

**DIFFERENCE IN ENVIRONMENTAL PERSPECTIVE OF EUROPEAN  
COMMUNITY MEMBER COUNTRIES : A CASE STUDY OF  
GERMANY AND UNITED KINGDOM : 1973-93**

*Dissertation submitted to the Jawaharlal Nehru University  
in partial fulfilment of the requirements  
for the award of the Degree of  
MASTER OF PHILOSOPHY*

T. PADMAVATHY

WEST EUROPEAN STUDIES DIVISION  
CENTRE FOR AMERICAN AND WEST EUROPEAN STUDIES  
SCHOOL OF INTERNATIONAL STUDIES,  
JAWAHARLAL NEHRU UNIVERSITY  
NEW DELHI-110067,  
INDIA  
1994



जवाहरलाल नेहरू विश्वविद्यालय  
JAWAHARLAL NEHRU UNIVERSITY  
NEW DELHI - 110067

Centre for American & West European Studies  
School of International Studies.

July, 1994

**CERTIFICATE**

Certified that the Dissertation entitled "DIFFERENCE IN ENVIRONMENTAL PERSPECTIVE OF EUROPEAN COMMUNITY MEMBER COUNTRIES : A CASE STUDY OF GERMANY AND UNITED KINGDOM : 1973-93 submitted by T.PADMAVATHY in partial fulfilment of the requirements for the award of the degree of MASTER OF PHILOSOPHY has not been previously submitted for any other degree of this university or any other university and is a record of the student's own work carried out by her under my supervision and guidance.

We recommend that this Dissertation may be placed before the examiners for evaluation.

**DR. B. VIVEKANANDAN**  
(Chairperson)

**DR. CHRISTOPHER S. RAJ**  
(Supervisor)

**DEDICATED TO  
AMMA, APPA, AKKA AND ANNI**

## CONTENTS

	<b>Pages</b>
<b>PREFACE</b>	
<b>ACKNOWLEDGEMENT</b>	
<b>CHAPTER I: INTRODUCTION : GLOBAL ENVIRONMENTAL ISSUES.</b>	<b>1 - 38</b>
<b>CHAPTER II: THE EVOLUTION OF EUROPEAN COMMUNITY ENVIRONMENTAL POLICY.</b>	<b>39 - 82</b>
<b>CHAPTER III: POLICY ATTITUDE OF GERMANY AND THE UNITED KINGDOM TOWARDS EUROPEAN COMMUNITY ENVIRONMENTAL POLICY.</b>	<b>83 - 125</b>
<b>CHAPTER IV: CONCLUSIONS.</b>	<b>126 - 140</b>
<b>SELECTED BIBLIOGRAPHY</b>	<b>141 - 158</b>

## Preface:

The European Community is evolving as the focal point of Europe, and the World. With the end of the cold war, the focus of international relations has shifted from confrontation to co-operation. European Community, as the only supranational organisation of its kind, where the member states have voluntarily surrendered a part of their sovereignty over areas of policy making, gains more significance in this context. One of the new areas in which this transfer of power is happening is environment.

The environmental policy has been trust upon the industrialised countries due to their unmindful economic growth in the post world war period. The environmental issue thus has a special capacity for understanding the functioning of Community institutions and the difference in approach among the member states towards EC institutions and its policies. Environmental policy of the European Community offers a good opportunity in this regard for a number of reasons. Firstly, while the issue of environment and control of pollution has not cropped up overnight, the concept was redefined in the

1970s in a more holistic manner. What was once regarded as separate areas, began to be recognised as more or less inter-linked. This presented new problems to policy-makers in that the issue seemed to be especially complex. This integrated environmental regulation emphasised the need to approach the problem as a whole. Secondly, related to this holistic view, the environmental issue carries with it more cross - sectoral implications than any other issue placed on the agenda. Processing environmental issues has therefore raised the common question of co-ordination between sectors in an acute form and has brought environmental groups into hitherto relatively undisturbed policy areas. Nuclear energy policy, public and private transport policy, waste disposal policy, air pollution control policy are good example of such new areas.

Thirdly, this has also developed new areas of conflict and compromise, not only among the various sectors, but also among different member states of the Community. The policy attitudes of Germany and the United Kingdom offers an excellent framework for the analysis of the above factors. The differences and similarities between the policy approach of these two countries is interesting to note, due to some

special reasons like their geo-physical location and their similar and highly developed industrial structure, which has created the environmental problem in the very first place.

To analyse all the aspects of this policy attitude will be a very difficult task, in a study as limited as this. Hence an attempt has been made to understand the global environmental scene and the policy approach of Germany and Britain in the four main sectors of air, water, nuclear energy and waste disposal within the EC framework. These four sectors reveal both the differences and similarities between the approach of these nations and the various factors and needs which play a role in this regard. Consequently,

The first chapter takes an overall view of the global environmental policies and politics.

Chapter two explains the legal framework and operational principles of the European Community's environmental policy starting from 1973.

Chapter three attempts to reveal the similarities and conflicts between Germany and Britain in their attitude

towards the Community environment policy and the reasons behind such an approach.

This study is a preliminary work that could lead to a more indepth analysis into the different countries' policies and programmes on environment that shapes the global environmental issue.



I wish to express my heartfelt gratitude to my Supervisor Dr. Christopher S. Raj for his constructive guidance and encouragements without which this work would not have been completed.

I take this opportunity to thank Dr. B. Vivekanandan, Chairperson, Centre for American and West European Studies for rendering me with all possible help.

I shall be forever indebted to our Guruji V. Selvarajan without whose help my work would not have seen the light of the day.

I also thank the Faculty members of my Centre for their guidance during the course of my work.

I record my thanks to Mr. Dewendra Tiwari for typing my dissertation.

I thank Mr. Ashok Purang, of Information Centre, Delegation of the Commission of the European Communities, New Delhi, for his kind help in my material collection.

Last but not the least words are inadequate to express my love and gratitude to my great parents and my loving family members whose constant moral and spiritual support has stood me in good stead.



T. PADMAVATHY

## **CHAPTER I**

## CHAPTER - I

### INTRODUCTION: GLOBAL ENVIRONMENTAL ISSUES

The decade of 1980s had been another decade of historical events that swept the world. It was a decisive decade where the past was dismantled and the foundation for the future was laid, especially for Europe.

The period since mid-1980s saw the emergence of many new trends and perspectives. The old World Order established by the compulsions of the Second World War, and the spread of Communism, in which the nation states stood divided on ideological lines, was the order in which the might of the super-powers was based on their military strength. That order which was so fragile and threatened by the innumerable defense and nuclear weapon systems crumbled as a result of high defence expenditure especially by the USSR. The sweeping revolutions in Eastern Europe, the disintegration of Soviet Union, the re-unification of Germany and the further political integration of Western Europe, starting with the enactment of the Single European Act 1989, set the stage for the future world and a new world order. The focus shifted

from purely defense to economic issue, from ideology to liberalization, from confrontation to cooperation, from NATO and Warsaw Pact to European Union and NAFTA; from blind development to sustainable development; and from geo-politics to ecopolitics.

Less than ten years ago, eco-politics and global environmental problems were regarded as low politics - a set of minor issues to be relegated to technical experts. Environmental issues were not regarded by most governments as major political issues. They were instead yet, a diplomatic backwater and were marginal to the national interests of major powers.<sup>1</sup> But the alarm signs and concern about the state and quality of environment were long over due.

#### Global Environmental Concern:

The rapid industrialization of the past two centuries had created serious environmental problems with imminent indications, with frequent occurrence of industrial disasters. But until the Second World War, long rows of chimneys

---

1. Gareth Porter and Janet W. Brown; Global Environmental Politics; (Westview Press, Boulder), 1991, P.1.

spewing smoke into the sky was taken as a symbol of prosperity. The financial help rendered by the United States through the Marshall Plan, the low cost of raw materials and rapid increases in productivity in both agriculture and industry made possible by technological innovations and by increasing urbanization and education, helped the West European nations to achieve rapid economic growth within a short span of a decade after the Second World War. This rapid growth based on quantitative criteria and the uncontrolled exploitation of natural resources caused widespread environmental degradation.

The 1950s and 60s were the period of growing awareness that something had to be done. The alarm signals would no longer be ignored. Industrial and environmental disasters like the death of some four thousand old people in a smog in London in 1953, the alarming conditions of rivers everywhere and in particular the Rhine - the great artery of Europe, the danger of using pesticides and that of modern agriculture brought to light in 1962 by Rachel Carson's book "Silent Spring" in which she emphasized chlorinated hydrocarbons and organo-phosphates as the main problems leading to birds and fish kills, human nervous system disorders and

death,<sup>2</sup> oil spills at sea dramatized by the Tarrey Canyon disaster in 1967 which unleashed some 100,000 tons of oil into the sea off Lands End and thereby severely damaging many coastal ecosystems and beaches; Minimata disease in Japan which killed hundreds of people due to mercury poisoning from an industrial discharge<sup>3</sup> - gave rise to increasing concern about such negative impact of economic development on the natural environment and on human health and society.

During the same period, various studies brought to light the effects of environmental pollution, their trans-boundary damage and the interdependence between ecological principles and economic activity. Two important predecessors of these studies were the "Limits to Growth" by the Club of Rome, published in 1972 and the "Global 2000 Report to the President" released by the United States Council of Environmental Quality and the Department of State in 1980. Both these studies used computer modeling to project interactions among various future trends between population,

- 
2. Gino Marco et.al. ed., Silent Spring Revisted, (American Chemical Society, Washington, D.C.), 1987.
  3. Commission of European Communities: Ten Years of Community Environment Policy (Brussels), March 1984, p.2.

economic growth and natural resources and forecasted the depletion of natural resources and the degradation of ecosystems.

Thus by 1970s the state of the environment and the need to arrest the situation became imperative in the conscience of the nations and attempts to develop comprehensive environmental policies started. In 1967 Sweden, supported by the United States, took the initiative to hold an international environmental conference. The need for an integrated global approach towards the environment was reflected by U Thant, then Secretary General of the UN in 1969.

#### The UN Conference on Environment - 1972

In 1972, the United Nations held a conference on "The Human Environment" from 5th to 16th June. This conference, popularly known as the Stockholm Conference was attended by delegates from 113 states and by 450 NGOs. In the conference, a Preparatory Commission of 27 nations produced 120 recommendations for debate which included pollution of the seas and clear rivers programmes, supersonic travel, non-

disposable waste and the abolition of DDT and pesticides.<sup>4</sup>

The conference approved a declaration containing 26 broad principles on the management of the global environment which included provisions for a comprehensive international ban on dumping toxic wastes in the oceans, tightening of international law on oil pollution in the sea, a ten year moratorium on commercial whaling, the preservation of important eco-systems-forests, river basins, wetlands and establishment of genetic species threatened with extinction.<sup>5</sup> A second outcome of the conference was a Action Plan which took the form not of formal commitments to actions but of 109 recommendations for international co-operation on environment. The Action Plan, assumed that the United Nations System would provide leadership for carrying out these recommendations and the conference's recommendation led to the creation by the United Nations General Assembly in December 1972 of the United Nations Environmental Programme (UNEP) to provide a focal point for environmental action and

- 
4. Stockholm Conference: Gloomwatch; The Economist, (London), June 10, 1972, p.32.
  5. Stockholm Conference: "The Chinese Foiled", The Economist, (London), June 24, 1972, p.28.



co-ordination of environmental related activities within the United Nations System.

However, the Stockholm Conference, was plagued from the very beginning by political differences and ideological rivalries. First, the Conference was boycotted by the Soviet Union and its East European allies with the exception of Romania as East Germany was not included in the invitation list. Second, the military issue that war as part of the problem of the environment focussed upon by Professor Barry Commoner and the Swedish Prime Minister, Mr. Palme, annoyed the Americans who were involved in the Vietnam War. The third political divide was between the rich and the poor nations on the issue of DDT and Pesticides. The underdeveloped nations, argued that a ban on DDT amounted to selfishness on the part of the developed nations which has profited in the past from pesticides but were then seeking to prevent the poorer ones from taking advantages of them. Thus the Stockholm Conference succeeded in bringing environment to the centre stage but failed to create the political will needed to tackle the problem.

In the past two decades since the Stockholm Conference, continuous scientific research has further established the intricate link between various environmental problems, the impact of economic activity on environment and their interdependence. The notion of environmental issues as a local problem has been replaced by the understanding that these problems affect the whole biosphere. The issues have become more complex and highly defined. The focus has widened from concern for local environmental quality to global issues like Ozone depletion and transboundary acid deposition affecting various stratum of the ecological whole, involving threats to the integrity of the biosphere on which all human life depends.

While Trans - boundary air pollution, Ozone depletion, Global warming, Deforestation and Biological diversity have emerged as the major issues, and industry, energy, transportation, tourism, agriculture and population explosion are studied as the major causes for these problems. A brief account to emphasize each of these has been attempted in the following pages.

## The Issues

### I. Trans boundary Air Pollution:

Air pollution was the first major environmental issue that drew the attention of the governments and public as it was physically easily detectable. Emissions of sulfur dioxide and nitrogen oxide became an international problem in the 1960s, after the industrialized countries raised the heights of their industrial chimneys as much as six times.<sup>6</sup> Though the chimneys dispensed pollutants over a wide area, studies demonstrated that although this improved local air quality it caused long range problems. In the early 1970s hundreds of Swedish lakes were discovered to be too acidic. Much of the acid precipitation had originated in Eastern and Western Europe and other parts of Scandinavia. The problem was fastly spreading to other parts of Europe too. In early 1980s South-east Europe faced severe forest decline.

The first initiative towards studying the causes and controlling acid rain came from Sweden. The other European

---

6. Ganeth Porter, no.1, p.71.

countries initially did not show keen interest in the problem. However, from 1972, the OECD agreed to monitor Trans-boundary Air Pollution in Europe.<sup>7</sup> And the Economic Commission for Europe's Convention on Long Range Trans-boundary Air Pollution signed in 1979, remains the focus for much of the effort to cut emissions of sulphur and nitrogen oxides thereby reducing damages to forests and lakes.

## II. Ozone Depletion:

The depletion of the Ozone layer takes place due to a complex series of reactions catalysed by certain long-lived Ozone depleting substances in the atmosphere mainly Chloro-fluoro Carbons (CFCs), and halons. The effect of CFC was first discovered in 1974 by two scientists - Maria Molina and F.S. Rowland of the University of California. The issue entered the international scene when in 1975, United Nations Environmental Programme (UNEP) funded a study by the World Meteorological Organization on the above theory. In 1982, British scientists documented the existence of a large hole

---

7. Mostafa K. Tolba (ed.), The World Environment, 1972-1992: Two Decades of Challenge, UNEP, (Champman and Hall, London), 1992.

over the Ozone layer in the Antarctica that had been theoretically predicted earlier. Data gathered by US Nimbus-7 Satellite confirmed these findings.

The international response to the issue began in March 1985, with the Vienna Convention for the Protection of the Ozone Layer which was attended by 43 states and 7 international organisation.<sup>8</sup> It is essentially a frame work treaty to cooperate on monitoring, research and data exchanges, without any specific measures to control CFCs. Negotiations on such a binding treaty began in December 1986. USA, Canada and the Nordic States advocated a freeze followed by a gradual 95% reduction, in production of CFCs and other Ozone depleting substances over ten to fourteen years. Soviet Union and Japan disagreed on the basis that the evidence of danger to the Ozone layer was not clear. The former group offered a 50% cut as a compromise. But the European Community, which produced 45 per cent of the world output and a major exporter of CFCs to the Third World, did not agree to more than a 20 per cent reduction.

---

8. Year Book of the United Nations, 1985; Martimus Nijhoff Publishers, The Netherlands, 1987, vol.89, p.804.

The above objective was achieved in the 1987 Montreal Protocol on Substances that Deplete Ozone Layer. Here the industrialized countries pledged to reduce CFCs production by 50 per cent of 1986 levels by 1998. The developing countries were given an additional ten years to comply with the provisions concerning the freezes and reductions.<sup>9</sup> Meanwhile new scientific evidences showed the depletion faster than anticipated. This pressurized the industrial countries to adopt more drastic measures. In the Helsinki meeting in May 1989, 80 countries including EC members voted for a complete CFC phase out by the year 2000. In June 1990, at London the issue of financial aid to help the developing countries to develop alternate modes of technology was addressed.

### III. Global Climate Change:

Global warming or green house effect is defined as the rise in the average temperature of the world due to the increase in the level of atmospheric carbon dioxide (CO<sub>2</sub>). The level is steadily increasing due to various human activ-

---

9. Year Book of the United Nations, 1987; Martimus Nijhoff, The Netherlands, 1992, vol.41, p.700.

divided into five main headings:<sup>20</sup>

(i) Air quality standards which sets limit for sulphur dioxide and suspended particulate matter and nitrogen dioxide.

(ii) Product quality standards under which a 1975 directive fixes the maximum sulphur content of gas oils.

(iii) Clean Cars where the concept covers a number of initiatives designed not only to encourage lead-free petrol but to reduce the level of pollutants contained in vehicle exhaust gases.

(iv) Air pollution from industrial plants: Legislation by the EC requires the member-states to authorize new plants only where preventive measures have been taken. The fifteen year programme under this policy to combat acid rain, has committed to reduce emissions of sulphur dioxide by 60 per cent from their 1980 levels in three stages ending in the year 2003 and nitrogen oxides by 30 per cent in two stages ending in 1998.

---

20. European Documentation, Environmental Policy in the European Community (Luxembourg: Official Publication of the European Communities), 1990, pp.46-47.

ities especially due to industries and burning of fossil fuels. The Toronto Conference on the Changing Atmosphere, in June 1988, for the first time attempted a numerical reduction of CO<sub>2</sub> emissions to the tune of 20 per cent at 1983 levels by 2000 A.D.<sup>10</sup> In the same year, UNEP and the World Meteorological Organization established an Inter-Governmental Panel on Climate Change (IPCC),<sup>11</sup> with scientists from 35 countries with a mandate to study the sources and impact of climate change and recommended possible policy responses. In May 1990, the IPCC emphatically pronounced the green house effect (GHE) as a reality. The report said that if the current level of CO<sub>2</sub> emitted into the atmosphere remains the same then the earth's global mean temperature would rise by about 1°C by 2025 and by 3°C by the end of the next century.<sup>12</sup>

- 
10. Sudip Ghosh, "Long Road to Rio", Telegraph (Calcutta), 19 May, 1992.
  11. Report prepared for the Inter-governmental Panel on Climate Change by Working Group I, "Scientific Assessment of Climate Changes", World Meteorological Organization and United Nations Environmental Programme, (Geneva), June 1992.
  12. Michael McCarthy, "Scientists Sound Alarm Over Runaway Global Warming", Times, (London), 26 May, 1990.



The GHE would raise the sea levels by about 20 cm by the year 2050 and 65 cms by the year 2100. This would spell trouble for millions of people in low-lying coastal areas, from the Thames estuary and Holland to the Nile delta and low lying islands such as the Maldives would disappear.<sup>13</sup>

The second World Climate Conference in Geneva in 1990 emphasized that nations should take steps towards reducing sources and increasing sinks of green house gases through national and regional actions. The Conference emphasized that the long term goal should be to halt the build up of green house gases. The developed nations were expected to take a lead as most of the extra carbon dioxide in the atmosphere has been put there by industrialized countries.

After the Geneva Conference a number of countries and the European Community as a whole have announced actions aimed at stabilizing their emissions of CO<sub>2</sub> at 1990 levels by or close to the year 2000 A.D.

---

13. "Bush will sign pact on Global Warming", (Michael McCarthy), Times, London, June 1, 1992.

#### IV. Deforestation:

The issue of deforestation and its consequences is more obvious due to its direct impact on local environment. It is the root cause of many severe environmental problems like increased floods and droughts, siltation of rivers and estuaries, the destruction of fish breeding areas and marine habitats, and the threat to the survival of millions of people world-wide whose livelihood are sustained by forests. Deforestation is linked with other global environmental issues as well. As the tropical forests sustain half of all the biological species on earth, deforestation is the primary cause of loss of biological diversity. The burning of these forests accounts for an estimated 10 to 30 per cent of the global release of CO<sub>2</sub>, which constitutes a major factor in the green house effect.

The problem of deforestation was first addressed publicly in the early 1980s. The United Nations Food and Agricultural Organization issued a proposal in 1985 that identified the main cause of destruction of tropical forest as the poverty of the people living in and around them and conversion of forest land to food production.

The vital role played by forests in the world's ecosystems and the economic value of the services provided by the forest has become apparent over the past years. Hence efforts have been made both at regional and global levels to combat deforestation. The World Conservation Strategy of 1980 called in States to prepare national conservation strategies and their integration in national development planning.<sup>14</sup> In 1985, a Tropical Forestry Action Plan was launched by FAO, UNDP, World Bank and the World Resources Institute which has since been adopted by 81 countries. "Caring for the Earth", the new strategy for sustainable living, calls for a wide range of actions for sustainable use of world forests and for market systems that promote sustainability.

#### V. Hazardous and Toxic Wastes:

Industrial market economics generate an estimated 90% of the world's hazardous wastes. Since the 1980s Europe and the US have tightened the laws for the disposal of the wastes in their own countries. Hence these countries are

---

14. Year Book of the United Nations, 1985, no.8, p.812.

looking for alternative sites beyond their own frontiers and it is also economically cheaper. For example it costs up to \$1000 per ton to dispose off the wastes in the US itself, whereas it would mean a payment of \$40 per ton only to a developing country which receives the wastes.<sup>15</sup> In the 1980s the main exporters of hazardous waste in Western Europe were the Netherlands, Belgium, France, Italy and West Germany.

The important international treaty controlling the movement in hazardous waste is the Basel Convention which was adopted by 116 countries and the European Community on 22nd March 1989.<sup>16</sup> It allows hazardous wastes to be exported to countries where facilities for storage are less advanced than those of the exporting countries as long as the importing state had detailed information on the wastes shipment and gave prior written consent. Environmental critics charged that the convention did not go further than existing regulations in industrialized countries which had failed to curb legal or illegal waste trade.

---

15. "Too Much Trash", (Gursharan S. Dhanjal), Financial Express, (New Delhi), 1 June, 1992.

16. Ibid.

### Loss of Biological Diversity:

Bio-diversity indicates all the organism from - terres-  
trial, marine and aquatic-ecosystems. Ecosystems function  
as the life support system on earth, by renewing atmospheric  
oxygen and producing energy for the living organism through  
photosynthesis. They are the sources of a numerous re-  
sources like food, fibre, timber and drugs. The various  
natural products from these eco systems and the diverse  
biological species have high economic value. US has gained  
almost US \$87 billion per year from 1976-1980 through bio-  
logical products. The percentage contribution of wild  
species and ecosystems to the developing agrarian countries  
is usually greater than it is for an industrial country. For  
e.g. timber from wild forests is the second leading foreign  
exchange earner for Indonesia after petroleum.

In spite of its enormous economic value, bio-diversity  
is perceived largely in scientific and conservationist terms  
rather than in economic and resources terms. Though the  
financial benefits from an ecosystem is very evident, it is  
extremely difficult to quantify every economic benefit from

bio-diversity, making it difficult to assess its overall economic value.

Due to these various reasons and uncertainties, it has been very difficult to conserve the ecosystems and their biological diversity. Most of the developing countries have lost more than 50 per cent of their original habitat. The tropical forests, which support well over half the planet's species in about 6 per cent of the global land area, is undergoing relentless deforestation due to economic and population pressures. Species extinction are currently at a very high rate and studies predict that if present trends continue, upto 25% of the world's species will become extinct in the next few decades and that there will be an equally alarming degradation of habitats and ecosystems. There is an world wide awareness to preserve these ecosystems and biological diversity. But the issue is so complex and is entrangled on a matrice of network that it requires a major willingness and co-operation at the global level.

### Causes of Environmental Degradation:<sup>17</sup>

Having studied the various environmental problems and the international response to them, the next step is to understand the causal factors of these problems. Almost all these problems are man made, caused by his economic activities - industry, energy use, transportation, tourism, deforestation and agriculture being the important ones. The first three sectors are interlinked with each other and alongwith tourism are of major concern to the industrialized world, while in the developing countries, population, poverty and deforestation are the three interdependent causes for environmental degradation in many parts of the world. A proper understanding of these causes and their implications for a given society is essential to appreciate the responses of a particular nation towards environmental problems. It also provides the link between economy and environment that has come into sharp focus in the recent years.

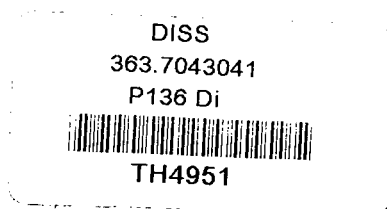
---

17. The main source for the section, Causes of Environmental Degradation, in this Chapter has been the book titled, The World Environmental, 1972-1992: Two Decades of Challenges edited by Mostafa Tolba for United National Environment Programme.

## Industry

It is estimated (UNIDO 1990) that the total world wide manufacturing value added has increased from about \$ US 2500 billions in 1975 to about \$ 4000 billions in 1990 at constant 1980 prices. Such enormous development in industry obviously has placed heavy demands on the world's natural resources.

Activities like mining and power generation has caused serious adverse effects on the environment. Every year millions of tonnes of chemicals are being produced. 400 million tonnes of chemical products were produced every year in the second half of 1970. There are 100,000 commercially available chemicals in the market today used in various industries including plastics, fertilizers and pharmaceuticals. In 1989 alone the world consumed 120 million tonnes of chemicals like PVC, polyethylene and 11 million tonnes of nylon, acrylics and polyester. The disposal of these plastics create serious problems. They are not bio-degradable and add to the solid waste disposal problem. Recycling plastics, too, has its own problems. For example, when PVC is burnt, toxic dioxides are released into the atmosphere.





Application of chemical fertilizers formed the essential component of green revolution. Over the past two decades, the world consumption of chemical fertilizers has doubled from 69 million tones in 1970 to about 146 million tonnes in 1990. Total sales of pesticides has increased from \$US 7,700 millions in 1977 to \$ US 25,000 millions in 1992.

Fertilizers are easily washed away by drainage water. Nitrates and phosphates when wasted away into rivers and seas, cause dense algal growth that harms fish and other aquatic life. The contamination of ground water is a major problem in many European countries and US. In the case of pesticides 90% of it did not reach the target pests and these chemicals contaminate land, water and air.

Thus the environmental impact of industries affect various sectors like land, water and air. The impact extends over the entire chain of events from raw materials extraction, manufacturing process to the disposal of wastes. They involve the release of harmful gases, solid wastes and numerous other effluents, some of which are highly toxic. Until a few years ago, environment and the concept of sustainable development did not appear in the consciousness of

industries. This is gradually changing and industry has now come to assume an important role in dealing environmental concerns. The environmental awareness of the public is forcing industry to change to environmental friendly products. In fact the success of controlling most environmental problems depend to a large extent on redefining industry and its role in society.

#### Energy:

Consumption of the world's commercial energy is heavily concentrated in the developed countries. These countries with about 22 per cent of the total world population account for about 82 per cent of the total world consumption. The other 78 per cent of the population living in the developing countries consume only about 18 per cent. The per capita commercial energy consumption in the OECD countries is about ten times that of the per capita consumption in the developing countries.

The relation between energy and environment is complex and is constantly evolving. In the early 1970s the focus of environmental impact of different energy sources was on issues like smog which had a direct and immediate effect on

public health and the physical environment. In the 1980s increasing scientific evidence enabled the analysis of inter-dependent and long term environmental effects like trans-boundary acid deposition, accumulation of carbon dioxide in the air etc.

The amount of energy consumed by a particular society is dependent on many factors like per capital income, level of economic growth, available technologies, life styles and mode of transportation. Over the past two decades, many developed countries, have succeeded in reducing the environmental impact of the production and use of energy in the above mentioned factors by developing better technologies and adopting better modes of regulatory and institutional levels. These efforts are still on progress while the developing countries have a very long way to go towards energy use and efficiency.

#### Transportation:

The economy of a nation is heavily dependent on the transport systems of the nation. It plays a major role in trade and is the source of movement of goods and people from

one place to another. The development of transport systems has made the world a smaller one by breaking the barrier of distances and time. The economy of the industrialized countries is based on its transportation system. And their transport policies were based on motor vehicles. According to some estimates the annual increases in the number of motor vehicles has averaged 10 million cars and 5 million buses and trucks world wide. If the present trend continues one billion vehicles will use the world's roads by the year 2030. Out of this, 80% of the car population is concentrated in the industrialized world.

The effect of transport on environment is twofold. One is the emission of noise and pollutants and the other is the use of large areas of land for the construction of roads destroying natural habitats and ecosystems. Emissions from transport sector represents a large share of the overall emissions from human activity. On average, emissions from mobile sources in the OECD countries has increased by between 20% and 75% from 1975. Today in the industrialized world 70% to 90% of all carbon monoxide, 40% to 70% of nitrogen oxide and 50% of total hydrocarbons are emitted from motor vehicles.

### Population:

The problem of over population has long since occupied the minds of the Third World countries and has been an important tool in the hands of the West to point out to the Third World, as the main source of its environmental problems. It, no doubt, is an issue that demands immediate attention. According to UN population projects, world population will increase from 5.48 billion in 1992 to 10 billion in 2050 and level off at over 11.6 billion in 2150. Some 97 per cent of this increase will be in developing countries with 34 per cent growth in African and 18 per cent in South Asia.<sup>18</sup> Such increase is bound to have a serious impact on the natural resources and hence the environment of the world. These increases will place the already overburdened national resources of the Third World under heavy pressure. It will take enormous resources to provide their population with the basic needs of food, clothing and shelter. As of today, half of the developing world's population is below poverty line and environmental concern is unlikely

---

18. "World Environment : Time for Action - II", National Herald, New Delhi, 16 December 1992.

to loom large in the minds of such people. And the environmental impact of such population growth is both direct and indirect. For example, population growth is the major reason for deforestation. More than commercial logging, much of the forest cleared (85%) in developing countries become cropland for growing population that cannot be accommodated in existing farmland.<sup>19</sup> Thus it is in the hands of the governments of the developing countries to take serious steps to tackle the problem.

#### Tourism:

Tourism has emerged as a large industry since the Second World War. Post war affluence and the cheap and fast mode of transport by air has enabled its emergence and at present it is the second largest item in world trade, next only to oil. The number of international tourist arrivals has increased from 160 million in 1970 to 439 million in 1990. In some parts of the world like Caribbeans, Kenya, Costa Rica and Nepal, tourism is a major foreign exchange

---

19. "Pushing the Limits", Paul Harrison, Bangladesh Observer, (Dacca), 9 May, 1990.

earner and in 1988, tourism brought an impressive \$US 55 billions to the developing countries.

Environmental impact of tourism depends on how the places of tourist attraction are developed for infrastructure and managed. If the planning is adhoc without any regard to the environment, it will destroy the very place of attraction. Problems like depletion of ground water reserves, destabilization, erosion of soils and the destruction of natural areas and ecosystem threatens the survival of some species. However, tourism is a relatively easy mode of earning foreign exchange. Governments will not be willing to give it up. Hence awareness of the needs and problems of tourism and careful planning of such places is a better approach to make tourism a more viable trade.

As the importance of this interdependence between environment and economy gained momentum in the last 20 years, the concept of unmindful economic growth at any cost, has been replaced by the concept of "Sustainable Development". In 1987, the World Commission on Environment and Development set up by the United Nations in 1984, under the Chairmanship of Gro Harlem Brundtland, Prime Minister of

Norway, published its report titled "Our Common Future". This report recognized sustainable development as the prime need of the hour and defined it as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs..." The importance of this approach towards economic growth and development was the main focus in the subsequent United Nations Conference on Environment and Development in Rio de Janeiro in June 1992.

#### UNITED NATIONS CONFERENCE ON ENVIRONMENT AND DEVELOPMENT

This was the largest and most complex conference ever organized by the U.N. It was attended by 177 governments and there were some 120 heads of state at the Summit that concluded the conference. The conference, more popularly known as the Earth Summit, was established by the UN General Assembly resolution 44/228 of December 1989. The agenda for the conference included an array of complex environment and development issues, like "the relationship between environmental degradation and the structure of the international economic environment." Thus the issue of economic development was hooked to that of environment. The resolution also



talked about the need to identify "new and additional financial resources for developing countries and about transfer of environmentally sound technology on concessional and preferential terms to the developing countries. These issue raised a very fierce debate later in the conference and the final declarations were a compromised lot.

The conference generated five formal documents : treaties on climate change and bio-diversity; a statement on forest principles; the Rio Declaration; and the action programme, Agenda 21. None of these treaties were devoid of controversy or compromise.

The convention on climate change aimed at reducing CO2 emissions and thereby greenhouse effect and global warming. The EC played a leading role insisting that the treaty nations pledge at a minimum of stabilising CO2 emissions at 1990 levels by the end of this decade even if that requires strong measures such as special taxes on natural gas, oil and coal.<sup>20</sup> The US was not prepared to sign such a treaty for economic and political reasons. US officials feared

---

20. Earl Lane, "Warm War Follows end of cold War"  
Deccan Herald, (Bangalore), 22. April. 1992.

that reducing CO2 emissions using taxes will cost much. Instead the US wanted each nation to draft its own climate action plan with flexible goals that did not focus solely on CO2 but on greenhouse gases as a whole.<sup>21</sup> When the US refusal to sign the treaty threatened to stall the Summit, a compromise was worked out. It merely stated the aim of returning green house gases individually or jointly to their 1990 levels which in principle should be carried out in an equitable manner by industrial and developing countries according to historic responsibility, state of development and capacity to respond.

The main objective of the bio-diversity treaty<sup>22</sup> is the conservation of biological diversity, sustainable use of its components and fair and equitable sharing of benefits from the use of genetic resources. The treaty was the result of the demand by the developing countries for a greater share of the economic benefits arising from the use of resources within their boundaries and the apprehension about the

---

21. "Pro-US Agreement on Environment," Tribune, (Chandigarh), 10 May, 1992.

22. John Holmbery and others, Facing the Future: Beyond the Earth Summit; International Institute for Environment and Development, 1993, pp.20-21.

accelerating rate of loss of bio-diversity. The treaty required all parties to develop national strategies for the conservation and sustainable use of biological diversity. An important provision of the treaty was the obligation of each party to share benefits arising from commercial use of genetic resources with the party providing the resources. This was the source of the strongest US objections to the treaty. The 2nd bone of contention was the financial support each party was to provide in accordance with its capabilities for national measures to achieve the treaty's objectives. The US feared that this could enable the developing countries to extract limitless funds from the wealthy nations for preserving the endangered species and could hinder the continuous access of America's biotechnology and pharmaceutical industries to those species found in the developing countries. Thus US refused to sign the treaty.

The issue of forest was rigged with arguments dividing nations on a North-South line.<sup>23</sup> Much of the North, notably

---

23. John Holumbery, no.22, p.28.

Canada, Sweden, US and UK argued that forests although situated in national territories are of global importance principally for their bio-diversity and climatic regulations functions. These countries argued that a league of super-national control of forests is desirable and therefore proposed a legally binding convention on forests. The South led by Malaysia and India, stressed the sovereign right of countries to use their forests for their development. Thus the Forest principles agreed at Rio are non-legally binding statement for a global consensus on the management, conservation and sustainable development of all types of forests. These principles reflect the first global consensus on forests.

### Rio Declaration

Rio declaration<sup>24</sup> or the Eath Charter, was a statement of 27 principles on the central objective of the conferences - sustainable development and greening of the world's economic growth. This declaration was an important outcome of the conference and was unanimously accepted by all the 177

---

24. Reprinted in, Year Book of United Nations, 1992, Martimus Nijhoff, The Netherlands, 1993, vol.46, pp.670-672.

members of the conference. A study of these principles brings to light the unequivocal inter-dependence of development, environment and economy. The charter places human beings at the centre of concern for sustainable development. It addresses most of the issues that will govern the future trends in international politics - a conglomeration of issues pertaining to development and environment. The right to development; integration of environment and development; eradication of poverty as the pre-requisite for sustainable development; finance and transfer of technology to the developing countries to achieve the above; the inter-related importance of national environment standards, trade, and the movement of waste and dirty industries; use of environmental considerations as disguised trade restrictions; and the need to internalise environmental costs through the polluter pays principles were some of the important issues addressed in the charter that would play a vital role in the future trends.

## Agenda 21

Agenda 21<sup>25</sup> was envisaged as the programme for implementing the principles enunciated in the Rio declaration. It was meant to offer clearly articulated objectives, targets, strategies and an allocation of institutional roles. The document covers important issues related to environment and development. Section-1 deals with international economic issues with the rationale that sustainable development will be difficult to pursue unless the international economic climate is supportive. It highlights the linkage between issues like trade, debt financial flows, macro-economic policy framework and sustainable development. Section-2 deals with sectoral issues like forestry, agriculture, oceans, atmosphere and wastes. Section-3 includes the importance of major groups like women, youth, farmers and NGOs. Section-4 deals with issues like financial resources, technology transfer, capacity building and international institutions. The main achievement of Agenda 21 is that it provides a comprehensive inventory of the issues pertinent

---

25. Agenda 21, United Nations Conference on Environment and Development, Rio de Janeiro, Brazil, June 1992.

to sustainable development and highlights linkages between them and suggests principle action of programmes.

The UNCED unequivocally signalled the coming of age of the interdependence of development and environment. The two are no more viewed separately and nowhere was the interdependence so forcefully expressed. A key clause in the preamble of Agenda 21 states that it "reflects a global consensus and a political commitment at the highest level on development and environmental co-operation". A look at the statement by Maurice Strong, the General Secretary of the conference stating that "the Earth Summit was a Summit about economics" and the various principles of both the Earth Charter and Agenda 21 clearly reflect that the conference has set the path for the future of environmental policies which is likely to be dominated by the following trends.

First, it no longer pays for any state or political leader to be unaware of the environmental dimension of economic growth, or to play it down. The severe criticism of US for its negative attitude towards the environmental issues is an apt example of this. Though the US was dictat-

ed by its domestic political and economic reasons, it was widely realized that in the future such an attitude will not be in the interest of any society. Second, the conference has set the new agenda for future North-South relationship. While the developed North expects less developed South to drastically control its population, the production of CFCs, emissions of carbon dioxide and preserve its tropical forests, the South demands more financial aid and transfer of cleaner technologies from the North. The consumption pattern of the North and flow of wealth has also come under heavy attack from the South drawing attention to its rampant poverty and thus expecting the North to remove the barriers in the world economic and trading systems that has made sustainable development in the Third World more difficult.

In practical terms, the outcome of UNCED will result in environment and economy co-existing as the two sides of the same coin. Industry is increasingly becoming "Green" with the public becoming more aware of environmentally friendly products and rejecting the unfriendly ones. Proposed measures like banning of products produced using environmentally unfriendly technologies can impair the economy of the developing countries and act as new unfair trade barriers



against which they are ill equipped. The developed nations are no longer willing to transfer aid to the developing nations without firm commitments from them. Thus the developing countries must awaken to the situation and tackle the problems of population, poverty and environmental degradation in their own interest. If the issue of environment and economy are not balanced properly, there is the danger of the crisis deepening into one of conflict among nations. It is in the hands of the nation to prevent this from happening.

## **CHAPTER II**

## CHAPTER II

### THE EVOLUTION OF EUROPEAN COMMUNITY ENVIRONMENTAL POLICY

The environmental policy of the European Community (EC or the Community) began in October 1972 at the Paris Summit of Heads of State and Governments. As discussed in the previous chapter, by 1970s environmental concern had started gaining ground in the political consciousness of the world. In Europe too, the predominance given to economic growth had created serious environmental problems. It was felt that economic expansion is not an end in itself but should result in a better quality of life. It also became clear that in order to control the transboundary nature of environmental problems and eliminate distortions in competition due to major differences in environment policy among different members of the Community, action at the Community level was required. The environment policy of the European Community, till date, is predominantly dictated by these three reasons, namely - better quality of life; prevention of pollution and elimination of trade distortions.

The Community, thus, through its Paris Communiqué, recognised and stated that "economic expansion is not an end in itself" but should lead to "the constant improvement in the living and working conditions of the Community's people....." It officially acknowledged the challenge of protecting the human environment. The Summit further called on the Commission to work out an action programme in the environment. And on 22 November 1973, the European Council adapted the First Environmental Action Programme (EAP), submitted by the Commission.<sup>1</sup>

The primary objectives and principles of the Community's environment policy were laid down in this first EAP and continues to the present. The objectives were: to prevent pollution; to maintain satisfactory ecological balance; to improve the working conditions and quality of life; to incorporate environmental consideration in town planning and land use; and to seek common solution to environmental problems in international organisations. The major principles were: Prevention of pollution at source rather than controlling it; integration of environmental policy with

---

1. Official Journal (OJ); European Commission; No.c112, 20 December 1973.

economic and social developments; and the polluter pays principles (PPP) which means that the cost of preventing and repairing environmental damage should be borne by the polluter.

**Legal Basis for the Policy:**

The Treaty of Rome, which established the European Economic Community in 1957, did not have any provision for an environmental policy. Its primary goals were to form a common market; to improve the standard of living of their citizens and to strengthen ties between the member states. The Treaty was overwhelmingly economic in objective and made no mention of environmental concerns and provided no explicit legal basis for a body of Community environmental policy.

The impetus to the environmental laws came from the provisions of Article 30 of the Treaty guaranteeing the free movement of goods and services between Member States. As a result, environmental initiatives were pursued under the Articles 100 and 235 of the Treaty. Article 100 covering the 'harmonization of laws which directly affect the establishment or functioning of the common market' provided the

rationale for environmental legislation that dealt with products like dangerous chemicals and motor vehicles. It also provided a satisfactory basis for legislations in spheres like water quality, noise emission etc, where different national standards could confer unfair trading advantage on certain enterprises.<sup>2</sup> Article 235, allows the Community to take measures which 'prove necessary to attain one of the objectives of the Community' not expressly provided by the Treaty. This article was invoked to legislate in areas that could not be included under Article 100.

#### **The Single European Act, 1987**

The Treaty was modified by the Single European Act (SEA),<sup>3</sup> which came into force on 1 July 1987. For the first time SEA acknowledges the need to combine free trade objectives with a high level of environmental protections, as well as the desirability of pursuing environmental objectives as a legitimate end in itself.

---

2. David Freestone, "European Community Environmental Policy and Law" in Robin Churchill & others, ed., Law, Policy and the Environment, (Basil Blackwell Ltd., Oxford), 1991, p.136.

3. O.J.; European Commission; No.L 169, 1987.

The SEA has introduced a series of three new articles - 130R, 130S and 130T- on environment to Part Three, under Title VII of the Treaty.

Article 130R paragraph 1, defines the objectives as;

- to preserve, protect and improve the quality of environment.
- to contribute towards protecting human health, and
- to ensure a prudent and rational utilization of natural resources.

Article 130R paragraph 2, sets the following principles of the Community's environment policy: Preventive action should be taken, environmental damage should as a priority be rectified at source; and that polluter should pay. the 3rd paragraph of the Article, obliges the Community to take account of the following factors while preparing its action relating to the environment: available scientific and technical data; environmental conditions in the various regions of the Community; the potential benefits and costs of action or lack of action; and the economic and social development of the Community as a whole and the balanced development of

its regions. Article 130T paragraph 4 states that the Community shall "in order to achieve the objectives set in para 1, take action relating to the environment at the Community level than at the level of the individual member states". Para 5 of this Article highlights the need for international co-operation.

Article 130S provides specifically for the enactment of environmental legislation and establishes the decision making power. Legislation based on Article 130S must be agreed unanimously by the Council of Ministers and involves the consultation procedure.<sup>4</sup> Under this procedure, the Commission sends a proposed act to the council, which is usually required to request the opinions of the European Parliament and the Economic and Social Committee. However, the article also allows the council to decide - by unanimity - to define matters on which decisions are to be taken by a qualified majority.

Article 130T allows the Member States to adopt stricter measures than the Community to protect the environment pro-

---

4. Cynthia whitehead, ed., European Community: Environmental Legislation, Vol.1, (Luxembarg), 1992, p.15.



vided they are compatible with the Treaty.

The SEA recognises the complicated relationship between environment and the internal market. Article 100A is the basic provision under which the single market legislation is enacted and it provides for the harmonization of Community laws to enable the establishment of a single, unified market by 1992. Under this article the Community has powers to adopt laws relating to health, safety, environment and consumer protection on the basis that they are of concern to the internal market. Through Article 100A the Community has sought to combine two of the main objectives of the Treaty: the achievement of the internal market and the establishment of high level of environmental standards within the Community. It is felt that development of such standards is consistent with, and sometimes necessary for, the protection and improvement of the future competitive position of the Community's industries.<sup>5</sup>

---

5. Ibid., p.84.

Analysts of the environmental provisions of SEA note the tension<sup>6</sup> between Articles 100 A and 130S. Under Article 100 A, only a qualified majority vote of the Council is required to pass a resolution into law, on the other hand, Article 130S requires an unanimous decision of the Council for the enactment of environmental laws. Thus the attempts to determine whether each new piece of environmental legislation is a harmonization measure capable of being adopted by a qualified majority under Article 100A, will undoubtedly lead to heated debate in the Council. If the member states determine that the new legislation is not such a measure, then unanimity is required to pass the resolution. This might be difficult to achieve as environmental regulations affect member states differently.

**EC's Environmental Action Programmes:**

Till date the EC has adopted five environmental action programmes. The First Programme (1973-76)<sup>7</sup> discussed in

- 
6. Tamara Raye Crockett and Cynthia B. Schult, "The Integration of Environmental Policy and the European Community: Recent Problems of Implementation and Enforcement", Columbia Journal of Transnational Law (New York), vol.29, no.1, 1991, p.177.
  7. Official Journal (OJ), n.1.

detail above, contained essentially a large number of specific measures with definite time frameworks within which the Community's actions were proposed to be put forward. The Second Programme (1977-81)<sup>8</sup> updated and extended the first. Both these programmes listed a number of remedial measures by and far, seen as necessary at European level. (Over the first ten years of Community environmental policy, the preventive approach emerged as the central principle). With the adaptation of the Third Programme (1982-86),<sup>9</sup> the principles which underlie the Community environmental policy began to emerge more clearly. The programme emphasised the integration of environmental concern into other national and Community policies to achieve the objectives. The Fourth Programme (1987-92),<sup>10</sup> re-inforced the urgent need to tackle the growing problems of environmental degradation and the establishment of strict standards. The programme voiced the need to modify the role of industries in accordance with the changing environmental concern. In the light of the growing awareness of the public demand for improved environmental

---

8. O.J., European community, No.C 139, 13 June, 1977.

9. O.J., European Community, No.C 46, 17 February, 1983.

10. O.J., European Community, No. C328, 7 December, 1987.

standards the EAP realised that the EC's industries will not be successful unless they increasingly strive towards meeting such standards and produce environment friendly goods. Thus by the end of the fourth EAP high standards of environmental protection had move to the centre of EC's concern.

The Fifth EAP (1992-2000) is guided by the environmental principles expressed in the as European Union Treaty signed at Maastricht on 7 February, 1992. This programme titled "Towards sustainability" has as a principal objective "the promotion of sustainable growth respecting the environment...."<sup>11</sup> It defines sustainable development as "a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development, and institutional change are made consistent with the future as well as present needs".<sup>12</sup> The ulti-

---

11. Commission of the European Communities, Com (92) 23 Final, Propoal for a Resolution of the Council of the European Communities on a Community programme of Policy and action in relation to the environment and sustainable development, vol.1, (Brussels), 27 March, 1992, p.2

12. European Parliament, Session Documents, A3-0363/91, 4 December 1991, Report of the Committee on Environment Public Health and Consumer Protection on EC participation in the United Nations conference on the Environment and Development (Luxembourg),

mate aim of the programme<sup>13</sup> is to transform the patterns of growth in EC in such a way as to reach a sustainable development path. The implementation of this objective demands considerable change in almost all major policy areas in which the EC is involved. It requires that considerations of environmental protection be integrated into the definitions and implementation of other EC policies. The programme addresses many of global environmental issues like climate change, acidification; water pollution; waste management etc. It seeks the co-ordinated interaction between the main groups of "actors" (government, enterprise, public) and principal "economic sectors" (industry, energy, transport, agriculture, tourism) through the use of an extended and integrated range of instruments (improvement of environmental data; scientific research and technological development, financial support mechanisms). The programme opines that without such an overall EC framework within which all these activities can be integrated and co-ordinated, the actions of large individual member states can jeopardise the

---

13. Commission of the European Communities, Com(92) 23 final, Towards Sustainability: A European Community Programme of policy and action in relation to the Environment and Sustainable Development, Vol.2, (Brussels), 27 March, 1992, p.25.

achievements of the EC in other policy areas, especially the internal market.

### **Principles Underlying the Environmental Policy of EC**

The principles that govern the environmental policy of the Community have evolved gradually through the numerous Directives over the past two decades. The policy which was developed in adhoc manner has reached constitutional status with the SEA and the Fifth EAP clearly states the principles of the Community's environment policy, namely the precautionary principle; the polluter pays principle; the principle of subsidiary and the concept of shared responsibility.

#### **1. The Precautionary Principle:**

This principle has guided the Community environmental policy right from the beginning. It was adopted as one of the main themes in the First EAP and subsequently remained valid in all the Action Programmes. It expounds the idea that social and economic developments should be undertaken in such a way so as to prevent environmental problems. The resources of the environment were recognised as constituting the basis of and also setting the limits to further economic

and social advances. It became a central focus to that that the new objectives were to be achieved by taking into account environmental considerations while formulating other national and Community policies. This obligation is now firmly enshrined in the Treaty of Rome by the amendments of the SEA (Article 130 R, Paragraph 2).

The various standards set under this principle together with the growing awareness of the public about environmental concerns, has forced industry to employ clean technologies. Thus it is realised that the best environmental policy consists in preventing the creation of pollution at source, rather than subsequently remedying their effects. Scientific research and technological progress are increasingly being encouraged to conceive and direct this aim, taking into account the concern for protection of the environment and the improvement of the quality of life, at the lowest cost to the Community.<sup>14</sup>

---

14. O.J., "Restatement of the objectives and principles of a Community Environment Policy", European Community No.C139, 13 June, 1977, p.1.

## 2. The Polluter Pays Principle (PPP):

The EC adopted this principle in 1973. In 1975 a Council recommendation was passed and being only a recommendation was not legally binding. It was raised to the status of a constitutional principle in 1987 by Article 130R paragraph 2 of the SEA. The purposes of PPP is two fold. One, to encourage rational use of scarce environmental resources, and two, to avoid distortions in international trade and investment which would be incompatible with the proper functioning of common market. Under PPP, a polluter is defined as "someone who directly or in-directly damages the environment or who creates conditions leading to such damage." The philosophy underlying this principle is that: natural or legal persons governed by public or private law who are responsible for pollution must pay the costs of such measures as are necessary to eliminate that pollution or to reduce it so as to comply with the standards or equivalent measures.....laid down by the public authorities".<sup>15</sup>

---

15. Council Recommendation, "Communication from the Commission to the Council regarding cost allocation and action by Public authorities on environmental matters, 'Polluter Pays Principle', 75/436/EEC, reproduced in Cynthia Whitehead, ed., n.4, pp.7-12.



PPP applies to a variety of measures that individual OECD and the EC member states have adopted or may adopt to reduce pollution. Sanford E. Gaines believes that PPP might play a prominent role in international environmental problems.<sup>16</sup> He cites the example of the agreement reached in 1990 at the London meeting to amend the Montreal Protocol. In this meeting, industrialised nations, who are the major producers of CFCs agreed to render financial aid to the developing countries to help them adopt more expensive technologies and materials. As the aid is contributed by the major CFC producing countries who have benefited economically from it, this agreement in Gaines' opinion confirms in the abstract to the essence of PPP.

### **3. The Principle of Subsidiarity:**

The principle of subsidiarity ingrained in Article 130R paragraph 4 of the SEA, states that the Community must act only where the objectives can be attained better at Communi-

---

16. Sanford E. Gaines, "The Polluter Pays Principle: From Economic Equity to Environmental Ethos", Texas International Law Journal, (Texas), vol.26, no.3, Summer 1991, pp.493-94.

ty level than at the level of individual member states. The seeds of this principle lies in the first EAP which advocates that environmental protection measures should be taken at the most "appropriate level". This orientation has considerably restricted the Community power over legislative authority in environmental matters. This subsidiarity principle is "clearly a step backward". The SEA is often criticised in the light of this principle, for the above reason.

#### 4. The Principle of Shared Responsibility:

The principle of shared responsibility involves "a mixing of actors and instruments at the appropriate levels without calling into question of the division of competence between the Community, the member states, the regional and local authorities". It is based on the understanding of complex and multimedia nature of environmental problems. It reflects the realization that an integratal approach is empirical for environmental management. Sustainable development, the goal set out in the Fifth EAP demands drastic changes in the approach towards development. The co-

ordinated action<sup>17</sup> of all the factors involved is imperative at this level. The principle of shared responsibility is envisaged as the tool to achieve this goal. "Unfortunately the Single Act's acceptance of environmental protection as a component of other policies and its treatment of Community competence as subsidiarity to national competence in the environmental policy field may prove problematic",<sup>18</sup> in the implementation of EC's directive.

#### **Legislation and Implementation of Community Environmental Policy:**

The European Community has adopted four different types of legislative procedures. They are:

- (1) non-binding recommendations and resolutions;
- (2) regulations that are binding and directly applicable in all member states;
- (3) decisions that are directly binding as to the persons to whom they are addressed, including member states, individuals and legal persons;

---

17. See also "Fifth EAP" in page no.49.

18. George A. Bermann, "The Single European Act: A New Constitution for the Community?", Columbia Journal of Transnational Law, Vol.27, 1989, p.560.

(4) directives which must be implemented by the laws or regulations of the member states within a designated time limit, normally eighteen months to two years.

Most of the Community legislation on environment over the past two decades has been through directives. The necessity of relying largely on Article 100 as the legal base in the early development of environmental legislation dictated the use of directives since Article 100 concerned with harmonisation, authorises actions only through directives.<sup>19</sup> The attempts to adopt regulations which are legally binding, as the tool of legislation has been thwarted by some member states who are afraid of the cost which such binding legislation will impose on implementation. The use of directives is continued under SEA, Article 130R paragraph 4. Under this Article, the Community defines the objectives, sets the standards and lays down the procedure while the member states are required to incorporate these objectives, standards and procedures into their bodies of national laws.

---

19. David Freestone, n.2, p.145.

**Implementation:**

The task of implementation of the directives is entrusted to the Commission, though this power is very superficial.

It is the duty of the Commission to ensure that its provisions are incorporated into national laws and within the specific time frame. It also has the duty to ensure that the national laws are being implemented in a way that will realise all the aims and objectives of the directives.

**Means of Redress:**

Cases of non-compliance, misuse or mis-interpretation of Community laws by the member states is brought to the court by the Commission. The implementation of EC environmental policy requires that breaches be reported independently. Thus the Commission takes the initiative often on the basis of information on breaches brought to its notice by individual citizens or organisations. Various pressure groups, especially the environmental groups play a vital role in this respect. The Commission is duty bound to investi-

gate the issue reported in the complaints. The Commission seeks and obtains information from the member states concerned. If it is satisfied that a case needs to be answered, it then gives formal notice and if the member states disputes the allegation or does not correct the pursued infringement, then the Commission refers the matter to the European Court of Justice (ECJ) which is the guardian of the Treaties and Community law. It is the court which decides whether the charges are true. Where it concludes that the infringements are true, the concerned member state is directed to take the necessary measures to comply with the judgement. The court can only direct a members state. It is not empowered to impose further sanctions. However political pressure on the member states to comply with the court's judgement is considerable and usually the member states comply with the court's judgement.

#### **Actions in Specific Sectors:**

The EC's actions on environment under the first four EAPs were mostly concerned with specific sectors and the principle of preventive approach directed the EC to concentrate on pollution arising from different media. Thus the

environmental directives were mostly sectoral, based on air, water, waste etc. When research and scientific evidence threw light on the interdependence of these sectors and cross media pollution, the limits of the sectoral approach became apparent. This led to the proposal of cross media approach towards pollution in the Fourth EAP. This approach has gained grounds since and the Fifth EAP incorporates a number of principles aimed towards this approach.

The EC's legislation on environment can be broadly classified under the following sectoral headings: Water; Air; Chemicals; Noise; Nature and Waste. A brief study of EC's directives in these areas enables one to understand and assess the Community's environmental policy.

#### Air:

The EC was motivated to adopt legislation to control air pollution due to the severe problem of acid rain and the EC adopted control measures for sulphur dioxide and nitrogen oxide. However, air pollution measures were hindered by the energy crisis of the 1970s. The damage caused to forests in northern Europe by acid rain forced the member states to opt for stricter measures. EC's policy to curb air pollution is

(v) Chlorofluorocarbons (CFCs): As the Community is increasingly becoming a leading actor in the global environmental management, its concern over CFC also has increased. Though the Community is a party to the Montreal protocol, the Council has passed a resolution in 1989 agreeing to ban most CFCs by the end of the year 2000. The Commission has proposed a unilateral phasing out by 1997 and an 85 per cent reduction in use by 1995.

Two of the most contentious issues in the EC in the arena of air pollution is the use of catalytic converters and the lean burn engine. Motor vehicle emissions account for almost half of man-made pollution within the EC. Regulation of these emissions is an important task of EC's pollution policy. The fitting of catalytic converters and use of unleaded petrol are the means by which the Community is aiming to achieve the goal.

**Water:**

Legislation to combat water pollution is the oldest and the most comprehensive sector of the Community environment policy. It is the most actively engaged sector and was



given priority in the First EAP. Since then more than twenty-five directives and decisions have been adopted in this sector, covering both fresh water and sea water. The Community's policy in this sector is in two forms. The first consists of emission standard and the second establishes water quality objectives which must be met for water used for specific purposes, like drinking, bathing etc. The legislation in this sector covers a wide range of subjects like detergents, surface water for drinking, marine pollution and discharge of dangerous substances. It is not within the scope of this study to examine each of these in detail. A few important directives are taken to highlight, both the successes achieved and failures faced in this sector.

One of the landmark directive by the EC to combat water pollution is the 1976 directive on Dangerous Substance Discharges. This is a framework Directive which provides for the elimination or reduction of the pollution of inland, coastal and territorial waters of dangerous substance, by means of 'daughter directives' setting emission limit values for particular substances. Under this directive, dangerous substances are divided into two categories under the Annexe

to the directive.<sup>21</sup> List I, known as the "Black list" provides that pollution through the discharge of various substances under this list must be eliminated. Second or the "Grey list" defines those substances which member-states can allow to be discharged but only in controlled quantities. Due to the wide ranging application of the substances from which the dangerous substances are discharged, this directive aroused a heated debate over the standards for the discharge. The Uniform Emission Standards (UES) which places a quantifiable limitation on the amount of a given substance that can enter the environment, was acceptable to a majority of eleven member-states, with the exception of United Kingdom. The U.K. advocated the EC to set Environment Quality Objectives (EQO). Under this standard, the amount of substances emitted is superfluous as long as it does not reach concentration levels that could be harmful to the environment or human health. The difference was resolved through alternative harmonization - a member-state may choose to comply with either the UES or the EQO.<sup>22</sup> The

---

21. Cynthia Whitehead, ed., European Community: Environmental Legislation 1967-87 (Brussels, 1988), p.9.

22. Ibid., pp.8-14.

stand of U.K. was based on its desire to take advantage of its geographical blessing of fast flowing rivers, which carry pollutants out to sea.

A study into the difference of opinion surrounding this Directive would be useful in understanding the difference in the perception of the member-states towards environmental management.

While in the above directive, EC has succeeded to arrive at a compromise, it did not have any such success in its 1976 decision which set up a system for the monitoring and the exchange of information on the quality of rivers and water courses. The decision establishes 15 water quality parameters to be monitored but did not provide any guidelines. The specific measures needed for implementing the decision was left to the member-states. Here again, the weak enforcement mechanism of the Community and differences within the member-states became apparent. For e.g., while the monitoring stations in Belgium recorded measurements twice a year, those in the U.K. and the Netherlands recorded every week. The resulting information is unusable for a

regional evolution of water quality.<sup>23</sup>

Apart from these efforts to combat water pollution within Community, the EC also plays an active role in the international regulation of water pollution. The Community is a party to a number of international conventions including the 1983 Bonn Agreement for co-operation in dealing with pollution of the North Sea by oil and other harmful substances; the 1982 Law of the Sea Convention and the 1976 Rhine Chemical Convention.

**Waste:**

Waste disposal is an area of deep concern for Europe due to the enormous quantity and wide range of waste being generated. The EC countries combined together produce two billion tons of waste every year. Of this 150 million tons are industrial wastes of which 20-30 million tons are toxic and dangerous. The Community's policy response is partially due to the high economic cost of environmental damage caused by waste. Of the total waste produced in the Community,

---

23. Craig Reid, "The Enviromental Policy of EC: A Policy Unsure of itself", Towson State Journal of International Affairs, Vol.24, No.1, Fall 1989, p.32.

roughly sixty per cent of household waste is dumped, 33 per cent is incinerated and seven per cent composted. The waste treatment sector employs two million employees and involves around ECU 100 to 200 billion.

The first EAP called for measures to control waste and its disposal. Framework legislation came in 1975 in the form of a general measure, establishing a management system governing most forms of waste though it excluded some categories like nuclear waste, waste water and gaseous effluents. The basic policy of the Community's waste management has been set out by the successive EAPs. The objectives of this basic policy are:

- (i) to reduce the quantity of unrecoverable waste;
- (ii) to recycle and reuse waste to the maximum extent for energy and raw materials;
- (iii) to dispose safely of any remaining non-recoverable wastes.

The EC has adopted a number of directives in line with these objectives. A general directive on waste, requiring the member-states to designate the competent authorities to draw up plans for disposing of waste without endangering

human health or environment was adopted in 1975. Two other directives of importance in this sector are the 1978 directive on toxic and dangerous wastes which established a list of toxic or dangerous substances or materials and laid down provisions prohibiting uncontrolled dumping and tipping and governing labelling, storage, treatment, disposal and transport.

Transfrontier shipment of toxic waste has evolved as a major concern of both the industrialised nations which export them and to the less developed countries which import them. As governments in the industrialised countries are adopting stricter control on waste disposal, the industries which produce such waste find it easier and cheaper to transport the waste across to a country where the rules are not so strict and dump the waste there. This concept of "waste tourism" assumes increased significance in the wake of the completion of the Single Market where there is free movement of trade, goods and people.

The problem of Transfrontier shipment was addressed in the 1984 directive. This directive defines the shipment of

waste across national frontier, within, to and from the Community. It requires that if the waste is being shipped to a country outside the Community, the holder of the waste must obtain the acknowledgement of that country before beginning the notification procedure. The directive also sets out conditions for packaging and labelling the waste and holds that under the PPP, the costs of the procedure may be charged to the holder and/or the producer of the waste. The serious drawback of the directive is in the implementation procedure left to the member states. Each member-state decides the quantity or concentration of hazardous substances which are considered to pose health problems. Thus, in actuality there is no definition of what constitutes a hazardous substance. Furthermore, there is no provision for determining whose definition applies when member-states have conflicting definitions.<sup>24</sup>

The second directive of importance is the 1982 post-Seveso directive in response to the 1976 industrial accident in Italy. The directive called for a closed cycle trading system which means that all points from the production site

---

24. *ibid.*, p.31.

to the disposal site are monitored. The directive requires that government agencies be notified of the waste before shipment begins and to monitor it at several points before it reaches the final destination. The directive calls for fixed border crossings under which hazardous waste may cross borders only at designated points. As the directive covers the whole chain of waste disposal, it has rendered illegal or improper disposal difficult. This directive has been vital in developing guidelines for procedures to be taken in the event that hazardous waste are released in a major industrial accident.

**Chemicals:**

The Community has adopted three different kinds of approaches to regulate hazardous chemicals<sup>25</sup> depending on the appropriateness of the measure. The first is a series of directives since 1967 which has developed regulations for testing new chemicals. Second is the preventive approach well developed under the 1982 post-Seveso directive in

---

25. *ibid.*, p.38.



regard to major industrial accidents and finally a series of directives beginning in 1976 regulating the marketing and use of dangerous substances.

The most important Community action in relation to chemicals is the 1976 directive which is the sixth amendment of the 1967 directive on Dangerous substances.<sup>26</sup> It introduced a system for the pre-marketing notification and assessment of new chemical substances. It also establishes uniform conditions for the movement of chemicals throughout the Community by requiring the harmonisation of the tests to be carried out on new chemical substances before they are marketed.

In regard to the Community's legislation on chemicals, the Community has been able to enact very specific legislation in contrast to other areas where it has been forced to adopt only broad quality objectives and directives as in the case of legislations to control air pollution.

---

26. Commission of the European Communities, Ten Years of Community Environment Policy, (Brussels), March 1984, p.37.

**Noise:**

Measures to limit noise was initially motivated by the need to remove technical barriers to trade. There exists a wide gap in the noise control measure adopted by individual member-states. For e.g., while in countries like France and Italy, the national noise standards are not very high, those in countries like Denmark and the Netherlands tend to be very strict. The Community so far has adopted a number of measures which are concerned with the setting of maximum noise emissions from products, notably motorvehicles, motorcycles, aircraft, tractors, industrial plant and equipment, lawn-movers and household appliances. The rules of these directives require the manufactures of these items to provide details of noise levels. An important directive in this sector on the protection of workers from noise was adopted by the Council in 1986 under the framework of the Community's social action programme. This directive is aimed to reduce the risks from noise at the workplace to the lowest practical level.<sup>27</sup>

---

27. European Documentation, n.20, p.48.

**The Completion of the Single European Market and the Environment:**

The completion of the Single European Market and its impact on environment is an important impetus to the environmental policy of the EC. A report on this aspect titled "1992 and the Environment" was drawn up for the Commission.<sup>28</sup> This report referred to as the "Task Force Report" makes a complete analysis of the various anticipated problems, their causes and the necessary measures that will have to be adopted to tackle these impacts.

The Task Force Report notes that the single market with its deregulation and economic growth will give rise to additional environmental problems unless major changes are made in the EC's environment policy. The report also estimates that the completion of the single market will lead to the following trends: an eight to nine per cent increase in sulphur dioxide and nitrogen oxide emissions by 2010; an 30 to 50 per cent increase in commercial vehicle traffic; a widening gap between the amount of waste generated and the

---

28. European Community's, Opinion of the Economic and Social Committee, Environmental Policy and the Single European Market, (Brussels), Sept. 1991.

capacity of land fills, an increase in the level of agricultural pollution and an increase in tourism which may further strain the environment.

The aim of the Single European Market of having a borderless Europe with free movements of trade, traffic and labour undoubtedly will increase the use of energy, transport, in both passengers and freight, leading to increased air pollution and increased price competition, unless appropriate compensatory measures are taken.

The report places very clear emphasis on the interdependence between economy and environmental problems and investigates three very important questions in this regard. It looks into the conditions which are required to brake the linkage between economy and environmental degradation; opportunities provided by the completion of the single market for the development and use of environment friendly technologies; and the role of economic instruments to achieve environment quality.

The Task Force Report states the vital philosophy which governs the environmental policy of the Community, "that

environmental protection and economic development are not necessarily contradictory" and cites the dependence of major economic factors, like the need for good housing and sectors like tourism on the preservation of attractive areas by means of an active environmental policy. The Community also expects improved trading opportunities on the world market through the export of environmental friendly technologies.

**Integration of Environmental Policy with other Community Policies:**

The Community realises that in the single market there will be a need for tougher emission and product standards, and better quality control. This will mean not only the adoption of strict measure and standards for technology, but also a review of the concepts underlying individual areas of Community policies and integration of these policies with the policy on environment. The EC has sought to achieve this under Article 130R para 2 of the Single European Act.

The interdependences between the various sectors of economic activity and their impact on environment has been dealt in detail in Chapter I of this study. Hence, here an

attempt is made only to understand the orientation of EC in this area.

**Agriculture:**

The European Commission propose to ensure that agricultural policy and practice in the Community will pay more attention to environment and conserve priceless heritage of landscape and species. The EC focuses on measures 'to support agriculture in areas where it is essential for land use, maintenance of the social balance and protection of the environment' and on the needs 'to make farmers more aware of environmental issues'.

**Industry:**

The environmental policy of the Community has very direct effect on industry than on any other sector. Industry is the backbone of the economy of the Community and it is in the interest of the Community to integrate its environmental policy in this sector. This integration involves a wider context than specific measures of pollution prevention or control and environmental impact assessment procedures. The Community needs to take into account the overall

placement of industries' role in the society like the site and design of industrial installations; industry's choice of process and product, its approach to management of waste and the use of technologies.

The Community fully recognizes this interdependence and it is the Commission's clear policy to develop proposals for environmental protection legislation in close consultation with industry. The Commission, further aims to give advance warning of likely changes in legislation laying down stricter environmental standards or requirements sufficiently far ahead to give industry time to adjust and to enable the new standards to be taken into account in its future investment, policy and planning.

**Regional Policy:**

One of the important policies of the Community is its regional development policy which seeks to promote the economic development of the less developed or economically disadvantaged regions of the Community, thereby promoting economic convergence. Many of the projects financed from the Structural Fund are relatively large-scale infrastructure projects containing environmentally important or sensi-

tive zones. This has made it essential to integrate environmental requirements into the planning and execution of regional development policies. This has been put into practice under the structural funds which was reformed in 1988. Under this reform, orientation in regional policy shifted from being project-based to being primarily programme based. And recognising the need for environmental safeguards, the Commission introduced protection requirements into Community Support Frameworks.<sup>29</sup>

**Energy:**

Energy use is the direct cause of many environmental problems like acid rain and green house effect. Yet it is not possible to reduce the use of energy as all human activity is based on it and the industrialised economies are heavily dependent on energy. The only alternative is to use energy more efficiently and develop 'clean technologies'. Such measure is sure to affect the costs and competitive

---

29. European Parliament, Session Documents, A3-0170/92, 24 April 1992, Report of the Committee on Regional Policy, Regional and Local Authorities on the Impact of Community Regional Policy on the Environment (Luxembourg), p.9.



position of different industries and energy sources. The balanced pursuit of environmental and energy policy objectives are therefore of special importance and this fact is acknowledged by the Commission in its communication on energy objectives.

**Transport:**

It was projected that the completion of the single market would increase the commercial vehicle traffic by 30 to 50 per cent. Such an increase is bound to have serious environmental repercussions as the interaction between transport and environment is at the root of many environmental issues like noise, air pollution, and impact on landscape etc. Improving environmental acceptability of vehicle is important and the Community is well ahead in achieving this goal.

**Social Policy:**

This is a new area in which the EC is integrating environmental policy objectives. Numerous links between social policy and environmental policy, especially in the field of worker protection, professional education and

general labour conditions is being explored. The Community may venture into new areas of actions in the field of environmental protection policy which is of considerable importance for social policy like the function and the status of those responsible in industrial plants for the correct application of environmental protection regulations.<sup>30</sup>

**The Role of EC in the International Arena of Environmental Protection:**

The European Community has taken a lead role in the international effort to tackle environmental degradation right from the beginning. It was one of the first to respond to the 1972 Stockholm Conference and adopt action programme within its regions as early as 1973. Its role has increased along with the global awareness of the environmental problem. The findings in this arena over the past two decades establishing the transboundary nature of environmental problems has rendered it essential for the Community and its member-states to participate actively in international action for the protection of the environment.

---

30. Whitehead, n.4, p.94.

Accordingly, the Community is a signatory to a number of international conventions in the areas of air pollution, water pollution etc. These include the Paris Convention for the Prevention of Marine Pollution from Land-based Sources (1974), the Law of the Sea Convention (1982), Maritime Convention on the Safety of Shipping, the Geneva Convention on Long-range Transboundary Air Pollution (1979), the Convention of the Council of Europe on the Protection of Vertebrate Animals used for experimental purposes (1985) and more recently to the Montreal Protocol on substance that Deplete the Ozone Layer (1988), the Convention on Climate Change (1992), and the Treaty on Biodiversity (1992).

In the United Nations Conference on Environment and Development held at Rio de Janeiro in June 1992, the EC assumed the role of a global leader in environmental matters. It advocated drastic cut in the use of CFCs, and accepted the proposal to contribute 0.7 per cent GNP of the industrialised countries to help the developing countries to adopt more environment - friendly materials and use clean technologies.

The study of the Community environmental policy brings to light the following:

First, though the Community's environment policy has come a long way over the past two decades, acquiring constitutional status under the SEA, it is unclear whether the Act provide the Community with the authority to implement environmental policy. The responsibility placed on the member-states to adopt additional environmental measures, might in the future bring an EC environmental law into conflict with the national one. Though Article 100A para 4 offers a possible way out, a lot might depend on the political will of the member-states involved. The SEA also allows a lot of room for manoeuvring the member-states thereby hampering environmental legislation by the EC.

Second, the Commission is convinced that better competitiveness of Community industry on world markets in the future will depend on its ability to offer environmentally friendly goods and services. Environmental standards and technological innovation is expected to bring in new opportunities to the Community industry through new and growing markets for environment protection technologies. Thus the

pressures of the single market coupled with the need to protect the local industry might force the Community to close its market to products whose environmental friendliness is suspected. This could be of dire consequence for the Third World industries.

## **CHAPTER III**

### CHAPTER III

#### POLICY ATTITUDE OF GERMANY AND UNITED KINGDOM TOWARDS EUROPEAN COMMUNITY'S ENVIRONMENT POLICY

The environmental perspectives of Germany and the United Kingdom (UK) towards the Community's environmental policy brings to light a number of similarities and contrasts in the attitude of member states within the E.C. towards its policies. Germany as one of the founder members of European Economic Community (EEC) was instrumental in working out policy frameworks within the EEC. It was essential for the smooth working of EEC to evolve these policies based on consensus and bilateral cordiality with France. By the time the first EAP was drawn in 1973, Germany was well incorporated into the EEC and was once again a leading power in the European Continent.

#### **Germany:**

The emergence of environmental consciousness in Germany can be traced back to the 1969 Social - Liberal (SPD/FDP) coalition in power. Preparations for the 1972 Stockholm

Conference, had pushed environmentalism further up the scale of importance. The SPD/FDP coalition took environmental concern more seriously than any other State. It appointed a preparatory committee which tabled a proposal for environmental reform in 1971. This first programme adopted environment issue as a part of its "active" reformist policy package.<sup>1</sup>

The preparatory Committee proposals were widely applauded as a relatively credible and challenging environmental programme. A report on environmental conditions submitted by the Science Centre, Berlin, states "...the environmental plans drafted by the Social Liberal coalition appear an almost monumental achievement", especially so in the light of the just emerging ecological dimension in 1970s and the limited availability of information on environmental issues and procedural problems.<sup>2</sup>

- 
1. J.J. Richardson and N.S.J. Watts, National Policy Styles and the Environment: Britain and West Germany compared, (Berlin: International Institute for Environment and Society), p.28.
  2. Cited in, Harald B., Schaefer, "Programme for survival: Stern measures are needed to weather the ecological crisis" in Economy and Environment : The Current Political Debate in West Germany (New Delhi: Friedrich Ebert Foundation, 1991), p.5.



This programme established the basic principles<sup>3</sup> on which the environmental policy of Germany rests:

1. The prevention principle (what had later developed into the pre-cautionary approach not only in Germany but also in the European Community);
2. The polluter pays principle; and
3. The co-operation principle.

As the first two principles are dealt in detail in Chapter II, here it will suffice to quote the definitions of these principles given by the Federal Government of Germany.

The preventive principle was defined as "Environmental policies are not just limited to defense from threatened dangers and to cleaning up pollution; preventive environmental policy goes beyond this, referring careful use and conservation of the basic elements of nature". The PPP meant that "In Principle, the polluter is required to bear the costs resulting from environmental pollution".

---

3. Bernhard Glaeser, Environmental Policy : The Example of Federal Republic of Germany in International Context; (Berlin, Jermy Hodges, 1988), pp.23-25.

The co-operation principles states that "A balanced relationship between individual freedom and societal needs can come about on the basis of mutual assistance and responsibility on the part of those affected."

Over the past two decades, these principles have been made more specific and various policy instruments have been created to realise these principles. The scope of the preventive principle is widened by the understanding that risk prevention demands environment policy decisions where no actual danger exists but there is justified reason to suspect the existence of danger.<sup>4</sup> As a tool to this anticipatory environmental protection policy, the Act on Environmental Impact Assessment was enacted by the Federal government of Germany. This act has created the necessary basis for the increased application of PPP also. Through the co-operative principle, the Federal government aims at involving social groups as far as possible in defining and implementing objectives and measures of environmental policy. This principle relays to some extent on binding self-commitments and

---

4. Federal Ministry for Environment, ed., Environmental Protection in Germany : National Report of the Federal Republic of Germany for the United Nations Conference on Environment and Development, (Brazil), June 1992.

assurances. Instead of waiting until compulsory orders and bans are issued, the polluting industry voluntarily pledges to act in environmentally friendly manner or reduce emissions according to guaranteed time schedules.

**United Kingdom:**

The United Kingdom joined the EEC in 1973 at the end of EC's twelve years of transitional period. Unlike Germany which had shaped the Community policies to some extent at least, Britain entered an association which had considerably evolved and did so with some strong reservations, like the fear of losing its sovereignty. Environmental protection too turned out to be one such area.

This is in sharp contrast to the British image of nature lovers. The British are well known for their admiration of nature and are pioneers in town and country planning and clean air legislations. Some of its laws are among the first of their nature especially after the Second World War. Britain's anti-pollution regulation extends as back as 1273 when it passed legislation prohibiting the burning of sea coal. In 1947, Britain passed one of the most comprehensive

planning acts in the world, the Town and Country Planning Act. The 1952 Clear Air Act was the World's first comprehensive air pollution control act. In 1970 Britain created the world's first cabinet level environmental department.<sup>5</sup> But at the time of joining the EEC, Britain was more concerned about its economy.

"The Economist"<sup>6</sup> analysing Britain's economic situation on the eve of Britain's entry into EEC, reads:

"Britain, on the eve of joining the common market, is once again Europe's economic invalid. Unemployment at 3<sup>1</sup>/<sub>4</sub> per cent, is still excessive. Out put is only just recovering from six years of near-stagnation during which Britain has notched up barely 2 per cent a year growth. Industrial investment is at its lowest...Strikes in the past year have cost more working days than at any time since 1926. Inflation was rampant....with prices rising at an annual rate of 12 per cent...The money has been devalued another 10 per cent within five years of devaluation in 1967."

It is no wonder, that "the Community's first EAP was dismissed by Britain as excessively costly, insufficiently well founded on scientific evidence, and likely to be disad-

---

5. John McCormick, British Politics and the Environments, (London: EC Earthscan), 1991, p.9.

6. "Hello Europe", The Economist, 30 Dec. 1972, p.30.

vantageous to British industry and to economic growth".<sup>7</sup>  
The United Kingdom's response to environmental issues in general and to that of EC in particular is wrought with such reservations.

For a long time, Britain has been using the tall smoke stack to its advantage. Its relative success in the 1970s has made both the government and the public appreciate the method. The British approach to environment was one of treatment work of waste and pollutants and not their removal at the source. This is mainly because of its geographical advantage where it is isolated from the continental Europe and has fast flowing rivers which it does not share with other countries and the Atlantic gale which carries away most of its pollutants. Due to this geographical uniqueness, Britain has adopted the policy of "dilute and disperse" in regard to air and water pollution. Britain for a very long time believed that its views and winds have the capacity to disperse off the pollutants irrespective of the amount discharged into them. In contrast to this, Germany

---

7. Michael Franklin and Marc Wilker, Britain's Future in Europe, (Great Britain: Stephen Austin & Son Ltd), 1990, p.85.

finds itself at the heart of Europe sharing its great rivers like Rhine with, more than one country and being surrounded by industrialised countries, imports nearly half of its pollution. This makes it essential for Germany to opt<sup>e</sup> for multinational and Europe wide pollution abatement measures and treaties. On the other hand for Britain it is mostly a issue to be dealt with at national level.

These two factors have made Britain adopt the principles of dilute and disperse, in air and water pollution, and co-disposal in waste management. The principle of dilute and disperse is basically based on the uniqueness of Britain's geography and means that pollution spread over a vast area becomes harmless. For decades, this policy had led Britain to flush out all its emissions from power stations, industries and car, and sewage nutrients into rivers such as Thames and into the atmosphere. These pollutants end up on the other side of the North Sea and the Scandinavian countries respectively. This policy came under criticism by the House of Commons, Environment Committee of 1984. Britain has tried to tackle water pollution with the same approach by using longer pipes to dump the pollutants into rivers and seas. The principle of co-disposal involves the disposal of

both household and industrial dumping together. While the other industrialised countries separated these two and were more cautious to separate toxic and hazardous wastes, Britain mixes the highly toxic with normal rotting refuse. This is a cheap way to dispose of waste but is a very dangerous practice as it could lead to very serious accidents.

The British attitude and principle towards pollution control was not altogether wicked as it sounds. It was based on the available information of the 1970s and at a time when environmentalism has not assumed an holistic approach. As will be seen later, Germany too held views similar to that of Britain on acid rain issue till the 1982 Conference of the Acidification of the Environment. British policies came under severe attack only in 1980s when the other industrialised nations adopted themselves well to the evolving evidence of environmental problems. Britain still held on to its traditional approaches of cautiousness and consensus finding. The economic situation in Britain during 1970s and the early part of 1980s did not help brighten the picture. It only made British policy makers

and public more reluctant to spend that extra millions of pounds on environmental management, even in the light of growing scientific evidence. Only this reluctance to change its approaches under the circumstances earned Britain the title of "Dirty man of Europe". One more additional factor that played a very vital role in shaping British policies in 1980s was the attitude and priorities to economy accorded by Mrs. Margaret Thatcher. Her determination to revitalise the British economy, and emphasis on free enterprise, reductions in public spending and deregulation along with the traditional British policy of voluntary restraints, made Britain reactive to the issues rather than setting the agenda.

#### **Policy Approach of Britain and Germany:**

Environmental consciousness itself had just entered the EEC in the 1970s and the later was still predominantly pre-occupied with economic matters. Meanwhile in Germany within the SPD/FDP coalition (1969-82) itself there was a difference accorded to environmental matters between the Willy Brandt (1969-74) and Helmut Schmidt's (1974-82) governments. The Brandt government was in favour of far reaching reforms than that of Schmidt. The laws enacted under Schmidt were



notably weaker than their immediate predecessors and it became clear that "the industry was in a position to ensure that its interests remained protected at the implementation stage and disappointed environmentalists began to use the term 'Vollzugsdefizit' (implementation shortfall)<sup>8</sup> In Britain, Mrs. Margaret Thatcher came to power in 1979 with the promise of rejuvenating the British economy and promised to "roll back the State". The oil crisis of 1979 too did not help matters much in environmental realm. Thus once again the attention of all national governments were turned to that of economy.

Albert Weale opines that at the time of the second Oil Crisis in 1979, a comparative study of Germany's and Britain's environmental policies would not have been different from each other. Both were preoccupied with the problems of economic growth than with environmental problems and the legislations in the respective countries were ineffective to a large extent. However, from 1979 onwards, German environmental policy entered its "recovery phase" and its policy

---

8. W.E. Paterson, "Regulatory change and environmental protection in the British and German Chemical Industries", European Journal of Political Research, vol.19, p.311.

options on a whole range of environmental questions became divergent from those of the United Kingdom.<sup>9</sup>

These divergent policy approaches has promoted different types of policy styles between Germany and Britain. The useful framework to analyse these divergent approaches is provided by the study of two main factors. The first factor is the government's approach to problem solving, and the second main factor is a government's relation to other actors in the policy making and implementation process.<sup>10</sup> These approaches can be broadly classified into two styles, some governments appear to adopt an anticipatory active attitude towards environmental problems while others seem to adopt an predominately reactive approach to problem solving.

Britain's approach may be best characterised as having a policy style which places great emphasis on bargaining in the context of a very reactive approach to problem solving. Germany in contrast, followed an active policy style to be achieved through consensus, especially in the first half of

---

9. Albert Weale, The New Politics of Pollution, (UK; Manchester University Press, 1992), pp.61, 67.

10. J.J. Richardson, no.1, p.5.

the period, 1969-82. In the late 1970s, policy became more reactive, as the active policy style posed problems to consensus building, especially in the wake of the 1979 oil crisis. Again in 1980s, Germany reverted back to active anticipation policy approach. This was mainly due to new scientific evidence, the growing political importance of Greens (Government-actor interaction in policy process) and the economic growth which made it possible for Germany to take up environmental priorities without much difficulties.

British regulatory style is based on its tradition of consensus building and cooperative approach. The high degree of integration of (interest) groups in the unending search for a consensus is as much a feature of other policy areas in Britain, for example, as it is of regulation.<sup>11</sup>

A study of the environmental policy attitude of Germany and Britain including their two divergent approaches towards the policy of the Community, helps in understanding the reasons for these differing perceptions and the difficulties

---

11. J.E.S. Hayward, "Institutional inertia and Political Impetus in France and Britain", European Journal of Political Research, vol.4, no.4, 1976.

in implementing the environmental Directives of the Community.

#### Four Sectors Compared:

The four sectors, air pollution, water pollution, waste disposal and nuclear energy are taken as illustrations for comparing British and German environmental policies.

#### Air Pollution:

The efforts to tackle air pollution in Western Europe within the EC framework saw the most prolonged negotiations in the EC, due to the contrasting views of Germany and Britain. During the 1970's when Norway and Sweden spoke about acid rain and long range transboundary air pollution, Germany along with Britain had rejected the idea on terms of insufficient scientific evidence.

By the 1980s the problem of acid deposition due to air pollution faced by Germany became more serious than that faced by Britain. Germany's location in the centre of European continent surrounded by industrialised countries on

all the side is in stark contrast to that of Britain that is isolated physically from the rest of Europe. The high smoke stacks, as mentioned earlier, where only of a temporary relief. Local emissions of heavy metals showed an increase in 1980s. Nitrogen Acids emission registered more than three million tones in 1980 from two million tones in 1966. This led to the damage of not only buildings, monuments, lakes and soil but also of forests. An unprecedented increase in the death of forests (Waldsterben) took place, affecting 60 per cent of the trees in some places. In 1982, of the 7.3 million hectare of wooded land in the Germany 7.7 per cent were damaged.<sup>12</sup>

This along with the growing political importance of environmental issues under the 'Greens' forced the German government to change its stance on acid rain. And at the 1982 Stockholm Conference on Acidification of the Environment, the German government called on all states to combat polluting emissions.

---

12. Bernhard Glaeser, Environmental Policy : The Example of Federal Republic of Germany in the International Context, (Berlin: Jerry Hodges, 1988), p.52.

It committed to cut its own emissions of sulphur dioxide by 50 percent by 1985. Since then Germany has been the most prominent political advocator of emission reduction legislations within the Community. And Germany backed its words by adopting a number of important legislation at its national level. One such legislation was the "Ordinance on Large Combustion Plants", which came into force on 1 July 1983. This Act prescribed strict limitation for all emission components, such as sulphur dioxide, nitrogen oxides, carbon monoxide, halogen compounds and dust, from large coal and oil fired combustion installations.<sup>13</sup> These standards were more strict than any other such standard then prevailing in the West European Countries. The second important legislation was the "Technical Instructions on Air Quality Control" of 1974 amended in 1986. This act enfolded the concept for refurbishing existing facilities. They were required to be fitted with flu-gas desulphurisation equipments within a time frame of 5 years.

---

13. Federal Ministry of Environment, no.4, p.140.

Though these national efforts were far reaching in reducing emissions, Germany needed more international efforts mainly for two reasons:

Firstly, it is estimated that 50 per cent of Germany's acid deposition is imported from surrounding countries. The unilateral move by Germany would prove to be ineffective unless there is a reduction in its imported acid deposition through similar action by the neighbouring countries. Secondly, Germany was concerned that its move would compromise the competitiveness of its industries by imposing the burden of the cost of pollution control. Hence the next logical step for Germany was to secure effective international control measures especially within the EC, and Germany began an intensive campaign towards this end. On its initiation, a preliminary draft proposal from the Commission on proposal for emission control was circulated to the member states in November 1982.

#### EC's Proposals:

The EC's proposal to reduce acid deposition aimed at two levels. One was the broad framework Directive for the

control of emissions from industrial plants; and the other specifically aimed at acid emissions. There was a high degree of correspondence between the German and the EC proposals.<sup>14</sup> The Directive fixed limit values from all large combustion plants with a thermal capacity exceeding 100 MW in all member states. The limits suggested were 400 mg/m<sup>3</sup> for sulphur dioxide, 800 mg/m<sup>3</sup> for nitrogen oxides and 50 mg/m<sup>3</sup> for particulates, though a number of provisions were provided for to allow lenient standards to be adopted where abatement would cost very high.

The United Kingdom View Point:

UK is a major producer of sulphur dioxide (SO<sub>2</sub>) and has been under severe international criticism from its European counterparts for its adamant stand on the issue of acid rain. One of the major source of sulphur dioxide in Britain is its power station which uses the high sulphur content coal of Britain as its sources of energy. According to UK government estimates itself British sulphur dioxide emissions totalled 3.66 tonnes in 1988, with 71 per cent

---

14. Graham Benneth, Dilemmas: Coping with Environmental Problems, (London:Earthscan, 1992), p.99.



coming from power stations. Nitrogen oxide emissions were estimated at 2.5 million tones out of which 32 per cent was from power station and 45 per cent from vehicles.<sup>15</sup> Britain produced more SO<sub>2</sub> than any other EC country and out of these, 77 per cent of the pollutants were carried away to Europe by the westerly winds.

Throughout most of the 1970s and 1980s UK refused even to acknowledge the problem of transboundary air pollution. When in the 1970s Sweden tried to bring the issue to the fore front of attention, Britain along with Germany rejected it in favour of more research. Britain officially held the view that it did not want to place its legislation on arbitrary evidence. It demanded a clear cut cause-effect type of evidence. This attitude is reflected in its attitude towards EC's legislation too.

UK rejected the Community draft proposal for control over the large combustion plant, on the grounds that it has its own pollution reduction policy and that to carry out the proposed programme would cost \$1.5 billion. The Dutch

---

15. Friends of Earth, How Green is Britain: The Governments Environmental Record (London: Hutchinson Radious), 1990, p.3.

during their turn of presidency of the Council of Ministers in January 1986 proposed a compromise that could take into account the scale of emissions from different member states, and their economic situation etc. The proposal aimed at a two stage reduction and laid down a target of 40 per cent reduction for UK.<sup>16</sup> This was twice the target figure of UK's national programmes. Thus, UK refused to agree to discuss the document if the table of distribution was included. At the same time, domestic pressure to change the rigid stand was mounting on Britain. The tendency of the government and other interested parties to take a reactive rather than a proactive approach to pollution control came under attack from many quarters. The 1984 Environment Committee of the House of Commons<sup>17</sup> came up with an unanimous conclusion, that immediate action to combat the effects of acid rain was required. The Committee recommended that the UK join the "30 per cent club" at once and support the draft EC Directive on large combustion plants. The Committee

- 
16. "Environment Report", European Trends, no.3, 1986, p.33.
  17. House of Commons, Session 1991-92; Environment Committee, Second Special Report, Review of the Committee's Work 1983-92, (London: HMSO, 1992), pp.xiv-xvii.

recommended that the burden of responsibility for reducing sulphur dioxide and nitrogen oxides emissions should fall on the Central Electricity Generating Board. The CEGB is the major producer of electricity and hence of pollution in Britain as it uses the high sulphur content coal to generate electricity. Until 1990, it produced 80 to 90 per cent of Britain's electricity and produced about 60 per cent of the total sulphur dioxide emissions.

The Environment Committee further drew attention to the ineffectiveness of the "dilute and disperse" policy of CEGB and suggested that as immediate steps, all existing and future coal fired plant should be fitted with Flue Gas Desulphurisation (FGD), all other combustion plants over 50 MW should meet the SO<sub>2</sub> limits proposed in the EC Directive and that all existing plant should be retrofitted with low nitrogen oxides burners, except those relying on high combustion temperatures. The Committee voiced the need to step up UK specific research to study the link between emissions, deposition and damage. The report stated that the Government appeared to be waiting on research developments abroad rather than implementing any programmes of their own.

The UK government's response to the report was lukewarm. While it responded positively for the need to increase research and monitoring, it rejected outright the need for retrofitting FGD to existing coal fired power station. The cost of the government of conforming to the EC Directive on large combustion plants was estimated at the time to be 1.5 billion, in addition to the several million pounds per power station that would be need to fit NOx controls. The government not diverting from its traditional approach, stated that it did not "intend to commit the country to expensive emission controls, especially when there is uncertainty about the environmental benefits to be achieved in this country and continental Europe".<sup>18</sup>

By 1986 unable to resist domestic and international pressure, the UK conceded to review its policy in the light of new evidence. In July 1986, the CEBG announced its intention to spend \$600 million on retrofitting three power stations with FGD equipment. It also promised that all future coal fired power stations would be fitted with FGD.

---

18. House of Commons, Environment Committee, Fourth Report, Acid Rain, (London: HMSO, 1984).

In May 1987 it announced that \$170 million would be spent over the next 10 years on installing low-NOx burners at the twelve largest coal fired stations.<sup>19</sup> These development represented a dramatic turnabout in CEGB policy and amounted to Britain's indirect acknowledgement of acid deposition. Yet, Britain still refused to accept the Directive on large combustion plants and on assuming the role of Presidency of the Council of Ministers, worked upon the Dutch compromise and proposed certain modification that weakened the Directive. It proposed that reductions should be based on total national emissions and not just of those from large combustion plants and that these reductions should be in three stages of 1995, 2005 and an unspecified later date to produce the EC reductions of 30 per cent, 45 per cent and 60 per cent respectively. This proposal drew nobody's support in the Council.<sup>20</sup> The negotiations prolonged for the next two years till 1988. Then in June 16, 1988, UK agreed to reduce SO<sub>2</sub> by 20, 40 and 60 per cent by 1993, 1998 and 2003 respectively and it also agreed to the large combustion

---

19. House of Commons, Session 1991-92, no.17, p.xxvi.

20. Graham Bennett, n.14, pp.117-121.

plants Directive by 28 June 1988, after four years of negotiations and a compromise by Germany on vehicle emissions for small cars.

During the negotiations Britain stress two points: one, the need to protect the domestic coal industry where importation of low sulphur content coal will affect the domestic industry, and two, the cost of introducing FGD equipment at once. As a result, Britain's sulphur dioxide reduction targets were set lower than those for most of the member states, and in September 1989, the British Government published its proposal to implement the Directive.

#### Vehicle Emissions:

The Community's strategy to control emissions focussed next on the emissions from vehicles. In the light of the completion of the internal market, unifying product standards was of considerable importance. In addition to this, the Community also aimed to achieve the standards set by US, which used three-way catalyst converter. These catalysts remove 95 per cent of NO<sub>x</sub>, 90 per cent of hydrocarbons and 80 per cent of carbon monoxide. The US has made the fitting of these converters mandatory on all new cars, since 1983.

West Germany introduced them in 1985 and Switzerland in 1987. For these catalytic converters to be really effective it is imperative to use lead free petrol, without which the converter can become poisoned after a few thousand miles. In 1985, the European Council of Ministers agreed on the introduction by 1989 at the latest, Community wide legislation to oblige car manufacturers to produce cars capable of running on lead free petrol.

In this issue Germany and Britain had similar interests. Right from 1971, Britain had reduced the amount of lead in petrol. It agreed to reduce the lead content of petrol from 0.84 grams per litre to 0.49 grams per litre by 1976. Germany also made a similar reduction to 0.15 grams per litre by 1976. The EC proposed a Directive in 1973 which proposed limits. At the time, EC countries had limits that varied from 0.84 grams per litre to no limits at all. After much debate the Community agreed in its 1978 Directive to set limits at between 0.15 and 0.4 gram per litre. By 1982, Britain had reduced its level of lead to 0.4 grams per

litre, the maximum allowed under Community regulations.<sup>21</sup> The Royal Commission on Environmental Pollution in its ninth report 1983, recommended the British government to begin negotiations with the EC and its member states to remove the minimum limit in the Directive and to effectively clear the way for cars to run on lead free petrol. The British government's proposal to amend the Directive was taken up by the EC in April 1983 and in June 1983 the German Government made a similar proposal. Thus the amended Directive was a result of the joined efforts by Germany and Britain.

The bone of contention between Germany and UK, however was the kind of cars in which lead free petrol was to be used.<sup>22</sup> As mentioned above, Germany had started the use of catalytic converters following the US and Japan standards. UK opposed the use of converters and instead opted for the lean burn engine. This technology, essentially mixes a higher proportion of air to petrol in the combustion chamber and is more fuel efficient. They produce lower quantities of hydrocarbons and carbon monoxide but their efficiency to

---

21. John McCormich, n.5, p.137.

22. Margaret ST. John, "Atmosphere Pollution and Acid Rain", European Trends, no.2, 1987, p.18.



reduce nitrogen oxides is only 50 per cent while that of catalytic converters is 90 per cent. The fuel efficiency of cars fitted with catalytic converters is almost identical to those without. In terms of pollution control, catalytic converters are more preferable. But in terms of fuel and cost efficiencies especially in small cars, lean burn engines are more preferable as they do not need the electronic fuel management system. Britain which wanted to protect its small car industry, was naturally opposed to this Directive from Germany. The problem was that the lean burn engines were only in production stage during the discussion while converters were used in USA, Germany and Japan. Yet Britain was not willing to give up and based its arguments on fuel efficient and the evidence that converters were not really effective in large cities like California.

A compromise was worked out in 1985 in which the category of cars were split into small and large with emission standards that would require catalysts but not until 1988-93. Only large cars were 2,000 CC were asked to conform to strict standards equivalent to the USA by October

1988 for new models and October 1989 for all new cars.<sup>23</sup>

The EC proposed new stricter limits for small cars at 8 gram of nitrogen oxide and hydrocarbons per test. West Germany, proposed 5 grams per test, which would require catalytic converters. The UK, along with France, Spain and Italy wanted to protect their small cars industry and asked for a 12 gram per test standard.

This proposal came to the agenda of the Council in June 1988 when the Presidency of Germany to the Council was about to end. It came along with the German proposal for Large Combustion Plants. The German government was more keen on the latter Directive as that will affect the German industry. The British made use of this imperative need of Germany to find a compromise between the Directive on Large Combustion Plant and the standards for small cars, and worked out a compromise. Britain made it clear to Germany that it would agree to the proposal for large combustion plant if Germany would drop its demand for an emission standard for

---

23. Margaret St. John, "New Perspectives in Environment Policy", Special Report I, European Trends, no.2, 1985, p.18.

small cars of 5 grams per test.<sup>24</sup> Thus both Germany and Britain had their way in controlling air pollution problems through mutual compromise.

The above discussion highlights the following points in British and German policy approaches towards environmental policy and management.

Both the German and British governments were not willing to fore-go their economic and business interests. While Britain used the pretext of scientific evidence to postpone its actions, Germany wanted to enforce uniform standards throughout European Community to protect its industries and to gain a probable commercial advantage due to its advance technology in car industry.

#### Water Pollution:

The European Community's compromise in the (Directive on Dangerous Substance Discharges) between the Uniform Emission Standards(UES) and the Environment Quality Objectives (EQO) provides ample evidence of the policy approaches of

---

24. Graham Bennett, n.14, p.129.

Germany and Britain. In each of the debates on mercury, cadmium and lindane, United Kingdom insisted in its traditional use of EQO. In its opinion, it is a satisfactory measure of quality control in view of its fast flowing rivers. But such a standard is not applicable to rivers like Rhine which cross the borders of more than one country, and the effluents are washed down stream from land locked Switzerland into the North Sea through Germany. Directives that set standards of emissions at sources are more effective in such cases and are of interest to Germany. Thus Germany insisted on UES. Domestically, Britain follows EQO standard under the principle of "consents" and the distribution of authority between the national and regional levels. The principle of consents was developed over a period of hundred years. Under this practice, the local authorities were responsible for the quality of rivers. In 1951, the river authorities were granted the power to attach conditions to the consents that they could grant to any discharges to rivers. The 1973 Water Act passed the duty of managing the water resources to ten river basins. These authorities on consultation with the industries, set the standards of various substances that could be discharged

into a particular stretch of water. Industrialist are thus likely to be treated differently depending on what part of a river they discharge into. The Secretary of State has no power to set either kinds of standards and his only power over water authorities is to give them general instructions.<sup>25</sup> The relation between the government policy and the various actors in policy making and implementation process, is best exemplified here.

Non-compliance of EC Directives on water quality (fresh, sea and bathing water) has constituted the majority of infringement procedure against Britain by the Community. This is largely due to the independence of water authorities mentioned above and the economic considerations. UK initially avoided the main force of the Directive on fresh water by circulating water authorities with an advice note. This note pointed out that financial implications were potentially significant.<sup>26</sup> UK identified only 27 out of 600 beaches in England where people swim regularly. The UK's increasing

---

25. Nigeh, Haigh, "Developed Responsibility and Centralization: Effects of EEC Environmental Policy", Public Administration, vol.64, Summer 1986, p.29.

26. Neigh Haigh, EEC Environmental Policy and Britain, 2nd (ed.), London, Longmem, 1988.

reputation for being reluctant to implement EC environment legislation was reinforced when the land locked Luxembourg identified 34 beaches.

UK was threatened with legal action by the European Commission because it had deliberately excluded beaches from the Directives with the motive of saving money. The EC asked Britain for a Reasoned Opinion for its illegal acting. Britain identified more beaches by 1987. But they were found to be falling short of EC standard. Similarly UK was also lagging behind on EC drinking water quality standard due to the frequent use of lead pipe and high level of nitrates in the water.

One of the important water conventions of Europe is the North Sea Conference, first held in November 1987. North Sea, which produces 5 per cent of the total world commercial fish catch is also probably the second most polluted Sea on Earth.<sup>27</sup> Every year, it receives 150,000 tonnes of oil, 2.5 million tonnes of by-products from chemical production and 50,000 tonnes of heavy metals. It has

---

27. Deccan Herald, 22 June, 1990.

become Europe's biggest dumping bed for garbage, fertilizers and toxic industrial waste.<sup>28</sup> Since early 1980s same inputs of contaminants, particularly heavy metals and chlorinated organics, have been significantly reduced following the 1987 agreement to cut most hazardous waste by 50 per cent. The quantities are still however enormous.

Taking inputs from rivers, sludge dumping, dredging and industrial waste, together, the UK is the worst polluter of North Sea with lead, cadmium and copper. As on 31 December 1989 Britain failed to meet a North Sea Conference deadline to cease dumping industrial waste.

In 1980 30 per cent of Britain's' sludge was dumped at sea while West Germany dumped only 2 per cent of its sludge. Scientific concern grew in the 1970s when long term eutrophication and build up to toxic chemicals were detected in the Baltic Sea. By 1987 Britain was completely isolated over this issue. West Germany also was dumping sludge from 1961 to 1981 in coastal water. When the environmental impact of this was found out Germany stopped it. The German govern-

---

28. Telegraph, 5 June, 1989.

ment now stated what has generally become known as the "precautionary principles".

"Due to the fact that natural conditions in the German Bight are difficult to assess that under these conditions harmful alteration cannot be recognised in due time and taking in to account that any damage might be irreversible, it is essential that prudent precaution is taken. Instead of furnishing clear proof of a cause-effect relation between sewage sludge dumping and environmental deterioration, the decision to terminate the dumping of sewage sludge was taken on the basis of precautionary considerations resulting from bioindication, coincidence of measurable stress factors, and analysis of continuing trends within the ecosystem".<sup>29</sup>

In contrast to these principle, Britain agreed to stop dumping sludge at the cost of \$1.7 billion into the sea only in the 1990 North Sea Conference.

---

29. Chris Rose: "The Dirty Man of Europe: The Great Britain Pollution Scandal", London, Simon & Schuster, 1990, p.25.



The European Commission published its eighth report in 1991 for the years 1989 and 1990 bathing water quality for Belgium, Greece, Luxembourg, the Netherlands and the UK.<sup>30</sup> The report shows in Germany 73 per cent of sea bathing beaches complied with the EC Directive on Bathing water quality. And in UK the compliance rate was 77 per cent which was a slight improvement on its fresh water bathing. But the UK showed only 446 bathing areas compared with 1,370 in Denmark, 1213 in Germany and 1,741 on the Federal Coast. The notable improvement in the British record of water quality was largely due to the EC legislation in this area and the European Court proceedings against Britain.

#### Nuclear Safety:

Strictly speaking measures to ensure nuclear safety do not fall under the Community's environment action programmes. They fall under the Euratom Treaty. However, their implementation is over seen by a co-ordinating committee chaired by the Commission's Directorate for Environment Consumer Protection and Nuclear Safety, thus assuring close relation with Community environment policy.

---

30. "Environment Report", European Trends, no.4, 1991, p.39.

Nuclear energy is an important source of energy throughout the Community. It accounts for one third of EC's total electricity production and means a saving of 100 million tons of oil equivalent every year. Though nuclear energy has had many urgent supporters, environmentally it has never been accepted. The handling of nuclear material, especially its waste disposal is a problematic one and has come under severe criticism from environmentalists especially from the Greens of Germany. The Soviet nuclear accident at Chernobyl in 1986, reopened the nuclear debate in the European Community. The protest of Denmark and Luxembourg against nuclear power gained strength against the French nuclear reactor at Cattenom close to the Luxembourg border. But the majority of the EC members were for nuclear power. The accident helped only to highlight the pitfalls of safety measures and the need to improve monitoring and safeguards against possible accidents in nuclear plants.

According to a report by Les Amis de la Terre and Greenpeace France in 1986, there were some 30 reactors in Europe of the natural uranium gas graphite or Magnox type

which do not have a safety containment.<sup>31</sup> The UK headed the list with 24, France four and Italy, Spain and the Netherlands one each.

The debate also brought out the lack of information exchange about nuclear accidents in the member states. Both French and Belgium authorities were found to have withheld information concerning radioactive levels and contamination of domestic foodstuffs. Several weeks after the accident it was also revealed that the West Germans had withheld information about an earlier leak from the nuclear reactor at Hamm in Westphalia and had attempted to blame higher recorded radioactivity levels in Chernobyl.

The prospects of further expansion and continued operation of existing facilities in West Germany came under severe criticism when in 1988, 2,400 drums of nuclear waste with radioactive levels far exceeding those laid down by the safety standards, under the possession of a company named "Transnuklear" was discovered.<sup>32</sup> West Germany has well

---

31. "Environment Report", European Trends, no.3, 1986, p.27.

32. "Environment Report", European Trends, no.1, 1988, p.24.

developed environmental standards in regard to nuclear safety. Hence the above floutation revealed the difficulty in handling nuclear waste. The affair weakened the credibility of the claim by the German authorities at the time of Chernobyl that such an accident could not happen in Germany. Though the accident and these revelations made the German Chancellor, Helmut Kohl to state the need to tighten the measures, he also made it clear that nuclear energy will be necessary for the needs of Germany as it produces a third of West German electricity.

The Greens and the German's main opposition party, the SPD are strongly opposed to nuclear power. The SPD's policy is to eliminate the use of nuclear power within ten years. This would make electricity in West Germany even more expensive. The option left to German in that case is to depend more on French electricity.<sup>33</sup> This would mean only relocating the problem and would be opposed because a number of French nuclear power stations are very close to Germany.

---

33. "Environment Report", European Trends, no.4, 1987, p.28.

As far as the policy attitude of UK towards nuclear safety and power is concerned, it is not very different from that of Germany. In 1991 April, UK and Germany along with French and Belgium issued a common declaration on co-operation in the peaceful use of nuclear energy.<sup>34</sup> The declaration stated that nuclear power makes a contribution to meeting the demand for energy, and the objective of stabilising carbon dioxide emissions within the EC at 1990 levels by the year 2000. Along with other measures like economical use of energy, the development of financially viable sources of renewable energy and an increased use of energy sources with a low level of carbon dioxide output, the use of nuclear energy is seen as an appropriate answer to the challenges facing the whole world provided its development is pursued in conditions of maximum safety.

The reluctance by both Germany and Britain to change their policy orientation in relation to certain areas which are the primary elements on which their economy is based and the similarities of their attitude towards certain areas of environment can be understood.

---

34. "Environment Report: Nuclear Power", European Trends, no.2, 1991, p.50.

### Toxic Waste Disposal:

Waste management is an enormous industry and is of great importance for the safety of various sectors like soil, ground water, etc. One of the most important aspect of waste disposal with which EC is concerned is the trans-frontier shipment of toxic and hazardous waste. In a year about 3 million tones of toxic or dangerous waste is carried across the frontiers between EC member states. Its safe disposal is of major concern to the EC.

Toxic waste export was the subject of discussion in the June 1988 Environment Council meeting of the Community following the discovery of leaking drums of highly dangerous waste from Italy in Nigeria. Following this the Organisation of African Unity and ACP countries in the framework of the Lom'e Convention called for a total ban on waste exports.<sup>35</sup> UK resisted the move. The Commission realising the difficulty in enforcement, proposed in 1989 a draft Directive on Civil liability for damage to health on property caused by

---

35. Environment Report, "Statement on Toxic Waste Exports", European Trends, no.3, 1988.

industrial waste other than nuclear waste. The proposal employed the polluter-pays principle and placed the liability on the producers for damage caused by their wastes, provided a probable link could be established. The holder was held responsible where the producer could not be traced. And if the waste has been lawfully transferred to an authorised disposal plant, the disposer would be liable. This proposal was vehemently opposed by industrial interest groups, on the grounds that they would become liable for events over which they have little control.<sup>36</sup> The UK was also opposed to the Directive. The overall figure of hazardous waste imported by UK rose from around 5,000 tonnes annually in the early 1980s to over 40,000 tonnes in 1989.<sup>37</sup>

Domestic pressure increased on this issue in the UK since 1989. The British Medical Association, at its annual representation meeting in Swansea in July 1989 unanimously called on the British government to reduce the volume of toxic waste imported and to produce a national policy on the toxic waste disposal. The amount of toxic waste imported

---

36. Environmental Report, "Waste Disposal", European Trends, no.4, 1989. p.35.

37. Friends of the Earth, n.15, p.147.

into Britain had increased 15 folds over the previous four years. High standards in the UK, claimed the Government, made it unnecessary to curb or effectively regulate the trade in waste imports<sup>38</sup> and upheld the view that Britain can play an "environmentally useful" role in disposing off suitably handled waste.

Germany's domestic laws on waste disposal ranks one among the best in the world on par with that of the US. It has tightened its laws recently. Germany tries to deal with waste at three different levels: waste reduction, waste recycling and environmentally sound waste disposal. The "Waste Disposal Act" of 1972 regulates disposals. This act was ammended in 1986 into the new "Waste Avoidance and Waste Management Act" which came into force in November 1989. It established objectives of a modern waste management policy in the legally binding form. The Act placed particular importance on waste avoidance and recyling in contrast to the traditional approach of dumping. The German government has further tightened its laws by various legislations like

---

38. Ibid., p.147.



1991 Packages Ordinance; Ordinance on the acceptance of Returned Water Solvents and their Recycling; Waste Transportation Ordinance of 1988 etc.

The transfrontier shipment<sup>of</sup> hazardous wastes is of particular concern for Germany due to its geographical location. The German Government formally implement the EC Directive on the monitoring and control of transfrontier shipment of hazardous waste within the Community by means of the Waste Transportation Ordinance. The Ordinance regulates in particular the use of uniform EC accompanied documents in contrast to the EC Legislation, which refers to toxic and hazardous wastes, the German regulations cover transfrontier shipment of all types of waste.

These numerous measure have tightened waste disposal and has made waste recycling a costly affair in Germany. This has resulted in the illegal shipment of toxic and hazardous waste by German industries across the frontier into East Germany before unification and into other less developed countries in Africa and Latin America after the unification. Germany is one among the major exporters of toxic waste in West Europe. This is reflective of the blind eye turned by the developed countries towards the environmental quality of the developing countries.

## **CHAPTER IV**

## CHAPTER IV

### CONCLUSION:

Environmental pollution is currently a major policy objective of the European Community and European Union. A rapid growth in environment rhetoric, symbolic policy statements and legislative activities can be documented. Policy development has remained largely responsive to international and national pressure and opportunities. The environment has become attractive to many political and economic actors seeking to influence Community Institutions. This is especially true during early stages in the policy cycle, before un-foreseen difficulties in implementation slow down negotiations and weaken original proposals to gain acceptability among the 12 governments representing very diverse countries. Common interests have most readily been discovered in industrial pollution control.

The traditional aim of EC environmental policy has been to define common objectives and principles, as well as adopting, whenever possible, harmonised measures and uniform

standards which reflect best practice as developed inside the EC.

With experience, the growing sophistication of available policy instruments, as well as the broadening of the environment agenda, this trend towards uniformity is beginning to emerge inspite of its complexity. Common agreed positions are negotiated, during highly formalised procedures and must be justified with reference to the Constitutional bases of the EC. Interpretation of the law and the questions of compliance may later be decided before the European Court of Justice.

The overriding goal of the EC remains the stimulation of European economic growth and political integration, and to the extent that environmental regulation is perceived to advance either of both of these, activism on side of Community institutions can be expected. But there is an uneasy balance between the two and growing concern about the environmental implication of both. The social chapter of the Maastricht Treaty, for example, states that the creation of a free market should not mean a lessening either of social protection or a deterioration of the environment. This

concern is strengthening demands for a greater environmental role for Community institutions in which the Community is only beginning to assert its voice for environmental reason. Only Britain has refused to accept the Social Chapter as part of the Maastricht Treaty.

Because of its multifaceted impacts, environmental regulation plays a significant role in defining the true or expected relative competitiveness of national industries and traded products. EC directives have therefore been most successful when regulating the larger European industries or their exports (vehicles, chemicals, energy supply and metal processing). For economic sectors with lesser commercial impacts, less EC regulations of "bite" can be observed so far, as in transport, agriculture, biotechnology and biodiversity. Other important areas of environmental degradation have hardly been touched upon until very recently.

There is a general perception that EC environmental legislation is suffering an enforcement or implementation crisis. Complaints to the Commission have greatly increased in recent years.

There is currently a trend towards common European environment policy in European Union. This is aimed at the introduction of cleaner, more modern technology in order to improve the competitiveness of European industry in world market, and the emergence of policies aimed at protecting human health and the few remaining natural and semi-natural eco-systems found in Europe. As these three primary goals are not necessarily fully compatible, progress is only possible by negotiation. Environment policy developments must be viewed in the context of the overarching themes of European political integration and economic growth. The essence of European environmental policies, therefore, lies in the bargaining which takes place between the relevant EC institutions, national bureaucracies and politicians and assorted lobbies attempting to influence each of these.

The present study indicates that an analysis of German and Britain environmental attitude towards the EC provides an excellent case in such an endeavour. The present study indicates that Britain is under less natural pressure to respond to environmental stipulations given by the European Community due to its geographical and physical position as

an island separated from the continental Europe. In the case of Germany, because it is in the midst of continental Europe, environmental issues like air pollution, water pollution are great threat to itself as well as to the neighbouring countries and the machinery of EC operates as a pressure on Germany.

The present study indicates that both Germany and Britain have different definitions for environmental issues. Increasingly, it was found, that the United Kingdom was trying to resolve environmental issues and problems on sectoral basis. This policy style results in resolving the environmental issues on sectoral basis after they have reached crisis proportion or are on the verge of reaching crisis proportion. In other words, it means, that the British environmental policy is more of the nature of crisis management on sectoral basis. The available evidence indicate that the German government although may like to adopt the British policy style of handling environmental policy on sectoral basis, it has not been able to do it, because of the Green pressure to handle the issues on holistic basis. Therefore, the German environmental policy style has been short of holistic policy but more than sectoral policy.

Evidence has also shown that successive regimes, the SPD and the CDU, in Germany had been more sympathetic to environmental issues in varying degrees. The SPD, especially under Willy Brandt, and to some extent under Helmut Schmidt had been formulating and upholding environmental concern. The succeeding Christian Democrats regime could not withhold or withdraw from the environmental action taken by the preceding governments. In comparison with Germany, the British conservative government under Margaret Thatcher did not give priority to environmental issues. Her main contention was that environmental policy should be formulated neither by the European Community bureaucracy nor it should be attempted by the national government. The environment policy must be an evolved policy within the nation itself through democratic process.

The present study indicates that Britain and Germany have perceptions on environmental policies both at the government and public levels. The German government has been under great pressure to take corrective means to meet the problem of death of the forest as a result of air pollution. This was due to environmental groups in Germany which are



more active and are monitoring this environmental hassels more effectively and communicating it to the public at large. The environmental consciousness among the public is very high in Germany. In the case of Britain, the very issue, although an environmental problem, has not been projected as a crisis as it has been done in Germany precisely because the average Briton is not environmental conscious. Indeed the public and the environmental lobby is very weak as far as the acid rain problem is concerned. In addition, the high level of official secrecy in the United Kingdom, makes it extremely difficult for the public to assess the enormity of environmental degradation.

The electoral system is another important factor, in influencing the way in which the environmental issues are being resolved. The British system of parliamentary democracy, in which the victor is the largest vote gainer, makes it difficult for the interest groups to mobilise their support. If these groups do not obtains redress in the process of bureaucratic accommodation, they do not have the effective alternative of securing electoral support in the hope of gaining representation in the legislative. They necessarily have to compromise that demands while seeking support within

the existing parties, as the parties have numerous interests to satisfy. On the other hand, the system of "proportional representation" in Germany makes it necessary for the established parties to balance their existing interests against the environmental interest. Traditionally the trade unions are powerful within the Social Democratic Party (SPD), and business interests within the Conservative Party (CDU/CSU) and the Liberal Party (FDP). Yet the electoral victory of the Green Party in the recent years, has made it imperative for these traditional parties to incorporate environmental issues in their policy agenda to attract the environmentalists votes.

Furthermore, the present study reveals that the growth of German economy, and the German government, especially the Christian Democrats, under Helmut Kohl, has been adopting environmental standards for its industrial products purely from the point of view of German products being competitive in the global market. The major competitors like US and Japan, having set the minimum environmental standards, specially in the automobile industries, it has become necessary on the part of Germany to achieve that environmental

standard to be competitive. The economics behind this environmental protection step mainly the cost of automobiles, would have been the main reason for German government to insist on environmental standards being introduced and standardised all over the EC. The other car manufacturers of Europe, especially in France and Britain, do not want to pressure their automobile industries to achieve such environmental standards within a stipulated period because, of the cost factor, which might affect the sale of their automobiles both within the countries and in their former colonies.

The present study also brings out the difference in environmental policy attitude between Germany and Britain, significantly in handling the environmental pollution resulting from the large combustion plants. Germany feels constrained by the pollution resulting from these plants, and have taken measures like fitting them with Flu-gas desulphurisation filters. Scientifically these FGDs control pollution but are very costly, for the thermal plants have to make the choice of up-grading the environmental standards. The study shows that Germany having by and large introduced this environmental measures in the energy sector,

wanted not only the EC to adopt the standards, but also built pressure on Britain to accept the standards. Britain succeeded in avoiding this measure for a very long time by upholding the point, that its contribution to the pollution affecting Europe, has to be established beyond doubt. However, as EC itself made a decision to introduce environmental measures to control the pollution arising from large combustion plants. Britain in principle accepted the measure of introducing Community legislation in its thermal plants in a phased manner, completing it by 1998.

The present study indicates that on two sectoral environmental issues, namely, nuclear energy and toxic waste disposal, the German and British positions have not been conflicting. The dependence of both the countries on nuclear energy is substantial and there has been no policy decision yet on completely winding up nuclear reactors producing nuclear energy. Nevertheless, it may be noted here, that the German opposition Social Democrats is strongly committed to zeroing on nuclear energy dependence. The ruling Christian Democrats is not convinced by the Social Democrats stand, as the alternative to nuclear energy are not only

costly but also not feasible in the near future. Suggestion like purchasing energy from nuclear plants located in France, has not invoked support within Germany to the level to influence the policy decisions. In disposing toxic waste, Britain has accumulated two types of environmental problems (a) disposal of toxic waste produced by its own industries, and (b) storing of toxic waste of other countries on financial agreement. On the side of Germany, the environmental problem resulting from the toxic waste is entirely resulting from its own industry. Available evidence shows that, Germany is a substantial producer of toxic waste. The EC has introduced certain environmental measures to control the disposal of toxic wastes. These measures as it is a consensus decision almost meets the standards set up by both Germany and the United Kingdom. The study reveals there is no urgency on the part of both Germany and United Kingdom to tighten their waste disposal laws especially on the matter of implementation, as there are other options available for these countries in the form of storing the waste in less developed countries, on comparatively cheaper economic costs.

The present study reveals that the German and British attitude towards the environmental problem relating to water pollution has been different. In fact in the case of Germany, the environmental measures meeting the water pollution problems are much more effective than in the case of Britain. This has happened mainly because Germany is utilizing water resources of the river Rhine, that passes through more than one country. In the case of Britain such constraints do not operate. Since much of the life depends on Rhine for many countries, the environmental policy of EC in relation to water pollution control has been directed mainly to reducing the pollutants at source. This is an example where the measures are much more stricter as large number of countries are affected and there is a consensus on this and the pollution to be controlled. But the standards are not properly implemented by Britain. The standard answer given by Britain for the failure to implement the measures had been the lack of funds. Moreover in Britain, the enforcing agencies relating to pollution control of water, is weak when compared to Germany. Thus it could be concluded that although in principle both Britain and Germany are committed to control water pollution to the level set up by the EC,

the result of such objectives has not been encouraging in the case of Britain.

In a nutshell, the policy attitudes of Britain can be said to lay great emphasis on consensus and negotiation in the context of environmental policy. The preference of both the government and interest groups for these principles is very strong and they set the trend to become the standard operating procedure for most policy areas. The United Kingdom, therefore prefers consensus and shows a desire to avoid the imposition of solution from outside. Germany, in contrast to British reactive style, has adopted the active/precautionary approach to tackle environmental pollution for most of its modern environmental record starting from 1971. It has emphasised an active style to be achieved through consensus.

When analysed in the policy framework, the study shows that the environmental policy of the EC is developing very fast and is likely to gain more importance in the light of the Single European Market. The study also reveals the emergence of a consistent set of principles and their application in various sectors of the Community environment

policy. Most of the Community legislations are based on the principle of precautionary action albeit at the insistence of Germany. Often compromise is made to accommodate the varying interests of the nation states. The Community's attempts to internalise environmental costs and thereby to eliminate distortion of trade within the EC has resulted in the increasing application of the polluter-pays-principle in most of its environmental Directives.

The fear that environmental measures could be used as non-tariff barriers is the concern not only of the outside world but also that of the relatively less advanced nations within the EC itself for eg.: Spain, Portugal etc. Furthermore, in the light of the reality in which the EC is emerging as one of the largest trade bloc with 320 million people with a very high purchasing capacity, it is in the interest of the other countries including the developing world to see a 'free Europe' and not a 'fortress Europe'. It is in the hands of the Community institutions to see to that this is not happening. The role of EC in the recent UNCED is a ray of hope in this regard. The EC played a very constructive role and was among the first to respond positively to the



proposal of allocating 0.7 per cent of GNP to the Global Environmental Facility. It also recognised the need of transferring eco-friendly technology to the developing world. The Community's environmental policy may help it to take a leading role in the international arena.

## BIBLIOGRAPHY

### PRIMARY SOURCES:

#### Documents:

#### European Commission:

Commission of the European Communities, Report from the Commission of the European Communities to the United Nations Conference on the Environment and Development, See 91(2448), (Brussels), 20 March 1992.

\_\_\_\_\_, Resolution of the Council of the European Communities on a Community Programme of Policy and Action in relation to the Environment and Sustainable Development, (Brussels), Vol.I, Com(92) 23, 27 March 1992.

\_\_\_\_\_, Towards Sustainability: A European Community Programme of Policy and Action in relation to the Environment and Sustainable Development, (Brussels), Com(92) 23, Vol.II, March 27, 1992.

Environment Nuclear Safety as Civil Protection; Towards Sustainability: A European Community Programme of Policy and Action in Relation to the Environment and Sustainable Development, (Luxemburg), June 17, 1988.

European Environmental Agency; Task Force Report on Administrative Structure for Environmental Management in the European Community, (Luxembourg: DGXI, Environment, Nuclear Safety and Civil Protection, CED, 1993).

European Parliament:

European Parliament, Session Documents, Report of the Committee on Environment, Public Health and Consumer Protection on the Implementation of European Community Environmental Legislation, (Luxembourg), A3-0001/92, 6 January 1992.

\_\_\_\_\_, Session Documents, Report of the Committee on Regional Policy, Regional Planning and Relation with Regional & Local Authorities on the Impact of Community Regional Policy on the Environment (Luxembourg), A3-0170/92, 24 April 1992.

Federal Republic of Germany:

Environmental Effects of Development Cooperation Projects: Perspectives on Environmental Impact Assessment (EIA), (German Federal Ministry for Economic Cooperation), 92/00485.

Environmental Policy: Environmental Report 1990, (Federal Minister of Environment, Nature Conservation and Nuclear Safety), Summary May, 1990.

Federal Ministry for Environment, ed., Environmental Protection in Germany: National Report of the Federal Republic of Germany for the United Nations Conference on Environment and Development, Brazil, June 1992 (Mai, 1992).

United Kingdom:

Britain 1991: An Official Hand Books, (London: Foreign and Commonwealth Office), Quote No. 357/90 Classification 4(e).

Department of Environment, The Human Environment: The British Views, Prepared on the Occasion of the United Nations Conference on the Human Environment, Stockholm 1972, (London: Her Majesty's Stationary Office 1972).

House of Commons, Environment Committee: Fourth Report, Acid Rain, (London: HMSO, 1984).

House of Commons Session 1987-88; Environment Committee: First Report, Air Pollution, vol.1 (1), Her Majesty's Stationary Office, London.

House of Commons, Session 1991-92; Environment Committee: Second Special Report: Review of the Committee's Work 1983-1992, (London, HMSO, 1992).

Royal Commission on Environmental Pollution; 11th Report; Managing Waste: The Duty of Care; HMSO, London, 1985.

Royal Commission on Environmental Pollution; 11th Report; Pollution Control, (HMSO, 1993).

United Nations:

United Nations Conference on Environment and Development, Agenda 21, (Rio de Janeiro, Brazil), 3-14 June, 1992.

Press Release:

BIS Press Release, "UK to Host World Environment Day 1994", (India: British High Commission), BIS-B118, 23.9.1993.

\_\_\_\_\_, "Mr. John Major's Statement on the UNCED", (India: British High Commission), BIS.B-101, 18.6.92.

Press Release, "Towards Sustainability", A European Community Programme of Policy and Action in relation to the Environment and Sustainable Development", (Brussels: EC, p-15, 18 March 1992).

\_\_\_\_\_, "Impression of Ozone Depleting Substances into the European Union" (Brussels: EC), IP/94/159, 23 February 1994.

\_\_\_\_\_, "Environment and Development: Address by Commissioner Paleokrassas Thessauloniki, 1993, (Brussels: EC) 14th Sept. 1993, (IP/93/956).

E.C. Publications:

Commission of the European Communities, Ten Years of Community Environment Policy (Brussels), March 1984.

\_\_\_\_\_, State of the Environment Report, 1986 (Brussels), 1986.

\_\_\_\_\_, Task Force Report on the Environment and the Internal Market, 1992: The Environmental Dimension (Brussels), 1988.

\_\_\_\_\_, D.G. For Information, European File, Pollution Knowns no Frontiers (Brussels), January 1991..

European Documentation, European Community and the Energy Problem, (Luxembourg; Official Publication of European Community), 1980.

\_\_\_\_\_, The European Community and Environment, (Luxembourg; Official Publication of European Community), 3, 1987.

\_\_\_\_\_, The European Community and the Environments, (Luxembourg; Official Publications of the European Communities), Periodical 5, 1990.

Whitehead, Cynthia, (ed.), European Community: Environmental Legislation, 1967-87 (Brussels), 1988.

\_\_\_\_\_, European Community: Environmental Legislation, vols.1-7 (Luxembourg; Office for the Official Publication of European Communities), 1992.

Other Publications:

Centre for Science and Environment, The State of India's Environment 1984-1986:

Koppen, Ida Johannes. The European Community's Environment Policy: From the Summit in Paris 1972 to the Single European Act, 1987. (E.U.I., Florence, 1988).

The Hindu: Survey of the Environment 1991 (Madras), 1991.

United Nations Commission for Europe and North America, Environmental Statistics in Europe and North America: An Experimental Compendium United Nations, New York), 1987.

United Nations Development Programme, Human Development Report 1992 (Oxford: Oxford University Press), 1992.

Myers, Norman, Oxford Research Paper, Un-published manuscript, "The Environmental Consequences for the European Community of Population Factors Worldwide and within the Community" (Oxford), May 1990.

Nature Conservation in Europe - Agenda 2000; Publication produced on the Occasion of the "Nature Conservation - Europe 2000", Conference organised by the European Parliament in Collaboration with WWF, Brussels, 14 September 1991.

Euromonitor, Global Industry Strategies for the 1990's, 2nd ed., (London: The World Environmental Business Hand Books), 1993.

## SECONDARY SOURCES:

### Books:

- Aggarwal, Anil and Sunita Narain, Global Warming in an Unequal World, (New Delhi: Centre for Science and Environment, 1990).
- Barnley, G., The Global 2000 Report to the President, (Washington D.C.: US Government Printing Office, 1980).
- Benedick, Richard Elliott, Ozone Diplomacy : New Directions in Safeguarding the Environment, (Cambridge MA: Harvard, 1991).
- Benneth, Graham, Dilemmas : Coping with Environmental Problems, (London : Earth Scan, 1992).
- Caldwell, Lynton K., International Environmental Policy : Emergence and Dimensions, (Darham, NC: Duke University, 1988).
- Churchill, Robin, John Gibson and Lynda M. Warren, (eds.), Law, Policy and Environment, (Oxford: Basis Blackwell, 1991).
- French, Hilary F., After the Earth Summit : The Future of Environmental Governance, (Washington, D.C.: World Watch Institute, 1992).
- Friends of the Earth, How Green is Britain? The Governments Environmental Record, (London: Hutchenson, 1990).
- Glaeser, Bernhard, Environmental Policy: The Example of Federal Republic of Germany in the International Context, (Berlin, Jerry Hodges, 1988).
- Holmberg, John and Others, Facing the Future : Beyond the Earth Summit, (London: Earthscan, 1993).

- Hurst, Peter, Chemical Control Policy in the European Community, (Washington, D.C.: WWF), International Discussion Paper, June 1992.
- International Institute for Environment and Development, Britain and the Brudtland Report : A Programme of Action for Sustainable Development, (London: 99ED) vol.1, 1991.
- Johnson, Stanley P. and Guy Corcelle, The Environmental Policy of the European Communities, (London: Graham and Trotman, 1989).
- Keyes, Cameron, The European Community and Environmental Policy : An Introduction for Americans, (London: Institute for European Environmental Policy, 1991).
- Khanna, Gopesh N., Global Environmental Crisis and Management, (New Delhi: Ashish Publishing Home, 1993).
- Kolinsky, Eva, (ed.), Opposition in Western Europe, (London: Croom Helm, 1987).
- Laszlo, Ervin and others, Goals for Mankind, (New York: E.P. Dutton, 1977).
- Mannian, A.M. and S.R. Boullry, (eds.), Environmental Issues in the 1990s, (West Sussex: John Wiley and Sons, 1992).
- Macrory, Richard, Environmental Policy in Britain: Reaffirmation or reform ? (Berlin, International Institute for Environment and Society).
- McCarmick, John, British Politics and the Environment, (London: Earthscan Publications Ltd., 1991).
- McDonald, Frank and Stephen Dearden, (eds.), European Economic Integration, (U.K.: Longman, 1992).



- Meadows, D.H., The Limits to Growth, (New York: Universe, 1992).
- Mesarovi, Mihajlo and Edward Pastel, Mankind at the Turning Point: The Second Report to the Club of Rome, (London: Hutchinson, 1975).
- Morgan, Roger and Caroline Bray, (eds.), Partners and Rivals in Western Europe : Britain, France and Germany, (London: Gower Publishing Co. Ltd., 1986).
- Park, Chris C., (ed.), Environmental Policies : An International Review, (London: Dover Publications, 1986).
- Porter, Gareth and Janet W. Brown, Global Environmental Politics, (Boulder: Westview Press, 1991).
- Richardson, J.J., (ed), Policy Styles in Western Europe, (London: Allen & Unwin, 1982).
- Richardson, J.J., and N. S. J. Watts, National Policy Styles and the Environment: Britain and West Germany Compared, (Berlin: International Institute for Environment and Society).
- Rose, Chris, The Dirty Man of Europe : The Great Britain Pollution Scandal, (London: Simon and Schuster, 1990).
- Rosebaum, Walter A., Environmental Politics and Policy, (New Delhi: East West Press, 1991).
- Simonis, U.E., Environmental Policy in the Federal Republic of Germany, (New Delhi, Friedrich Ebert Stiftung Foundation).
- Tillotson, John, European Community Law : Texts, Cases and Materials, (London: Cavendish Publishing Ltd., 1993).
- Tinbergen, Jan and Others, Reshaping the International Order, (London: Hutchinson, 1977).

Tolba, Mostafa K., (ed.), The World Environment 1972-1992: Two Decades of Challenges, (London: Chapman Hall, UNEP, 1992).

Turnar, R.K., and Others, Valuing Environmental Preferences: The United Kingdom Experience, (Norwich, Centre for Social and Economic Research on the Global Environment), Working Paper GEC, 92-04.

Weale, Albert, The New Politics of Pollution, (Manchester University Press, 1992).

#### Articles:

Anderson, Morten and Others, "Environmental Problems and Environmental Policy Regulations in Western Europe, 1980-89", Environmental Management, (New York), vol.16, no.2, 1992.

Antony, C.A., "Impact of Global Awareness as Third World Environment", Monthly Commentary, (New Delhi), vol.32, no.6, Jan.1991.

Arp, Henning and others, "Environmental Policy Coordination between Eastern and Western European Countries", Environment, (Washington D.C.), vol.33, no.6, July-August 1991, pp.44-45.

Basu, Runki, "The Politics and the Economics of the Global Environmental Debate between the Developed and the Developing Countries", The Indian Journal of Political Science, (New Delhi), vol.52, no.1, January-March 1991.

Bermann, George, "The Single European Act: A New Constitution for the Community?", Columbia Journal of Transnational Law, (New York), vol.27, no.3, 1989.

Blowers, Andrew, "Transition or Transformation? Environmental Policy under Thatcher", Public Administration, (London), vol.65, Autumn 1987.

- Boehmer - Christiansen, Sonja A., "Curbing Auto Emissions in Europe : Putting on the Brakes", Environment, vol.32, no.6, July-August, 1990.
- Burke, Tom, "The Year of the Greens", Environment, vol.31, no.9, November 1989.
- Carraro, Carlo and Domenico Siniscalco, "International Dimension of Environmental Policy", European Economic Review, (The Netherlands), vol.36, no.2-3, April 1992.
- Clarke, Tom, "The European Community's Approach to UNCED: Sustainable Development - A Strategy for the 21st Century", The Courier, (Brussels: Dreter Frisch), no.133, May-June 1992.
- Crockett, Tanara Roye and Cyndhid B. Schultz, "The Integration of Environmental Policy and the European Community : Recent Problems of Implementation and Enforcement", Coloumbia Journal of Transnational Law, vol.29, no.1, 1991.
- Davies, Christie, "Need for Ecological Cooperation in Europe", International Journal of the Unity in Sciences, vol.4, no.2, Summer 1991.
- El-Agraa, Ali M. and Yao Sahu, "National Versus Supra National Interests and the Problem of ESTablishing an Effective E.C. Energy Policy", Journal of Common - Market Studies, (London), vol.xxii, no.4, June 1984.
- Feeley, Michael Scott, "Green Law-making A Premier on the European Community's Environmental Legislative Process", Vanderbilt Journal of Transnational Law (Tennessee), vol.24, no.4, 1991.
- Flovin, Christopher, "Slowing Global Warning : A World Wide Strategy", New Frontiers in Education, (New Delhi), vol.19, no.4, December 1989.

- Gaines, Sanford E., "The Pollutor Pays Principle: From Economic Equity to Environmental Ethos", Texas International Law Journal, vol.26, no.3, Summer 1991.
- Goodland, Robert and Herman, H.Daly, "Three Steps Towards Global Environmental Sustainability", Part I and II, Development, 2nd & 3rd vols., 1992.
- Grand, Edger, "Neo Conservatism and Conservative - Liberal Economic Policy in West Germany", European Journal of Political Research, (Netherlands), 1987.
- Grieder, Wendy, "Haryandous Waste Exports: Changes in Sight", EPA Journal, (Washington, D.C.), vol.16, no.4, July-August 1990.
- Haigh, Nigel, "Developed Responsibility and Centralization: Effects of EC Environmental Policy", Public Administration, (London), vol.64, no.2, Summer 1986.
- Haigh, Nigel and Konrad von Moltke, "The European Community: An Environmental Force", EPA Journal, vol.16, no.4, July-August 1990.
- Haul, A, "The Environment and Social Value of Tourism", The International Journal of Environmental Studies, vol.25, no.4, 1985.
- Hayes, Denis, "Earth Day 1990. Threshold of the Green Decade", World Policy Journal, (New York), vol.7, no.2, Spring 1990.
- Hayward, J.E.S.. "Institutional Inertia and Political Impetus in France and Britain", European Journal of Political Research, Vol.4, no.4, 1976.
- \_\_\_\_\_, "National Aptitudes for Planning in Britain, France and Italy", Government and Opposition, vol.9, no.4, 1974.

- Henderson, P.D., "Two British Errors: Their Probable Size and Some Possible Lessons", Oxford Economic Papers, vol.29, no.2, 1977.
- Hoenigsberger, Herbert, "Greens in the Federal Republic of Germany", Pakistan Horizons, (Karachi), vol.43, no.4, October 1990.
- Holdgate, Martin W., "The Environment of Tomorrow", Environment, vol.33, no.6, July-August 1991.
- Horberry, John and Melisson Le Merchant, "The Role of Institutional Strengthening in International Environmental Consulting", Public Administration and Development, (New Delhi), vol.11, 1991.
- Howe, Charles W., "Environmental Implications of the Single European Market", Environment, vol.33, no.10, December 1991.
- Huelshoff, Michael G and Thomas P. Feiffer, "Environmental Policy in EC: Neo-Functionalists Sovereignty transfer on Neo-realist gate Keeping?", International Journal, vol.47, no.1, Winter 1991.
- Hussain, Akmal, "Sustainable Development and Regional Cooperation", South Asia Journal, (New Delhi), 1989.
- Jachtenfuchs, Morkis, "The European Community and the Protection of Ozone Layers", Journal of Common Market Studies, vol.xxvii, no.3, March 1990.
- Kelly, P.M. and J.H.W. Kapas, "Green House Effect", Capital and Class, (London), vol.38, Summer 1989.
- Kenpton, Willet and Paul P. Craig, "European Perspectives on Global Climate Change", Environment, vol.35, no.3, April 1993.
- Khator, Renu, "Enforcement Gap : A Comparative Study of Indian British and American Pollution Regulations", Indian Journal of Public Administration, (New Delhi), vol.35, no.3, July-Dec. 1989.

- Kimber R. and others, "Parliamentary Questions and the Allocation of Departmental Responsibilities", Parliamentary Affairs, 1974.
- Kindt, John W. and Samuel P. Menefee, "Vexing Problem of Ozone Depletion in International Environmental Law and Policy", Texas International Law Journal, vol.24, no.2, Spring 1989.
- Kothari, Ashish, "Biodiversity convention - An Indian Viewpoint", Monthly Commentary on Indian Economic Condition, vol.33, no.11, June 1992.
- Kolinsky, Eva, "The Greens in Germany : Prospects of a Small Party", Parliamentary Affairs, (London), vol.37, no.4, Autumn 1984.
- Kramr David, "The Graying of the German Greens", Dissent, (New York), vol.41, no.2, Spring 1994.
- Kumaran, Suriya C., "Nature of the Environmental Problem in South Asia", South Asia Journal, (New Delhi), 1989.
- Lachs, Manfred, "The Challenge of the Environment", International and Comparative Law Quarterly, (London), vol.39, July 1990.
- Leon Britton, "The British are not the naughty boys", European Affairs, 1991.
- Liberatore, Angela, "Problems of Transnational Policy Making : Environmental Policy in the European Community", European Journal of Political Research, vol.19, 1991.
- Makhijani, Arjun and others, "Ozone Depletion: Causes and Effects", Economic and Political Weekly, vol.25, no.10, 10 March 1990.
- Mellor, John W., "The Intertwinning of Environmental Problems and Poverty", Environment, vol.30, no.9, November 1988.

- Moltke, Monrad Von, "Three Reports on German Environmental Policy: Report on Reports:", Environment, vol.33, no.7, September 1991.
- Mansinghe, Mohan and Kenneth King, "Protecting the Ozone Layer", Finance and Development, June, 1992.
- Nagore, A.P., "Rio Summit : Challenges Before the South", Link, (New Delhi), vol.34, no.40, 17 May 1992.
- Nunnenkamp, Peter, "Financing the Global Environment", Inter-Economics, (Hamburg), vol.28, no.3, May-June 1983.
- O'Riordan, Timothy, "The Politics of Environmental Regulation in Great Britain", Environment, vol.30, no.8, October 1988.
- \_\_\_\_\_, "The Prodigal Technology: Nuclear Power and Political Controversy", The Political Quarterly, (London), vol.59, 1988.
- \_\_\_\_\_, "Beware Binding Commitments: The British Approach to EIA", Environmental Impact Assessment Review, vol.2, no.1, 1981.
- \_\_\_\_\_, and Weale, Albert, "Administrative Reorganization and Policy Change : The Case of Her Majesty's Inspectorate of Pollution", Public Administration, vol.67, Autumn, 1989.
- Parker, Jonathan and Chris Hope, "The State of the Environment : A Survey of reports from around the World", Environment, vol.34, no.1, January-February, 1992.
- Paterson, W.E., "Regulatory Change and Environmental Protection in the British and German Chemical Industries", European Journal of Political Research, vol.19, 1991.
- Pattern, Christopher, "Energy and Environment: A British View", World Today, (London), vol.46, no.4, March 1990.

- Pineda, Francisco D., "Biodiversity and the Quality of Human Life", Development, vol.4, 1992.
- Ramphal, Shridath S., "Third World Grievances", EPA Journal, vol.16, no.4, July-August, 1990.
- Reid, Graig, "The Environmental Policy of the EC: A Policy unsure of itself", Towsan State Journal of International Affairs, (Maryland), vol.24, no.1, Fall 1989.
- Rockwell, Richard C. and Richard H. Moss, "The view from 1996: A Future History of Research on the Human Dimensions of Global Environmental Change", Environment, vol.31, no.9, November 1989.
- Sarkar, Saral, "The Green Movement in West Germany", Alternative, (England), vol.11, 1986.
- Sallow, John and Sarah Arlett, "Green Today : Gone Tomorrow", Geographical Magazine, (London), no. 1989.
- \_\_\_\_\_, "How Permanent is the Greening of Europe: Are we witnessing an Ephemeral Political Trend?", Geographical Magazine, vol.61, no.11, November 1989.
- Sand, Peter H., "Innovations in International Environmental Governance", Environment, vol.32, no.9, November 1990.
- Schnakenberg, Oliver, "Environmental Protection in Germany: A Chance for Clean Products from India", Indo-German Economy, (Bombay: Indo-German Chamber of commerce), vol.38, no.1, 1994.
- Seneviratne, Pani, "Economics of Tourist Pollution", Marg, vol.10, no.4, 1989.
- Sharma, Kalpana, "Misusing the term 'green'", Economic and Political Weekly, vol.25, no.3, 20 January, 1990.



- Sharma, Narendra and Raymond Rowe, "Managing the World's Forests", Finance and Development, June 1992.
- Shiva, Vandana, "North- South Conflicts", Frontier, vol.24, no.24, 25 January 1992.
- Shrybann, Steven, "Costs of Economic Integration : Trading Away the Environment", World Policy Journal, vol.9, no.1, Winter 1991-92.
- \_\_\_\_\_, "International Trade: In Search of an Environmental conscience", EPA Journal, vol.16, no.4, July-August 1990.
- Skjoerseth, Jon B., "The Climate Policy of the EC: Too Hot to Handle?", Journal of Common Market Studies, vol.32, no.1, March 1994.
- Smith, Gordon, "The Changing West German Party System: Consequences of the 1987 Elections", Government and Opposition, (London), vol.22, no.2, Spring 1987.
- Sondhof, Harold, "UNCED: No Consensus on Combating the Green House Effect?", Inter-Economics, vol.27, no.1, Jan-Feb., 1992.
- Speth, James G., "Coming to Terms : Towards a North-South Compact for the Environment", Environment, vol.32, no.5, June 1990.
- Springer, Allen L., "Protecting the Environment : A New Focus of the Atlantic Alliance", New Europe, vol.38, no.1, 1991.
- Steer, Andrew, "Environment for Development", Finance and Development, June 1992.
- Suurland, Jan, "Framework for Environmental Policy", Economic Review, (Sri Lanka), vol.16, no.2, May 1990.
- Telo, Mario, "The Greening of Social Democracy: The SPD Rethinks Economics", Socialist Review, (Berkeley), vol.17, 1987.

- Tinker, Jan, "Britain's Environment : Nanny knows best", New Scientist, vol.53, 9 March 1992.
- Tyler, Charles, "Destructive side of tourism world wide", Geographical Magazine, vol.61, no.19, October 1989.
- Uimonen, Peter, "Trade Policies and the Environment: How do current trading rules affect environmental policy issues?", Finance and Development, June 1992.
- Vermon, Raymond, "Behind the Scenes : How Policy-Making in the European Community, Japan and the United States affects global negotiations", Environment, vol.35, no.5, June 1993.
- Walker, K.J., "The State in Environmental Management : The Ecological Dimension", Political Studies, (London), vol.37, 1989.
- Whalley, John, "The Inter face between Environmental and Trade Policies", The Economic Journal, (London), vol.101, March 1991.
- William Marc, "Rearticulating the Third World Coaletion: The Role of the Environmental agenda", Third World Quarterly, (London), vol.14, no.1, 1993.

**Newspapers and Magazines:**

- Bangkok Post
- Bangladesh Observer (Dacca)
- Deccan Herald (Bangladesh)
- Financial Express (New Delhi)
- Hindustan Times (New Delhi)

International Herald Tribune (Paris)

National Herald (New Delhi)

New York Times

Telegraph (Calcutta)

The Economist (London)

The Hindu (Madras)

The Observer (London)

The Statesman (New Delhi)

The Times (London)

Times of India (New Delhi)

Tribune (Chandigarh)