

## POPULARISING THE ENVIRONMENT

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In the recent past there has been a rapid and growing awareness of, and interest in, the environment.

'By an environment, geographers mean the sum total of conditions that surround a person at any point on the earth's surface' (Haggett P. 1977)

This growing popularity is largely a result of three historical developments over the last hundred years, combined with other facilitating factors which have come into being in the recent past. This paper will attempt to outline why such awareness developed. When it did, and why it is important that it should continue. The problem posed by the necessity for environmental improvement in the face of economic growth, in both the developed and underdeveloped world, will also be examined.

'We shall continue to have a worsening ecological crisis until we reject the axiom that nature has no reason for existence save to serve man' (White 1967)

As outlined above the increase in environmental awareness was a result of coalescing of a number of historical trends. The first of these was a growth of interest in the variety of flora and fauna along with the diversity of peoples on the earth, which occurred largely in last century. This interest originated with the discoveries of explorers such as Columbus, Cook and De Gama. Darwin and other scientists began to study collections arising out of these discoveries. The rich sponsored these expeditions and displayed great interest in the exploits of the explorers. It was during this time that many of the great zoological gardens began the task of assembling collections of exotic animals (B.B.C. 1978). Botanical gardens also began to collect and cultivate rare species of plants. Initially exploration and the setting up of such institutions was the preserve of an elite who could afford to travel and sponsor such ventures. The evolution of such disciplines as Zoology, Botany, Anthropology and particularly Geography within the Universities was a direct result of these movements.

Interest in this area was initially confined to scientists both professional and amateur. The increasing accessibility of Zoological and botanical gardens, as their numbers grew, saw this interest filter through to the general public. Zoological gardens, along with displaying exotic animals, also became involved in the breeding of different species, particularly endangered ones. This aspect became increasingly important as the list of endangered species grew due to the destruction of particular habitats, and due also to over-hunting by man and the effects of poaching particularly of the bigger mammals. While many of these species became extinct in their original environments, Zoological gardens provided a sanctuary where these species could regenerate. Throughout this century a variety of organisations and societies have emerged to safeguard the protection of endangered species of both plants and animals. The World Wildlife Fund, for example, has been successful in protecting many endangered animal species from extinction.

The growth of interest in visiting areas of outstanding natural beauty also became an influential factor in the growth of environmental awareness (Berry 1975). Many, initially exclusively scientists and the wealthy, wanted to follow in the footsteps of the great explorers to see at first hand the diversity which existed throughout the world. Travel companies, some of which still exist e.g. Cook tours, which still thrives today, were established in the late nineteenth century to deal with this particular demand. As a growing number of these areas became threatened by industrial or agricultural development, there was an increased awareness that they should be preserved in their natural state. The concept of the National Park is a direct result of this. These originated in the U.S.A. in the 1920's. Large tracts of land, usually of scenic value, were preserved in their natural state, although sometimes recreational use became incorporated, for example Yellowstone National Park. The development of such National Parks have now become a worldwide phenomenon. Ireland now has five National Parks of which Glenveigh in Co. Donegal is the most recent addition.

The Third and Final development is a more recent one and has occurred as a reaction to widespread and increasing environmental damage caused by human intervention. This is a result of activities such as the mass exploitation of non-renewable resources and the discharge of effluents, domestic and industrial. In the last twenty years there has occurred a heightened awareness of and interest in the area of environmental damage and this has manifested itself politically. This comes as a result of the warnings given largely by scientists and particularly environmental scientists (Fuller 1979). Many voluntary organisations and pressure groups e.g. Greenpeace and C.N.D. have formed worldwide networks campaigning against environmental damage. The Green Alliance is a political party, particularly active in West Germany where it is an important though minority political party. Ireland has for example, the Irish Clean Air Group (McDonald 1987) which campaigns against all forms of air pollution in Ireland.

A number of changes in socio-economic lifestyles in the last hundred years have helped facilitate these developments. These include an increase in the amount of leisure time which allows for greater outdoor activities. Increased mobility allows more people to travel and helps to broaden their general outlook. A more affluent society now exists which enables a greater number of people to financially support voluntary organisations, societies and political parties with an interest in improving the environment. Most important, however, has been the growing role of education and the development of the mass media particularly television. From the late nineteenth century onwards education became increasingly accessible and consequently increased literacy caused an unprecedented demand for newspapers and books. Those along with radio and television, which were later developments, facilitated a greater understanding of a complex world (for example the environmental implications of the Chernobyl disaster) and an increased interest in current affairs in general. The media has been instrumental in providing information, in creating awareness and generating debate among the general public regarding all matters environmental. Particularly in the last decade all these factors have combined to popularise the environment, thus forming a powerful force for its protection.

Throughout Western Europe and the remainder of the developed world, the main cause of environmental damage has been major changes which have occurred in the relationship between man and his environment. These include mass mineral exploitation which in turn causes an increase in the amount of wastes which must be disposed of. In the pre-Industrial era a more balanced relationship existed between man's activities and the environment. The Industrial Revolution led to a situation where man's activities cause widespread, long-term and irreversible damage. The balance which existed in the pre-industrial era was shattered. Urbanisation and Industrial development resulted in the disposal of huge amounts of pollutants, often unchecked into the environment giving us for example the 'thick pea soup' smog and fogs of London and many other large cities (Fuller 1979). Increased pressure resulted, and so the environment was further exploited to provide both natural resources (Norton 1984) and a dumping ground for wastes, often with little or no awareness of what damage was being caused. As pollution became worse it began to affect health. Hundreds of those suffering from respiratory problems died because of extreme levels of air pollution in larger cities (Kerany and Bailey 1979). Dublin has been affected and as one spokesperson for the Irish Clean Air Group describes it 'atmospheric pollution now ranks on a par with cigarette smoking as a major cause of respiratory disease among Dubliners' (McIvor 1986). By the late 1950's it was apparent that these adverse effects would continue to grow unless major initiatives were taken to tackle them.

A similar trend towards environmental damage has occurred in the underdeveloped world, differing however in cause and effect. The major cause of environmental damage has been the need to exploit all available resources to enable governments to tackle the problems of famine, extreme poverty and low levels of industrial development. The effects in some cases has been severe. Much of the worlds tropical rain forests have been destroyed in South America, Africa and Borneo (Grey 1986). The Sahel region of Africa is becoming increasingly desertized (Udo 1982) and China's largest cities are experiencing worsening air pollution problems (Elson and Haigh 1986).

The perception of the environment, with the aid of education and the mass media, has changed from that of being insignificant to being of vital importance. There has been a strong positive movement towards improving the environment. This growing awareness is reflected in the degree to which legislation concerned with the protection of the environment has been introduced at both national and international levels. This legislation has been slow to take effect however, despite the fact that environmental damage continues at an ever increasing rate. Since 1800, for example, the Carbon dioxide (CO<sub>2</sub>) level in the atmosphere has risen from 180 to 240 parts per million worldwide and is continuing to rise (Fuller 1979). This could have a serious effect on global climate.

If environmental management is to be successful, it must become a major political issue. Governments must be made to realise that allowing environmental damage to continue will adversely affect their popularity. It is also the obligation of groups, organisations and individuals to ensure every effort is made

to give environmental issues a high priority at national and international level.

one question remains however i.e., is environmental protection, given it's cost, feasible in the current economic climate? One method used to answer this question, particularly when an individual project is in doubt, is the cost-benefit analysis (Mishan 1976). There was a major controversy recently regarding the decision by the E.S.B. not to include a sulphur dioxide removal plant at the coal burning electricity station at Moneypoint. The results of a cost-benefit analysis showed that the inclusion of a Sulphur dioxide removal plant would involve the cost of the plant itself, decreased profit margins for the E.S.B. and higher production costs (RTE 1986). Balanced against this would be those costs which include an increase in air pollution and related health problems (Kerany and Bailey 1979):, an overall increase in air pollution of 30,000 tons of Sulphur Dioxide per annum, particularly in Ireland, the U.K., and mainland Europe, adding to an already chronic problem (Fuller 1979). There would be a consequent reduction in agricultural and forestry production (Whittington 1979) and possible damage to the very fragile Burren ecosystem (RTE 1986). The cost benefit analysis shows that the decision not to include a Sulphur Dioxide removal plant at the station was based primarily on the immediate financial cost and not the long-term economic costs of potential damage. This could be applied to all those industries which cause pollution, in that it is they who tend to get all the benefits, whereas the costs are borne by the general public. This is the process whereby industry externalises environmental costs. (Ruff 1973).

A change has occurred in the perceived value of the environment over the last twenty years. For most of mankind's history the environment has been held in little regard and consequently has become exploited. As this exploitation and the resulting damage increased, more and more people began to be directly affected by the results, through increased health problems, reduced agricultural production and the destruction of favourite scenic areas. This caused a slow but growing revaluation of the environment. Today clean air and water are no longer taken for granted.

'Humans are destructive in proportion to their supposition of abundance: if they are faced with an infinite abundance they become infinitely destructive'. (Berry W., 1975).

Industry along with other sources of pollution must be made to internalise their environmental costs through legislation. Renewable licences could be provided for dumping wastes: pollution could be taxed, direct payments made compulsory to compensate for any environmental damage caused, and the planning laws made more effective (Norton 1984). Legislation at both national and international levels would help to control pollution particularly when the source has the potential to cause large scale environmental damage across political frontiers (Hardin 1973).

The future outlook is not good. In the short term environmental damage still continues to increase although legislation is beginning to curb it's worst excesses. If long-term environmental improvement is to be achieved then pressure must continue, at all levels, to change how mankind uses it's environment. This must be done particularly with regard to all organisations which have the power to influence legislation on matters environmental. If long-term improvement is to be achieved then the current popularising of the environment must continue and this above all will generate the necessary pressure to change our relationship with the environment from the exploitative to the symbiotic.

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