachelors. It seems like married couples get less engaged in environmentalist activities, because both bachelors and widowed/ divorced respondents most probably have not much responsibility to other people and can find more time for such activities.

TABLE 3.105 The environmentally friendly activities the respondent previously did

	Bachelor	Married	Divorced/ Widowed	X^2	df	p
Talked with friends	67.20%	52.00%	66.70%	6.95387	2	0.0309
Recycled bottles or paper	78.90%	64.20%	77.80%	7.66326	2	0.0217
Joined a conservation group	48.40%	29.70%	33.30%	10.37056	2	0.0056

Among the activities listed in Table 3.106 bachelors mostly read articles in papers about environmental issues and use less electricity. Married respondents use less electricity and widowed and divorced respondents read articles in papers about environmental issues.

TABLE 3.106 The environmentalist activities the respondent always does

	Bachelor	Married	Divorced/ Widowed	X^2	df	p
__Participating activities of environment groups	3.10%	14.30%		22.83907	6	0.0009
__Using less electricity	24.40%	47.30%	11.10%	28.93387	6	0.0001
__Attending seminars, conferences on environmental issues	2.30%	13.50%	5.60%	22.43472	6	0.0010
__Reading articles in papers about environmental issues	26.00%	33.80%	27.80%	13.09868	6	0.0415
__Using high quality(sulfur-free) coal even though it is more expensive	12.00%	31.30%	16.70%	17.09018	6	0.0090

3.2.3.6 INCOME LEVEL

Destruction of cultural monuments and noise pollution are the two variables with a statistically significant relationship with income level. Low income earners seem to give more importance to these two problems than the other two (Tanlr 3.107). Noise pollution may be affecting these people especially since they may be working or living in areas where there is high levels of noise pollution. Destruction of cultural monuments worries mostly the high income earners.

TABLE 3.107 The environmental problems are important for the world

	Less than 2000DM	2001-6000DM	More than 6001DM	X^2	df	p
Destruction of cultural monuments	44.70%	22.30%	38.10%	18.43437	6	0.0052
Noise pollution	45.30%	23.40%	33.30%	14.21487	6	0.0273

As seen in Table 3.108, low and middle income groups mostly have talked with their friends about environmental issues. Joining conservation groups is mostly done by the middle income groups and least done by high income group. Most high income group work for themselves, thus they may be very busy and have no time for such group activities.

TABLE 3.108 Environmental activism level

	Less than 2000DM	2001-6000DM	More than 6001DM	X^2	df	p
Talked with friends	62.40%	59.40%	33.30%	6.05254	2	0.0485
Joined a conservation group	32.90%	44.60%	9.50%	11.2872 4	2	0.0035

High income earners seem to be the least active ones about environmental problems or issues (Table 3.109). Low income group exhibits the highest level of activity but the reason of using public transportation instead of car may be found on Table 3.110. Less of the low income earners have a car and oil is an expensive material, thus low income may be preferring using public transportation for such reasons.

TABLE 3.109 Environmental activism of the respondent (as always done)

	Less than 2000DM	2001-6000DM	More than 6001DM	X^2	df	p
Boycotting the products of a firm which pollutes the environment	32.90%	19.40%	14.30%	16.3985	6	0.011
Using public transportation instead of car	34.10%	22.90%	4.80%	22.0256	6	0.001

TABLE 3.110 Ownership of a car

Less than 2000DM	2001-6000DM	More than 6001DM	X^2	df	p
48.80%	66.70%	71.40%	8.45195	2	0.0146

In Part III of the research, results of the statistical tests have been presented. In the first section which consisted of two sub-sections frequencies of the variables in general (first sub-section) and frequencies of the three consumer groups separately (second sub- section) have been analysed. In the second section, however, statistically significant relationships between some demographic variables and some other variables related to environmental concern have been presented.

The next part of the research summarises these findings and introduces the implications of the study.

IV. CONCLUSION AND IMPLICATIONS

4.1 CONCLUSIONS OF THE STUDY

The main objective of the study was determining the levels of environmental concern of general Turkish, Dutch and German publics and finding out the similarities and differences among them. The secondary objective was identifying the effect of environmental concern on purchasing behaviour of the consumers in Turkey, Holland and Germany. Therefore, first a review of the relevant theoretical and empirical studies which were done up to the present time was made. Then a questionnaire was prepared and given to 294 respondents who were airline passengers. The results of the study were evaluated by frequency and cross tab analyses. Frequency analyses were made in two sections. The first section included the frequency analyses of all three groups together and the second section displayed the frequencies with respect to nationality.

An interesting result was that environmental pollution is perceived by 95% of the respondents as an important problem for the world, it shared the priority with hunger and education. But the respondents were given information about the goal of the questionnaire at the very beginning, therefore social desirability bias might have influenced the respondents' answers. All the mentioned problems were considered as important by at least

81% of the respondents as important. However, when the respondents were asked to rate the first three most important issues, the most important issue was identified as hunger, the second one was wars and eventually the third one was environmental pollution. Therefore it can be concluded that, at global level, environmental pollution takes place among the first three most important issues.

The awareness level of the respondents about global environmental problems came out to be very high for the problems such as air pollution, water pollution, destruction of ozone layer, destruction of forests, chemical wastes and household wastes and all other awareness levels were above the average. The first three issues, air pollution, destruction of ozone layer and forests were also rated as the most important three environmental problems for the world. The least important environmental problems came out to be destruction of cultural monuments, noise pollution and transboundary movement of hazardous waste.

As would be expected , majority of the respondents (67%) claimed that they were more interested in environmental issues compared to the previous year and 27% expressed no change in their level of interest.

When the respondents were asked to identify the most important six issues for their country (this time at national level), unemployment received priority. It was followed by economic

condition, air pollution, education, inflation and traffic problem. Three of the first six issues are macro economic problems. The only problem related to environment is air pollution.

Sixty-five percent of the respondents believe that growing use of plastics presents a serious environmental threat and 53% thinks that benefits of using plastic products outweigh environmental risks created by the difficulties of disposing these products. It is a positive result that about 56% of the respondents think that protection of the environment should be considered more important than both economic and military issues. Furthermore it was investigated whether the social, economic, environmental, military or political conditions were to be improved in the respondents' country. Environmental and economic conditions came out to be the ones that necessitated improvement. The respondents think that military condition necessitates the least improvement.

Industry is the most irresponsible body which causes the environmental problems in the world according to the respondents, governments and public's irresponsibility levels are also rated by most of the respondents as the cause of environmental problems. Ninety-three percent of the respondents believe that government has to force industries to care for the environment and 92% thinks that industrial organisations should make extra expenses for the environment, only 30% believes that most industries are interested in protection of the environment. Thus, it can be concluded that majority of the respondents blame

industry for polluting the environment and think that they should make extra expenses for the environment. As for the role of the individuals about environmental issues as perceived by the respondents, 81% believes that personal efforts may contribute to the solution of environmental problems. It is obvious that respondents foresee that governments, industries and individuals should share the environmental duties.

Respondents were asked to identify how often people in their countries acted in environmentally friendly ways. Twenty-one activities were given and the results have been as follows: Forty-one percent of the respondents think people in their country always collect glass to recycle. Collecting papers for recycling ratio is 36% and disposing batteries and harmful household wastes separately also get high percentages. On the other hand , the 'never' answers are also interesting. Sixteen percent think people in their country never boycott the products of a firm which pollutes the environment. Fourteen percent think they never warn other people who pollute the environment, never collect batteries, old medicines and used injectors to dispose separately. The effect of self- identification becomes clear when the answers to the question 'how often do you do the following actions' is compared with these results. Sixty-four percent of the respondents always collect glass to recycle. Disposing harmful household wastes and collecting papers for recycling also received high ratios from the respondents since they do these activities very often.

The definition of an environmentally friendly product can be made in many ways. In this analysis, it is observed that 46% of the respondents see an environmentally product as a product which does not pollute the environment during production. Thirty-six percent, on the other hand, define it as a product which does not pollute the environment when disposed. The results show that for most consumers production is the phase during which the environment is polluted. Further analysis also revealed that consumers assigned a heavier role to the producers and the lightest role to themselves for the compensation of the extra cost of an environmentally friendly product.

An environmentally friendly product is recognised by 50% of the respondents from the logos such as the green dot, blue angel; 25%, however, can recognise such a product from experience and 24% from advertisements. Thus logos are defined as the most effective tools for attracting the green consumers since they are the best indicators of a green product. most probably because of their credibility since most advertisements may be fake in the eyes of the consumers.

The environmentalist activities pursued by the respondents might have been many but for reasons of clarity, some activities were given and the respondents were asked to tick the ones they have previously done and in a second question, more activities were listed and respondents were asked to state how often they were engaged in those activities. In the first part, the most commonly done activities were trying not to litter (73%), recycling bottles

and paper (71%) and talking to friends (60%). And 3% of the respondents have never done any of these activities. Only 7% have written to authorities and joined conservation groups. This shows that respondents prefer the activities for which they spend less time and money.

The second part reveals once more that recycling is the most commonly pursued environmental activity. Disposing harmful household wastes, batteries, old medicines and used injectors separately, using back of the paper and unleaded gasoline are also the common activities. Again writing to authorities about environmental problems comes out as one of the least done activities and the second least done activity is attending seminars and conferences on environmental problems.

After the most commonly done environmental activities are identified, willingness of the respondents to participate in some other environmental activities has been investigated. Eighty-three percent would boycott the products of a firm which pollutes the environment, 77% would give up using a product since it is not environmentally friendly and 74% accepts paying more for environmentally friendly products. Respondents seem to be willing to take more active roles as consumers in protecting the environment, they also accept paying more or extra taxes for environmentally friendly goods. But willingness to participate in the Greens Party is a less supported activity. It seems like respondents do not want to be a member of a party.

The level of environmental activism of the respondents are identified by questioning their reaction type to a damage which happens in another country and affects their country as well. Thirty-five percent said their action would depend on the condition and 33% are potential activists who say they would react against it and 30 % remains silent even though they care for such a damage.

It was an interesting result that 74% of the respondents accepted paying more for environmentally friendly products. How much more they would like to pay for all the goods and services they use as consumers has also been questioned. The results are also positive. The scale was from 'less than 1%' to 'more than 25%'. Thirty-two percent accepts paying between 6% to 10%. And a total of 35% accepts paying more than this amount. The respondents who accept paying more than 25% (8%) are more than those who accept paying less than 1% (4%).

Irresponsibility of the industries and of public have been found to be the main causes of environmental problems and when the ways of solving the environmental problems are sought it would normally be expected to be related to these causes. As the best ways of solving the environmental problems, respondents identified education through mass media and education at schools as well as the rules and regulations related to environment. Fines and penalties and preaching at religious centers have also been chosen by some respondents but the rate is much lower. It is encouraging to see that respondents consider education and laws

as the two most effective tools since they are more positive tools than fines and penalties.

Consumers receive information about environmental issues from many sources. Mass media, immediate environment or more remote sources such as the government or producers are the possible sources. The level of sufficiency of these sources has been questioned and the results show that they are mostly satisfied from the level of information they get from mass media like television and newspapers and magazines. But the ratios reveal that the respondents want to receive further more information even from these most sufficient sources. The level of information they receive from immediate environment is not sufficient for nearly half of them. The information from the government, green groups and experts is also not sufficient. The least sufficient source of information is identified as the producer.

Respondents want to get information from the sources which they believe provide them with sufficient information. In other words they prefer mass media. It is interesting that they prefer government rather than other more proficient resources of information such as the green groups, producers or experts. Government is a legal body, thus may be perceived as the most credible source among the others. Producers are the most undesirable sources. This may signify that respondents believe that producers are not sincerely interested in environmental issues. Books are also undesirable sources showing that

respondents prefer spending less time on learning about the environment.

Ownership of a car necessitates environmental awareness at increased levels since motor vehicles are among the enemies of the environment. Sixty percent of the respondents have a car and 23% of those use unleaded gasoline which is rather a small percentage, 18% have asbestos free brakes, and 16% have catalyser in their cars. It is clear that even though the respondents claim high levels of concern they do not care for the environment when buying or driving a car.

Rather interesting results are taken to the question about the existence of an environmental law in the respondent's country. It was expected that majority of the respondents would know about it since it can be thought of as one of the basics of environmental information. Seventy-seven percent of the respondents know that their countries have environmental laws, 7% think the opposite way, 6% have no idea and 10% did not answer the question. A total of 23% is unaware of the environmental laws in their country. which is a discouraging result. It is well known by now that respondents prefer mass media as the primary source of information about environmental issues. Mass media more often informs them about the issues on the agenda, thus for more information they should refer to other sources as well.

Impact of environmental concern on purchasing behaviour was analysed beforehand and the finding was that majority of the

respondents accepted paying taxes and paying more for an environmentally friendly product. How much more they would accept to pay was also found. Majority preferred paying between 6% - 10% more for all the goods and services they used as a consumer if, as a result of this, industry would be able to operate in a way that did not harm the environment. Then the importance of an environmental impact of a product among some other factors was inquired. Durability, price, healthiness and environmental impact of the product and habits of the respondent have come out to be the most important criteria while buying a frequently purchased food item. The most unimportant factors were attractiveness of the package, charm of the product's commercial and its novelty. The results show that respondents are rational consumers since their purchasing behaviour is based on factors like convenience and quality (environmental as well), and they also consider the economic factors.

Consumers accepted paying part of the extra cost of an environmentally friendly product but this cost has to be shared. The respondents think that producers should pay for the greater part of the cost, government should pay the second largest cost and consumers should be paying the least amount.

Nationality has been identified as the major demographic variable of the present study. Turkish, Dutch and German respondents were in equal numbers for a controlled study. Each group consists of 98 respondents totalling up to 294. Thus it has been possible to analyse all three groups separately with

frequency tests. Therefore findings of this part are not the results from crosstab analyses and thus not all of them are statistically significant. The crosstab analyses have been done in the interrelations part and significant relationships are depicted there.

Turkish respondents have rated environmental pollution as the most important issue in the world among all other issues. Health and unemployment follow with minor differences. Dutch respondents, on the other hand, rate health as the most important issue and hunger and environmental pollution follows. For the German respondents hunger is the most important issue, environmental pollution and wars come after. All three groups identified environmental pollution as one of the most important three issues for the world. But social desirability bias might have affected the ratings since the purpose of the questionnaire was made clear to the respondents before they filled them in. Nearly all mean values are higher than three showing that all the mentioned issues are either important or very important for the respondents.

When the respondents were asked to rate the above mentioned issues, more interesting results came to the scene. This time wars was the most important issue for the Turkish respondents, environmental pollution and inflation followed closely. Dutch respondents rated hunger, health and environmental pollution as the most important three issues. Germans again rated the same

three as the most important but the order among themselves has changed with wars becoming the most important issue.

The level of awareness about environmental issues signifies the differences among the three groups. Turkish respondents are aware of air pollution, chemical wastes, destruction of forests and ozone layer. Dutch respondents are also aware about the air pollution and destruction of ozone layer the most, the followers are destruction of forests and acid rains. Germans, on the other hand, state that they are aware of air pollution, destruction of ozone layer, destruction of forests and the greenhouse effect. Air pollution, destruction of ozone layer and the forests are the most common three environmental issues all the three groups are mostly aware of.

The importance of the above mentioned issues for the three groups also vary. Depletion of forests, ozone layer and air pollution are the most important issues for the world according to the Turkish respondents. For the Dutches greenhouse effect, air pollution and water pollution are the most important environmental problems. Depletion of ozone layer and forests and air pollution are the most important problems for the Germans. Air pollution once more is the common problem identified as important. Most probably all three publics come face to face with this type of pollution especially during winter and learn from TV or the papers that this problem threatens the rest of the world as well. Depletion of ozone layer and forests are

the other two problems commonly expressed as important at global level.

It is an encouraging result that over 70% of the Turkish and German respondents claimed that they were more interested in the environment compared to the previous year. This ratio with the Dutch respondents is only about 50% but the amount claiming no change is about 41%, which is much above the level of the other two groups which are around 20%. Actually, in the conclusion part it can be easily expressed that Dutch respondents in general exhibit the highest level of environmental concern among the three groups. It becomes obvious that they have started caring for the environment before the others, thus the unchanged interest level may well be higher than the others. Thus it is impossible claim that Dutches are not getting better environmentalists.

Opinions of the three groups about global problems and environmental issues have been learned clearly. However, results of the questions related to national issues have been of more importance for the purposes of the present study. In this way, the differences between the levels of concern of the three communities have been identified better. Eighty-five percent of the Turkish respondents recognise inflation as the most important problem of Turkey. Education, unemployment and traffic problem are the succeeding important issues. Mostly economic problems take the priority for the Turks. No environmental problem gets high rates. This signs us that Turkish respondents think that

economic problems are more important than ecological ones. Dutch and Germans exhibit similar results since their social, economic and political structures display similar characteristics. Unemployment is the most important problem for both Germany and Holland. AIDS and economic condition are also among the common problems. Dutches identify air pollution as the third important issue for their country which is the only environmental problem that gets priority among all other social, economic and political problems. Dutches and Germans have similar economic problems which threaten almost all European Community countries.

The results are not exactly the same when respondents choose the most important issues from among the listed issues. For the Turkish respondents inflation preserves its priority, health and unemployment follow respectively. Dutches identify unemployment and depletion of ozone layer as the most important issues. Germans, on the other hand, see air pollution, immigrants and depletion of ozone layer as the most important issues. This time more environmental problems are identified as major problems of the respondents' countries.

Results show that even though Turkish respondents strongly agree that plastics present serious environmental threat, Dutches and Germans do not agree very much with this statement. The reason, however, becomes clear with the notes on the questionnaire sheets expressing that plastics are recyclable. But it is a positive result that they still do not insist that plastics are beneficial as

cleared out by the second statement. Another interesting result comes to the scene while analysing the relationship between economic development and military expenses on the one side and environmental concern on the other. Turkish respondents are rather indecisive between economy, military expenses and environmental concern. But it was made clear beforehand that Turkish respondents mostly care for the economic problems more than they do for the ecological ones. Dutch and German respondents once more exhibit similar results. Even though they are suffering some economic problems, it seems like they consider them temporary and give priority to environmental concern. As neither Germany nor Holland are faced with threats against their unity, military expenses may seem nonessential for those respondents. Thus this item is the weakest one when compared with environmental concern.

The above findings have been supported with the findings of a second question identifying the order of conditions to be improved in the respondents' countries. Turks mostly want improvement of the economic condition, political and social betterment follows. Improvement of the environment is in the fourth order, still well before military betterment. Dutches and Germans, on the other hand, state that environmental conditions are the first to be improved in their countries. Dutches identify the second improvement necessitating condition as economic and Germans as social condition. Problems of immigrants and racism might have caused the raising of social problems in this country.

Military condition is once more the least important one among all the others for both Dutches and Germans.

Turkish respondents accuse public mostly for the pollution of the environment and the second guilty body is government. Germans and Dutches again similarly accuse industries for their polluting effects. Then they charge governments and public. By all three groups, local administrations are the least accused bodies.

A very positive finding is that all respondents strongly agree that government has to force industries to care for the environment. With slightly lower mean values, they also claim that industrial organisations should make extra expenses for the environment and personal efforts may contribute to the solution of environmental problems. Roles of the governments and industries are expected to be more than roles of the individuals. It is another important finding that none of the three groups believes that industrial organisations are interested in the protection of the environment.

When expected environmental activities of the communities are investigated, results show that Turkish respondents think that people in Turkey mostly warn other people who pollute the environment, use back of the paper, use less water during water shortages, use less electricity and use less detergent whenever possible. Except for the first activity, the other four might well be done with economic reasons, since all the listed items are very expensive in Turkey. Dutch and German respondents believe that

people in their country at most collect glass and papers for recycling. Dutches also collect batteries to dispose separately and dispose harmful household wastes , old medicines and used injectors separately according to the Dutch respondents. Germans read articles in papers about environmental issues, collect batteries to dispose separately and buy products with less packaging. It is interesting that both Dutches and Germans think that the most often done activities by the people in their countries are related to disposal of any kind of household wastes. It is known that usage of coal and water shortages are not experienced a lot in these two countries thus such activities received relatively lower support.

All three groups define an environmentally friendly product as a one which does not pollute the environment during production in the first place. Having learnt beforehand that Dutches and Germans blamed industry for the pollution of the environment, it was expected to get such a result but Turkish respondents, who blamed public also think the same way and put the blame on production process this time.

An environmentally friendly product is recognised by the majority in all three groups from logos such as the green dot or the blue angel. Turkish respondents then rely on their own experience and 20% of Dutch respondents rely on advertisements, the same amount of Germans rely on advertisements and experience. Results indicate that using standard logos are very important since they are more credible

sources than advertisements which sometimes may come out to be fake.

With an open- ended question respondents were asked to write down names of the environmentally friendly materials and products in their countries. Respondents mostly gave the names of the materials they knew as environmentally friendly but failed to name any products. No answer ratios have been very high for these products. It is interesting that the most repeated two materials are common to all groups, which are paper and glass. Third choice of the Turkish respondents is wood. Dutches' choice is unleaded gasoline and Germans' choice is products without packaging. Natural products, recyclable or biodegradable products, CFK- free cosmetics, products without chemical ingredients and reloadable batteries were also the most commonly uttered products or materials.

Respondents were also not very good at remembering names of the environmentally friendly firms in their countries. Most claimed there were none. With these the no answer ratios have exceeded 80%. Turkish respondents identified Rama (the product name was recalled, thus Unilever is the name of the producing firm) and P&G as the most environmentally friendly firms. McDonalds and Sisecam are also producers mentioned by them. Body shop is the only firm which is commonly identified by Dutches and Germans. Other well known green firms in Holland are DSM Research which develops unpolluting plastics, Shell which offers unleaded gasoline, Hangovens which produces steel,

Smile Plastics which recycle plastics and reform shops. Germans, on the other hand, identify Coca Cola, Frosh detergents, Henneing recycling papers, Belasdof (all kinds of body cleaning products), and Bosch as the most green producers in their country.

Turkish, Dutch and German respondents exhibit common environmentalist behaviours such as trying not to litter the environment, talking with friends about environmental issues and recycling bottles and paper. Recycling action is the most commonly done one by the Dutches and Germans. They also boycott some products. The least done behaviour is writing a letter to a politician or an editor.

Respondents also expressed how often they engaged in the environmentalist activities some of which they thought people in their countries did. Turkish respondents more often use less water during water shortages, warn the polluters, use the back of the paper, collect glass to recycle and use less electricity. It is observed that the effect of self identification was obvious in determining the environmentalist activities of the people in the respondent's community. Nearly all the activities most often done by the respondents are thought of as often done by the people in his or her country. The same condition is also observed in the results of Dutches and Germans. These respondents almost always collect glass and paper to recycle, dispose harmful household wastes, batteries separately. Germans also use the back of the paper as well and buy products with less packaging.

Another group of environmentalist activities which the respondents might pursue are questioned with some given statements. Turkish respondents think that they may mostly boycott the products of a polluting firm, support the activities of an environment group and give up using a product since it is not environmentally friendly. For spending extra money and paying extra taxes, majority says he / she may not do this activity. Dutch and German respondents have higher mean values indicating that they either would or may do the proposed activities. Dutches mostly support the idea of giving up using an un-environmentally friendly product, pay more or pay extra taxes for environmentally friendly goods. They seem to be more willing to spend money for the environment than Turks are. German respondents claim they would mostly boycott the products of a polluting firm in the first place as the Turks do and secondly they accept paying more for environmentally friendly goods, but they do not seem to support the idea of paying extra taxes.

Fifty-five percent of the Turkish respondents claim that they would react against an environmental damage which happens in another country, but affects their country as well. It is good news since in April 1987 not many people in Turkey reacted against the Chernobyl event, most people than remained silent even though they cared and felt anxiety for the condition. More than 40% of both Dutch and German respondents say that their reaction would depend on the condition, thus these people may be called potential activists. Thirty-four percent in each group

mentions that they would care but not react. These are non activists and in these two groups the amount of activists who claim they would react is about 20% each.

It has been found out that Dutch and German respondents were more willing than Turkish for paying extra for the environmentally friendly products. But the interesting result is that majority of the respondents in all three groups accept paying between 6% -10% more for all the goods and services they use as a consumer if they knew that, as a result of this, industry would be able to operate in a harmless way for the environment. However, the ratio of the Turks who accept paying less is more than those Dutches and Germans. More than 30% of the respondents from the last two groups accept paying more than 10%. Another surprising finding is that the percentage of the Turkish respondents who accept paying more than 25% (defined the top level) , is more than those in the other two groups.

The most effective way of solving the environmental problem is education of people through mass as considered by all three groups. Germans and Dutches also think that rules and regulations related to environment might be of use since it is a well known fact that more people obey rules in their countries than people in Turkey do. Thus Turks have chosen education at schools as the second effective tool.

Information sources about environmental issues may not be as sufficient as the environmentalists want them to be. Turkish

respondents mention that newspapers, magazines are the most sufficient sources, family, friends and TV follow. Mass media and immediate environment are the most sufficient sources for the Turks. Dutch and Germans get sufficient information from newspapers, magazines and the TV mostly, thus mass media is their primary source. Green groups also provide these people with sufficient information. The least sufficient source has been identified by all three groups as 'producers'.

All three groups want to get information mostly from the TV, government and newspapers and magazines respectively. The role of mass media in awakening public awareness on environmental issues becomes clear. Government, on the other hand, is the second most desirable information source since it is a credible body which would provide true information.

More than half of the respondents have cars. 57% of the Turks have cars and 15% of these use unleaded gasoline, 8.5% have asbestos- free brakes and 8.7% have catalyser in their cars.Fifty-nine percent of the Dutches have cars and 23.6% use unleaded oil, 18.3% have asbestos- free brakes and 16.5% have a catalyser. Sixty-four percent of Germans have cars and 30% use unleaded oil, 26.8% have asbestos- free brakes and 23.6% have a catalyser. Germans are the most environmentally conscious car owner. However, the ratios are very low which shows that consumers should be better informed about the environmental characteristics of the cars before they are purchasing one.

It is a discouraging result for Turkey that only 54% of the Turkish respondents know that the country has an environment law. This ratio is much higher with the Dutch (82%) and German (94%) respondents. Germans are once more in front of the other two groups.

The kind of packaging preferred by the respondents while purchasing a beverage does not differ among the nations. They all prefer glass and cartoon boxes respectively and they are well aware of the recyclable kinds of packaging.

Turkish respondents think that while buying a frequently purchased food item, the most important criteria are the healthiness, durability and environmental impact of the product. Dutch respondents and German respondents also give priority to these factors with the addition of the price factor. It is important that by all three groups environmental impact of the product is among the most important three criteria. All three groups exhibit rational purchasing behaviour.

Turkish respondents think that government should be paying the largest amount of the cost of an environmentally friendly product. Dutch and German respondents both see the producer as responsible and government follows. All three groups think that the consumer has to participate less than producer and government.

Gender is the second demographic variable with which the relations of some other variables were analysed through cross tabulations. Results show that 36.9% of the females and 44.2% of the males think that inflation is very important for the world. Environmental pollution has no significant relation with gender. Exactly, 76.2% of females and 60.5% of makes think that destruction of cultural monuments is a very important environmental problem.

Female respondents mostly blame industries for polluting the environment whereas the males blame public for that. A positive result is that both males and females believe that industrial organisations should have a role in the protection of the environment.

Both males and females believe that people in their country mostly use less electricity and water.

More than half of the males use unleaded gasoline; but this ratio is lower with females. Results show that the percentage of women who have a car is lower, therefore this low ratio with the females while buying unleaded gasoline may be related to the ownership of cars..

Results show that females believe that rules and regulations are the most effective way of solving the environmental pollution problem. Male respondents believe in the power of education both at schools and through mass media.

Men seem to give priority more than women to their shopping habits and recommendation by experts while buying a frequently purchased food item.

Age has been the third demographic variable in the present research. Awareness about destruction of agricultural areas has a significant relation with age. Elder people are the most aware group and youngs are the least aware group.

The ratio of respondents who think health problem is an important issue for their country increases with age, but those who care for health problems under age of 24 are more than those between 25- 34. Young generation may be more health conscious than their older brothers and sisters. No environmental problem was found to have a significant relation with the age variable.

The percentage of respondents who support military expenses against environmental protection is low. However, elder people support military expenses the most.

The most common activity done by the eldest and the youngs is using public transportation instead of car, the main reason may be that youngs may not have a car yet and elder group may be thinking of driving as a tiresome activity.

Level of education is another demographic variable. More respondents from literate and primary school graduates group

(all Turkish) claim that they are aware of water pollution, destruction of agricultural areas and endangered species. These people are mostly of rural origin who have closer relationship with nature, thus they may be more aware of the problems with which they have a direct relation.

An interesting result comes to the scene when importance levels of some environmental problems are analysed. Because majority of the least educated group thinks that destruction of cultural monuments and noise pollution are the most important two issues. These two ratios are much lower with the better educated respondents. The least educated group might be aiming to be perceived in a different way socially.

Among the national problems, inflation, health and education are chosen by the least educated group which are all from the Turkish group. Graduates of secondary or High schools give the priority to depletion of ozone layer, inflation and chemical wastes. The well educated group, on the other hand, also thinks that education, inflation, health and depletion of ozone layer are the most important problems for their countries. An overall examination of all the variables in this question show that the better is the education level, the more is interest in environmental problems.

An encouraging result is that the ratio of the respondents who strongly agree that economic development is more important than

environmental concern decreases with the increased level of education.

Almost more than half of the respondents in all three groups believe that industrial organisations should make extra expenses for the environment.

Least educated group trusts more in their community for doing some environmentally friendly behaviours such as disposing old medicines, used injectors and harmful household wastes separately, using unleaded gasoline and buying products with less packaging. Another interesting thing is that these respondents also claim that they are often engaged in similar environmentalist activities, but they do fail when it comes to the activities of recycling bottles and joining conservation groups. Better educated respondents were more engaged in these activities.

More than half of the least educated respondents say that they would react to an environmental damage that happens in another country. These are Turkish respondents and most of them may be thinking of complaining to other friends about such a damage is a reaction. Educated group, on the other hand, say that their reaction would depend on the condition.

It is encouraging that the least educated group thinks that education is the best way of solving the environmental problems. The other two groups also believe in the role of education through mass media and at schools but they believe that rules and

regulations are necessary as well. Preaching at religious centers gets the highest approval from the least educated group.

From among the statistically significant resources, family is the most sufficient source for the least educated group for the better and best educated ones, however, environmental groups are the most sufficient sources. Producers are the least sufficient sources for all three groups, but mostly for the well educated group.

While buying a frequently purchased food item, the most important factors are recommendation by experts and friends for the least educated group. The factors such as durability, healthiness, environmental impact of the product were not statistically significant in this analysis.

Marital status is another variable in which the respondents were grouped into three as the bachelors, marrieds and widowed/ divorceds. Married respondents mostly rate inflation and health as the most important problems of their country. It is interesting that bachelors care for water pollution most and then for inflation. For the divorced and widowed group, the most important two problems are health and acid rains which is an environmental problem. Thus married people are seemingly the least environmentally conscious respondents. They have the responsibility of more than one person, thus financial burdens and health problems are more important.

Bachelors and married/ widowed groups are also better recyclers than married ones. Joining a conservation group is most popular

among bachelors. Bachelors also mostly read articles in papers about environmental issues and use less electricity. Married respondents also care for using less electricity and the third group read articles in papers the most.

Income level is the last of the demographic variables under analysis. Destruction of cultural monuments and noise pollution are the two variables which have a statistically significant relationship with income level. Low income earners rate these problems more important than the other two. Destruction of cultural monument also worries respondents from the high income earners group.

Low and middle income group mostly have talked with friends about environmental issues. Joining conservation groups is common to middle income group and high income group consists of people who do not very often join such groups. Actually high income group seems to be the least active one about environmental problems. Low income group exhibits highest levels of activism, but some of the environmentalist activities may be done with economic purposes as well. For instance low income earners prefer public transportation instead of car, but results show that less of the low income earners have car and oil is an expensive material. Therefore, low income earners may be using public transportation for these reasons.

4.2 IMPLICATIONS OF THE STUDY

This study provides the literature, a cross- cultural empirical research related to the level of environmental concern of the consumers and the effect of this concern on purchasing behaviour. It has implications for the parties and groups which were considered in the analysis. Consumers, producers, government and legal bodies and some other relevant organisations all have to make minor or major changes in their policies and processes according to the findings of the study.

Findings show that 95% of all the respondents think that environmental pollution is a very important problem for the world. Awareness levels about global environmental problems are also very high. On the other hand, when they think at national level, environmental problems become secondary in importance. Economic factors worry them more than environmental ones.

When the respondents identify the condition to be improved in their countries, Turks give priority to the improvement of the economic factors. However, Germans and Dutches give the priority to environmental improvement. This difference stems from the economic condition of the countries, Germany and Holland are developed countries, but Turkey is still at the phase of development, thus the economic burden of the country makes its community be more sensitive to economic improvement. However, it is impossible to continue economic development

without considering its ecological effects any more. Turkey should carefully harmonise its economic and ecologic policies for sustainable development.

Results indicate that Turkish consumers are mostly engaged in environmentalist activities for economic purposes such as using less water or electricity. German and Dutch consumers, on the other hand, are mostly engaged in recycling and careful disposal of household wastes. But they do not take part in other activities like group activities or the ones which necessitate spending some time and money on them.

Most consumers (in general) believe in the power of individual efforts but they do not use this power. Thus governments, environmental groups and mass media, hand in hand, may start campaigns calling individuals for taking part in the solution of environmental problems. For instance, the environmentalist magazine in Turkey called **Tomorrow** calls for voluntary agents who would write them about environmental problems they see around.

Implications of this study are grouped and discussed below under four titles; implications for the consumers, for the government, for the producers and for the researchers;

Implications for the consumers: Majority of the respondents believe that education at schools and through mass media is the most effective way of solving the environmental problems. Hence this implies that they should be more willing to learn about the

ways of protecting the environment and environmentally friendly activities they can engage in. They should also guide their children towards environmentalism and raise a more sensitive generation about the problems.

Results also show that consumers believe that individual efforts may contribute to the solution of environmental problems, and majority of the respondents have proven that they have environmentally friendly attitudes. They should try to translate their attitudes into environmental behaviours. For instance results show that less Turkish respondents (than Germans and Dutch) engage in careful disposal activities. They should start disposing their plastic, metal, glass and paper wastes separately. Another implication over the belief of the effect of the individual efforts is that they should be aware of their power as consumers on producers and indirectly on governments; and should force industries and governments (municipalities as well) to be more sensitive about the environmental problems; push producers to use less chemical ingredients in their products, to comply with environmental laws and regulations, and to use less packaging and the like.

Implications for the producers have to be the most since it came out to be the producers, who the consumers blame for pollution and who they believe has to pay the greater portion of the extra expenses for producing environmentally friendly products. Not many consumers believe that industries would accept making extra expenses for protecting the environment. Consumers also

think that production is the process during which the environment is polluted mostly.

Consumers believe that an environmentally friendly product is one which does not pollute the environment during production and that production is perceived as the most polluting stage in a product's life. Thus producers have to change radically in terms of the quality of product development. In general, industries and industrial operations should be encouraged to use resources more efficiently, to generate less pollution and waste, to use renewable rather than non- renewable resources and minimise irreversible adverse impacts on human health and the environment. As a result industrial producers should immediately work on finding ways of making products by using less raw materials (which are scarce in the nature) or using them more efficiently, should try to find less toxic raw materials or to reuse a waste product as raw material in another process. The next obligation for the producers is considering the impact of their product on the environment, during and at the end of its life. Because, as was mentioned in the introduction part of the research, the world needs products that during their lifetimes do minimal damage to the Earth and that at the end of their lives, can either be safely thrown away or put to new uses.

Turkey, as a developing country, has a fast growing population and a high percentage of young people. Industry has to provide the society with numerous products and services. Thus great increases in production will be experienced which would imply

increases in energy and raw material use and industrial damages and wastes and resource depletion. Thus industries have to make more effective use of economic instruments especially in Turkey.

There are also other implications for the producers. Present study shows that both in general and in all three groups, consumers are willing to pay more for environmentally friendly goods mostly between 6%- 10%. They also think that it should be the producers to pay for the greater portion of the extra cost of an environmentally friendly product. Thus it is possible that producers can reflect part of the cost to consumers when producing green products. As a matter of fact, consumers in Turkey, Holland or Germany mostly do not know the names of the environmentally friendly products or producers. But they claim they may stop buying a product if they learn that it is not environmentally friendly and may boycott the products of a polluting firm. This signals the producers a marketing opportunity. If the producers have consistent and permanent environmental conservation policies and make the consumers learn about these policies, a quite satisfactory amount of consumers may prefer their products. Another advantage may be that a company which takes environmental responsibility more carefully than its competitors will find the opportunity to introduce new technology at its own pace.

It has been learned that consumers mostly recognise environmentally friendly products from logos. Logos are standardised credible labels of green products for them, thus

industrial organisations, especially in Turkey, should work with the government to set standards for these labels and should bring their processes and products suitable to these standard levels.

Implications for the governments and local administrations: Actually most companies will be only as green as governments force them to be and the consumers believe so. Thus governments should establish higher environmental standards and force industries to comply with these standards through well founded effective control mechanisms and increase the amount of fines and penalties against the polluters. They should also encourage industries by means of subsidies or cheaper credits to construct filtering systems and for conducting research on more environmentally friendly techniques and to save energy through more environmentally friendly methods. (Solar, wind and the like). As was mentioned in the previous section, consumers support the idea that industries should pay for the greater portion of the cost of the environmentally friendly products. Hence governments should make the necessary legal arrangements to make sure that producers pay the greater portion of the said cost. Results of the precent study shows that German and Dutch consumers more often engage in recycling activities and Turkish consumers have understood the importance of recycling and they have started recycling as well but to a lesser extent. Government may also support recycling by offering tax redemption to the producers which use recycled materials as raw materials.

The government itself is also perceived by the consumers as irresponsible vis a vis the environment. Thus it should make key national, economic and sectoral agencies directly responsible and accountable for ensuring that their own policies, programs, and budgets support development that is economically and ecologically sustainable. Various organisations have to integrate environment fully in their goals and activities. All major international bodies and agencies should make sure that their programs support sustainable development and they should have more coordination and co- operation. Governments should also reinforce the roles of environmental protection agencies. This is needed in Germany and Holland as well but it is most urgently needed in Turkey since it is a developing country. Turkish government has to fill the gaps in existing law related to the environment, to find ways to protect the rights of present and future generations for an environment which is adequate for their health and well- being and to harmonise the present law with that of the European Community's for the purpose of full integration to the community.

Actually financial institutions- national or international- have a role since the financial implications of renewable energy development, and pollution control are heavy for the industries. Governments may act as mediators and ask for support from international environmental and financial organisations such as the World Bank for sound projects and policies. National development banks and the IMF (International Monetary Fund)

may accept similar objectives in their policies and programs. The last proposed financial aid is valid for all three countries under analysis.

Majority of the respondents believe that the environmental problems may be solved through education, both at schools and through mass media. Mass media is also identified by the consumers as the primary source of information about environmental matters. The education program should consist of two steps. First, an environmental management course should enter the list of mandatory courses starting from the elementary school. Second, hand in hand with mass media organisations, a campaign should be started, first to attract attention to the environmental problems ,and second to educate people through some short informative programs, especially on TV and informative articles on the papers and magazines.

Implications for further research: The present study may also give direction to other researches and studies. Researchers who have the possibility to reach the consumers in other countries may conduct similar cross- cultural studies in the same line with different consumer groups or they may even analyse each subtitle in the present study within a broader scope. For instance the relationship between the level of environmental concern and a group of demographic characteristics, such as gender, age, education or income levels, and marital status may be analysed. Or a totally new scope about which the present study gave hints only, may be investigated such as the relationship between the

political ideology and the level of environmental concern, or effect of environmentalism on political choices or on purchasing behaviour. Other methods may be analysing the personality traits of a similar sample or just observing their behaviors.

Thus it can be said that the results and implications of the present study may form some guidelines for all the related parties, whether they are researchers, producers, government organisations or consumers.

The legal principles for environmental protection and sustainable development proposed by the World Commission on Environment and Development Experts Group on environmental law are closely related to the findings and implications in the present study, particularly for the governments and local administrations. Findings show that consumers believe that government and local administrations should be heavily involved in the solution of environmental problems. Related implications have been discussed. Principles by the World Commissionb offer similar implications for the state. Hence, it would be beneficial for the purposes of the study to summarise some of these principles (Our Common Future, 1987):

General principles, rights and responsibilities imply that all human beings have fundamental right to an environment adequate for their health and well- being, states should conserve and use the environment and natural resources for the benefit of present and future generations, shall maintain ecosystems and ecological

processes essential for the functioning of biosphere, should preserve biological diversity, shall establish adequate environmental protection standards and monitor changes in and publish relevant data on environmental quality and resource use, should make or require prior environmental assessments of proposed activities which may significantly affect the environment or use of a natural resource, should ensure that conservation is treated as an integral part of the planning and implementation of development activities and provide assistance to the other states, especially to other developing countries, in support for environmental protection and sustainable development and, should co- operate with other states in implementing the preceding rights and obligations.

About transboundary natural resources, the principles imply that states should use these resources in a reasonable and equitable manner and should prevent any transboundary environmental interference which could cause significant harm.

State responsibility implies that states should cease activities which breach an international obligation regarding the environment and provide compensation for the harm caused and should settle environmental disputes by peaceful means.

Contributions of the study to the literature:

The present study follows the previous studies which have been conducted with the aim of finding the relationship between environmental concern and consumers' demographic

characteristics and some attitudes, including purchasing behaviour as well. The most important contribution of the study to the literature is that it is the first cross- cultural study conducted in Turkey about environmentalism. It has been observed in the 'Theoretical Background' part that some similar studies have been conducted in Europe but there was no cross-cultural study which includes Turkish population. With this study, determining the level of environmental concern of the Turkish consumers vis a vis Dutch and German consumers has been possible.

The study also has a generic function since results of this study and the relevant literature review offer available data about the environmental concern, attitudes and impact of environmental concern on purchasing behaviour in three countries. In Turkey, Germany and Holland, business organisations may make use of this study while determining their marketing policies and strategies. In this respect the study has a practical function as well. It is especially a valuable study for the business organisations in the latter two countries which aim reaching the Turkish consumers in these two countries since, as observed in the results of the study, Turkish consumers have a different structure than both Germans and Dutches.

APPENDIX - 1 QUESTIONNAIRE IN ENGLISH

This questionnaire is a part of the graduate research conducted at the Boğaziçi University aiming to measure the level of concern of consumers in certain issues. There is no need to write your name, but if you wish to do so, do not hesitate.

Please answer the questions sincerely. Thank you for your kind interest.

PART 1

1. Please indicate the level of importance of the below mentioned problems for the world.

	Very Important	Important	Not very Important	Not import. at all
___Inflation	4	3	2	1
___Hunger	4	3	2	1
___Health	4	3	2	1
___Education	4	3	2	1
___Wars	4	3	2	1
___Environmental pollution	4	3	2	1
___AIDS	4	3	2	1
___Rapid population increase	4	3	2	1
___Economic problems	4	3	2	1
___Unemployment	4	3	2	1

2. Please write from the above- mentioned problems the most important three for the world.

The most important problem_____
The second important problem_____
The third important problem_____

3.How much are you aware about the below- mentioned environmental problems?

	Very much aware	Somewhat aware	Not much aware	Not aware at all
___Air pollution	4	3	2	1
___Water pollution	4	3	2	1
___Greenhouse effect	4	3	2	1
___Destruction of ozone layer	4	3	2	1
___Destruction of forests	4	3	2	1
___Destruction of agricultural areas	4	3	2	1
___Endangered species	4	3	2	1
___Chemical wastes	4	3	2	1
___Household wastes	4	3	2	1
___Visual pollution	4	3	2	1
___Destruction of cultural monuments	4	3	2	1
___Transboundary movement of hazardous was	4	3	2	1
___Acid rains	4	3	2	1
___Soil pollution	4	3	2	1
___Erosion	4	3	2	1
___Noise pollution	4	3	2	1
___Other(please specify)				

4. How important do you think, the below mentioned environmental problems are for the world?

	Very Important	Somewhat important	Not very important	Not import. at all
___Depletion of ozone layer	4	3	2	1
___Depletion of forests	4	3	2	1
___Depletion of agricultural areas	4	3	2	1
___Visual pollution	4	3	2	1
___Destruction of cultural monuments	4	3	2	1
___Transboundary movement of hazardous was	4	3	2	1
___Acid rains	4	3	2	1
___Soil pollution	4	3	2	1
___Erosion	4	3	2	1
___Endangered species	4	3	2	1
___Chemical wastes	4	3	2	1
___Household wastes	4	3	2	1
___Air pollution	4	3	2	1
___Water pollution	4	3	2	1
___Greenhouse effect	4	3	2	1
___Noise pollution	4	3	2	1
___Other(pls. specify)	4	3	2	1

5. Are you more or less concerned in environmental issues compared to last year?

__More interested __Less interested __No change __Undecided

6. Among the below- mentioned issues, please tick the most important six issues for your country?

_____Inflation
_____Education
_____Health
_____Economic condition
_____Unemployment
_____Relations with ex- USSR states
_____EC integration
_____Budget deficit
_____AIDS
_____Air pollution
_____Water pollution
_____Emmigrants
_____Depletion of ozone layer
_____Water shortage
_____Noise pollution
_____Acid rain
_____ Industrial Development
_____Chemical wastes
_____Traffic problem
_____Greenhouse effect
_____Income distribution
_____Fumes
_____Other(pls specify)_____

7. Please put the first three most important issues in order. (From the list above)

1_____ 2_____ 3_____

8.Indicate your level of agreement with the following statements.

	Strongly agree	Agree	Somewhat agree	Do not agree	No idea
___Growing use of plastics presents a serious environmental threat	5	4	3	2	1
___Benefits of using plastic products outweigh environmental risks created by the difficulties of disposing these products	5	4	3	2	1
___Economic development is more important than environmental concerns	5	4	3	2	1
___Military expenses cannot be cut for the sake of environmental concern	5	4	3	2	1
___Protection of the environment should be considered more important than both economic and military issues	5	4	3	2	1

9. Which of the following conditions should be improved in your country? (please put them in order of importance)

____Social ____Economic ____Environmental ____Military ____Political

10.Please put the below- mentioned causes(reasons) of environmental problems in the world in order of importance.

_____irresponsibility of the public
_____irresponsibility of local administrations
_____irresponsibility of governments
_____irresponsibility of industries
_____other(pls. specify)_____

11. How much do you agree with the below- mentioned statements?

	Strongly agree	Agree	Do not agree	Not agree at all	Have no idea
___Government has to force industries to care for the environment	5	4	3	2	1
___Industrial organisations should make extra expenses for environment	5	4	3	2	1
___Personal efforts may contribute to the solution of environmental problems	5	4	3	2	1
___Most industries are interested in protection of the environment	5	4	3	2	1

12. How often do you think PEOPLE IN YOUR COUNTRY act the following way?

	Always	Sometime	Rarely	Never	No idea
__Using public transportation instead of car	5	4	3	2	1
__Using high quality(sulfur-free) coal even though it is more expen	5	4	3	2	1
__Attending seminars, conferences on environmental issues	5	4	3	2	1
__Reading articles in papers about environmental issues	5	4	3	2	1
__Using less water during periods of water shortage	5	4	3	2	1
__Participating activities of environment groups	5	4	3	2	1
__Buying products with less packaging	5	4	3	2	1
__Writing or warning authorities about environmental problems	5	4	3	2	1
__Using less electricity	5	4	3	2	1
__Having heaters at a lower temperature in winter	5	4	3	2	1
__Warning other people who pollute the environment	5	4	3	2	1
__Using unleaded gasoline	5	4	3	2	1
__Using the back of the paper as well	5	4	3	2	1
__Boycotting the products of a firm which pollutes the environment	5	4	3	2	1
__Using less detergent whenever possible	5	4	3	2	1
__Collecting papers for reuse or recycling	5	4	3	2	1
__Collecting glass to recycle	5	4	3	2	1
__Buying environmentally friendly products although it is more exp	5	4	3	2	1
__Collecting batteries to dispose separately	5	4	3	2	1
__Disposing old medicines and used injectors separately	5	4	3	2	1
__Disposing harmful household wastes (paint, etc) carefully	5	4	3	2	1

13. Put the below mentioned statements in order of importance for classifying an environmentally friendly product.

__A product which does not pollute the environment during production
__A product which does not pollute the environment when consumed
__A product which does not pollute the environment when disposed

14. How do you recognize an environmentally friendly product?

__From experience
__From logos(green dot; blue angel; etc.)
__From advertisements
__Other(pls. specify)

15. Which product(s)/ material(s), do you believe, are environmentally friendly?

__
__
__

16. Please write down the names of the environmentally friendly firms in your country. (Please shortly indicate what they produce)

__
__
__

17. Which, if any, of the following things have you done in connection with problems of conservation and pollution? (Please tick them)

___Tried not to litter
___Talked with friends
___Recycled bottles or paper
___Voted for a candidate for this reason
___Contributed money
___Boycotted some products
___Joined a conservation group
___Written a letter to a politician/ editor/etc.
___Picketed a store or a business
___Other(pls. specify_____)
___None of these

18. How often do YOU do the following actions?

	Always	Sometime	Rarely	Never
__Using less water during periods of water shortage	4	3	2	1
__Participating activities of environment groups	4	3	2	1
__Using less electricity	4	3	2	1
__Having heaters at a lower temperature in winter	4	3	2	1
__Buying products with less packaging	4	3	2	1
__Writing or warning authorities about environmental problems	4	3	2	1
__Attending seminars, conferences on environmental issues	4	3	2	1
__Reading articles in papers about environmental issues	4	3	2	1
__Using the back of the paper as well	4	3	2	1
__Boycotting the products of a firm which pollutes the environment	4	3	2	1
__Warning other people who pollute the environment	4	3	2	1
__Using unleaded gasoline	4	3	2	1
__Collecting glass to recycle	4	3	2	1
__Buying environmentally friendly products although it is more exp	4	3	2	1
__Using less detergent whenever possible	4	3	2	1
__Collecting papers for reuse or recycling	4	3	2	1
__Disposing old medicines and used injectors separately	4	3	2	1
__Disposing harmful household wastes (paint, etc) carefully	4	3	2	1
__Collecting batteries to dispose separately	4	3	2	1
__Using public transportation instead of car	4	3	2	1
__Using high quality(sulfur-free) coal even though it is more expen	4	3	2	1

19. Would you participate in the following actions for a better environment?

	I would	I may	I maynot	would not
__Boycotting the products of a firm which pollutes the enviro	4	3	2	1
__Supporting the activities of an environment group	4	3	2	1
__Participating the Greens Party	4	3	2	1
__Paying more for environmentally friendly goods	4	3	2	1
__Paying an extra tax for environmental protection	4	3	2	1
__Giving up using a product since it is not environmentally fr	4	3	2	1

20. What would your reaction be if any environmental damage happens in another country? (If it affects your country as well)

__I would react against it
__It depends on the condition
__I usually do not care
__I do care but I do not react

21. How much more would you personally be willing to pay for all the goods and services you use as a consumer, if you knew that as a result of this, industry would be able to operate in a way that did not harm the environment?

__Less than 1%
__1%- 2%
__2%- 5%
__6%-10%
__11%- 15%
__16%- 20%
__21%-25%
__More than 25%

22. What is the most effective way to solve the environmental pollution problem? (Check one)

_____Education at schools
_____Education of people through mass media
_____Rules and regulations related to environment
_____Fines and penalties
_____Preaching at religious centers(mosques; churches; synagogues; etc.)
_____Other(pls. specify)

23. Please indicate the level of sufficiency of the information you get about environmental issues from the below- mentioned sources:

	Very sufficient	Sufficient	Somewat sufficient	Not sufficient	I never used
____Family	5	4	3	2	1
____Friends	5	4	3	2	1
____Television	5	4	3	2	1
____Newspapers, magazines	5	4	3	2	1
____Books	5	4	3	2	1
____Government	5	4	3	2	1
____Green groups	5	4	3	2	1
____Some producers	5	4	3	2	1
____Experts other than green groups	5	4	3	2	1
____Other(please specify)_____	5	4	3	2	1

24. Please put in order three of the above- mentioned sources from which you would mostly want to get information about environmental issues.

#1_____
#2

25. a) Do you have a car?_____
(If 'yes' please continue with 25b; if 'no' please continue with 26)

b) Do you use unleaded gasoline?_____

c) Are your brakes asbestos- free?_____

d) Does your car have a catalyser?_____

26. Does your country have an environment law? _____

27. While puchasing a beverage, do you prefer plastic bottles, glass bottles, cartoon boxes or cans?

28. Do you think, using fur coats is an environmental threat? Why?

29. Indicate the importance of the below- mentioned factors while buying a frequently purchased food item?

	Very important	Important	Not so important	Not import. at all
__its price	4	3	2	1
__my habits	4	3	2	1
__its durability	4	3	2	1
__its environmental impact	4	3	2	1
__recommendation by friends	4	3	2	1
__recommendation by experts	4	3	2	1
__environmental impact of its package	4	3	2	1
__charm of its commercial	4	3	2	1
__its healthiness	4	3	2	1
__its novelty	4	3	2	1
__attractiveness of the package	4	3	2	1
__other(pls. specify)_____	4	3	2	1

30.To what degree should the follow›ng participate to the cost of an environmentally friendly product?

	0	1	2	3	4	5	6	7	8	9
_____Government										
_____Producer										
_____Consumer										

PART 2

31. Gender

_____Female
_____Male

32. Age group

_____Below 17
_____17-24
_____25-34
_____35-44
_____45-54
_____55 and above

33.Education

_____Literate
_____Graduate o primary school
_____Graduate of secondary school
_____Graduate of highschool
_____Graduate of university
_____Graduate of graduate
_____University student
_____Graduate student

(pls. specify your field)_____

34. Marital status

_____Bachelor
_____Married **(How long?_____ (Number of children_____)**
_____Divorced/ Widowed

35. Number of people living in the house(including _____

36. Please indicate your working status:

_____Part time _____Full time _____Not working (I am ____Retired
____Housewife
____Student
____Military service
____Unemployed
____Other

37. If you are working...

_____I am working in my own enterprise
_____I am a salary earner

38. What sort of an enterprise are you working at or do you have?

____Owner of a large enterprise(more than 50 employees)
____Owner of medium-size enterprise(25- 50 employees)
____Owner of small- size enterprise(less than 25 employees)
____Other(pls. specify)_____

39. What is your job and current position?

40. Please specify monthly total net household income:

___Lower than 1000DM
___1000DM- 2000DM
___2001DM- 4000DM
___4001DM-6000DM
___6001DM- 8000DM
___More than 8000DM

___Lower than 1200 Florins
___1200- 2500 Florins
___2500- 4500 Florins
___4500- 7000 Florins
___7000- 9000 Florins
___More than 9000 Florins

THANK YOU

APPENDIX -2 QUESTIONNAIRE IN TURKISH

Bu anket Boğaziçi Üniversitesinde yapılmakta olan lisansüstü bir çalışmanın bir bölümünü oluşturmaktadır. İsminizi yazmanıza gerek yoktur. İlginiz için teşekkür ederiz.

1. BÖLÜM

1. Aşağıda belirtilen sorunların dünya için önem derecelerini belirtiniz.

	Çok önemli	Biraz önemli	Pek önemli değil	Hiç önemi yok
_Enflasyon	4	3	2	1
_Açlık	4	3	2	1
_Sağlık	4	3	2	1
_Eğitim	4	3	2	1
_Savaşlar	4	3	2	1
_Çevre kirliliği	4	3	2	1
_AIDS	4	3	2	1
_Hızlı nüfus artışı	4	3	2	1
_Ekonomik sorunlar	4	3	2	1
_İşsizlik	4	3	2	1

2. Yukarıda belirtilen sorunlardan dünya için en önemli üç tanesini sıralayınız.

En önemli sorun_____

İkinci önemli sorun_____

Üçüncü önemli sorun_____

3. Aşağıda belirtilen çevre sorunlarından haberdar olma derecenizi belirtiniz.

	Çok haberim var	Oldukça haberim var	Pek haberim yok	Hiç haberim yok
_Hava kirliliği	4	3	2	1
_Su kirliliği	4	3	2	1
_Sera etkisi	4	3	2	1
_Ozon tabakasının delinmesi	4	3	2	1
_Ormanların yokedimesi	4	3	2	1
_Tarımsal alanların bilinçsiz kullanılması	4	3	2	1
_Hayvan nesillerinin tükenmesi	4	3	2	1
_Kimyasal atıklar	4	3	2	1
_Evlere ait atıklar	4	3	2	1
_Görsel kirlilik	4	3	2	1
_Kültürel eserlerin tahribi	4	3	2	1
_Tehlikeli atıkların sınırötesi ihracı	4	3	2	1
_Asit yağmuları	4	3	2	1
_Toprak kirliliği	4	3	2	1
_Erozyon	4	3	2	1
_Gürültü kirliliği	4	3	2	1
_Diğer(Belirtiniz)	4	3	2	1

4. Sizce aşağıda belirtilen çevre sorunları dünya için ne derece önemlidir?

	Çok önemli	Biraz önemli	Pek önemli değil	Hiç önemi yok
_Ozon tabakasının delinmesi	4	3	2	1
_Ormanların yokedimesi	4	3	2	1
_Tarımsal alanların bilinçsiz kullanılması	4	3	2	1
_Görsel kirlilik	4	3	2	1
_Kültürel eserlerin tahribi	4	3	2	1
_Tehlikeli atıkların sınırötesi ihracı	4	3	2	1
_Asit yağmuları	4	3	2	1
_Toprak kirliliği	4	3	2	1
_Erozyon	4	3	2	1
_Hayvan nesillerinin tükenmesi	4	3	2	1
_Kimyasal atıklar	4	3	2	1
_Evlere ait atıklar	4	3	2	1
_Hava kirliliği	4	3	2	1
_Su kirliliği	4	3	2	1
_Sera etkisi	4	3	2	1
_Gürültü kirliliği	4	3	2	1
_Diğer(Belirtiniz)	4	3	2	1

5. Bir önceki yıla göre çevre sorunlarına olan ilginizi nasıl değerlendirirsiniz?

_Daha ilgiliyim _Daha az ilgiliyim _Değişiklik yok _____Kararsızım

6. Aşağıda belirtilen konular arasında Türkiye açısından en önemli 6 tanesini işaretleyiniz.

_Enflasyon
_Eğitim
_Sağlık
_Ekonomik durum
_İşsizlik
_Bağımsız Devletler Topluluğu ile ilişkiler
_AT Entegrasyonu
_Bütçe açığı
_AIDS
_Hava kirliliği
_Su kirliliği
_Göçmenler
_Ozon tabakasının delinmesi
_Su kaynaklarının yetersizliği
_Gürültü kirliliği
_Asit yağmurları
_Endüstriyel gelişme
_Kimyasal atıklar
_Trafik sorunu
_Sera etkisi
_Gelir dağılımı
_Fabrika dumanları
_Diğer(Belirtiniz)_____

7. Yukarıdaki listeden sizce Türkiye için en önemli olan üç sorunu seçiniz.

1_____ 2_____ 3_____

8. Aşağıdaki ifadelere katılma derecenizi belirtiniz.

	Kuvvetle katılırım	Oldukça katılırım	Katılmam	Hiç katılmam	Fikrim yok
_Plastik maddeler çevreyi tehdit etmektedir	5	4	3	2	1
_Plastik ürünlerin faydaları bu maddelerin çevreye olan zararlarından fazladır	5	4	3	2	1
_Ekonomik gelişme çevre sağlığından daha önemlidir	5	4	3	2	1
_Askeri harcamalar çevre korumaya yönelik çalışmalar için azaltılamaz	5	4	3	2	1
_Çevre sağlığının korunması hem ekonomik hem de askeri konulardan önemlidir	5	4	3	2	1

9. Aşağıda belirtilen beş konuyu Türkiye için önem derecesine göre sıralayınız.

__Sosyal durum __Ekonomik durum __Çevre konusu __Askeri durum __Politik durum

10. Aşağıda belirtilen dünyanın çevre sorunlarının kaynaklarını yoğunluk derecesine göre sıralayınız.

__İnsanların sorumsuz davranışlarından
__Yerel yönetimlerin sorumsuz davranışlarından
__Hükümetlerin sorumsuz davranışlarından
__Sanayi şirketlerinin sorumsuz davranışlarından
__Diğer(Belirtiniz)_____

11. Aşağıdaki ifadelere ne derece katılıyorsunuz?

	Kuvvetle katılırım	Biraz katılırım	Biraz katılmam	Hiç katılmam	Fikrim yok
__Hükümet şirketleri çevreye duyarlı olmaya zorlamalı	5	4	3	2	1
_Sınai şirketler çevreyi korumak için extra masraf yapmalı	5	4	3	2	1
_Kişisel çabaların çevre sorunlarının çözümüne faydası olur	5	4	3	2	1
_Birçok şirket çevrenin korunmasına önem verir	5	4	3	2	1

12. Sizce ÜLKENİZ HALKI aşağıda belirtilen bazı davranışları ne sıklıkla yapıyor?

	Herzaman	Bazen	Nadiren	Asla	Fikrim
_Otomobil yerine toplu taşımacılığı tercih etmek	5	4	3	2	1
_Pahalı olmasına rağmen kaliteli kömür kullanmak	5	4	3	2	1
_Çevre ile ilgili seminer/ toplantılara katılmak	5	4	3	2	1
_Çevre ile ilgili makaleler okumak	5	4	3	2	1
_Su sıkıntısı olduğunda az su harcamak	5	4	3	2	1
_Çevre gruplarının faaliyetlerine katılmak	5	4	3	2	1
_Daha az paketlenmiş ürünleri satın almak	5	4	3	2	1
_Yetkililere çevre konusunda mektup yazmak	5	4	3	2	1
_Az elektrik harcamaya çalışmak	5	4	3	2	1
_Kış aylarında ısıtıcıları düşük derecede tutmak	5	4	3	2	1
_Çevreyi kirletenleri uyarmak	5	4	3	2	1
_Kurşunsuz benzin kullanmak	5	4	3	2	1
_Kağıdın her iki yüzünü de kullanmak	5	4	3	2	1
_Çevreyi kirleten firmanın ürünlerini boykot etmek	5	4	3	2	1
_Az deterjan kullanmaya çalışmak	5	4	3	2	1
_Kağıtları ayırarak toplama merkezlerine ulaştırmak	5	4	3	2	1
_Cam şişeleri ayırarak toplama merkezlerine ulaştırmak	5	4	3	2	1
_Pahalı olmasına rağmen çevre dostu ürünler satın almak	5	4	3	2	1
_Pilleri ayrı kutulara atmak için biriktirmek	5	4	3	2	1
_Eski ilaç ve kullanılmış enjektörleri biriktirip ayrı atmak	5	4	3	2	1
_Zararlı ev atıklarını dikkatli atmak(Boya maddeleri gibi)	5	4	3	2	1

13. Bir ürünü çevre dostu olarak sınıflandırabilmek için aşağıda belirtilen hususları önem derecesine göre sıralayınız.

__Üretimi esnasında çevreye zarar vermeyen bir üründür.
__Kullanımı/ tüketimi esnasında çevreye zarar vermeyen bir üründür.
__Atıldığı zaman çevreye zarar vermeyen bir üründür.

14. Çevre dostu bir ürünü nasıl tanırsınız?

__Deneyimlerimle
__Yeşil oklu/ noktalı etiketinden
__Reklamlardan
__Diğer(Belirtiniz.)_____

15. Sizce hangi ürünler/ maddeler çevre dostudur?

_____
_____
_____

16. Lütfen ülkenizdeki çevre dostu firmaların isimlerini yazınız.

_____
_____
_____

17. Çevreyi korumaya yönelik aşağıdaki davranışların hangilerini yaptınız? (Birden fazla madde işaretleyebilirsiniz.)

__Çevremi kirletmemeye çalıştım.
__Arkadaşlarımla konuştum.
__Şişe ve kağıtları biriktirdim.
__Bu amaçla oy kullandım.
__Para yardımı yaptım.
__Bir çevre koruma grubuna katıldım.
__Bir yetkiliye mektup yazdım.
__Bir şirketi/ mağazayı boykot ettim.
__Bazı ürünleri boykot ettim.
__Diğer(Belirtiniz._____)
__Hiçbirisi

18. Aşağıdaki hareketleri ne sıklıkla yapıyorsunuz?

	Herzaman	Bazen	Nadiren	Asla
_Su sıkıntısı olduğunda az su harcamak	4	3	2	1
_Çevre gruplarının faaliyetlerine katılmak	4	3	2	1
_Az elektrik harcamaya çalışmak	4	3	2	1
_Kış aylarında ısıtıcıları düşük derecede tutmak	4	3	2	1
_Daha az paketlenmiş ürünleri satın almak	4	3	2	1
_Yetkililere çevre konusunda mektup yazmak	4	3	2	1
_Çevre ile ilgili seminer/ toplantılara katılmak	4	3	2	1
_Çevre ile ilgili makaleler okumak	4	3	2	1
_Kağıdın her iki yüzünü de kullanmak	4	3	2	1
_Çevreyi kirleten firmanın ürünlerini boykot etmek	4	3	2	1
_Çevreyi kirletenleri uyarmak	4	3	2	1
_Kurşunsuz benzin kullanmak	4	3	2	1
_Cam şişeleri ayırarak toplama merkezlerine ulaştırmak	4	3	2	1
_Pahalı olmasına rağmen çevre dostu ürünler satın almak	4	3	2	1
_Az deterjan kullanmaya çalışmak	4	3	2	1
_Kağıtları ayırarak toplama merkezlerine ulaştırmak	4	3	2	1
_Eski ilaç ve kullanılmış enjektörleri biriktirip ayrı atmak	4	3	2	1
_Zararlı ev atıklarını dikkatli atmak(Boya maddeleri gibi)	4	3	2	1
_Pilleri ayrı kutulara atmak için biriktirmek	4	3	2	1
_Otomobil yerine toplu taşımacılığı tercih etmek	4	3	2	1
_Pahalı olmasına rağmen kaliteli kömür kullanmak	4	3	2	1

19. Daha iyi bir çevre amacıyla aşağıdaki faaliyetlere katılır mısınız?

	Mutlaka katılırım	Belki katılırım	Belki katılmam	Asla katılmam
_Çevreyi kirleten bir firmayı boykot etmek	4	3	2	1
_Bir çevre grubunun faaliyetlerini desteklemek	4	3	2	1
_Yeşiller Partisine katılmak	4	3	2	1
_Çevre dostu ürünlere daha fazla ödemek	4	3	2	1
_Çevre korunması için vergi ödemek	4	3	2	1
_Çevre dostu olmayan bir ürünü kullanmayı bırakmak	4	3	2	1

20. Başka bir ülkede çevreye zarar veren bir olay olsa tutumunuz ne olur? (Eğer bu olay sizin ülkenizi de etkileyebilirse)

__Bu olaya açık tepki gösteririm.
__Duruma bağlı
__Genellikle önemsemem.
__Önemserim ama açık bir tepki göstermem.

21. Eğer sizin fedakarlığınız sonucunda endüstriyel şirketlerin çevreye zarar vermeden üretim yapabileceklerini bilseydiniz; kişisel harcamalarınızın ne kadar fazlasını ödemeye razı olurdunuz? (YÜZDE (%)...)

__1'den az
__1- 2 arası
__2- 5 arası
__6- 10 arası
__11- 15 arası
__16- 20 arası
__21- 25 arası
__25'den fazla

22. Çevre kirliliği sorunu ile başedebilmenin en etkili yolu aşağıdakilerden hangisidir? (Lütfen sadece bir tanesini işaretleyiniz.)

__Okullarda eğitim
__Kitle iletişim araçları (TV ; Gazete) ile halkı eğitmek
__Çevre ile ilgili kanunlar yapmak
__Cezalar(para ve hapis)
__Dini merkezlerde (cami, kilise, sinagog gibi) vaazlar vermek
__Diğer(Belirtiniz.)_____

23. Çevre konularında aşağıda belirtilen haber kaynaklarınızın yeterlilik derecesini belirtiniz.

	Çok yeterli	Oldukça yeterli	Yeterli	Yeterli değil	Hiç kullanmadım
__Ailem	5	4	3	2	1
__Arkadaşlarım	5	4	3	2	1
__Televizyon	5	4	3	2	1
__Gazete ve dergiler	5	4	3	2	1
__Kitaplar	5	4	3	2	1
__Hükümet	5	4	3	2	1
__Çevreci gruplar	5	4	3	2	1
__Bazı üreticiler	5	4	3	2	1
__Çevreci gruplar dışındaki uzmanlar	5	4	3	2	1
__Diğer(Belirtiniz.)_____	5	4	3	2	1

24. Soru 23 'de verilen kaynaklardan en çok bilgi edinmek istediğiniz 3 tanesini belirtiniz.

1. kaynak_____
2. kaynak_____
3. kaynak_____

25. a) Arabanız var mı?_____

(Cevabınız 'evet' ise 25b'ye; 'hayır' ise 26'ya geçiniz.)

b) Kurşunsuz benzin kullanıyor musunuz?_____

c) Arabanızın fren sistemi asbestsiz mi?_____

d) Arabanızın katalitik konvektörü var mı?_____

26. Ülkenizin çevre kanunu var mı?_____

27. Meşrubat alırken plastik şişe mi, cam şişe mi, teneke kutu mu, karton kutu mu tercih edersiniz?

28. Sizce kürk kullanmak çevreye zararlı mı? Neden?

29. Sık sık satın aldığınız bir besin maddesini alırken aşağıda belirtilen özellikleri ne derece önemlidir?

	Çok önemli	Biraz önemli	Pek önemli değil	Hiç önemli değil
_Fiyatı	4	3	2	1
_Alışkanlıklarım	4	3	2	1
_Dayanıklılığı	4	3	2	1
_Çevre dostu olup olmaması	4	3	2	1
_Arkadaşlarımın önerileri	4	3	2	1
_Uzmanların önerileri	4	3	2	1
_Paketinin çevreye etkisi	4	3	2	1
_Reklamının çekiciliği	4	3	2	1
_Sağlıklı oluşu	4	3	2	1
_Yeniliği	4	3	2	1
_Paketinin çekiciliği	4	3	2	1
_Diğer(Belirtiniz.)_____	4	3	2	1

30. Çevre dostu bir ürünün maliyeti artar. Bu maliyeti aşağıdakiler ne derece üstlenmelidirler?

	0	1	2	3	4	5	6	7	8	9	10
__Hükümet											
__Üretici											
__Tüketici											

2. BÖLÜM

31. Cinsiyetiniz:
____Kadın
____Erkek

32. Yaşınız:
____17'den küçük
____17- 24
____25- 34
____35- 44
____45- 54
____55 ve üstü

33. Eğitim düzeyiniz:
____Okur- yazar
____İlkokul mezunu
____Ortaokul mezunu
____Lise mezunu
____Üniversite mezunu
____Yüksek lisans mezunu
____Üniversite öğrencisi
____Yüksek lisans öğrencisi
(Lütfen dalınızı belirtiniz._____)

34. Medeni haliniz:
____Bekar
____Evli **(Kaç yıldır evlisiniz?_____ (Kaç çocuğunuz var?_____)**
____Boşanmış/ Dul

35. Evinizde siz de dahil kaç kişi yaşıyor? _____

36 Lütfen çalışma durumunuzu belirtiniz:
__Yarım gün çalışıyorum __Tam gün çalışıyorum __Çalışmıyorum , __Emekliyim
__Evhanımıyım

37. Çalışıyorsanız...
__Kendi şirketim var
__Ücret karşılığı çalışıyorum

__Öğrenciyim
__Askerim
__İşsizim
__Diğer

38. Şirketinizi nasıl tanımlarsınız?
__Büyük bir kuruluş (Çalışan sayısı 50'den fazla)
__Orta büyüklükte bir kuruluş (Çalışan sayısı 25- 50 kişi arası)
__Küçük bir kuruluş (Çalışan sayısı 25'den az)

39. Mesleğiniz ve çalışmakta olduğunuz kuruluşta şu andaki göreviniz nedir?

40. Aylık toplam hane gelirini belirtiniz.
(Çalıştığınız ülkenin para birimi cinsinden)

__1000DM'dan az
__1000DM- 2000DM arası
__2000DM- 4000DM arası
__4000DM- 6000DM arası
__6000DM- 8000DM arası
__8000DM'dan fazla

__1200 Florin'den az
__1200- 2500 HFL arası
__2500- 4500 HFL arası
__4500- 7000 HFL arası
__7000- 9000 HFL arası
__9000 Florin'den fazla

__3 milyon TL ve aşağısı
__3- 8 milyon TL arası
__8- 12 milyon TL arası
__12- 20 milyon TL arası
__20- 30 milyon TL arası
__30 milyon TL'den fazla

TEŞEKKÜR EDERİM.

APPENDIX III - DEMOGRAPHIC DISTRIBUTION OF THE SAMPLE

TABLE 1- Distribution of Sample by Gender and Age Group

	GENDER		
	Female	Male	TOTAL
AGE GROUP			
Less than 17	4	2	6
	66.67%	33.33%	100.00%
	3.28%	1.16%	2.04%
17-24	36	32	68
	52.94%	47.06%	100.00%
	29.51%	18.60%	23.13%
25-34	47	71	118
	39.83%	60.17%	100.00%
	38.52%	41.28%	40.14%
35-44	15	39	54
	27.78%	72.22%	100.00%
	12.30%	22.67%	18.37%
45-54	17	15	32
	53.13%	46.88%	100.00%
	13.93%	8.72%	10.88%
55 and above	3	13	16
	18.75%	81.25%	100.00%
	2.46%	7.56%	5.44%
TOTAL	122	172	294
	41.50%	58.50%	100.00%
	100.00%	100.00%	100.00%

TABLE 2 - Distribution of Sample by Gender and Education Level

	GENDER		
	Female	Male	TOTAL
EDUCATION LEVEL			
Literate	0	2	2
	0.00%	100.00%	100.00%
	0.00%	1.18%	0.69%
Graduate of primary school	4	16	20
	20.00%	80.00%	100.00%
	3.28%	9.47%	6.87%
Graduate of secondary school	26	41	67
	38.81%	61.19%	100.00%
	21.31%	24.26%	23.02%
Graduate of highschool	49	48	97
	50.52%	49.48%	100.00%
	40.16%	28.40%	33.33%
Graduate of university	30	41	71
	42.25%	57.75%	100.00%
	24.59%	24.26%	24.40%
Graduate of graduate	2	3	5
	40.00%	60.00%	100.00%
	1.64%	1.78%	1.72%
University student	9	14	23
	39.13%	60.87%	100.00%
	7.38%	8.28%	7.90%
Graduate student	2	4	6
	33.33%	66.67%	100.00%
	1.64%	2.37%	2.06%
TOTAL	122	169	291
	41.92%	58.08%	100.00%
	100.00%	100.00%	100.00%

TABLE 3 - Distribution of Sample by Gender and Marital Status

	GENDER		
	Female	Male	TOTAL
MARITAL STATUS			
Bachelor	63	65	128
	49.22%	50.78%	100.00%
	51.64%	37.79%	43.54%
Married	47	101	148
	31.76%	68.24%	100.00%
	38.52%	58.72%	50.34%
Divorced/ Widowed	12	6	18
	66.67%	33.33%	100.00%
	9.84%	3.49%	6.12%
TOTAL	122	172	294
	41.50%	58.50%	100.00%
	100.00%	100.00%	100.00%

TABLE 4 - Distribution of Sample by Gender and Number of Children

# OF CHILDREN	GENDER Female	Male	TOTAL
None	16	21	37
	43.24%	56.76%	100.00%
	28.07%	21.65%	24.03%
1	14	13	27
	51.85%	48.15%	100.00%
	24.56%	13.40%	17.53%
2	19	32	51
	37.25%	62.75%	100.00%
	33.33%	32.99%	33.12%
3	5	18	23
	21.74%	78.26%	100.00%
	8.77%	18.56%	14.94%
4	1	8	9
	11.11%	88.89%	100.00%
	1.75%	8.25%	5.84%
5	1	2	3
	33.33%	66.67%	100.00%
	1.75%	2.06%	1.95%
6	1	3	4
	25.00%	75.00%	100.00%
	1.75%	3.09%	2.60%
TOTAL	57	97	154
	37.01%	62.99%	100.00%
	100.00%	100.00%	100.00%

TABLE 5 - Distribution of Sample by Gender and Number of People Living in the House

	GENDER		
	Female	Male	TOTAL
PEOPLE IN HOUSE			
Live alone	19	20	39
	48.72%	51.28%	100.00%
	15.70%	11.70%	13.36%
2 persons	39	62	101
	38.61%	61.39%	100.00%
	32.23%	36.26%	34.59%
3 persons	30	33	63
	47.62%	52.38%	100.00%
	24.79%	19.30%	21.58%
4 persons	27	30	57
	47.37%	52.63%	100.00%
	22.31%	17.54%	19.52%
5 persons	4	17	21
	19.05%	80.95%	100.00%
	3.31%	9.94%	7.19%
More than 5 persons	2	9	11
	15.87%	84.13%	100.00%
	1.66%	5.26%	3.77%
TOTAL	121	171	292
	41.44%	58.56%	100.00%
	100.00%	100.00%	100.00%

TABLE 6 - Distribution of Sample by Gender and Working Status

	GENDER		
	Female	Male	TOTAL
WORKING STATUS			
Full- time	21	11	32
	65.63%	34.38%	100.00%
	17.50%	6.40%	10.96%
Part- time	67	119	186
	36.02%	63.98%	100.00%
	55.83%	69.19%	63.70%
Not working	32	42	74
	43.24%	56.76%	100.00%
	26.67%	24.42%	25.34%
TOTAL	120	172	292
	41.10%	58.90%	100.00%
	100.00%	100.00%	100.00%

TABLE 7 - Distribution of Working Sample by Gender and ...

	GENDER		
	Female	Male	TOTAL
Working in own enterprise	7	36	43
	16.28%	83.72%	100.00%
	8.24%	28.35%	20.28%
Salary earner	78	91	169
	46.15%	53.85%	100.00%
	91.76%	71.65%	79.72%
TOTAL	85	127	212
	40.09%	59.91%	100.00%
	100.00%	100.00%	100.00%

TABLE 8 - Distribution of Working Sample by Gender and Size of Enterprise

	GENDER		
	Female	Male	TOTAL
SIZE OF ENTERPRISE			
Large	42	46	88
	47.73%	52.27%	100.00%
	48.84%	37.70%	42.31%
Medium size	19	16	35
	54.29%	45.71%	100.00%
	22.09%	13.11%	16.83%
Small size	22	57	79
	27.85%	72.15%	100.00%
	25.58%	46.72%	37.98%
Government	3	3	6
	50.00%	50.00%	100.00%
	3.49%	2.46%	2.88%
TOTAL	86	122	208
	41.35%	58.65%	100.00%
	100.00%	100.00%	100.00%

TABLE 9 - Distribution of Sample by Gender and Total Monthly Household Income

	GENDER		
	Female	Male	TOTAL
MONTHLY INCOME			
Lower than 1000DM	1	7	8
	12.50%	87.50%	100.00%
	0.88%	4.19%	2.85%
1001DM- 2000DM	40	37	77
	51.95%	48.05%	100.00%
	35.09%	22.16%	27.40%
2001DM- 4000DM	48	76	124
	38.71%	61.29%	100.00%
	42.11%	45.51%	44.13%
4001DM- 6000DM	18	33	51
	35.29%	64.71%	100.00%
	15.79%	19.76%	18.15%
6001DM- 8000DM	5	10	15
	33.33%	66.67%	100.00%
	4.39%	5.99%	5.34%
More than 8001DM	2	4	6
	33.33%	66.67%	100.00%
	1.75%	2.40%	2.14%
TOTAL	114	167	281
	40.57%	59.43%	100.00%
	100.00%	100.00%	100.00%

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