CHAPTER X

ENVIRONMENTAL POLLUTION
The human environment: We should not contribute to our own
destruction as the Almighty Allah never forgives people who
indulge in excesses. This is the fundamental teaching of
Islam with respect to human environment. As pointed out by
Latif (1969) the law of life is that whenever a people create
an undesirable situation for themselves, they have to suffer
the consequences. In his commentary on the fourth verse of
surah Al-Hajr, Abdullah Yusuf Ali (1938) has observed that
'the destruction of a people is not an arbitrary punishment
from God, the people trying it on themselves by their own
choice; for the fixed law or decree of God is always made
known to them before hand and in many ways.

(1) ولا تلقوا بها يدكم الى التهلكة
واحسنوا

"And do not with your own hands work for your
own ruin and do good." (Latif, 1969).

(2) وما هلكا من قرية الا وليها
كتابه مفصل

"We have never destroyed the people of any town,
except in the manner decreed." (Latif, 1969)

The truth of these teachings become clear when we study
the causes and extent of environmental crisis as we know it
today. Man has been constantly exploiting his environment

1. Al-Baqarah : 195
2. Al-Hajr : 04
making the air increasingly unfit to breathe and the waters of lakes and rivers unfit to drink. Toxic substances are becoming accumulated in all conceivable media and the need to eliminate or greatly reduce this danger is obvious. Allah never permits us to interfere with his scheme of things. He has framed rules and disobedience means disaster.

"He who intercedes in a good cause shall share its good result, and he who intercedes in an evil cause shall share the evil consequence thereof." (Latif, 1969)

Allah has given mankind an option for doing right or wrong and has made the consequences crystal clear. Those who help and support a good cause would be profited whereas those who would support a bad cause would share the bad consequences thereof. This is the law and Allah keeps careful account of all things.

Allah has subjected to us whatever is therein in the environment and has completed His favours on us. Allah plungeth the night into day and the day into night and has prescribed a definite course for the sun and the moon, each of which runs into an appointed term. Let us, therefore, understand and follow all that has been sent down to us.

1. Al-Nisa : 85
"Verily God loveth those who turn to Him to be saved from evil, and loveth those who observe cleanliness." (Latif, 1969)

The so-called cultural advancement of the twentieth century, urbanization and industrialization and increased agricultural productivity have greatly contributed to environmental degradation. Expansion of industries and increase in vehicular traffic have caused considerable contamination of the environment. Clear atmosphere contains 20.94 percent of oxygen but the presence of dust particles, smoke, fumes and fog decreases this percentage of oxygen and contaminates the air. Carbon monoxide, sulphur dioxide, hydrogen fluoride and chemical pesticides are some other important pollutants of the air. Burning of coal and other fuel releases large quantities of sulphur dioxide. A power station burning 5000 tons of coal per day may release as much as 200 tons of sulphur dioxide per day. This causes acute irritation of the skin, eyes and respiratory tract. Leaf tissues are also injured and photosynthetic activity is greatly retarded. In this way the entire web of life is disturbed and there is a loss of food resources for all organisms.

Environmental pollution has a profound effect on wildlife. Let us cite an example. Fluorine occurs in the smoke

1. Al-Baqarah : 222
of brick works. After deposition it gets concentrated in green plants and grasses which when eaten by animals make them ill and results in bone abnormalities and dental deterioration. Such being the situation, it becomes necessary to ponder over the shape of things to come. In the words of Carson 'Control of Nature is a phrase conceived in arrogance,' and the sooner we realize that accumulation of material wealth would be of no avail unless we live within the limits prescribed for us by all knowing Allah, the better it would be for us.

"So turn steadfastly to the way, the way of God for which (by nature) has been fitted. There is no altering in what God hath devised." (Latif, 1969)

As pointed out by Abdullah Yusuf Ali (1938), man is basically inclined to be right but he is caught in the meshes of customs, superstitions, selfish desires and this makes him pugnacious, unclean and hankering after what is wrong. It is, therefore, essential that after receiving the divine guidance, he should never wander away but should remain steadfast and respect human values. Moulana Abdul Majid Daryabadi (1957) also concurs with this and is of the opinion that we should remain steadfast to the way of Allah without allowing ourselves to be seduced and misled by temptations. Since these extrinsic temptations include the accumulation of material wealth and

1. Al-Rum : 30
wordly fame, it is necessary that we should desist from them and save the entire biosphere from utter ruin.

Once it is understood that no alteration is possible in what Allah has devised for us without causing enormous harm to mankind, we can easily realize the impact of industrialization and urbanization on environmental pollution. The continued expansion of industries has resulted in considerable contamination of the atmosphere. Dust, smoke and fumes decrease the oxygen content. Burning of coal and other fuels result in the release of sulphur dioxide which causes acute irritation of the skin, bronchitis and also injures leaf tissues. Carbon monoxide, produced during the combustion process, hydrogen sulphide from petroleum refineries, insecticides from spraying operations all pollute the air and remind us to remain within the limits that have been prescribed for us by the Almighty Allah.

Muslim scientists were quick to realize the gravity of the situation and as early as 850 A.D. Ibn Rabban described the adverse effects of chemical toxicants on human health and welfare. One of the most ingenious experiment of all times was performed by Al-Razi during the Abbasid dynasty. When invited to select a suitable site for the construction of a hospital at Baghdad, "He is said to have caused pieces of meat hung up at different quarters of the city and to have chosen the place where they were slowest in showing signs of decomposition." (Browne, 1921).
Environmental pollution is a man-made problem and it is necessary that we should carefully plan strategies to improve the quality of life on the earth. Community hygiene is not only a social ethics but also a religious obligation.

It is our duty to keep our houses, places of worship and the neighbourhood clean. The mosque is of great importance. Not only the finest calligraphers and decorators embellish its surface and mihrab but all objects are kept clean and free from pollution. The aim is to provide a spiritual atmosphere for contemplation and meditation. Floral motifs are a prominent part of decoration because these have a distinct association with paradise evoking Quranic description of paradise. And the lustre added to such floral paintings is indeed an international discovery of the Muslims. Spitting is strictly prohibited and extreme hygiene is to be maintained in such a place. Thus, when a woman was found removing dirty spots from the wall and the floor of the mosque and sprinkling perfume to make the environment bracing, she was much praised by the Holy Prophet (may the peace and blessings of Allah be on him).

1. Nasai al-Sunan: Bab Takhliq al-Masajid
It is a well known fact that life on this earth would have been impossible without the mingling rays of light from the sun. Indeed:

"It is He who hath fashioned the sun for brightness and the moon to give light, and marked for her stations so that ye may reckon (time) and mark the number of years (that ye pass). God hath not created all this except in proper form and right intent." (Latif, 1969).

In addition to its significant role in photosynthesis by green plants, pigments have a great bearing on animal life. Pigment layers at the surface of the skin and those ensheathing the central nervous system afford protection from the deleterious effects of light. This is the reason why people living in the deserts are deeply pigmented. The colour of the skin is a physiological adaptation and not an indication of superiority of one over the other, a lesson which was given to the Muslims centuries ago so that the Arabs and Ajams may live together as true followers of Islam.

Contagious diseases: Some of the most serious and contagious diseases of mankind are transmitted through the agency of insects and droplet infections or may be due to improper disposal of waste material. In this way epidemics of cholera, plague and influenza have appalled men throughout the ages and even today smallpox and tuberculosis are regarded as the major

1. Yunus : 5
epidemic diseases of the world.

Almost all epidemic diseases have a defined incubation period and one of the best ways for preventing their occurrence at different places is to enforce quarantines restricting the movement of people from one place to another. Is it not, therefore, astonishing to learn from Nazrat Saad (may Allah be pleased with him) that more than fourteen hundred years ago, the Holy Prophet (may the peace and blessings of Allah be on him) warned his people not to go to a place where an epidemic of cholera was prevalent. They were also told not to leave such a place if they happened to be there at the time of the epidemic, as reported by

The significance of this sanction becomes abundantly clear when we find that it was only in 1961 that the World Health Organisation could promulgate an international sanitary regulation to isolate the persons suffering from plague for a period of six days (Ghosh, 1969).

Cholera is another scourge of mankind and the housefly, Musca domestica, is an efficient vector of the disease. A study of washings from the surfaces of flies showed the presence of 2,500,000 to 2,950,000 bacteria per fly (Ostrelenk and Welech, 1942). Shope (1927) prepared a salt solution extract of flies

1. Bukhari : al-Jami al-Sahih Bab Ma Yudkar Fi Ta’un
and found therein a bacteriophage capable of destroying the pathogenic bacteria. In fact bactericidal substances capable of killing specific microorganisms are found in the gut of the fly and its faeces. Their bactericidal activity is generally temperature-dependent and is highest at about 37°C (West, 1951). The distribution of bacteria and bacteriophage on the body of the fly is not definitely known and there is every possibility that both groups of the microorganisms may not be present at one and the same site. Also, some of the bactericidal substances are found in the alimentary canal as also in the faeces of the fly which has the habit of regurgitating its body contents especially under stress conditions. This was the philosophy of the sanction of the Holy Prophet (may the peace and blessings of Allah be on him) in telling the Ummah to dip the entire fly in the liquid in which it happens to fall before throwing it away. In this way the mixing of the pathogenic bacteria and their killers, the bacteriophage, becomes a greater probability.

1. Bukhari : al-Jami al-Sahih Bab Ida waga'a al-Zubab Fi al-Ina
burnt a piece of matting and sealed the wounds with it. This not only stopped further bleeding but also provided protection from invasion by extraneous microorganisms. It also helped in the healing of the wounds.

Pest management: Pest management is an essential part of Islamic legacy so much so that the Holy Prophet (may the peace and blessings of Allah be on him) has permitted the destruction of injurious pests even while performing Haj. Hazrat Abdullah bin Umar (may Allah be pleased with him) has reported that the Holy Prophet (may the peace and blessings of Allah be on him) once remarked that it was all right to kill five kind of animals - crow, kite, scorpion, rat and rabid dog even while wearing Ahram.

1. Bukhari: al-Jami al-Sahih Bab Harq al-Hasir li Yusadd bihi al-Dam
2. Tirmizi: al-Jami Bab Ma Ja'a ma Yaqtul al-Muhrim min al-Dawabb
Hazrat Umar bin Khattab (may Allah be pleased with him) used to pick up lice from his camel even while wearing "Ahram." Vector control is indeed the most effective method for the prevention of human and animal diseases.

Human lust for more wealth and food has resulted in the accumulation of toxic chemicals in the body tissues of food animals, especially the birds and the fishes. The affected animals become sluggish and can be easily caught by their enemies. When human beings eat such animals they also become ill. This is what we today call 'pollution through food chain.' However, centuries before such a concept could be developed by biologists, Hazrat Imam Muhammad (may Allah be pleased with him) advised the Muslims not to eat fishes suspected of having died of some infection.

Aquatic Pollution: As pointed out by Khan & Razvi (1983), water is one of the most essential substances which we need to live on this earth and it is His mercy that Allah has given it to us in plenty. Indeed Allah has made all living things from

1. Imam Malik : Moatta Bab al-Halamah wa al-Qurad Yunza oho al-Muhrim
2. Imam Malik : Moatta Bab al-Samak Yamuto Fi al-ma
And He it is who sendeth forth the winds spreading the tidings of the blessings to follow, till they bring up the laden clouds to move along to some dry spot of land, so as to pour down water thereupon to cause therewith an upgrowth of all kinds of fruits." (Latif, 1969)

Indeed the faithful and the obedient will dwell in the heaven having rivers of unpolluted water; the flavour of which would never change. On the contrary, the disbelievers will get super-heated water to wash their bodies and fastering water to drink.

The above teachings of the Holy Quran tell us that water may be refreshing, free of impurities and unpolluted or hot like molten lead, polluted and fastering. On the authority of Hazrat Zuhari (may Allah be pleased with him) it has been related by Al-Bukhari that water becomes polluted when

1. Al-A'raf : 57
2. Mohammad : 15
its taste, smell and colour is changed.

Our knowledge of chemistry tells us that water occurs in different forms such as mono-, di- and trihydrol depending on temperature conditions. Below 0°C it is trihydrol ice \( \text{H}_2\text{O}^3 \), between 0°C and 100°C it is liquid having varying amount of mono-, di- and trihydrol forms, whereas above 100°C it exists largely as monohydrol. Trihydrol water, because it contains less contaminants is very favourable for biological processes and it is probably due to this fact that temperate waters contain more life than is supported by tropical waters.

Rain water which generally contains salts in such concentrations that no osmosis takes place between it and the organism is, therefore, the most favourable medium for animal life. Such water as it falls down, clears dust from the air, helps in cultivating land and makes the earth habitable for human beings. Hazrat Ali (may Allah be pleased with him) therefore preferred to call rain water as life-giving showers which loads the orchards with fruits.

The above account clearly emphasizes the importance of pure, clean and uncontaminated water for us, our cattle and plants. What would therefore, happens if effluents from industries, such as used plastic, tin containers and other

household wastes are continuously dumped into the rivers, lakes and the sea. Indeed, the consequences would be disastrous for water pollution is a real hazard to millions of people in the world. It has been estimated that in Bombay alone more than 40% of deaths are due to water pollution. Lowered vitality is one of the most important side effects of the consumption of polluted water by animals. How grateful should we be to our Holy Prophet (may the peace and blessings of Allah be on him) who graciously taught us to distinguish between polluted and unpolluted water much before the scientific world became aware of the deleterious effects of aquatic pollution.

Water becomes polluted when its taste, smell and colour is changed. Several species of Chrysomonadida occur in water confined in reservoirs and make it unfit for drinking purposes. The presence of Uroglenopsis americana is responsible for the so-called fishy odour. Noctiluca sp. and Scientillanus sp. impart a red colour to water and the oil stored as food becomes toxic to many marine organisms when it is released after the death of the organisms.

The degree of pollution in a pond depends not only on the kind of pollutants but also on the amount of pollutants in relation to the size of the pond. And so we learn from Imam Mohammad (may Allah be pleased with him) that the wild animals and their excreta cannot cause any contamination if the pond is so big that waves created by shaking the water
at one end and do not reach the other end. Such water is safe for human use.

Such is the concept of water pollution in Islam and when we realize that these facts were told to us centuries before the dangers of aquatic pollution became evident to the environmentalists, the importance of the teachings of the Holy Quran and the Sunna becomes abundantly clear.

1. Imam Mallik: Moatta: Rab al-wudhu min ma Yashrab min ho al-Sit