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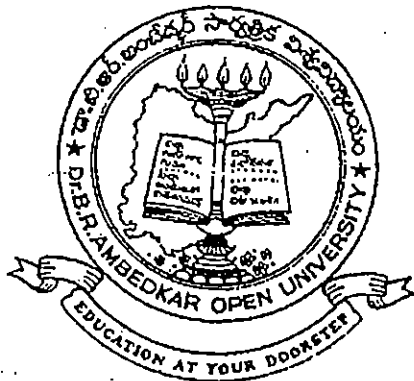
PGD-ESD-05
Globalization and Environment

- FIRST BLOCK : Global Concerns**
SECOND BLOCK : Global Responses
THIRD BLOCK : Global Movements Experiences

C-V

GLOBALIZATION AND ENVIRONMENT

South Asia Foundation Learning Initiative(SAFLI) is designed to promote regional cooperation and lifelong, learning that emphasises humanism and celebrates the rich heritage of South Asia's unity in diversity at all levels and sections of society.



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PGD-ESD-05
GLOBALIZATION AND
ENVIRONMENT

LOCK

GLOBAL CONCERNS

it - 1
Environmental Dimensions of Globalization

it - 2
Environmental Calamities

it - 3
Man-made Disasters

it - 4
MNCs, TNCs and Developing Countries

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PREFACE

The politics of language is often embedded in the language of politics. Of late words like globalization, environment and development have become politically loaded concepts. If globalization means free flow of information, technology, capital and trade across the nations without any barriers or constraints, then the inflows and the out flows should balance each other resulting in a state of stable equilibrium. However, in reality, the multi and transnational conglomerates, with unlimited access to capital and technology have affected the economies of the South countries by transforming them into exporters of raw materials, dumping grounds for industrial wastes and for location of polluting industries. The countries in the South have become the direct victims of the policies and developmental patterns of the countries in the North.

The United Nations' Environmental Programmes (UNEP) considers among others, climate change, fresh water contamination, air and soil pollution, greenhouse effect, ozone depletion and biodiversity loss, as environmental problems that need urgent attention. Globalization, through large-scale development interventions, has the capacity to order and reorder human lives.

This Course examines diverse issues related to globalization and environment under three heads: Global Concerns, Global Responses and Global Movements and Experiences. Environmental standards, technology concerns, role of UN agencies, International Laws and Agreements, Initiatives from NGOs and people have been highlighted. Some Case Studies from South Asian countries have been discussed.

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BLOCK I - GLOBAL CONCERNS

Globalization and Environment have become more intertwined and interdependent recently than at any earlier time. Any large scale developmental activity would adversely affect the quality of the life support systems. Increased extraction of raw materials, mining, fossil energy exploration have increased the occurrence of natural calamities and induced several new man-made disasters. An equitable, qualitative and sustainable development in both the North countries and South countries in the context of globalization entails a balancing act. Given the political prejudices, the self-serving motives of Multinational and Transnational companies, stupendous efforts are needed to assuage the fears and apprehensions of the developing nations.

UNIT 1: ENVIRONMENTAL DIMENSIONS OF GLOBALIZATION

CONTENTS

- 1.1 Aims and Objectives
- 1.2 Introduction
- 1.3 Globalization and Global Change
 - 1.3.1 Globalization
 - 1.3.2 Global Change
- 1.4 Globalization and Environment
 - 1.4.1 Free Trends and Environment
 - 1.4.2 Terms of Trade and Environment
 - 1.4.3 Environmental Standards
- 1.5 Global Environmental Interventions
 - 1.5.1 Globalization and Sustainable Development
 - 1.5.2 Globalization and Large Scale Disruption of the Eco System
 - 1.5.3 Some Global Environmental Initiatives
- 1.6 Summary
- 1.7 Answers to SAQ's
- 1.8 Model Examination Questions
- 1.9 Glossary
- 1.10 References

1.1 AIMS AND OBJECTIVES

After studying this Unit, you will be able to:

- Explain the nature and process of present economic globalization as well as global environmental change.

- Discuss the impact of the present phase of globalization on environment, and
- Appreciate the need for appropriate global environmental interventions.

1.2 INTRODUCTION

Of the several overwhelming issues that came to the fore during the last two decades of the Twentieth Century, two issues stand out: globalization and global change. Globalization is one of the most widely used words these days. It appears to have many meanings. Globalization in general terms is a much wider phenomenon encompassing all aspects of global spread ranging from culinary skills, cultural practices, languages, political ideas, ideologies, migration of people, flow of technology, trade, labour and investments. In general, globalization is nothing new and has been underway for centuries. But, we are concerned with its specific form and phase. We are concerned with 'economic globalization' that has been underway since 1980. It has been a process of globalization of production and rapid liberalization of trade and investment flows. The present phase of economic globalization has certain dimensions which have environmental implications which we shall discuss in this unit.

'Global Change' refers to certain environmental changes which are global in nature. For instance, climate change can no longer be seen as a national or a regional problem but as a global phenomenon. Underlying causes of climate change, like greenhouse gas emissions are as much related to national energy policies as to the process of economic globalization. But the solutions have to be found through global institutional interventions. We shall discuss these aspects in the last part of this unit.

1.3 GLOBALIZATION AND GLOBAL CHANGE

1.3.1 Globalization

Economic globalization is associated with worldwide expansion of capital as an integral part of capitalist development. But there are evidently epochs of more rapid global expansion and extension of capital. Such epochs have been termed as 'globalization'. For instance, we can identify two such epochs: (i) past globalization of 1860-1914, the widely acknowledged imperialist-colonialist phase, and (ii) present globalization since 1980. We are concerned here with the latter.

The present phase of economic globalization, beginning with 1980, is seen as determined removal of all barriers to, and rapid increase in the flows of trade, investment, services and even intellectual property rights across the borders. Under the aegis of the present globalization, capital in all its forms - productive and portfolio - has moved freely across nations, apparently challenging their sovereignty. However the same may not be true of labour mobility which is still bound by restrictions. In that sense, globalization is also seen as a process of minimizing the power of nation states.

Role of Technology

The previous (1860-1914) globalization was driven by the drastic fall in transport costs brought about by the steamship and railways. The current phase is driven by, to a large extent, information and communications technology (ICT). The average cost of processing information fell from \$75 per million operations to less than a hundredth of a cent in 1960-90. Airline operating costs per mile came down by half in 1960-90. The cost of a three-minute telephone call from New York to London fell from \$245 in 1930 (in 1990 prices) to under \$50 in 1960 to \$3 in

1990 to about 35 cents in 1999. The present phase is also characterized by a leap in the share of world trade. The world exports averaged 21% of GDP in 1990s, compared with 17% of a much smaller GDP in the 1970s.

Role of Trade

Globalization since early 1980s has accelerated the rate of growth of world trade at a pace much faster than world output. The ratio of world trade to world gross domestic product increased from 10 percent in 1970 to about 20 percent in 1998. The growth of capital and financial flows has been even faster than the growth of world trade. Foreign direct investment reached \$400 billion in 1997, seven times the level in real terms in the 1970s. Portfolio and other short-term capital flows grew substantially, and now total more than \$1 trillion in gross terms, almost three times those in the 1980s.

Role of Finance Capital

The striking feature of the current phase of globalization has been the nature of financial markets and the rapid increase in gross financial flows. Daily global transactions in currency alone increased from \$15 billion in 1973, to \$2.12 trillion in 1995. Currency flows are totally disconnected from, and phenomenally greater than, trade and investment flows. This suggests greatly increased speculative trading in currencies. This phenomenal increase in currency flows is also related to huge leap in portfolio investment. Cross-border transactions in bonds and equities by the United States investors increased from 9 per cent of the GDP in 1980 to 164 percent in 1996. Such hyper-financial markets have heightened financial and economic instability, particularly in Third World Countries. Short-term flows have only added to the risks of volatility. These changes unleashed by the process of the present economic globalization have serious environmental implications, which we shall discuss in the next part of this unit.

SAQ 1: What are the three important factors that contributed to the present economic globalization?

1.3.2 Global Change

While discussing the process of economic globalization in its relationship with environment, it is essential to understand the phenomenon of 'global change' or more precisely 'global climatic change'. From the early 1980s, there has been a growing concern about global warming. Research findings show that there has been increase in the atmospheric concentrations of 'green house gases' (GHGs) that cause 'greenhouse effect' which results in global warming. The 'greenhouse effect' is a process in which energy from the sun (solar radiation) passes through the atmosphere fairly freely, but the heat radiated back from the earth is partially blocked or absorbed by gases in the atmosphere. The radiation absorbed by clouds, carbon dioxide and some other gases produces the greenhouse effect, the warming of the atmosphere. The additional warming sets off a chain of changes like glacial melting, rise in the level of the sea, erosion coastal ecosystems - all of which are the cause for concern.

Carbon dioxide, Methane, Nitrous Oxide, Chlorofluorocarbons (CFCs) are called 'green house gases' (GHGs). Carbon dioxide is responsible for over half the enactment of the greenhouse effect. CFCs which contain chlorine and bromine are known to cause depletion of ozone layer which in turn increases incoming ultraviolet radiation. This results in increase in skin cancers. The GHGs that trap the outgoing long wave radiation have been increasing. Though natural events also contribute to these trace gases, substantial emissions are due to increas-

ing human activity caused by industrial emissions, vehicle emissions, burning of forests, refrigeration etc. It is estimated that global mean surface temperatures would be about 2°C above the pre-industrial levels by the year 2030, and about 4°C above pre-industrial levels by 2090. As a result of rise in global temperature and melting of glaciers, the sea level is projected to rise between 9 cm and 29 cm by 2030, and 28 cm and 96 cm by 2090. Significantly, adverse effects on small island states and low-lying deltas, such as those in Bangladesh, Egypt and China, could render millions homeless and the warming would cause significant loss of life. Heat stress mortality and disease could increase as the tropical habitat of insects expands northwards. Substantial part of the emissions of GHGs is the contribution from the industrialized countries. The present phase of economic globalization with more attention to economic growth based on the so-called strategies of 'business as usual' is bound to aggravate global warming. In developed countries, level of production, especially in energy and transportation sectors have reached a point where there is need to emphasize reduction in the per capita energy use while paying for the carbon and other sinks largely associated with biodiversity and forest cover of the poorer countries. Global climate change necessitates globally negotiated agreements and institutions for implementation. We shall discuss these issues in the last part of this unit.

1.4 GLOBALIZATION AND ENVIRONMENT

1.4.1 Free Trade and Environment

The current globalization of production and steep reduction in all barriers to allow free flow of trade and investment is opposed by many environmental groups all over the world. They perceive globalization as harmful to environment for the following reasons: First, free trade is seen as a means of more output and income, which means more resource depletion and degradation of the natural environment. Second, freer trade, investment and globalization of production will lead to increase in transport activity and encourage the relocation of environmentally degrading industries to countries with lower environmental standards or more fragile natural environments, and thus, contribute to further environmental damage. Third, freer foreign investment reduces the incentive to develop environmentally friendlier technologies. Fourth, free trade may result in industrial and agricultural reorganization to capture the economics of scale made possible by larger markets. This might involve larger productive units: factories that are aesthetically displeasing and farms that remove hedgerows and use intensive agricultural techniques. Fifth, free international trade neglects the environment in the same way that domestic free markets fail to account for environmental losses. In other words, trade liberalization can be expected to increase market failure (Pearce and Warford, 1993, pp. 299-300).

1.4.2 Terms of Trade and Environment

The World Commission on Environment and Development (Brundtland Commission 1987) viewed that world commodity trade frequently encourages resource depletion in the developing world:

"The proportion of increased volumes of commodity exports has led to cases of unsustainable overuse of the natural resource base. While individual cases may not fit this generalization, it has been argued that such processes have been at work in ranching for beef, fishing in both coastal and deep-sea waters, forestry, and the growing of some cash crops. Moreover, the prices of commodity exports do not fully reflect the environmental costs to the resource base" (pp. 80-81).

Further the Brundtland Commission also draws attention to the possible consequences of increases in trade to primary product exporting developing countries. The 'Brundtland hypothesis' about the link between the terms of trade and the environment is as follows: "If the terms of trade decline, exporting countries must export more and more just to maintain foreign exchange earnings constant. In the specific case of crop exports, then, emphasis is placed on expanding acreage in order to increase exports. If the affected crops are environmentally hazardous - groundnuts or maize - soils in land that is not marginal may be directly damaged. Damage to marginal soils would be even higher. Even if the crops are environmentally benign, efforts might be made to expand cultivation onto marginal lands by clearing shrub and forest land and adding to potential erosion through deforestation". (Pearce and Warford 1993, pp. 285-286).

The vagaries of trade and the fluctuating exchange rates are often shown to cause extensive environmental damage. Devalued currencies of many commodity exporting developing countries is shown as a major reason for increasing depletion of forests which are cleared for exports. The liberal trade in ivory during 1980s appear to have depleted almost one-third of elephant population in Africa. Massive depletion of forests are attributed to pressure, of free trade in hardwood. Concern about unsustainable logging of the world's tropical forests produced the International Tropical Timber Agreement of 1983. But the present phase of globalization with an emphasis on free trade would make world's tropical forests unsustainable, unless there are firm commitments. The growing dependence on exports seem to result often in inappropriate and environmentally damaging shift in cropping pattern. For instance, growing demand for cassava made small farmers in Thailand to extend cassava cultivation into previously forested land. It is shown that cassava production for export is a significant cause of deforestation, soil erosion, and soil nutrient reduction in Thailand.

There are instances of extensive environmental destruction unleashed by the corporate culture and greed to accumulate. The denudation of forests and with that the destruction of the culture of commons are widely known. The extensive and ruthless ecological damage done to the Ogoni region in Nigeria by the multinational oil companies, and the uprooting of the livelihood of its people are well documented. Perhaps, one of the notorious examples of globalization facilitating polluting and hazardous industries in the developing countries, is the case of Union Carbide Pesticide factory in Bhopal of Central India. The MIC gas leak from this factory rendered several thousand people blind - one of the worst industrial tragedies of the last century. These experiences appear to strengthen the belief that unbridled globalization would cause growing harm to environmental sustainability.

14.3 Environmental Standards

The emergence of World Trade Organization (WTO) as a major institution promoting globalization by reducing trade and investment barriers, has brought the trade related environmental standards into sharp debate. Environmental standards refer to restrictions on trade in commodities, which are not subjected to certain environmentally damaging limits in their production or exploitation. The environmental standards are stiffly opposed by the developing countries. These countries see the entwining of environmental and trade issues as a threat to their sovereignty and their economies. Their objections to trade measures to achieve environmental objectives are based on the following considerations:

First, the ban on certain environmentally unfriendly activities like ban on ivory trade or ban on hardwood trade, have always gone against the economic interests of the developing countries. Second, trade barriers for environmental protection cause adverse effects on developing countries' exports for the following reasons: One, trade policy measures usually are not the best

instruments for achieving environmental objectives. Trade sanctions do not directly address the root cause of the environmental problems. Two, unilateral import restrictions are imposed following costly environmental standards, and such protectionist measures reduce income both at home and abroad, especially in natural resource rich developing countries. Three, environment linked trade restrictions will lead to escalation in trade disputes resulting in retaliatory and counter retaliatory measures.

Finally, environmental uses of trade policy are seen as inherently discriminatory. For instance, industrial countries had lower environmental standards at earlier stages of their development. Two, developing countries contribute disproportionately small amount per capita to global environmental problems. For instance, of the global emission of carbon dioxide, United States alone contributes to one-fourth. Three, differences in standards are a legitimate source of comparative advantage, in as far as they reflect differences in countries' resource endowments, preferences and abilities. Four, environmental standards rise with rise in per capita incomes and there is no point insisting on higher standards at lower incomes. Five, non-trade measures like labelling (eg. "dolphin-friendly tuna") would be more friendly. Six, outside pressure on developing countries to raise their environmental standards would be used by domestic protectionist groups to argue against their governments' export-oriented development strategy. Seven, there will be a threat to WTO rule-based multilateral trading system.

In the context of efforts to liberalise trade and investment flows, any attempt to link environment with trade are likely to be counter-productive. As discussed earlier, there are strong objections to trade liberalization on the ground that it would lead to environmental destruction, that more trade would mean more output and more income, all of which lead to resource depletion, that it would encourage the location of environmentally degrading industries to countries with lower environmental standards and fragile natural environments, and all these are feared to contribute to further environmental damage. Many developing countries see environmental standards as backdoor measures of protection sought to be imposed by developed countries:

There is such growing pressure from different groups that in the globalizing context, there are a large number of environmental issues that are emerging which require global multilateral environmental agreements. It is recognized that at least three broad classes of environmental issues require international solutions. First, there are regional problems that arise when neighbouring countries share a common resource and one country's actions therefore affect others. Into this category fall most problems of transboundary pollution, including acid rain and the management of international rivers or regional seas.

Second, the world shares certain global environmental resources such as the atmosphere and the deep oceans. Any action by one country that affects such "global commons" has an effect on all other countries. Into this category fall the build up of, what we have called, greenhouse gases (GHGs) and the thinning of ozone layer by the emission of CFCs.

Third, there are resources that clearly belong to one country but have values for the international community which are not reflected in the market. They include tropical rainforests, other special ecological habitats, and individual species. We shall briefly discuss some of the global initiatives regarding these issues in the following section.

SAQ 2 : List some of the adverse effects of globalization on environment.

1.5 GLOBAL ENVIRONMENTAL INTERVENTIONS

1.5.1 Globalization and Sustainable Development

The last twenty years have seen a virtual explosion of intergovernmental negotiations to formulate international environmental treaties. This 'ecological globalisation' is an inevitable result of the ongoing processes of economic growth and economic globalization, which not only stitch the world's economies together, but also take national production and consumption levels to a point that threatens the world's ecological systems.

The present globalization is driven by the Western economic and technological model which is highly material and energy-intensive. It metabolises huge quantities of natural resources, leaving a trail of toxins and highly degraded, transformed ecosystems in its wake. It is this very model that today's poor cousins, the developing nations, are following for economic and social growth, leading to an extraordinary combination of poverty and inequality, side by side with growing economies, pollution and large-scale ecological destruction.

The process of *ecological globalization* is driven by the fact that levels of production and consumption have reached a stage where what one does in one's own country can have major impact on neighbouring countries or even on the rest of the world. Even simple things like using refrigerators or air conditioners can destroy the world's ozone layer; running automobiles or cutting trees without limit can destabilise the world's climate; and using a persistent organic compound like dichloro diphenyl trichloroethane (DDT) in India can mean life-threatening pollution for human beings and other life forms in the remote polar regions of the world, as these compounds are carried to these regions by the world's oceanic currents and air streams. Never was the pace of depletion of resources and emission of harmful gases as high as under the current globalization process. Never was unsustainability of this model of growth as clear as of now. Never before have human beings needed to learn to live in "one world" as now.

1.5.2 Globalization and Large Scale Disruption of Ecosystems

The World Development Report 2003 (World Bank, 2003, p. 164) reports that a global satellite survey estimated a pantropical gross deforestation rate of 0.52 percent annually over 1990-2000, or 9.2 million hectares a year, an area the size of Portugal. Coral reefs are being lost to bleaching, pollution, and destructive fishing. A worldwide bleaching event in 1998, associated with El Nino, harmed 16 percent of the world's coral reefs, with possibly half damaged irreversibly. Another 32 percent are thought to be threatened over the next 30 years, and 11 percent have already been lost. Three-quarters of all fish stocks are being exploited at or above their sustainable limits. Total harvests from capture fisheries have levelled off or declined. Some fisheries, such as the North West Atlantic cod, have completely collapsed. In others, depletion of prized predatory fish have led to shifts in ecosystem structure. Almost 15 million square kilometres of ocean bottom have been scraped by ocean trawlers, possibly causing long-lasting damage to bottom-dwelling species.

For quite sometime poverty was blamed for environmental degradation. But it is increasingly clear that shifting-cultivators and small farmers account for only a fraction of depletion of forests or degradation of land. The present phase of globalization shows that large-scale agriculture, including ranches and plantations, and commercial logging, account for most of deforestation in Latin America and Asia. Poverty, therefore, is not the immediate driver of most tropical deforestation, but tropical deforestation can exacerbate the poverty of communities dependent

on the forest for their livelihood. Similarly, it is the greed of mechanized fishing that is causing not only unsustainable exploitation of fish resources but also uprooting the livelihood of millions of traditional fishermen and disrupting the coastal ecosystems.

The global disruption of environment manifests in various detrimental ways, of which climate change and ecosystem damage loom large. We have already mentioned the consequences of climate change. Equally grave are the threats posed by ecosystem damage resulting in loss of biodiversity. The genetic, biophysical, and ecological information embodied in biodiversity may be valuable to future agricultural, pharmaceutical, chemical, materials, and information industries. For instance, gene bank collections currently hold 15 percent or less of the genetic diversity of wild relatives of important crop species, including maize, rice, sorghum, millets, and peas. Loss of some of the remaining 85 percent might constrain development of improved varieties of these crops.

While there is general agreement that the magnitude of present environmental challenges like climate change or biodiversity are such these require global cooperation in evolving and implementing rules and methods of mitigation, recent experience shows that global agreements and their enforcements are effective in areas where the costs are relatively less and the benefits more to the more prosperous countries. Evolving conventions and getting their implementation in several aspects of environmental regulation which may mean more costs and relatively less tangible immediate gains, especially to the more developed and powerful countries, may not be easy. In the following part we shall examine some of the initiatives in mitigating global environmental problems.

1.5.3 Some Global Environmental Initiatives

One of the successful global initiatives to reverse the adverse impact of modern development on environment relates to ozone layer. By late 1970s it was clear that CFCs were causing depletion of ozone layer, which in turn was resulting in increased ultraviolet radiation causing skin cancers. International action on the ozone layer was taken when the United Nations Convention on the Protection of the Ozone Layer was drawn in Vienna in 1985. Shortly thereafter, dramatic satellite images of the Antarctic ozone "hole" captured public attention. This deepening evidence prompted the Montreal Protocol of 1987, an outgrowth of the Vienna Convention, to impose obligations on developed countries to reduce the use of ozone-depleting substances. On further evidence of causal impact of CFCs on ozone, in 1990 the London Protocol to the Vienna Convention took effect and it was agreed upon to cut the CFC levels by 85 percent by 1997. Under this protocol, developing countries agreed to take on obligations, with a grace period, and developed countries underwrote a trust fund of \$ 240 million to assist them.

The result is a foreseeable reduction in atmospheric concentrations of ozone-depleting substances and an eventual recovery of the ozone layer.

The problem of protecting the global ozone layer was easier to tackle than other global environmental problems like climate change and biodiversity erosion. The political economy of reaching agreement on ozone layer was favourable. At the national level, the wealthy industrial nations responsible for most production were also those at the greatest risk from skin cancer. Further, production and use of ozone-depleting substances is not central to any economy - unlike greenhouse gases, whose production is deeply embedded in the energy and transport sectors.

In spite a number of hurdles, the United Nations has been in the fore from in taking initiatives to mitigate the global environmental problems, which are likely to exacerbate, if the present

trend of economic globalization continues unabated. A major UN initiative came after the UN Conference on the Human Environment (UNCHE) in 1972 at Stockholm. The United Nations Environmental Programme (UNEP) was created in 1972 "to provide leadership and encourage partnership in caring for the environment by inspiring, informing, and enabling nations and peoples to improve their quality of life without compromising that of future generations". The UNEP initiative, however, remained dormant for almost two decades until early 1990s. There was growing concern about global warming. Under global pressure, the UN Convention on Climate Change was adopted in 1992. In 1997, the Kyoto Protocol was signed which called for industrial countries to reduce emissions by 5.2 percent, compared to 1990 levels, by 2008-2012. But the US, responsible for one-fourth of world's total carbon emission, refused to ratify the Kyoto Protocol on the ground that developing countries were exempted. Developing countries, on the other hand, demand 'polluting' North to pay costs and transfer resources to compensate for the loss suffered by them. The carbon convention is a positive step in this direction.

The UN Conference on Environment and Development (UNCED) held in Rio de Janeiro in 1992 is seen as a landmark in evolving a blueprint for the 21st Century. The Commission for Sustainable Development (CSD) was established in 1992. Though, Global Environmental Facility (GEF) was established in 1991, it was restructured in 1994, in the light of developments and conventions since the Rio Conference. Recognising the importance of biodiversity for the survival of life, including human life on the earth, and sharing concern over loss of biodiversity by unprecedented levels since 1980s, the Convention on Biological Diversity (CBD) was convened in 1992, and among other things, it reaffirmed sovereign rights of status over their natural resources and agreed to establish a fund through GEF to pay for the use of genetic resources of developing countries. Unlike the initiative on ozone layer, the progress on other major environmental issues like climate change and biodiversity is very tardy.

What appears to be apparent is that while economic globalisation appears to be increasingly embedded in strong institutional support systems, 'ecological globalization' seen in terms of challenges to sustainable development are still in search of empowered institutional support. At least two shortcomings are discernible. Firstly, the process of global environmental threat is not accompanied by any strong *political support*. As a result, no political leader has any interest to ensure that the emerging global ecological policy is managed in the best interest of the maximum number of people and on the basis of the principles of 'good governance', that is, equality, justice and democracy.

Secondly, there is no clear and transparent mechanism to integrate the two processes of economic and ecological globalisation. But nations are doing so individually, often in a covert manner, through the positions they take to set the rules for the two processes of globalisation. When leaders of nation-states meet to develop rules and regulations for economic globalisation they take positions to derive the maximum economic benefits for their national economies. When they meet to develop rules and regulations for ecological globalisation, they take positions which ensure that there would be either no costs or, at worst, least possible costs to their individual national economies.

As a result of these two shortcomings, the rules and regulations that are emerging generally tend to be based on the principles of 'business transactions' rather than on the principles of 'good governance'. Environmental diplomacy has turned into petty business transactions, not the establishment of fair and just global environmental governance systems. While business transactions are built on principles of mutual benefits regardless of their societal costs, governance systems are built on principles of democracy, justice and equality.

The issue of equity has become a very contentious one in environmental diplomacy. Equity is a prerequisite for global agreement, and environmental cooperation can only be possible through solutions that are both equitable and 'ecologically effective'. Without equity or a sense of fair play it is quite unlikely that there will be a long-lasting partnership to address and solve global problems.

Global equity is particularly important in global environmental negotiations which deal with the pollution or degradation of global common property, such as the stratospheric ozone layer, the atmosphere, or oceans. So far, these common property resources have been seen as free access resources - a situation that aided the industrialisation process of early entrants.

In the context of globalization, environmental concerns have not yet found an institution, which is as powerful as World Trade Organisation (WTO) in the arena of global trade. A widely shared feeling is that while WTO, managing world's trade, has become stronger, environmental institutions have become weaker in the years following the Rio Conference. World leaders are yet to design a unifying institutional framework for the global environment. The need of the hour is to rectify this institutional deficiency in the interest of sustainability of diversity of life on the planet and to evolve an environmental organization as effective, if not more effective, as WTO.

The driving force behind the present globalization process corporate capitalist interests in pursuit of larger and faster profits. The imprint of corporate capitalism is clear in the emergence of global institutions like the W.T.O. One of elements of resistance to corporate globalization could be seen in the form of growing environmental movements. The emergence and effectiveness of a world environmental organization would depend upon the power of public mobilization against the adverse environmental impact of the present globalization.

SAQ 3: List some of the successful global initiatives to arrest environmental degradation due to globalization.

1.6 SUMMARY

Beginning with the early 1980s the world has been experiencing unprecedented pace in the expansion of global trade, financial flows and spread of transnational production. This process has come to be widely known as globalization. It is aided by the revolution in information and communication technology (ICT), which has compressed time and space. While these rapid changes are seen as necessary to sustain fast growth, there are also concerns that the globalization process by hastening resource exploitation and by increasing industrial activity, especially in energy and transport sectors, has been causing considerable damage to environment. The environmental impact has been assuming global proportions in the form of emission of GHGs causing global warming or climate change and biodiversity degradation, besides unsustainable depletion of resources. The free trade and investment flows, which drive the globalization process, are also seen as environmentally harmful.

The proposition of developed countries to contain these adverse effects through environmental standards in terms of trade restrictions are resisted by developing countries. The latter see them as restrictions on their trading prospects. There is a growing consensus that the emerging environmental problems need global initiatives with the participation of developing as well as developed countries. At the behest of the UN, a number of initiatives have been made for restricting and reversing environmental damage. Some of the initiatives like the Vienna Convention and the protocols that followed on CFCs control and ozone layer have been very successful but other initiatives like the one on climate change are facing resistance. There is growing feeling

among many observers that to face the environmental challenges which are deepened by the present globalization process requires a multinational World Environmental Organisation (WEO), which should function as effectively on environmental issues as the WTO does in the arena of trade.

1.7 ANSWERS TO SAQ'S.

SAQ 1. Accelerated internationalisation of production , increased mobility of capital, greater role of technology.

SAQ 2: Increased industrial activity causing resource exploitation, emission of Green House gases causing global warming and biodiversity.

SAQ 3: Vienna Convention; Montreal Protocol, UN Conference on the Human Environment; Kyoto Protocol, UN Conference on Environmental and Development, Global Environment facility; Convention on Biological Diversity and Commission for Sustainable Development.

1.8 MODEL EXAMINATION QUESTIONS

1. What is globalization? What are its effects on environment?
2. What are environmental standards? Why are they opposed by developing countries?
3. Discuss the relationship between globalization and global climate change?
4. Discuss the emerging global environmental challenges and the effectiveness of global environmental initiatives.

1.9 GLOSSARY

Biodiversity

Biodiversity is the variety and variability among living organisms and the ecological complexes in which they occur. The term is helpful for reminding us that it is not just the total stock of living things that matters, but the range of different living things. Diversity of living things is essential for survival of species. Population growth, market driven exploitation of resources, wrong planning and government failure- have been the cause of loss of biodiversity. Protecting world's biodiversity is a difficult but an essential task

Brundtland Hypothesis

Brundtland hypothesis is about the link between the terms of trade and the environment. If the terms of trade decline, exporting countries must export more and more just to maintain foreign exchange earning constant. The pressure to export more primary commodities may lead to degradation of resources.

Environmental Standards

' Environmental Standards refer to restrictions on trade in commodities which are not subjected to certain environmentally damaging limits in their production or exploitation

Global Change or Global Climate Change or Global Warming

Refers to climatic change caused by global warming as a result of increase in Greenhouse Gases (GHGs)

Global Commons

The atmosphere and the Oceans beyond the exclusive economic zones surrounding national land masses. These are 'global commons' because they are owned by the world at large.

Greenhouse Effect

Greenhouse Effect is a process in which energy from the sun passes through the atmosphere freely, but the heat radiated back from the earth is partially absorbed by the GHGs. The increase in GHG's causes global warming.

Greenhouse Gases

Carbon dioxide, Nitrous Oxide, Methane, Chlorfluorocarbons (CFCs) are the main GHGs.

Sustainable Development

Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Ozone Layer

A layer of stratospheric ozone. Ozone layer blocks ultraviolet radiation from the sun. Depletion of the ozone layer increases the incoming ultraviolet radiation

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UNIT 2 : ENVIRONMENTAL CALAMITIES

CONTENTS

- 2.1 Aims and Objectives
- 2.2 Introduction
- 2.3 Natural calamities
- 2.4 Earth quakes
- 2.5 Floods
- 2.6 Droughts
- 2.7 Cyclones
- 2.8 Preparedness and Management
- 2.9 Summary
- 2.10 Answer to SAQs
- 2.11 Model Examination Questions

2.1 AIMS AND OBJECTIVES

After studying this unit, you will be able to

- (i) Define environmental calamities classify them
- (ii) Discuss the impact of environmental calamities on society
- (iii) Identify the need for preparedness to reduce adverse effects

2.2 INTRODUCTION

We often use the words catastrophe, cataclysm, calamity and disaster to refer to personal and public misfortunes that result in grave loss of properties and (or) heavy casualties. Though the dictionary meanings may seem synonyms, there are qualitative and quantitative differences in the extent of damage to life, property and well being of biotic and abiotic entities as well as in the range of the effects on a time scale. Much before man woke up to the effects of globalization, calamities like floods, earthquakes, eruption of volcanos, and forest fires were wreaking havoc on human lives. But with rapid industrialisation, exploitation of non-renewable natural resources, construction of huge dams, deforestation, indiscriminate use of chemicals and man in his greed for quick returns with lower inputs contributed to escalation of occurrence of these calamities. This coupled with man-made disasters like nuclear accidents, industrial accidents, disposal of toxic wastes, accidents in the transportation of hazardous wastes, oil spills and emission of green House Gases has created a situation that

threatens the existence of humanity. There are sections of scientists and social scientists who argue that all environmental calamities are man-made disasters where as others argue that development and economic growth can not be achieved unless by taking calculated risks. These issues are debatable but the issue at stake is the survival of humanity. It is to be acknowledged that the margin between natural calamities and man-made disasters is becoming thinner by the day.

2.3 NATURAL CALAMITIES

According to World Health Organisation, an environmental calamity is an event that causes damage, economic disruption, loss of human life and deterioration in health and health services on a scale sufficient to warrant an extraordinary response from outside the affected community or area.

Natural calamities adversely effect the lives of a large number of people, cause considerable damage to infrastructure and property. The ill effects are more pronounced in developing countries because of lack of preparedness, lack of sufficient warning time, lack of facilities for quick access to the site of calamity.

At global level, Asia is more prone to natural calamities. It is reported that for each major natural calamity in Europe and Australia, there are ten in Latin America and Africa and fifteen in Asia. According to CRED world disaster report (1998), the ratio of those killed to those affected depends on the type of calamity, degree of preparedness and the density of population. For example floods effect many and relatively less number is killed where as in earthquake many lives are lost but relatively less number is affected. The following table gives the annual average number of people killed or affected over the ten years (1987-1996).

Country	Killed (approximate)	Affected (approximate)
Bangladesh	44,000	18,574,000
India	5063	56,563,000
Nepal	780	201,000
Pakistan	750	1,407,000
Srilanka	100	504,300
Bhutan	5	7,000
Maldives	1	30

Source CRED world disaster report (1998)lives

Natural calamities could be broadly classified under following headings.

- (i) Atmospheric - Rains, Glazes, Hail storms, winds lightning, fog, heat/cold waves, etc
- (ii) Hydrologic - Floods, sea-shore waves, glacier advances, waterlogging, etc
- (iii) Geologic - Land slides, avalanches, Earthquakes, volcanic eruptions, shifting sands etc.
- (iv) Biologic - Severe epidemics (in humans, plants, animals), forest fires pest invasions (locusts) etc.

Any one or a combination of several of the above mentioned calamities may result in famine or drought. There have been arguments that famines and draughts are entirely man-made and could not be termed as natural calamities. But famines and droughts had been there even

before the present appearance of globalisation or massive industrialisation. The following table gives the annual average number of people killed by type of disaster in the period 1972 to 1996, (Source UECD, 1998)

Period	Earth quake	Famine Drought	Floods	High winds	Land slides	Volcano eruption	Total
1972-1976	64,170	253,800	7,232	4,877	1,142	9	331,330
1977-1981	5,821	56	4,900	6,729	343	129	17,979
1982-1986	3,210	111,832	4,269	6,494	488	4,740	131,033
1987-1991	15,548	1,852	39,787	57,803	1,184	151	116,325
1992-1996	4,826	489	7,293	3,797	807	56	17,268
(1972-1996 average)	18,715	73,606	12,696	15,960	793	1,017	122,787

There is no discernable trend in number of deaths due to one type of calamity or the other. Famine was the biggest killer in the early 70's. But the situation has considerably improved over the years. Improved preparedness, building up of buffer stock of food grains, early response to mitigation of suffering of people may be reasons for lower death toll in recent years.

SAQ 1. What are the classes into which natural calamities could be classified.

2.4 EARTH QUAKES

Ancient people believed that earthquakes occur when ever evil deeds exceed the good deeds on earth. Subsequently, Aristol proposed that earth quakes resulted due to rumbling sound in earth caused by movement of hot air masses trying to escape from the hollowed outer parts of earth's interior. With the invention of high sensitive seismic instruments, and with the advancement of science, and studying the pre and post effects of earthquakes in different parts of the world, the geoscientists and seismologists were able to explain the reasons for occurrence of earthquakes. But there have been different explanations for earthquakes, in different parts of the world.

It is now generally accepted that an earthquakes is a vibration(s) of the earth produced by the release of energy. This energy radiates in all directions from its source (epicentre). Earthquakes can also occur because of atomic (nuclear) explosions or by volcanic eruptions. Large reservoirs with their hydro-static pressure of water may also induce earthquakes.

In order to understand the strength and severity of an earthquake it is necessary to measure its intensity. There are several methods to measure the intensity by the effect an earthquakes produces on life and property. Two Italian seismologists Rossi and Forel introduced a scale known by their names. It consists of ten divisions, the higher the number on the scale the greater will be the damage caused. This scale was found to be unsuitable and subsequently Mercalle scale or Richter scale was introduced. The Richter scale describes the amplitude of the earthquake wave radiating out in all directions from the focus (epicentre) which is closely related to the amount of energy released. This is also a measure of ground motion as recorded on a seismograph. A relation between the Mercalli number, characteristic and the Richter scale are given in the following table.

Mercalli No.	Effect	Characteristic	Richter scale
I	Instrumental	Detected by seismographs	less than 3.5
II	Feeble	Noticed by some people at rest	3.5
III	Slight	Similar to vibration of a passing truck	4.2
IV	Moderate	Felt indoors, parked cars rock	4.5
V	Rather strong	Most sleepers wake up	4.8
VI	Strong	Trees sway, furniture moves some damage caused	5.4
VII	Very strong	General alarm, walls crack	6.1
VIII	Destructive	Weak structure damaged	6.5
IX	Ruinous	Houses collapse, ground cracks	6.9
X	Disastrous	Many buildings destroyed/ razed; Rails bend	7.3
XI	Very Disastrous	Few buildings survive; land slides occur	8.1
XII	Catastrophic	Total destruction, ground formed waves	greater than 8.1

The number, scale and characteristics are many times deceptive. There have been instances a lower number caused most severe damage depending on the distance of the place to the focus (epicentre), the density of population, the nature of civil constructions, the nature of the ground and concentration of physical structures on the ground.

There have been experiments to predict an earthquake and determine the zones that are prone to the earth quakes. How ever most of them proved to be not very satisfactory. For example changes in seismicity, physico-chemical changes, changes in Landforms, changes in animal behaviors are some of the parameters that could lead to the prediction of an earth quake. However, though alot of theory has been developed in the method of prediction, at practical level, none seems to work. Of late several strategies have been proposed – artificially inducing controllable earthquakes of very small intensity to reduce the building up of energy in the earth's crust or release the stress before it reaches critical levels through underground nuclear explosions. But these may turn out to be uncontrollable to be experimented beyond the laboratories.

It is now accepted that people must be made aware of methods of minimizing the risks. Training public in Earthquake Resistance Construction in prone areas may yield some results.

SAO 2. What is the scale popularly used to measure the intensity of an earthquake?

2.5 FLOODS

Floods are the most common of all natural calamities. Floods regularly claim over 20 thousand lives and adversely affect 75-million population annually world wide. Bangladesh alone is by far the most flood prone country accounting for about two third of global loss of life. India accounts one fifth of global death count and loss of Rupees 600-million an year on the average. More than the loss of life and damage to property millions of people are displaced every year due to floods in South Asian countries. Floods are natural calamities that affect the poor populations than the rich.

A flood is the discharge of water that exceeds the canal capacity of the river. Floods are

caused by many different factors, the most of them include:

- climate extremes – heavy and prolonged rainfall,
- melting of snow and ice
- collapse of dams
- land slides
- silting of river beds reducing the carrying capacity of rivers
- lack of coordination between officials of adjoining districts or states facing similar problems.

There was a case study of two adjoining districts A and B (say) that were threatened by floods. The canals flowing from district A were bringing huge quantities of water into villages in district B. There was one canal which breached off from district A into dryer areas. Since its elevation was higher it was not carrying any water resulting in heavy inflow of water into district B. The collector of district B in consultation with his counterpart in district A, installed pumps a little unstream hand pumped water into the canal flowing into dryer areas. This not only saved many villages of district B from inundation but also resulted in meaningful use of surplus flood water for irrigation of dry areas. The collector of district A, however, had to pacify the political discontent and control the misinformation about raising water levels in his district. This may be only an exceptional example not possible to apply every where, but highlights the point that the officials on field, if they search for solutions, can find solutions that may reduce the affects of floods and alleviate the suffering of people and save the properties.

It is possible to reduce the adverse effects of floods by

- construction of dams and reservoirs at appropriate places
- strengthening the embankments on rivers and canals
- improving the carrying capacities of rivers, canals and reservoirs by periodical desilting and deepening operations
- enhancing the deepening, widening and lining of canals and periodically deepening and desilting the drainage channels
- diversion of flood waters from a river or a channel into other canals and channels.
- introducing flood plain management techniques
- prepare natural ponds, reservoirs, tanks and leading channels by removing obstructions and avoiding constructions.

Though it is known or easy to predict before hand the onset of floods, the administration, and people, more often than not, do not wake up to the situation before it is too late to press into service the preventive measures. A study of the damage caused by the floods often indicate that the damage to property and loss of life or displacement of people could be reduced if only the Governmental agencies, coordinate their activities and act in time to address the calamity.

2.6 DROUGHTS

Drought can be defined as a prolonged period of unusually dry weather, with little rainfall, in a region where rains are normally expected. As such a drought differs from a dry climate which is usually associated with a region that is normally or seasonally dry. Droughts often last for years. Drought is a creeping calamity because it develops slowly and have a prolonged existence. Droughts are not confined to any particular tectonic or topographic setting

and their impact extend over very large areas and regions. The impact of drought affect the developing countries more severely than the developed countries. The early effects of drought from endemic seasonal hunger and the resulting malnutrition cause immense misery to poor people.

Droughts could be classified into four types:

- (i) Meteorological drought : rainfall deficit
- (ii) Hydrological drought : river flow deficit
- (iii) Agricultural drought : soil moisture deficit
- (iv) Famine drought : food deficit

Though climate is usually the prime trigger of drought, the situation is often made worse by the way people use the water resources. Felling trees for firewood, denuding the forest for agricultural or housing purposes, mining, unscientific farming method, indiscriminate drawing of ground water cause droughts. It is argued that serious droughts in developing countries are more a function of global developmental policies than climatic conditions.

Droughts produce series of direct and indirect impacts that usually extend for beyond the area that is experiencing the actual water shortage. These may be classified as

- Economic – Loss of crop, dairy, livestock, fishery produce;
- Environmental – Damage to plant animal species, erosion of soils;
- Social – Food shortage, damage to health, conflicts between water users

It is possible to take precautions in drought prone areas by constructing reservoirs, educating people in water conservation, scientific farming and optimal use of ground water resources.

2.7 CYCLONES .

One of the most common coastal calamities is the cyclone. Cyclones claim many lives and cause damage to property every year. A tropical cyclone that struck northern Bay of Bengal in 1970 caused tidal waves of 6 meters high killing three hundred thousand people and destroying 65% of the total fishing capacity of the coastal region. During the cyclonic storms winds move forward with a speed of 25km/hr and times reaching 200 km/hr destroying every thing on their path.

The cyclones are caused in the tropical belt when sea water gets heated upto 27°C and more, so that low pressure areas develop above the water levels. The low pressure areas remain stationary for three to four days and draw energy form the sea surface. As the pressure in the centre falls the wind speed increases and cloud burst start spiraling around the centre causing squalls. As the pressure falls in the centre, the winds in the surrounding areas rush inwards creating spirally moving storms. The cyclone then moves landward towards areas of lowest pressure.

To day with the advancement in weather prediction techniques, Remote sensing satellites and Cooperation between countries in sharing information on weather conditions, it is possible to predict the birth of a cyclone and monitor its movements to pin point the area that it hits the coast. In spite of this, the damage caused is very severe, the well planned relief operations going haywire in the last minute. In the areas that are prone to cyclones, the governmental and non governmental agencies have perfected the drill and the routine to be followed in pre, during

and post cyclonic storms. But more often than not, lack of coordination between different agencies or working at cross purposes and starting the preparations at the last minute will undo all the planning. The case in point is the cyclone shelters constructed along the eastern coast in Andhra Pradesh. None of the shelters is well maintained and have become uninhabitable and unusable when needed.

2.8 PREPARATION AND MANAGEMENT OF CALAMITIES

There have been specific ways of countering natural calamities in general but some important strategies will now be detailed.

“Emergency preparedness is to be viewed as a programme of long term development activity whose goal is to strengthen the overall capacity and capability of a country to manage efficiently all types of emergencies and bring about an orderly transition from relief through recovery and back to sustainable development.”

Emergency preparedness is an on-going multi-sectoral activity. It forms an integral part of the national system responsible for developing plans and programmes for emergency management, prevention, mitigation, preparedness, response, rehabilitation and reconstruction.

The International Decade for Natural Disaster Reduction (IDNDR) was established by United Nations to run for a period of ten years starting January 1990. The basic aim is to encourage further recent trends in natural disaster management from a reactive strategy of post disaster improvisation, which relies heavily on relief aid, to a more pro-active strategy of pre-disaster planning and preparedness. According to IDNDR (1992), the five goals of the Decade were identified as:

- (i) To improve the capacity of each country to mitigate the effects of natural disasters expeditiously and effectively, paying special attention to assisting developing countries in the assessment of damage potential and in the establishment of early warning systems and disaster resistant structures when and where needed.
- (ii) To devise appropriate guidelines and strategies for applying existing scientific and technical knowledge, taking into account the cultural and economic diversity among nations.
- (iii) To foster scientific and engineering endeavour aimed at closing critical gaps in knowledge in order to reduce loss of life and property.
- (iv) To disseminate existing and new technical information related to measures for the assessment, prediction and mitigation of natural disasters.
- (v) To develop measures for the assessment, prediction, prevention and mitigation of natural disasters through programmes of technical assistance and technology transfer, demonstration of projects, and education and training, tailored to specific disasters and locations and to evaluate the effectiveness of those programmes.

Effective risk management of any calamity depends on the implementation of a sequential series of actions. The individual stages often overlap but it is crucial that they operate as a closed loop because the major objective is to learn from past experiences and prepare an action plan based on the feedback.

- Pre-planning covers a wide range of activities like construction of defensive engineering works, land use planning, formulation, dissemination and maintenance of evacuation plans;

- Preparedness reflects the degree of alertness, immediately before and after the occurrence of calamity, arrangement for emergency warnings and preparedness based on earlier experiences,
- Response deals with events immediately before and after the occurrence of the calamity and pressing into service relief activities;
- Recovery and reconstruction are long term activities that attempt to return to normally after the occurrence of the calamity.

It is unfortunate but true that although environment is clearly something that humans value, it is usually prioritised less by people when they are faced with threats to their own lives or immediate possessions.

SAQ3. What is the new strategy for mitigation from natural calamities?

2.9 SUMMARY

Earth quakes, floods, droughts, cyclones, volcanic eruptions can not be predicted in advance and when they occur they cause great loss of life and extensive damage to property and infrastructure. Natural calamities have been occurring from times immemorial but of late the damage caused has become qualitatively and quantitatively more causing in loss of human life and property over larger regions disrupting essential services and social structure. The United Nations called upon National Governments to integrate disaster mitigation programmes with development planning. Development if viewed as the process which enhances society's access to resources and their application to improve quality of life of the members of society in terms of their well being and access to amenities, then the same development contributes to the frequent occurrence of natural disasters. The ability of an individual, family, community and nations to protect themselves, against the adverse effect of a natural calamity is determined by their economic strengths. It is estimated that 95 percent of deaths from a natural calamity occur among 66 percent of the world population living in poorer countries. For example the major impact of drought is felt by agricultural laborers and small farmers, the major impact of floods are felt by the settlements of poorer sections of populations in the developing countries living in flood prone areas and the effects of earthquakes are felt by poor families living in fragile households. Under certain circumstances development can increase disaster proneness. The location of a dam in an area of high seismic activity, the construction of roads in terrains are unstable geomorphological conditions and promotion of water intensity crops in areas of unpredictable rainfall are examples of development measures dictated by policies of globalization leading to or aggravating phenomena of natural calamities. In spite of the absence of prediction mechanisms to pinpoint the location, timing and intensity of natural disasters, preparedness, management, pre and post operative mechanisms help the mitigation of suffering and in reconstruction mechanisms.

2.10 ANSWERS TO SAQS

SAQ1. Atmospheric, Hydrologic, Geologic, Biologic

SAQ2. Richter scale in the range of 1 to 10 with a scale of 6.5 and more to be destructive

SAQ3. To shift focus from reactive strategy relying on distribution of relief aid in post calamity period to a proactive strategy for pre calamity planning and preparedness.

2.11. MODEL EXAMINATION QUESTIONS

1. Define a natural calamity and give a few examples. Explain the causes that cause natural calamities?
2. What are the basic aims of the International Decade for natural disaster reduction?
3. Elucidate the strategies to mitigate the suffering caused by natural disasters?

Dr. J. Ravi Kumar

UNIT 3: MAN – MADE DISASTERS

CONTENTS

- 3.1 Aims and Objectives
- 3.2 Introduction
- 3.3 Man - Made Disasters
 - 3.3.1 Consequences of Man-made disaster
- 3.4 Toxic wastes
 - 3.4.1 Disposal of toxic wastes
- 3.5 Wars and population displacement
 - 3.5.1 Direct and Indirect war time impacts
- 3.6 Nuclear Weapons
 - 3.6.1 Limiting the effects
- 3.7 Industrial Accidents
- 3.8 Global Warming
- 3.9 Ozone depletion
- 3.10 Summary
- 3.11. Answers to SAQ's
- 3.12 Model Examination Questions
- 3.13 References

3.1 AIMS AND OBJECTIVES

After studying this unit you will be able to

- (i) Distinguish between natural calamities and man-made disasters
- (ii) Give some examples of man-made disasters and list some preventive measures
- (iii) Explain the impact of man-made disasters on Public health

3.2 INTRODUCTION

Man-made disasters are major causes of premature death, impaired health status and diminished quality of life. A disaster can be defined as an occurrence that causes damage, ecological disruption, loss of human life or deterioration of health on a scale sufficient to warrant an extraordinary response from outside the affected community or area. A hazard is any phenomenon that has the potential to cause a disaster or cause disruption of damage to people and environment. There are many types of disasters beyond those that are usually considered "natural". The relative number of injuries and deaths differ, depending on a number of factors such as type of disaster, the density and distribution of population, condition of environment, degree of preparedness and the opportunity of warning.

3.3 MAN-MADE DISASTERS

Man-made disasters may be classified in to three types:

- (i) Sudden disasters
- (ii) Insidious and continuing disasters
- (iii) War and civil conflicts

Sudden disasters are those in which human factors, rather than natural factors, bear the major responsibility. The release of methyl isocyanate at the pesticide plant in Bhopal, India in 1984, leakage of radio active substances following an explosion at the Chernobyl nuclear power reactor in the Soviet Union in 1986 are a couple of examples of sudden disasters. Sudden disasters that are considered 'natural' may often be caused by preceding human activities. Mining catastrophes, earthquakes, sudden floods, land slides may be the result of indiscriminate deforestation or of construction of dams or by seemingly unrelated human activity.

Insidious and continuing disasters include examples like the leakage of toxic chemicals from a dump site at love canal in Buffalo; the tainting of the soil in Times Beach with dioxin oils sprayed on the roads and leakage of radio active materials dumped at wastage dumps at nuclear weapons production facilities. Some natural phenomenon like prolonged drought may be examples of continuing disasters. Disasters like global warming or the green house effect caused by heat trapping gases in the atmosphere released by burning of fossil fuels, use of chlorofluorohydrocarbons in aerolised perfumes and acid precipitation also come under the disasters under this category.

Since World War II, there have been about 127 wars and civil conflicts resulting in 21.8 million deaths involving more than 50 percent of civilians. The proportion of civilian casualties has been increasing in the wide ranging Air strikes and modern war fare tactics putting entire populations at risk. Disrupting food production imperlling fragile ecosystem and forcing native populations flee from their natural habitats, have been the results of war and civil conflicts.

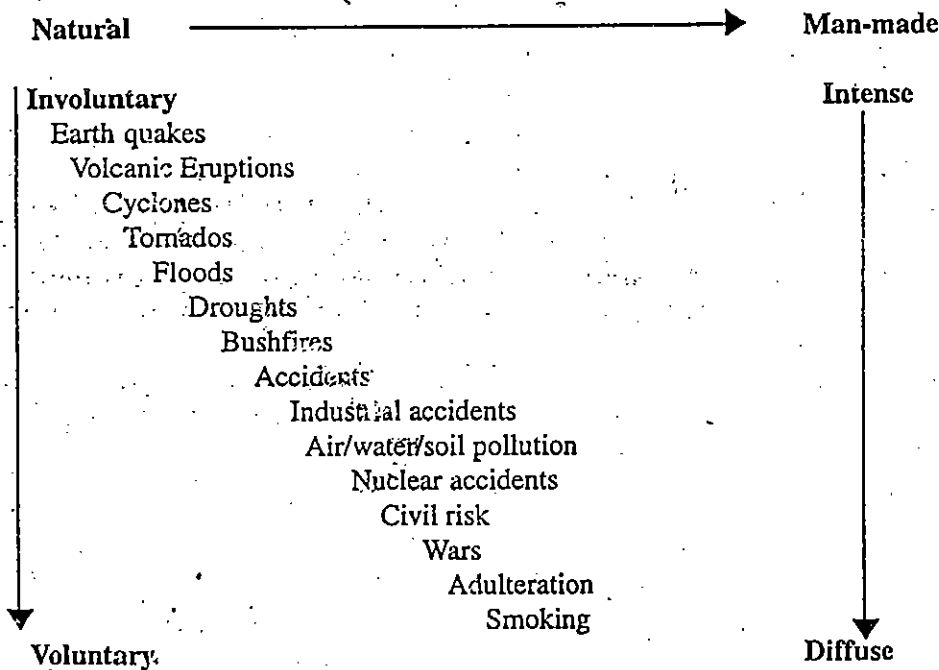
SAQ 1: What are the classes into which man-made disasters be classified? Give one example of each?

3.3.1 Consequences of Man- Made Diasters

Man-made disasters can cause short term morbidity, mortality and damage the quality of life and cause premature deaths. The causes of short term morbidity result in injuries, emotional stress, epidemics and increase in indigenous diseases.

The public health response to man-made disasters is the primary prevention i.e., the prevention of the occurrence of the disaster. Tighter safety regulations of chemical production facilities of hazardous substance would reduce the hazards substantially. Locating these facilities away from populated areas and human habitats would reduce the loss to human life and property. Built in mechanisms to counter human errors, ensure safety regulations with quality inputs in engineering and technological safety measure as well as early warning system would result in reducing these disasters if not completely eliminate them.

The following diagram gives a general spectrum of environmental calamities and man-made disasters. The degree of human responsibility for a calamity/disaster increases from geophysical calamities to society induced disasters like smoking.



It is to be inferred that except natural disasters all other disaster can be prevented. It has been estimated that the number of man-made disasters are more in developing countries (in Asia and Africa) than in developed countries (in Europe and America). One of the causes for man-made disasters is the emergence of free market economies in which economic factors play a central role in decision making in production, use of resources and treatment of wastes, short time horizon over which decisions are taken for profit maximization at the cost of safety standards

3.4 TOXIC WASTES

The peculiar nature of human beings is that they change their environment to suit their biological and social needs. In this transaction they utilize the material necessities (Resources) and produce worthless and some times harmful by products. These by-products are termed as

wastes and may be in the form of gases, liquids or solids. Direct or indirect exposure to toxic wastes and hazardous chemical agents have been implicated in numerous adverse effects on humans from cancer to birth defects. The old pollutants like lead, mercury, industrial solvents and pesticide residues, are still concerns in many parts of the world. There is reasonable level of understanding on the effects of their effects on human health. Although protective measures are not always adequately implemented, there are provisions to reduce their harmful effects on human health and environment. But each day newer and newer industrial toxics are found in several household products, chemicals and pharmaceuticals. There is far less knowledge about the long term toxicological effects on human health and environment. It has become a common occurrence of accidents in the transportation of industrial and hazardous waste products and inadequate management of disposal of these wastes.

So important was the problem of avoiding dumping hazardous wastes in the back yards of poor countries, that two important conventions were held and the member countries signed the agreements. The first one was BASEL CONVENTION ON THE CONTROL OF TRANSBOUNDARY MOVEMENTS OF HAZARDOUS WASTES AND THEIR DISPOSAL (1989) and the second was BAMACO CONVENTION ON THE BAN OF THE IMPORT INTO AFRICA AND THE CONTROL OF TRANS BOUNDARY MOVEMENT AND MANAGEMENT OF HAZARDOUS WASTES WITHIN AFRICA (1991)

3.4.1 Disposal of Toxic Wastes

The output of hazardous wastes world wide was about 400 million tons in 1990s of which 300 million tons were produced by OECD countries. These wastes are derived mainly from chemical industries, energy production industries, pulp and paper producing factories, mining industries and leather tanning processes. Though tighter regulatory controls are enforced on these industries in developed countries, resulting in increased costs of waste treatment and disposal, the developing countries and countries with no stringent control measures have become a haven to shift the production operations from developed countries to developing countries. Officially, less than 1000 tons of wastes an year are traded to developing countries, the illegal traffic in hazardous wastes poses a potentially serious threat to environment and human health in the developing countries.

One way of combating such illegal trade is through a system called Prior Informed Consent (PIC) for certain hazardous substances in International Trade. Operated by FAO and UNEP, PIC is a procedure that helps the participating countries learn more about the characteristics of potentially hazardous chemicals that may be supplied to them. This in turn would generate the necessary public opinion to put pressure on the governments to act in a responsible way. The procedure would also help the dissemination of information to other countries and promote a shared responsibility.

Though all wastes are disposed off into the environment, some wastes enter the environment in a controlled manner than others. Some wastes are treated before disposal and others are disposed directly from the source. Wastes produced from combustion of fuel by motor vehicles are emitted directly into atmosphere, sewage wastes are disposed into rivers and oceans. Since air, rivers and oceans are global commons, this common ownership has facilitated unregulated disposal of wastes.

One of the consequences of Technological Revolution in Agricultural production processes has been the release of refuse and residual chemicals into environment. Chemical fertilizers,

hybrid feeds for poultries, slaughter house wastes, salt and silt drained from irrigated lands as sediments have been causing irreparable damage to fertile lands.

Several disposal techniques had been in vogue to manage the hazardous wastes. The most popular being land fills and under ground deposits. A case in point was the disposal of water waste contaminated in the production of chemical warfare agents like mustard gas, white phosphorus and napalm outside Denver Colorado during the 60s. The geology of the area beneath the site (fractured precambrian gneiss) looked suitable to dig a disposal well over 3500 m deep to deposit the liquid waste. Soon after a series of minor earth quakes were detected in the area which had no known history of seismic activity or instability. Between March 1962 and November 1965, over 700 minor earth quakes were monitored in the area. The geologists established direct link to the underground disposal of liquid wastes and the occurrence of earth quakes resulting in stoppage of this method in 1996.

There is no doubt that the best way to manage the waste is to prevent it at the source wherever possible. The argument that prevention is better than cure is put by UNEP'S Industry and Environment Programme Activity Centre:

When end-of-pipe pollution controls are added to industrial systems, less immediate damage occurs. But these solutions come to increasing monetary costs to both society and industry and have not been proven to be optimal from an environmental aspect. End-of-pipe controls are also reactive and selective. Cleaner production, on the other hand, is a comprehensive preventable approach to environmental protection.

(UNEP/IE/PAC, 1993:1)

Cleaner production is achieved by examining all phases, of a product's life cycle, from raw material extraction to its ultimate disposal and reducing the wastefulness at any particular phase. Hence cleaner production shall encompass:

- Conservation of energy and raw materials
- Reduction in the use of toxic substances
- Reduction in the quantity and toxicity of wastes
- Extension of product durability

These measures combined with Equalization, Neutralization, Physical, Chemical and Biological treatment of toxic wastes would reduce their adverse effects in their disposal into environment.

SAQ 2: List some of the sources of toxic wastes.

3.5 WARS AND POPULATION DISPLACEMENT

Aggression appears to be a fundamental characteristics of human race and violence has been used to resolve disputes since pre-historic times. If a war is defined as a conflict resulting in 1000 or more deaths, there have been 471 wars since 1700 resulting in 100 million fatalities. More than 90 percent of the war deaths in these three centuries have occurred in the twentieth century alone.

Since the end of second world war, more than 130 wars and violent internal conflicts have raged in more than 80 countries, most of these being in the developing world. Arms imported by developing countries, half of which financed by export credits, resulted in 30 percent debt burden on these countries. The scale of military spending and trade offs with social and envi-

ronmental priorities as quoted by Tolba (1992) are:

- UNEP spent US\$450 million in the decade 1980-90 is less than five years worth of global military spending of a few nations.
- One Apache helicopter costs US\$12 million a sum that could pay for installing 80 thousand hand pumps to give the third world access to safe water
- One day expenditure on the 1991 war over Kuwait could have funded a five year global child immunization programme against six deadly diseases saving one million children an year.

War is no more confined to war zones and those fighting the war directly. In recent times there have been more civilian deaths than military deaths and hundred and thousands of people were being displaced as refugees. A high percentage of those dying or affected in these conflicts are children. Air power and wide ranging nature of modern war put entire populations at risk, disrupting food production, imperiling fragile ecosystems and forcing entire populations flee from their natural habitats. The geography of war fare has also changed radically. In recent times most of the wars are fought in developing countries with indirect and covert involvement of major powers.

During the past five decades civil wars representing power conflicts within nations have increased sharply. Though these are termed as civil conflicts or civil disturbances, powerful weaponry with tacit support of global industrial nations is being used resulting in high casualties and public health risks.

3.5.1 Direct and Indirect Wartime Impacts

The relationship between people and their environment can be changed significantly during wartime. Priorities are altered, certain resources are used more rapidly to fuel the war effort. In the time of Henry VIII, for example, many of England's oak trees were cut down to build war ships. Destruction of agriculture land and wood land during prolonged trench warfare in coastal plains of France and Belgium, most of the forests were destroyed.

Deliberate destruction and manipulation of environment has been used by armies to gain military advantage. 'Scorched earth' policies in which vegetation and crops are deliberately destroyed to prevent their use by the enemy has been one of the age-old military tactics. In Afghanistan, the deliberate and inadvertent destruction of forest lands reduced the forest cover to alarming proportions in the past two decades. Long lasting adverse environmental effects are attributed to areas where biological weapons are developed and tested. A classic example is the island of Gruinard, off the West Coast of Scotland, which was the site of experiments with highly contagious anthrax spores during second world war. The island remained uninhibited by government decree until 1988, but even now complete decontamination is difficult to guarantee (Szasz, 1995)

Weapons of mass destruction are indiscriminate, killing, maiming and injuring entire populations, destroying and contaminating ecosystems transcending geographical and natural boundaries. Medical response after the use of such weapons in war could not restore life to the millions or restore biotic and abiotic environment.

Since the World War II, an estimated US\$16 trillion has been spent on production of military hardware. Several of industrialized nations spend huge amounts of their resources on arms production. They are the main suppliers of arms to developing nations, depleting their revenues

from spending on areas of health, education and well being. Along with the diversion of revenue to military research, arms spending diverts scientists from working to improve health and quality of life. It is an irony that the world expenditure on weapons research far exceeds the combined spending on development of cleaner energy technologies, improvement of health standard, increased agricultural productivity and control of hazardous pollutants.

3.6 NUCLEAR WEAPONS

A massive and unprecedented change in potential consequences of wars began with the development of nuclear weapons. In the years since their use on Hiroshima and Nagasaki in 1945, the number of in the world's nuclear arsenals has grown tremendously by about 50,000 by conservative estimates. Though there is not much direct information on the possible environmental effects of a nuclear war, some insight can be gained from the detonation of only two nuclear device used in warfare to date, in Japan at the end of second world war. Though these nuclear devices were relatively very small when compared to the sophistication and the yield, of present day weapons the destruction caused by the devices of 1945 make one frightful of the consequences should today's devices are to be used. Let us look at the following data:

	Hiroshima	Nagasaki
Date of detonation	6 Aug 1945	9 Aug 1945
Type	Uranium 235	Plutonium
Height of explosion	580 meters	503 meters
Yield	12.5 kiloton TNT	22 kiloton TNT
Total area demolished	13 km ²	6.7 km ²
Bldgs completely destroyed	67.9%	25.3%
Bldgs partially destroyed	24%	10.8%
Number of people killed (by Dec 1945)	70,000	90,000-120,000

The most important cause of death and physical destruction was the combined effects of the blast and thermal energy. The fire ball created by the blast was so intense that it evaporized all life at the epi-centre and burnt human skin up 4km away. The effects of radiation was felt by humans of the successive generations as well.

The production and testing of nuclear devices would affect the environment adversely. Underground testing of nuclear devices has triggered earthquakes in a number of places. The radio active fall out endangered all living organisms. One of the great environmental scares of the 1980s was the prospect of a nuclear winter triggered by detonation of nuclear devices during war. Apart from the destruction of human life and properties, massive clouds would blot out sun light from large areas for many weeks, triggering atmospheric and climatic changes which would result in a colder world climate after any nuclear detonation.

3.6.1 Limiting The Effects

Numerous treaties, conventions and agreements have been adopted to prevent utter human and environmental devastation in the use of nuclear weapons, their testing and their destruction. But the effectiveness of such agreements and treaties, as a deterrent on non compliance is difficult to evaluate and enforce. Even arctic is not spared of nuclear pollution. For example Soviet naval authorities have been dumping nuclear liquid wastes and buried solid nuclear wastes from their submarines along the eastern coast of Novaya Zemlya and in the Barents and Kara seas. It is observed (AMAF 1997) that these sites represent an important potential threat of nuclear contamination.

SAQ 3: What is nuclear winter ?

3.7 INDUSTRIAL ACCIDENTS

Most of the industrial accidents are avoidable if proper safety standards and protocols are implemented and followed. The dangerous gas and hazardous substances released during the accidents affect life forms across the boundaries of neighboring states and countries. In Seveso, Italy, in 1976 an explosion in a chemical plant released dioxin into the air killing hundred thousand animals and contaminating 5000 area of land. The 1984 the explosion at Bhopal, India released nearly 40 tons of Methyl Isocyanate (MIC) which had devastating effect on human life and long term ill health and disability. The convention on the transboundary effects of Industrial Accidents (1992) made it obligatory on the signatories that among other things.

- The parties shall ensure that adequate information is given to the public in the areas capable of being effected by an industrial accident.....
- Establish and operate a compatible and efficient industrial accident notification system to contain and minimize adverse effects.

Though the Hague declaration of 1989 outlawed the use of "poison gases" in war, yet chlorine, phosgene, mustard gas, tear gas are still produced and used in covert operations. Some poor nations which can not afford the most sophisticated weapons consider these chemical weapons as 'poor nations nuclear weapons' and there by creating demand for production of dangerous chemicals.

Emergency planning, emergency preparedness and emergency prevention would to a large extent reduce the vulnerability of populations to the industrial accidents.

3.8 GLOBAL WARMING

Increase in global temperatures are likely to effect many atmospheric parameters like precipitation and wind velocity resulting in incidence of extreme weather conditions. Global warming is the result of the release of green house gases and threaten to set in such climatic changes that earth has not previously experienced. A projected temperature rise of up to 3°C by 2050 is expected to rise sea levels up to 20 to 60cm. Tropical forests are predicated to decline and suffer further declines in bioadiversity. Nitrogen and Oxygen are two most abundant gases in the atmosphere. A number of atmospheric gases absorb radiation at wave lengths longer than about 4 μm. Earth emits radiation at between 4 and 100 μmm with a peak at 10 μm. About 94 percent of this outgoing long wave radiation is absorbed in the atmosphere.

Indiscriminate burning of fossil fuels, emissions of pollutants from motor vehicles, emission of poisonous gases from chemical industries contribute to global warming. The effect is caused more by industrial and developed nations and the effect will be acutely felt by all the nations for no fault of theirs.

The United Nations Framework Convention on Climate Change (1992) acknowledging that human activities have been substantially increasing the atmospheric concentrations of green-house gases, determined to protect the climate system for the present and the future generations. The signatories agreed to promote and cooperate in education training and public awareness related to various aspects related to climate change and encourage widest participation in this process including that of non governmental organizations.

3.9 OZONE DEPLETION

When five decades ago inert gases like chlorofluorocarbons were discovered to be used in refrigeration, scientific community thought it was a scientific breakthrough in the service of humanity. These inert gases are being used extensively in refrigeration fluids, blowers in foam making, aerosol propellants, solvents and in fire extinguishers. It is now established that each CFC molecule that escapes into atmosphere sets in chain reaction combining with ozone molecule a chemical reaction that destroys thousands of ozone molecules. These irreversible chemical reactions are observed to occur at middle and high latitudes with ozone depletion depending on both the season and latitude.

Ozone layer screens out lethal ultraviolet(UV) radiation. Depletion of ozone layer allows more ultra violet radiation to reach earth resulting in a great threat to life on earth. The developed and industrialized nations have been using these ozone depletion chemicals and the developing nations were the late entrants in using the technology using the Ozone depletion agents.

There have been several conventions and protocols starting with (i) Vienna convention for the protection of ozone layer (1985) and (ii) Montreal Protocol on substances that deplete the ozone layer (1987), (1990) and (1992).

Though the international community was successful to an extent in its approach to addressing the problem of protecting the stratospheric ozone layer there is need to have a new kind of diplomacy to tackle such similar global ecological threats.

- Scientists must play an unaccustomed but critical role in international environmental negotiations.
- Governments must act responsibly balancing the risks and costs for acting or not acting.
- Multilateral diplomacy involving coordinated negotiations among many government agencies.
- Educate and mobilize opinions essential to put pressures on hesitant governments and private companies.
- Economic and structural inequalities among countries to be adequately reflected in any international regulatory regimen.
- Market incentives to stimulate technological innovations.

SAQ 4: Do you justify that disasters like global warming and ozone depletion are entirely man-made ?

3.10 SUMMARY

The short term and long term effects of Man-made disasters on environment have been some of the global concerns. Even some of the 'natural environmental calamities' are the results of preceding human activities. Devastating fire accidents, eruptions and explosions, mining accidents, pollution of global commons, nuclear and industrial accidents, wars and civil conflicts are some of the examples of man-made disasters. These disasters may be classified into three types:- sudden, insidious and wars. Some of the main causes for the occurrence of these disasters has been the laxity in enforcing safety standards and the motive for short term profit maximization. Apart from the damage to the atmosphere through emission of pollutants and release of effluents, industrial accidents, accidents in transportation of toxic wastes for disposal, radiation leakages from nuclear facilities have become increasingly common. Production and storage of chemical, biological and nuclear weapons by the industrialized nations and their import by the developing nations have been at the cost of providing health and education to the people. Imagine that today's Sahara desert was a fertile land just about 6000 years ago. Release of green house gases would result in climatic changes that can alter fertile green lands into arid lands. Ozone depletion that results in penetration of ultraviolet rays into earth's atmosphere has been the result of escape of inert gases like halons and CFC into atmosphere. There have been several conventions, agreements and protocols between countries on several issues that cause environmental disasters as a result of human actions. But the implementation and effectiveness of these agreements have been peripheral. Unless a strong public opinion is built up which will make the governments hear the voice of people nothing tangible can be achieved. Making education on environment and development available to all people of all ages in all sectors of society would sensitise the people to these issues.

3.11 ANSWERS TO SAQS

SAQ 1: Sudden, Insidious and continuous; War and civil conflict

SAQ 2: Mining, fuel combustion, industrial processes, Agriculture, Military Operations and Domestic activities.

SAQ 3: The climatic change that sets in after a major nuclear war when massive clouds of smoke would blot out sunlight for weeks and months. This would make the planet cold and uninhabitable for humans.

SAQ 4: Yes. Indiscriminate burning of fossil fuels, use of air conditioners, aerosol perfumes have contributed to these environmental hazards which are entirely man-made.

3.12 MODEL EXAMINATION QUESTIONS

1. Explain briefly some of the causes for man-made disasters and possible preventive measures.
2. Examine the issues involved in dealing with the disposal of toxic wastes.
3. Discuss the impact of wars on environment.
4. Describe the effects of green house gases and ozone depletion on human life.

3.13 REFERENCES

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UNIT 4: MNCs, TNCs AND DEVELOPING COUNTRIES

CONTENTS

- 4.1. Aims and Objectives
- 4.2 Introduction
- 4.3 North - South Divide
- 4.4 TNCs in the era of Neo-Liberal Economic Globalization
- 4.5 Role of IFI's
- 4.6 Flexible Production Impact on Labour and Environment
- 4.7 Technology concerns
- 4.8. Environmental Standards
- 4.9 Summary
- 4.10 Model Examination Questions
- 4.11 Answers to SAQ's
- 4.12 References

4.1 AIMS AND OBJECTIVES

After studying this unit you will be able to explain

- (i) The role of MNCs and TNCs in Economic Globalization
- (ii) Identify the role of IFI's in Economic Globalization
- (iii) Analyze the impact of Civil Regulation on the operations of MNCs and TNCs.

4.2 INTRODUCTION

Globalization is leading to structural transformation of companies, creating new dependencies. This resulted in the process where events, decisions and actions in one part of the world would have significant influences on the other parts of the world. Technological advances, revolution in Information and Communication technologies, easy access to finance and labour across geographical and national boundaries have transnationalised economic life. It is estimated that about 35,000 large Multinational companies (MNC) with over 170,000 affiliates with about 300 industrial houses account for 70% of the total FDI (Foreign /Direct Investment).

Today these giant MNCs and TNCs together with international financial support are in a position to control the global markets through acquisitions and mergers. Thus MNCs and TNCs spearhead the new liberal economic globalization. In this unit we discuss the increasing disparities in the current world order with a very macro divisions of the world as the Global North and Global South. We also probe into the role of TNCs in the on-going globalization process and the favourable mediation of International Financial Institutions on behalf of TNCs. We examine the switch to flexible production and its impact on social and environmental factors as also technology concerns and environmental standards.

4.3 THE NORTH -SOUTH DIVIDE

In the discussions on development, generalizations like the 'developed' and 'developing' countries are common and lately, a geographical division like 'north' and 'south' began to be used respectively. Sometimes this broad division becomes useful to analyse the disparities in the global economy. This section explains the increasing gap in the North-South divide in a world that is fast getting integrated. The hall mark of the process of neo-liberal economic globalization is the increased trade between countries. The trend in international trade thus indirectly becomes an indicator to illustrate the North-South divide and to nuance the disparities further.

Globalization is supposed to remove barriers in international trade and is projected as a win-win situation where everybody can benefit from the free flow of goods and services across the globe. For the industrialists and exporters from the South, this would mean greater access to foreign markets and the removal of tariffs and other barriers against the goods and services where they have a competitive advantage. This argument is usually followed by a development agenda for the South in terms of investment, employment and growth. Strengthening development of lesser economies is argued to automatically strengthen trade and trade liberalisation. This logic leads to conclude that developed countries also benefit from strengthening of developing economies and that freer trade leads to greater growth prosperity and better quality of life for all (Mahindra, 2003).

A recent study brought out the salient features of the current globalisation process and argued that increased trade is not an automatic guarantee for development or poverty reduction. In contrary, the developing country experiences expose the gap between the potential benefits of trade and the disappointing outcomes of such global integration (Novib (2002). Exports now account for more than one-quarter of the combined GDP of developing countries, a proportion which is higher than for rich countries. Although the exports from the South largely remain dependent on primary commodities, the share of manufactured goods has also been growing. With high-technology exports, certain Southern countries are emerging as major suppliers of cutting-edge technologies and labour-intensive goods. As per Novib (2002), a one per cent increase in world-export share for each developing region could reduce world poverty by 12 per cent. The decline would be greatest in sub-Saharan Africa and South Asia, the two regions with the highest concentrations of poverty.

Improved market access is only one of the requirements for strengthening the links between trade and poverty reduction. Take the South Asian countries as the typical case. Many of these poorest countries lack the infrastructure to take advantage of the potential market openings. Within countries, large sections of the population lack access to productive assets such as land and to health care and education. South Asian countries and developing countries in general still remain heavily dependent on primary commodities. Fifty developing countries depend on three or fewer such commodities for more than half of their export earnings. The national economies of these countries and the household economies of millions of poor people have been affected by a decline in prices of these commodities (November, 2002).

The increasing gap between North and South has a parallel process of widening of the gap between the rich and poor within countries. Robinson (2001) suggests that the process of globalization thus unfolds with a social and not a national logic. There is increasing social polarization with the fragmentation of national economies. Such selective integration of social groups into trans-national networks forces us to rethink development not as a national process in which what "develops" is a nation, but in terms of developed, underdeveloped and intermediate population groups occupying contradictory or unstable locations in a trans-national environment. This also means that globalisation has increasingly eroded the national boundaries with the emergence of a trans-national or global society (Robinson, 2001). The major actors in triggering this process are the powerful TNCs and MNCs. TNCs thus became the major beneficiaries of the current process of globalization.

The discussion clarifies that in spite of the limited opportunities offered by globalization with increased international trade, Southern countries may not benefit from the process since there are structural constraints posed by the internal and external environment in these countries. The transnationalisation of production in the era of neo-liberal economic globalization with the mediation of international financial institutions makes it more difficult for Southern countries, particularly the poorer sections in these countries to benefit from the process.

SAQ 1: State one reason why the South Countries are not benefited by Economic Globalization

4.4 TNCs IN THE ERA OF NEO-LIBERAL ECONOMIC GLOBALIZATION

We explained how nations are linked together into a larger world system via trade and financial flows. The salient feature of globalisation is that the process of production itself is becoming trans-nationalised. Changes in technology, particularly strides in information technology, transportation and various functional areas of management facilitate organize world production in accordance with a whole gamut of factor cost considerations. Trans-national corporations organize production in lieu with local advantages regarding different factors like raw material availability, cheap labour etc.

TNCs have been active at the international level from the days of mercantilism for the last five centuries. These companies were the major link between producers in the developing world and consumers in the most industrialized countries. The companies brought to Northern countries consumables and raw materials produced across a range of developing countries. Small number of TNCs still dominate global commodity markets and steadily the role and importance of TNCs in the international trading system have been increasing.

Collectively, corporations operating in more than one country now account for about one-quarter of global output. International production carried out under the auspices of these companies is growing far more rapidly than other economic indicators. Global economic integration, to a large measure is the product of integrated corporate production systems. The annual foreign sales of the largest 100 TNCs amount to \$2.1 trillion. This equivalent to about seven per cent of global GDP and more than 25 per cent of world trade. It is also larger than the combined GDPs of South Asia and sub-Saharan Africa, home to one-third of the world's population. Comparing company turnover with GDP, half of the world's largest 100 economic entities are not countries, but corporations. Wal-Mart, General Motors, and Ford have a bigger turnover than Africa's entire combined GDP. Mitsubishi and Toyota have a turnover comparable to the GDP of countries such as Greece and Portugal. The combined sales of Wal-Mart, IBM, and Nestle are equivalent

to the GDP of Mexico or India.

Source: Novib 2002

MNCs are a powerful influence in the current global context as economic agents and they do penetrate into every aspect of our daily life. These companies manufacture an impressive array of products and play a vital role in the development of industry and trade and are influential players in the larger economy of most of the developing and developed countries. Multinational enterprises have slowly gained their dominance by harnessing the advantages of strides in scientific research, incorporating timely technological improvements and expanding the scale of operations by mobilizing internal profits. By harnessing external sources of finance, professionalizing the management and working through a well integrated organizational system, they assert their hegemony over the production and distribution of commodities in the entire world. With their financial might, they can influence the political systems and even government policies wherever they operate. MNCs are most effective in those areas that demand sophisticated technologies, up-to-date skills and large scale operations with complex industrial structures.

TNCs have facilitated the development of global production systems and trade within the companies has been one of the most powerful forces behind the expansion of world trade. The foreign sales of the largest 100 TNCs form 25% of world trade and almost two-thirds of the total trade takes place within the companies. TNCs are linking producers in developing countries ever more closely with consumers in rich countries and globalisation is generating forces which create major opportunities, along with huge threats (November, 2002).

Non-traditional agricultural exports such as fruits, flowers, vegetables and spices from developing countries coordinated by TNCs are on the increase. Such extension of trans-national agribusiness and the conversion of local production from food and traditional export crops to new crops are made possible by the infrastructural developments in transportation, refrigeration and other technological innovations (Robinson, 2001). The expanding consumer base in developed countries increases the demand for such commodities in the global market.¹

SAQ 2 What are the factors that contributed to the success of TNCs?

4.5 ROLE OF IFI'S

By the enormous efficiency in their organization of production, transnational corporations are carving a new global economic space where national priorities may lose validity. This process of neo-liberal economic globalization by TNCs is facilitated by the international financial institutions (IFIs). The debt crisis of the 1970s and subsequent neo-liberal project emphasized forced participation of developing countries in the world market for national development. This gave rise to a notion of the need for the transition from managed national economic growth to managed global

¹The globalisation of markets for high-value foods such as off-season fresh fruits and vegetables has become the centerpiece of growth strategies for agribusiness. TNCs such as Dole, Chiquita and Del Monte have branched out from their traditional concentration on bananas and pineapples. These TNCs often subcontract local peasants or capitalist firms in developing regions to produce speciality horticultural crops and off-season fruits and vegetables. They also process foods such as fruit juices, canned fruits and frozen vegetables, boxed beef, chicken pieces, and so on, often in EPZs, for shipment to expanding consumer markets around the world (Robinson, 2001).

economic growth. The International Financial Institutions (IFIs) coordinate and sometimes impose the process in each country and region of adjustment into globalisation. Thus Robinson (2001) argued that the neo-liberal structural adjustment is a mechanism for adjusting each national economy to the global economy. The study suggested that these programmes seek to maintain accumulation by MNCs by restoring internal conditions of profitability compatible at the local and global levels. The logic that is always projected is the economic reactivation in each adjusted country by the expansion of activities linked to the global economy. This usually works in favour of the big players in the national economy. Hence globalisation has profound transformative effects on every country and region. National and regional production systems may be fragmented and restructured to get integrated into the global production systems.

As suggested earlier, world trade has the potential to reduce poverty in developing countries by triggering economic growth. But this proposition becomes questionable in the current economic globalization mediated by the IFIs. Novib (2002) has detailed how international trade is inherently opposed to the needs and interests of the poor and how the rules that govern it are rigged in favour of the rich. The study suggested that the World Trade Organisation (WTO) is part of the problem with many of its rules on intellectual property, investment, and services to protect the interests of rich countries and powerful TNCs, while imposing huge costs on developing countries.

The globalisation of markets for high-value foods such as off-season fresh fruits and vegetables has become the centerpiece of growth strategies for agribusiness. TNCs such as Dole, Chiquita and Del Monte have branched out from their traditional concentration on bananas and pineapples. These TNCs often subcontract local peasants or capitalist firms in developing regions to produce speciality horticultural crops and off-season fruits and vegetables. They also process foods such as fruit juices, canned fruits and frozen vegetables, boxed beef, chicken pieces, and so on, often in EPZs, for shipment to expanding consumer markets around the world (Robinson, 2001).

However, the optimists of globalisation argue for harnessing opportunities offered by the WTO. They emphasise on the need for developing countries to master the art of negotiation in the WTO. This means identifying markets where they see the greatest potential and providing specific details of the tariff and non-tariff barriers that needs removal. They also argue that the industrialists must strengthen the governments' hand by leveraging their areas of strength to protect areas of weakness in the WTO negotiations. Optimists of globalisation suggests that resolving the inherent conflict between trade liberalisation and development is the only way to achieve progress and for this a pro-active presence in the WTO is a must (Mahindra, 2003).

In the case of the IMF and the World Bank, advocacy has been backed by loan conditions which require countries to reduce their trade barriers. Partly as a result of these loan conditions, poor countries have been opening up their economies much more rapidly than rich countries. Average import tariffs have been halved in sub-Saharan Africa and South Asia, and cut by two-thirds in Latin America and East Asia (Novib, 2002). The discussion makes it clear that there is no level-playing ground in international trade for developing countries or small national players to participate in an equal footing. An added problem is the modus-operandi of TNCs with flexible production methods that tilt the balance in the structure of production of developing countries. Two important issues are those related to environment and labour.

4.4 FLEXIBLE PRODUCTION AND THE IMPACT ON LABOUR AND ENVIRONMENT

The earlier discussions clarified how the trans-national companies are increasingly critical players in development throughout the world. The mobility of capital and the internationalization of production that make international investment possible, give companies unprecedented freedom to locate their businesses wherever it is most profitable to do so, often at the expense of local communities and their environment (Madcley, 1999). Of particular concern is the fact that developing countries often experience greater economic and political volatility. The foreign investors tend to engage in ventures that will yield a high rate of return over a short period, often resulting in environmental devastation and social marginalization.

'Civil Regulation' a term used to describe a broad range of strategies increasingly adopted by civil society organisations aimed at holding companies to account for their environmental responsibilities, and secondly, trans-national litigation against companies accused of negligence in one of their overseas operations (Newell, 2001). Regulation is born of concerns about the continued lack of effective regulation of TNCs at the international level. Critics point to the fact that there is a lack of recognition in international environmental agreements of the role of TNCs in causing environmental problems. The issue of TNC regulation was dropped from the UNCED agenda and while Agenda 21 includes recommendations that affect TNCs, it does not take the form of a code of conduct. Although these are national and regional attempts to advance the legal debate about the obligations of TNCs when they invest overseas, much progress is not achieved (Newell, 2001).

Newell (2001) explained two major problems in exercising legal proceedings against the MNCs. The major problem in bringing legal suits for negligence on health and environmental grounds, is identifying cause-effect relationships between manifested effects and particular pollutants, as well as deciphering direct from indirect effects. Legal proceedings demand the requirement of scientific evidence. The technical nature of the industrial processes and the fact that the burden of proof rests on the plaintiff to establish that an environmental standard has been violated, by resource to independent and reliable technical and scientific data, excludes all but the most wealthy or technically competent. TNCs are legally accountable only to the laws of the country in which they are operating and this demands demonstrating a clear chain of command-between the headquarters of a company and its subsidiaries. The parent companies often claim they are merely stock or shareholders and that they are only connected for book-keeping purposes.

It is against the background of weak instruments and failed initiatives at the international level that NGOs have begun to target TNCs with increasing frequency and vigour in recent years. Rather than providing a coherent alternative approach to social regulation, the forms of civil regulation amount to a patchwork of activities and campaigns aimed at challenging the environmental impact of TNCs. One such campaign to instil corporate responsibility that achieved limited success was the campaign of the Centre for Science and Environment, New Delhi against the major soft drink manufactures in India. Although contested by the companies, the campaign could bring the issue of pesticide contamination in soft drinks to the public. The problem was debated at various levels right up to the Indian parliament and discussed widely in the media too.

On the other hand, the stringent environmental requirements for import in developed country markets restrict access for developing country producers since they lack the capacity and flexibility to accommodate such requirements in their production processes. This problem has been

exacerbated by the fact that their exports depend on a very limited number of items. In other instances, trade-related environmental issues pose a special challenge to developing countries. Environmental degradation can reduce their capacity to generate export earnings in the future. The costs of any environmental degradation they may suffer tend to be compounded by their lack of economic diversification

The restructuring of work and labour in the context of the transition to flexible production methods of TNCs is another important issue related to globalisation. Robinson (1991) argues that labour market reform is an essential component of neo-liberal restructuring, centred around making labour 'flexible'. The usual logic of companies is the argument that labour costs must be lowered in order to attract investment and increase the competitiveness of firms producing export-oriented goods. Deregulation facilitates firms to utilize labour more flexibly so as to minimise the cost and maximize the control of labour. This kind of flexibilisation of labour is also associated with its de-unionisation. The neo-liberal transformation of the labour market results not in a uniform process of downward mobility but in new patterns of social stratification that include new opportunities for upward mobility. The best example is the enormous opportunities that have opened-up for Indian professionals in the IT sector. This clarifies our earlier argument of a selective integration of certain social groups into the current process of economic globalisation.

Accessibility to huge amounts of capital and there by use of relatively pollution free technologies to MNCs and TNCs result in not providing a level field to industries in developing countries with less environmental standards in developing countries and pressures generated by unemployment MNCs and TNCs exploit the conditions in unfair trade practices setting up their production facilities away from developed countries imposing stricter environmental standards.

SAQ : 3 What is 'Civil Regulation'?

4.7 TECHNOLOGY CONCERNS

Technology is defined as a certain ratio of the two main factors of production – Capital and Labour. The relative prices determine the choice of technology resulting in its choice as either capital intensive or labour intensive. An alternative perspective is that technology represents the means of production, and who ever is in control of technology controls the economic activity . It is therefore argued that since the capitalists control the means of production and labour is dependent on the capital in order to engage production, capital exercises control over labour. Thus technology is not a constituent of the inanimate world alone, but a relationship between the owners of the means of production and those that are dispossessed- the proletariat The conventional argument based on the cost-benefit analysis behavior in removal of restrictions to allow free mobility of technology in global markets. This in turn implies that a regulated market generates more costs than benefits. In all this debate the ecological concern of technology has not been given the importance it deserved.

Though there has been much talk about eco-friendly technologies , it is impossible to have a hundred percent pollution free technologies. It is pointed out that it would cost United States around \$ 200 billion to have pollution free technologies in production. When issues related to technologies are discussed , one has to note that there are 'Technology Alternatives and Alternative Technologies'. The conventional technologies are based on energy intensive methods of production, usually driven by non-renewable resources like fossil fuels

Alternative Technologies are those that utilize non-conventional energy sources like solar energy which are termed as renewable energy sources. In the domain of conventional technologies there tend to be wastage of resources in the sense when next technologies enter the market, the existing are rendered redundant. Though the argument that modernization of technologies reduces pollution is valid, it is faced with the challenge posed by high level unemployment in the developing countries. Assuming that a trade-off could be achieved by accommodating surplus labour in other sectors, access to these modern pollution-free technologies is constrained by other factors like lack of resources to invest and lack of access to the new technologies. The situation is further complicated by Intellectual Property Rights (IPR) that generate artificial monopolies in the name of incentives for innovative technologies. The developing countries face disadvantages due to both historical reasons and incapacitated entrepreneurship and lack of competitive production techniques. In case of commodity groups like Metals, Chemicals and Pharmaceuticals, identified as "dirty industries" the cost of treatment technologies are expensive. No wonder that the developed countries shift the "dirty industries" to developing countries where environmental standards are lax and save on treatment technology costs. In a competitive market, it is common sense that consumers prefer commodities that are priced low if they are of the same quality. Take the example of a solar street light priced at Rs 15,000. It is with a view to encourage these technologies that governments in developing countries are helping the producers of the new technologies to sell their products at subsidized prices. For instance, a group of activists in Tamil Nadu in India are buying agricultural commodities from farmers who are applying bio-friendly technologies, at higher prices. Though such actions are a result of collective political action, they are often dubbed as irrational by the standards of conventional economic theories. Since non-conventional, pollution free technologies, are usually permanent technologies, there is no recurrent demand unlike in case of conventional technologies. As a result there is no incentives to business houses to invest in research and development of such technologies. The market is not an ideal institution where innovation of non conventional technologies can take place.

SAQ 4: What is the most important reason to use eco-friendly technologies in the developing countries?

4.8 ENVIRONMENTAL STANDARDS

A related issue with industrialization of mass production technologies in terms of rapid environmental degradation is the lack of universal environmental standards. In the backdrop of failing markets, the function of protecting quality of environment fell on the state. Since it has become evident that modernization resulted in several abnormalities like global warming, green house effect and ozone depletion it is proposed that a certain 'cess' be imposed by governments on resources (or on polluters) leading to reduction of pollution levels. But public policies are often changed, people often lack proper information and even if they are well informed, people are irresponsive. There have been criticisms on the methods of arriving at the amount of cess and that it lacked economic rationality. It was argued that the damage to environment was more because of "tragedy of the commons".

There are two different kinds of environmental standards – Ambient standards and Emission standards. Ambient standards deal with maximum allowable levels of a pollutant that may be given off by a production facility. Ambient standards deal with maximum amounts of a pollutant given off by a production facility. Ambient standards offer a simple method of establishing priorities and require no further intervention. But these can be set at different levels for different locations and is possible to use them to protect valuable ecosystems a way that would not

possible using emission standards.

But in reality, the environmental standards fixed by different countries are varying. The standards may, quite legitimately differ from one country to another and has been endorsed by United Nations 1992 Rio Declaration on Environment. Standards applied by some countries may be inappropriate in terms of economic and social costs to other countries, in particular to developing countries on the otherhand, Emission standards may be established in terms of what can be achieved with available technology, or in terms of the impacts of emissions on the ambient environment (World Bank 1998). It has been contended by the industrial lobbies in the developing countries that they can not be competitive if they are forced to abide by international standards. They argue that they do not have the kind of resources necessary to treat the pollutants they generate. As a result administrations in the third world countries have been soft on polluting industries, fearing that strict regulation might stunt industrialization. It is pointed out by Nigel Jones that varying standards are result of varying reasons – local legislation, socio-economic priorities, cultural differences, carrying capacity of environment, availability of new technologies and size and complexity of industrial facilities.

Despite these problems, we may note that in the context of grave social inequalities in the developing countries, environmental resources are a site of social conflict between contesting claims. Setting environmental standards through legislations help sections that are vulnerable to get their legitimate share in the resources and in protecting their rights. It would not be an exaggeration to claim that the vulnerable more often than not happen to be those that inflict less injury to the environment.

SAQ 5. Distinguish between ambient and emission environmental standards.

4.9 SUMMARY

The discussions started with the concerns of increasing disparities, particularly the North-South divide in the contemporary world order that is fast getting integrated. The hall-mark of the process of neo-liberal economic globalization is the increased international trade between countries. For the optimists, especially the industrialists and exporters from the South, this would mean greater access to foreign markets and the removal of tariffs and other barriers against the goods and services where they have a competitive advantage. The basic premise is that freer trade leads to greater growth prosperity and better quality of live for all. But pessimists, especially the civil society organisations, warn that increased trade is not an automatic guarantee for development or poverty reduction and that improved market access is only one of the requirements for strengthening the links between trade and poverty reduction. Beyond the north-south divide, it was also observed that there was an increasing gap between the rich and poor within countries over a period of time.

Multinational enterprises have slowly gained their dominance by harnessing the advantages of strides in scientific research, incorporating timely technological improvements and expanding the scale of operations by mobilizing internal profits. TNCs and MNCs were found to be the major benefactors and hence the dominant actors that spearhead the process of neo-liberal economic globalization. There also was the suggestion that trans-nationalisation of production with the mediation of international financial institutions makes it more difficult for Southern countries, particularly the poorer sections in these countries to benefit from the process.

Environmental and social costs were observed to be the down-side of the workings of TNCs in developing countries. It was argued that there is a lack of recognition in international environmental agreements of the role of TNCs in causing environmental problem. Although there are attempts for instilling corporate social responsibility in the form of civil society response, the legal instruments were found to be weak in facilitating this. On the other hand, the stringent environmental requirements for import in developed country markets restrict access for developing country producers since they lack the capacity and flexibility to accommodate such requirements in their production processes. Although the TNC-led economic globalisation offers avenues to highly paid third world professionals, it also affects a large majority by the neo-liberal restructuring of labour markets by the flexible norms for hiring and firing labour at will.

So in general, the economic globalisation spear-headed by the TNCs with the facilitation of international financial institutions offer opportunities as well as enormous threats to developing countries and to certain sections of the society.

4.10. MODEL EXAMINATION QUESTIONS

1. Explain how globalization has contributed to the increasing disparities in the developed and developing countries.
2. Describe the role of MNCs and TNCs in the era of Neo – liberal Economic globalization.
3. World trade has the potential to reduce poverty in developing countries.” Justify or contradict this statement with reasons.
4. Examine how the Technology concerns are related the Environmental standards.

4.11 ANSWERS TO SAQS

SAQ 1. The South countries lack the necessary infrastructure and cutting – edge technologies to compete in the global markets

SAQ 2. Access to latest technologies and infrastructure availability of cheap labour and cheap raw materials and ready access to global markets.

SAQ 3. Civil regulation refers to strategies adopted by organisations making companies account for their environmental responsibilities.

SAQ 4. Lack of competitive pricing and lack of indigenous entrepreneurship coupled with self interested consumeristic ethic on demand side.

SAQ 5. Ambient standards are concerned with maximum allowable levels of pollutants in air, water, soil where as emission standards are concerns with maximum allowable amounts of pollutants in air, water and soil.

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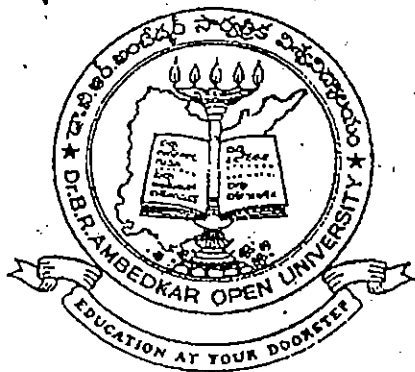
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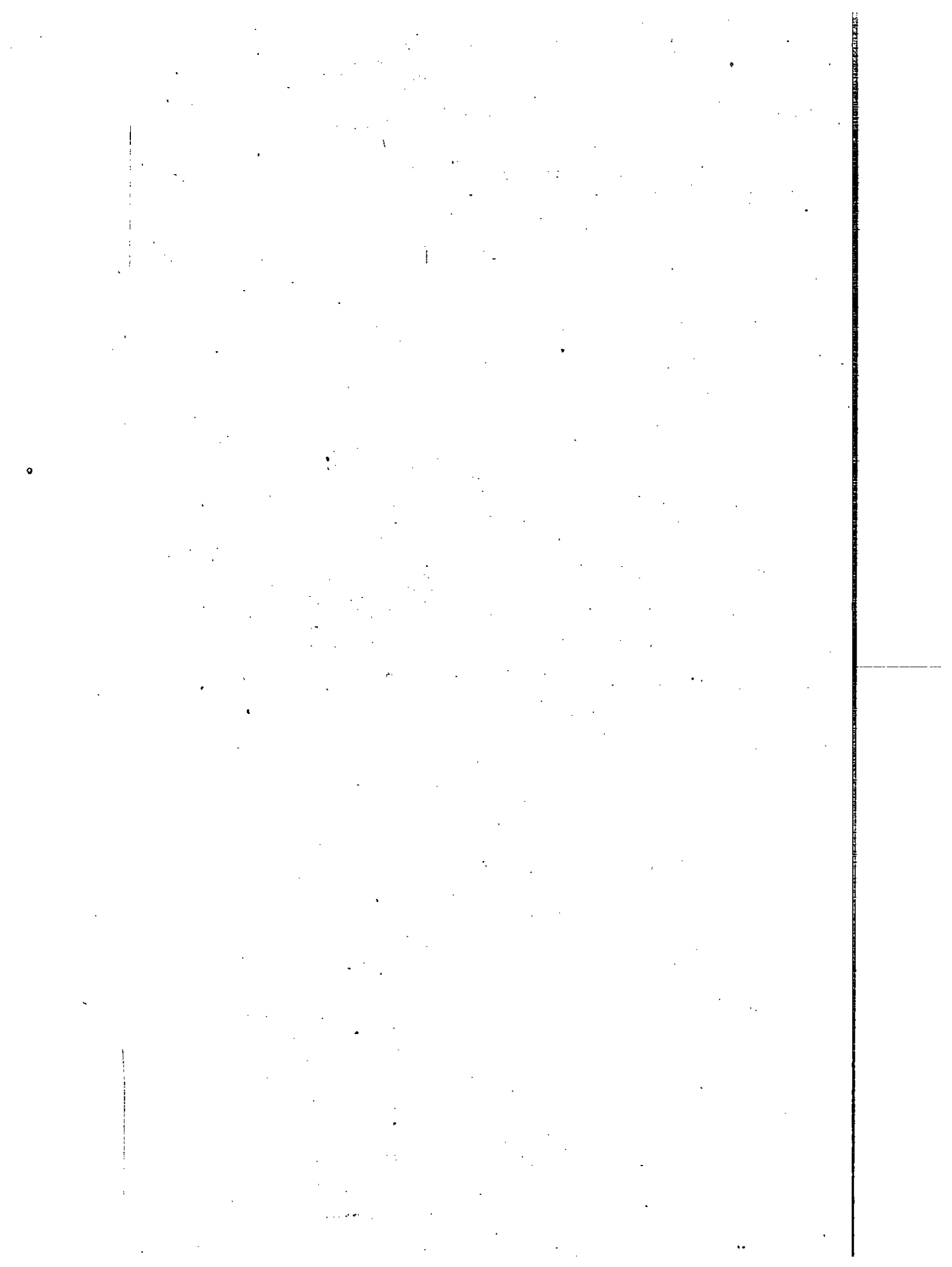
GLOBALIZATION AND ENVIRONMENT

South Asia Foundation Learning Initiative(SAFLI) is designed to promote regional cooperation and lifelong, learning that emphasises humanism and celebrates the rich heritage of South Asia's unity in diversity at all levels and sections of society.



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GLOBALIZATION AND
ENVIRONMENT

BLOCK

2

GLOBAL RESPONSES

Unit - 5

International Summits and Declarations

Unit - 6

International Environmental Laws and Agreements

Unit - 7

United Nations Agencies Role

Unit - 8

Environment in Multilateral Perspective

Unit - 9

South Asian Response to Environmental Concerns

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PREFACE

The politics of language is often embedded in the language of politics. Of late words like globalization, environment and development have become politically loaded concepts. If globalization means free flow of information, technology, capital and trade across the nations without any barriers or constraints, then the inflows and the out flows should balance each other resulting in a state of stable equilibrium. However, in reality, the multi and transnational conglomerates, with unlimited access to capital and technology have affected the economies of the South countries by transforming them into exporters of raw materials, dumping grounds for industrial wastes and for location of polluting industries. The countries in the South have become the direct victims of the policies and developmental patterns of the countries in the North.

The United Nations' Environmental Programmes (UNEP) considers among others, climate change, fresh water contamination, air and soil pollution, greenhouse effect, ozone depletion and biodiversity loss, as environmental problems that need urgent attention. Globalization, through large-scale development interventions, has the capacity to order and reorder human lives.

This Course examines diverse issues related to globalization and environment under three heads: Global Concerns, Global Responses and Global Movements and Experiences. Environmental standards, technology concerns, role of UN agencies, International Laws and Agreements, Initiatives from NGOs and people have been highlighted. Some Case Studies from South Asian countries have been discussed.

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BLOCK II: GLOBAL RESPONSES

Joyeeta Gupta begins her book on climate change negotiations thus "There is an old fable about a frog in a pan of water. If you put a frog in a pan of boiling water, it will jump out. If you put the frog in a pan of cold water which is then slowly put to cook, it may get accustomed to rising temperatures and gradually lose its reactive functions and die". The reason that "we" have no possibility to jump out of this simmering planet and also that we do not lose our reactive capacity to rising temperature, which in our context would mean that we should strive to bring about interactivity between nations. The global response to the environmental issues in the light of globalization and the part played by International Agencies in global governance are reflected in this Block.

UNIT 5: GLOBAL ENVIRONMENTAL SUMMITS AND DECLARATIONS

CONTENTS

- 5.1 Aims and Objectives
- 5.2 Introduction
- 5.3 Treaties, Protocols and Declarations
- 5.4 History of Environmental Negotiations
- 5.5 Some important Declarations.
- 5.6 From Declaration to Implementation
- 5.7 Global Environment Facility
- 5.8 Summary
- 5.9 Model Examination Questions
- 5.10 Answers to SAQs
- 5.11 References

5.1 AIMS AND OBJECTIVES

After studying this unit you will be able to

- (i) distinguish between the terms : Treaty, Protocol, Declaration and Conference
- (ii) Trace the history of Environmental Negotiations
- (iii) List some important declarations and explain their salient features

5.2 INTRODUCTION

International Law traditionally comprises the body of rules that are legally binding on states in their interaction and exchange with each other. These rules derive their authority from four sources: treaties or conventions, international custom, general principles of law and other sources such as courts and tribunals. Beyond these sources of "hard law" which establish legally binding obligations, there are also "soft law" such as principles, declarations, rules, charter and standards which are not binding as such but have played important role in setting moral and ethical background for the acceptable and desirable forms of behaviour among member states, non-governmental organisations and transboundary corporations.

5.3 TREATIES, PROTOCOLS AND DECLARATIONS

Treaties: Treaties are also referred as conventions, accords and agreements; they are the primary source of international legal rights and obligations in relations to environmental protection.

Protocols: Environmental treaties have some special features than other international treaties. Usually first a framework treaty is adopted which sets out general obligations, and basic institutional arrangements. However, procedures for adoption of detailed obligations are usually developed and provided in Protocols subsequently. For example, after signing the Convention on Climate Change by the member countries, a detailed procedure for member states' obligation to reduce their green house gas emissions was subsequently developed (not yet fully adopted) in Kyoto Protocol. Similarly, the convention of biodiversity set the general framework for biodiversity conservation and use but the detailed binding obligation for transboundary movement of genetically modified organisms was developed through Biosafety protocol.

Declarations and Summits/Conferences: Many conferences have been convened at inter-governmental level to address environmental issues and issues linking environment and development. These conferences adopt declarations, principles, statements or rules that are not binding as treaties but contribute in creating appropriate environment for negotiations and the development of such binding treaties. The most important international conferences on the issue of environment and development has been 1972 Stockholm conference and 1992 United Nations Conference on Environment and Development held in Rio. Each one adopted non-binding declaration known as Stockholm Declaration, Rio Declaration and Agenda 21 which include important elements that reflect or have contributed in developing international environmental law. So, declaration and summits are not binding for member countries but they set the moral background with which legally binding treaties and conventions are negotiated.

North-South Divide

At a very abstract level all environmental negotiations have taken place on the interface of north south divide. As following description clarifies it further, almost all negotiations crucially hanged on the differing positions between northern and southern, in other words between developed and developing countries. Which are these north and south countries?

The North is represented by what is referred as Annexure 1 or Annexure B (developed countries with specific quantitative commitments to reduce emissions of GHGs in climate change negotiations; this point is discussed at length subsequently). The rest of the world is outside of these annexes. The south is generally represented by LG 77. G77 was established in 1964 to help the south to group and negotiate. It has at present membership of 133 nations. However, in the division of the world in developing and developed countries, the word developing is a residual category. It consists of 153 countries, of which 130 to 133 are LG77 countries. Twenty three countries neither belong to north nor to LG77 but are clubbed together with south, some of which at times prefer to align with developed countries like Kazakhstan. The North comprises forty countries plus the European Union that comprises 15 countries. Other than the most influential US, EU and UK are the dominant group in Northern coalition.

5.4 HISTORY OF ENVIRONMENTAL NEGOTIATIONS

Early attempts to develop environmental rules focused on the conservation of wildlife such as fisheries, birds and seals and to a limited extent protection of rivers and seas. These early rules for bilateral and multilateral conflict resolution and attempts at conservation of wildlife and natural resources were shaped by three distinct aspects. First of all, many of these developments were inspired by the efforts of private individuals, scientists and environmental organizations in United States and Europe. Especially scientists played an important role in establishing connection between overuse of natural resource and environmental degradation. For instance, the work of scientists Count Buffon who contrasted the appearance of landscape of wild nature with inhabited life informed the development of rules that conserve wild life. Some other scientists who established the relationship between deforestation and reduced water availability inspired early environmental legislation at national and international levels. Secondly, in general these developments were based on the growing awareness that exploitation of natural resources cannot occur on an unlimited basis and that technological development brought with them pollution and other problems. International measures, some kind of regulatory incentives, including trade restrictions and economic incentives were, therefore, needed to be provided. Thirdly and most importantly, these early rules, conventions and treaties although intended to solicit international and bilateral cooperation for environmental conservation, they largely acknowledged sovereignty of nation states in determining their actions for environmental conservation. This principle of sovereignty of nation states has remained as one of the foundational principles in the subsequent international negotiations on global environment.

Following is a list of important international laws/rules/treaties developed before the development of United Nations that subsequently undertook a leading role in environmental negotiations,

- In 1872, Switzerland proposed an international regulatory commission on protection of birds. This led to formation of International Ornithological Committee in 1884, which formulated a treaty proposal and resulted in adoption of the Convention to Protect Birds Useful to Agriculture.
- In 1916, first bilateral treaty for the protection of migratory birds in the United States and Canada was signed between Great Britain and the United States.
- On the pollution front, the United States and Canada adopted a Water Boundary Treaty to prevent pollution. A draft treaty was pollution prevention was drafted in 1920 but not adopted. Another draft instrument was prepared during this period on prevention of oil pollution of seas but was not adopted.
- The first international institution to address nature protection was formed in 1909 in the international congress for the Protection of Nature in Paris which culminated into the first multilateral treaty of its kind. This was signed in Berne by seventeen countries in 1913 in the form of an Act of Foundation of Consultative Committee for the International Protection of Nature. This consultative committee was committed to the task of collecting, classifying and publishing information on international protection of nature.

SAQ 1. What is the earliest international convention signed?

5.5 SOME IMPORTANT DECLARATIONS AND CONVENTIONS

With the formation of United Nations in 1944, a new chapter in environmental negotiations began. Role of UN in environmental negotiations is discussed separately in Unit 3 hence not elaborated here. Important conferences and declarations undertaken by the UN are discussed instead.

The 1972 United Nations Conference on Human Environment

As the name suggest the conference organised by the United Nations general assembly provided general framework for the preservation and conservation of human environment. It provided common principles to inspire and guide people of the world in preservation and enhancement of the human environment. Conservation of environment remained a dominant theme in the conference whereby trends underway before Stockholm conference relating to marine pollution, transboundary air and water pollution, and protection of wild and marine endangered species was reinforced. The issue of relationship between development and environmental degradation was only peripherally adopted in the conference.

The conference adopted three non-binding instruments: 1) a resolution on institutional and financial arrangement 2) a declaration containing 26 principles and 3) an action plan containing 109 recommendations.

These non-binding instruments set the stage for subsequent international negotiations on environment. Apart from creation of appropriate institutional arrangements to carry out future environmental negotiations, the most important contribution of Stockholm conference was development of set of principles that form the backdrop of all subsequent international negotiations on environment. Principle 24 called for international cooperation to effectively control, prevent, reduce and eliminate adverse environment impact in such a way that did not compromise sovereignty of individual state. Principle 21 affirmed that all states have to ensure that activities in their jurisdiction do not cause damage to other states. Principle 1 linked environmental protection to human rights norm. It declared right to adequate environmental quality as a fundamental right. Principles 8 to 15 addressed issues that reflected relationship between development and environment.

Based on these principles the spur of international negotiations on environmental protection began until when these principles were modified and further refined in the next international conference on environment in Rio in 1992.

WECD

Before Rio conference, the World Commission on Environment and Development was established by UN general assembly and chaired by Norwegian Prime Minister Gro-Harlem Brundtland. The commission was established outside the control of governments and UN system. The commission was asked to develop a "global agenda for change". Brundtland as part of mandate of WECD wrote a report which is now famously known as Brundtland report or "our common future". In many ways the Brundtland report proved a catalyst for changing the direction of international negotiations on environmental degradation and conservation. Most importantly the report contributed the concept of sustainable development and by that means firmly related environmental degradation with developmental activities.

Although the idea of sustainability has longer history, sustainability as a physical-biological-social concept was first dealt with in Brundtland report. It in fact not only popularized the concept but elevated it to global ethic. Sustainable development was defined by Brundtland report as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." This notion of sustainable development attracted quite a lot of critical thinking. However, the most important contribution of the Brundtland report in the international negotiations on environment comprises two aspects. First, Brundtland approach placed human welfare and human beings above concepts of environmental sustainability. Secondly, it also introduced notion of social equity directly in the negotiations on environment. Influenced by the agendas set by the Brundtland report, which also resonated concerns of developing countries, international environmental negotiations were no longer focused on protection and conservation of environment. Environmental matters were now being addressed in the context of economic matters, such as trade and development lending. The impact of Brundtland report was far reaching as it changed the direction of international negotiations on environment by relating it with development.

Polluter pays principle, differential standards for developed and developing countries and precautionary principle were some of contributions of Brundtland report. While the first two concepts are self-explanatory, the third one needs explanation. Brundtland report argued that a lack of adequate knowledge as to potential environmental effects shall not be used to hinder policies and actions to prevent environmental degradation. This principle has been widely accepted in the subsequent treaties on climate change, biodiversity convention and biosafety protocol.

United Nations Conference on Environment and Development (UNCED)

In December 1987 the UN general assembly accepted the Brundtland report and the following year called for a UN conference on environment and development, which finally took place in June 1992 in Rio, Brazil. Taking on from Brundtland report the UNCED declared its mandate to develop strategies and measures to halt and reverse the effects of environmental degradation to promote sustainable and environmentally sound development in all countries.

The Convention on Biodiversity (CBD)

The negotiations on conventions on biological diversity largely remained focused on the sharp conflict between conservation and use of world's biodiversity. After the adoption of the convention in Rio the negotiations still are going on especially on the issues of indigenous/local community/farmers' rights to use their own resources and commercial rights to use biodiversity for generating profit.

The suggestion to combine existing conservation treaties into a comprehensive convention on biodiversity initially came from the US in 1987. Initially the negotiations on biodiversity convention remained focused on conservation of environment considering as a common resource of the entire humanity, but the developing countries wanted sovereign control over their biological and genetic resources and refused to sign conservationist treaty. Developing nations challenged developed countries' assertion that world's biodiversity, 80 percent of which existed in the developing countries was the common heritage of the humankind. They succeeded to some extent to include in the convention that biodiversity is common concern of humankind but not a common heritage and developing nations had sovereign right over their biological resources. Final text of the CBD lays down three principles: 1) conservation of biodiversity 2) its sustainable use and 3) fair and equitable sharing of benefits arising out of its use. However, these principles of con-

ervation, sustainable use and equitable distribution of benefits have produced conflicting negotiations than resolved any difference between developing countries that hold biological resources and developed countries that have technological capacities to convert these resources into marketable commodities.

Roads that led to CBD

The discussions on this global agreement began at various forums such as UNEP in the mid 1980s. In 1988, UNEP set up an Ad Hoc working group of experts on biological diversity. Based on its report, UNEP established a group of technical and legal experts to work out a legal document. In 1991, this group was renamed as Intergovernmental Negotiating Committee (INC). The INC hammered out the text of convention by 1992 to be signed at the Earth Summit at Rio in 1992.

However, before the draft text was tabled in the Rio, all INC discussions were hampered on the different between north and south on the key issue. North wanted unabated access to germplasm in the south but were reluctant to provide equal access to technology and knowledge and share in the profit to the south. Developing countries on the other hand were determined to make access to genetic resources conditional on access to technology and profit. Debates in the subsequent meetings centered around the similar issues.

In spite of all the differences the draft text of the convention was tabled at the Rio conference. The US refused to sign it on the ground that the treaty gave too much leeway to developing countries, UK first objected to it but finally signed it, France also wanting to have a global list on endangered species refused to sign it. Developing countries also signed it but not without asking for more clarification of financial arrangements. The south also called for a protocol on biosafety and asked for the supremacy of CBD over any other international agreements such as World Intellectual Property Organisation (WIPO) and GATT (General Agreement on Trade and Tariff).

At that meeting almost every other country signed CBD, by early 1996 it was ratified by 140 countries. On 29th December 1993 the convention entered into force as international law.

The boat of CBD is heavily rocked by four important questions on which the negotiations are still continuing in four Conferences of Parties (CoP) since signing of the treaty.

- 1) Should biological resources of one country be freely available to another country in the spirit of common human heritage? Or should countries have right to demand appropriate financial and other returns on the transfer of their genetic and biological resources?
- 2) If local communities have nurtured and developed biological and genetic resource for generations, how benefits arising from commercial use should be shared with them?
- 3) Do humans have right to patent other life forms?
- 4) Should private monopolistic right be allowed on genetic and other resources or on knowledge and other technologies related to these resources?

Continuing Negotiations: Farmers' vs. Breeders Rights

Business interests of biotechnology companies largely located in the US form powerful interests against the CBD. The power of these corporations came to light in Rio. Under the pressure of these business groups in the US, president George Bush's administration declared that the convention was an assault on the concept of intellectual property rights (IPR). Based on these objections to the treaty, the US refused to sign the treaty. The US refused to accept the ownership and knowledge rights of local communities, and at the same time strongly asserted the

ownership right of technology and know-how of bio-technology, pharmaceutical and agriculture based companies. The US has signed but still not ratified the treaty.

This conflict between community vs. commercial rights was also manifested almost a decade before the Rio summit. At the time of negotiation on the International Undertaking of Plant Genetic Resources negotiated at the conference organised by the UN Food and Agricultural Organisation (FAO) in 1983, a free flow of plant germplasm was proposed. Over hundred countries has so far adhered to the Undertaking. However, several industrialized countries (including US, UK, France and Germany) have so far have refused to be party. This was because the Undertaking clearly included free flow of all types of genetic resources, not just biological and genetic resources conserved by communities in developing countries but also new varieties developed by scientists and multinational corporations of the developed world. While it was argued that genetic and biological resources conserved by traditional communities in the south is common human heritage, the new varieties developed in scientific and business establishments in the north was not considered common heritage of humankind. This knowledge was considered exclusive right of those who develop it. This double standard has remained at the core of all negotiations on biological and genetic resources leading to CBD and subsequently.

Trade and Environment: From GATT to WTO

In 1944, after the World War II, a recommendation was made in the conference among the international leaders in Bretton Wood to set up three international organisations. 1) International Monetary Fund (IMF) 2) International bank for reconstruction and development (IBRD or World Bank) 3) International trade organisation (ITO). The first two were set up in 1945 but there were serious controversies about the third. The US, UK and a few other countries set up in 1947 an interim organisation called general Agreement on Tariff and Trade (GATT). In spite of many recommendations to set up ITO under the US leadership, GATT continued because US refused to ratify it. All the three organisations now popularly known as Bretton Wood institutions were from the founding dominated by the US. The GATT in particular was biased towards developed countries and was called informally as the "rich men's club".

On insistence of developing countries that strongly protested against the bias of GATT, UN set up UNCTAD (United Nations Conference on Trade and Development) in 1964. During the negotiations of setting up UNCTAD, developing countries established an organisation called G77. This group of developing countries was later joined by all developing countries more than the number 77 but the group still remained to be known as G-77. Many developed countries known as G-7, specially the US were opposed to the formation of the G-77 but on the other side many Scandinavian countries were very sympathetic to G-77.

The pressure of G-77 gave legitimacy to UNCTAD and at some point it looked that UNCTAD would replace GATT. But the US strongly supported the GATT, so it continued to remain powerful. The sustained pressure of G-77 made GATT progressively more liberal. Further amendments in GATT were called for because both G-77 and G-7 were not content with its provisions.

The famously known Uruguay round of discussions started in 1986. In these discussions, G-77 for a while maintained its united positions. The core group of G-77 led by India and Brazil functioned quite effectively but in 1989 India accepted some of the proposals made by the US unilaterally, as a result India was isolated, but other countries also made their own compromises with the US. The end result was that the united position among the G-77 countries was considerably weakened. At the same time, after the break up of USSR, the US emerged as the most powerful nation on the earth.

With strong support of TNCs (transnational corporations), the US pressed that GATT should not remain confined to only trade and tariff but should also include services, investments and intellectual property rights and there should be World Trade Organisation (WTO) to oversee all the four. Several strong arguments for and against such reformed role of GATT were expressed. At that point, the then director general of GATT - Dunkel - put forward a draft of his recommendations - now popularly known as Dunkel draft of proposals. With some modifications, Dunkel proposals were accepted by all the members of the GATT in March 1994 at ministerial level. At the time of signing, a dozen countries, including US and India, expressed reservations about the article 301 that seriously undermined sovereignty of individual country to decide trade related matters.

In spite of all reservations, finally in 1995, WTO with its ancillary agreements, namely GATT (general agreement on trade and tariff), GATS (general agreement on trade and services), TRIMS (trade-related investment measures) and TRIPS (trade-related intellectual property rights) came in effect for developed countries and developing countries were given one year of grace period.

One of the most important goals of WTO is to ensure removal of all trade related distortions. Meaning, domestic trade related policies of each member country has to be harmonized with relation to international trade norms. WTO at the time of its establishment declared in its preamble to increase living standards and income, to expand trade and production and to preserve environment in a manner consistent with various levels of national economic development. These all, WTO intended to accomplish with the commitment to sustainable development. Trade related aspects of WTO's negotiations are not discussed here in detail. The relation of trade with environmental aspects are discussed in greater detail below.

Three important areas that relate trade and environment are:

- 1) Trade related aspects of intellectual property rights (TRIPS)
- 2) environmental standards and trade sanctions
- 3) economic impact of WTO determined international trade regime and its impact on environment

TRIPS

The TRIPS agreement sets out the rules for WTO members to protect intellectual property rights. Intellectual property rights are meant to be rights to thoughts, ideas, and information, especially regarding new inventions and processes. Copy rights, trademarks and patents are commonly known IPRs. While such IPRs are several centuries old, their extension to living things and related technologies is a new phenomenon and one that has evoked considerable controversy. Trade related aspects of intellectual property rights as provided for in TRIPS through WTO comes in conflict with those provided in CBD. While CBD in principle gives primacy to conserve biodiversity, its sustainable use and fair distribution, TRIPS are based on might is right principle. The bone of contention for southern countries with respect to IPR model currently adopted by both CBD and TRIPS is that both do not recognize collective or community holding of intellectual property rights. Much of the knowledge pertaining to biological and genetic resources in developing countries has been guarded, nurtured and developed by local or traditional communities. For instance, knowledge about healing properties of turmeric and pesticidal properties of neem in many south Asian countries is known traditionally for centuries. This knowledge is held commonly and transferred to the next generation through cultural routes. The idea of patent on such knowledge not only sounds ridiculous to many of us, nonetheless when someone attempts to get the patent on such collectively held knowledge, the current model of IPR does not

allow collective patent. Biopiracy, stealing of culturally and communally held resources and knowledge and patenting some aspects of such knowledge for monopolistic exploitation of commercial rights is the major threat the developing countries face in the current model of IPR. In such case not only environmental resources and knowledge will deplete but those who took care of such resources and knowledge would have to pay in order to access their own resources and knowledge. Entry of multinational agribusiness companies in developing countries as a result of liberalization in WTO trade regime would also entail threat to local seed and animal varieties.

Patenting of Genetically Modified (GMOs) and Living Modified Organisms (LMOs) is another ethical issue that has generated major debate WTO agreements. Apart from the ethical and very important issue concerning to patenting of living organisms, what kind of environmental and health threat cultivation and consumption of such organism would possibly generate is still largely debated but known area. For example, trade in genetically modified corn is a major issue of tussle between EU and the US. In January 2000, over 130 countries adopted much debated Cartagena Protocol on Biodiversity. The Protocol establishes rules for transboundary movement of GMOs and LMOs.

Rio Declaration on Environment and Development

The declaration that came out of UNCED, also known as Rio declaration, is a statement of principles or goals, which was adopted by 175 countries at the UNCED. It is drafted in general and, as some critique describe it, vague language, but it touches many of the political topics in the UN. The secretary-general of the UNCED expected the Rio declaration to become an "Earth Charter" that would have stirred the minds and hearts of the people and would have inspired them to join together to achieve the healthy planet. Whether or not the declaration succeeded in making such emotional appeal to people on the earth, it certainly succeeded in putting agendas of developing countries in the forefront. The declaration represents a series of compromises between developed and developing countries and a balance between objectives of environmental protection and economic development.

The preamble declares the goal of the Declaration to be a "new and equitable global partnership." The last line of the preamble was added on insistence of NGOs that the preamble should reflect both an ecosystem approach (integral and independent nature of the Earth) and a foundation in basic human morality by declaring it as our home. Principle 1 declares to keep human beings at the center of the sustainable development. On the insistence of G-77 and China the declaration was drafted on the central theme that it was about people and their environment and development. Principle 2 strongly builds on the principle 21 of Stockholm declaration to emphasize that sovereign rights and duties are two sides of the same coin and cannot be analyzed separately. However, unlike Stockholm declaration that declared right to environment as a fundamental human right, the Rio declaration adopted "right to development so as to equitably meet development and environmental needs of present and future generations" as principle 3. The concept of right to development was included in the declaration on the insistence of G-77 and China which US, Canada and EU opposed saying it was an artificial right. G-77 argued that concept of right to development moved the focus away from abuses of fundamental human rights. G-77 and China on the other hand brought the focus back to political debate about development aid, international economics and causes of poverty. This issue has remained contentious spread across several other debates on human rights, environmental protection and development. The US refused to accept the principle 3 that declared right to development as a human right and recorded an objection to it at the time when Rio declaration

was adopted. The US objection rested on the argument that development is not a right but it is a goal which depends upon how human rights are protected and promoted. Principle 4 came closest to definition of sustainable development. It declared that in order to achieve sustainable development, environmental protection shall constitute an integral part of the development process. Principle 5 further stated that eradication of poverty is an indispensable requirement of sustainable development. Principle 6 commits to provide special priority to least developed and environmentally vulnerable countries. Principle 7 became a battle ground for G-77 and China on the one side and developed countries on the other. Developing countries delegates wanted a principle that laid the "blame" for current global environmental problem squarely on the industrialized countries. In their draft they then wanted developed countries to take the obligation to transfer clean technologies at noncommercial rate and to provide more financial assistance to deal with environmental degradation to developing countries. The final principle text came not close these intentions of developing countries which made them very reluctant to accept the final text of the declaration. Principle 7 did recognize that "in view of the different contribution the global environmental problems, states have common but differential responsibilities". Further, it stated that developed countries bear the responsibility for sustainable development in view of the pressure their societies put on the global environmental degradation. Developing countries were not happy with mere acknowledgement of developed countries responsibility, whereas developed countries delegates argued that it was not appropriate for developed countries to take unilateral responsibility without a similar acknowledgement from the developing countries. The final text was a compromise text of the Chairman of the Prep-Com committee. The United States recorded an interpretative statement on principle 7 saying that the US highlights special leadership for environmental protection and does not accept any obligation or liabilities to developing countries. Rest of 20 principles further refined rights and obligation of different actors for environmental protection, which remained largely non-controversial.

The Rio declaration thus represents a careful improvement on Stockholm. However, the declaration carefully avoids the most difficult political issues such as resource transfer, historical responsibility, lifestyles and consumption, war and environment and trade and environment. Nevertheless, the declaration provides the most important guiding background for all negotiations on global environmental problems since its adoption.

SAQ 2. What is the principle 3 of Rio Rio declaration?

5.6 FROM DECLARATION TO IMPLEMENTATION

Gro Harlem Brundtland described Rio declaration as "promises made by world leaders." Agenda 21 is described many observers as a successor of "common future" and, as one critique observed it, is most quoted, misrepresented, widely discussed and little-read document of the UHCED process. It was conceived as a plan for action by and for international community and is accordingly widely known as a plan of action that emerged from Rio conference. The massive plan of Agenda 21 contains 470 pages and 40 chapters. Its implementation is a specific mandate of United Nations Commission on Sustainable Development (CSD). CSD is supposed to monitor and highlight efforts of the nations to achieve overall goals of Rio declaration.

Agenda 21 comprises a preamble and four sections. Section one provides for international action in relation to international cooperation, poverty, consumption patterns, population, human health, sustainable human settlement and integration of environment and development in decision making. Section II concerns with conservation and management of resources for development. Section III provides for public participation in decision making, it identifies interests groups and their mobilization in order to increase public participation in national and interna-

international cooperation. It was widely acknowledged in the aftermath of Rio conference that two issues of key concern of southern countries were not adequately covered: the financing of sustainable development in south and transfer of technology from north to south for sustainable development. Through section IV of Agenda 21, CSD is expected to bear the responsibility to carry forward the crucial north-south issues of financial aid and technology transfer. The long term implementation of Rio declaration now rests with CSD on implementation of Agenda 21.

5.7 GLOBAL ENVIRONMENT FACILITY

At the september 1989 meeting of the Development committee, the World Bank was asked to assess the requirements for additional funding and potential interest from donors in supporting actions to address global environmental concerns in the developing countries. A paper entitled "Funding for the Global Environment" outlining the goals and general modalities was prepared for the March 1990 meeting convened by World Bank in Paris. It was proposed to establish a Global Environment Facility (GEF) as a pilot program under which grants or concessional loans will be provided to developing countries to help them implement programmes that protect the global environment. Four areas have been identified for the operations of the Facility. These areas are

- * Protection of Ozone Layer
- * Limiting Emissions of Greenhouse Gases
- * Protection of Biodiversity
- * Protection of International waters

In two more meetings convened in 1990 a number of developing countries participated, and prepared modalities for the proposed GEF which were discussed covering funding allocation criteria, and other organisational procedures. Among other things there was a consensus on the following points:

- GEF should support programmes and activities for which benefits would accrue to the world at large.
- GEF funded programmes should be implemented in consultations with UNEP, UNDP and the World Bank.
- Contributions from donors shall be on highly concessional terms.
- Non Government Organisations may be involved wherever possible, in the design and implementation of the environmental activities funded by GEF.

The GEF was restructured in 1994 to ensure a governance that is transparent and democratic in nature and promote universality in its participation. The agreed incremental costs of the activities concerning hard degradation, were also made eligible for funding under Agenda 21.

SQA 3. What are the issues to be addressed under GEF?

5.8 SUMMARY

Human greed rather than human need resulted in most of the causes for environmental degradations. Nations that have access to more capital and access to sophisticated technologies have exploited the natural non-renewable resources resulting in the division of nations as haves and have-nots and in turn dividing the globe into global north and global south. As it so happens often, the global commons have no longer remained as global commons. Global efforts for protecting the environment date back to 1870s when Switzerland tried to reach or regional agreement to

protect nesting sites of migratory birds. It is only after the formation of United Nations in 1944, that the movement for establishing international environmental laws, gained the necessary momentum. The declaration of Permanent Sovereignty Over Natural Resources (1962), Declaration of the United Nations Conference on the Human Environment Declaration on Environment (1989) culminated in the Rio Declaration on Environment and Development (1992). The establishment of Global Environment Facility (1990) and the creation of GEF Trust Fund (1994) resulted in focusing the importance of World Nations on protection of global commons. It is a strange irony that on one hand technology has contributed to environmental degradation, it is the technology that has been conceived as the saviour from global environment destruction. In spite of numerous Treaties, Protocols, Declarations and conferences, the information is inaccessible to ordinary citizens, students, teachers and practitioners.

5.9 MODEL EXAMINATION QUESTIONS

1. Trace the History of Global Environmental Negotiations highlighting salient points of some of the Declarations.
2. Explain the importance of Rio Declaration on Environment and Development.
3. Explain the Role of General Environment Facility in providing a level field to Developed and Developing Nations?

5.10 ANSWERS TO SAQS

SAQ 1: Convention to protect Birds useful to Agriculture (1884)

SAQ 2: Right to development so as to equitably meet the development needs of present and future generations .

SAQ 3: Depletion of Ozone layer, Emissions of Green House Gases, Protection of Biodiversity and Protection of International waters.

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UNIT 6: INTERNATIONAL ENVIRONMENTAL LAWS & AGREEMENTS

CONTENTS

- 6.1 Aims and Objectives
- 6.2 Introduction
- 6.3 General Principles of International Environmental Law
 - 6.3.1 Principle of State Responsibility
 - 6.3.2 Principle of Good neighbourliness
 - 6.3.3 Principle of Cooperation
 - 6.3.4 Principle of Sustainable Development
 - 6.3.5 Principle of Polluter Pay
 - 6.3.6 Principle of Precaution
 - 6.3.7 Principle of Intergenerational equity
 - 6.3.8 Principle of Common But Differential Responsibility
- 6.4 International Environmental Policy – South Perspectives
- 6.5 Important International Environmental Agreements
 - 6.5.1 Ramsar Convention
 - 6.5.2 World heritage Convention, 1972
 - 6.5.3 London Dumping Convention, 1972
 - 6.5.5 Marpol Convention, 1973/78
 - 6.5.5 CITES, 1973
 - 6.5.6 Law of the Sea Convention, 1982
 - 6.5.7 Vienna Convention on Ozone 1985/Montreal Protocol
 - 6.5.8 Based Convention, 1989
 - 6.5.9 Agenda-21
 - 6.5.10 Climate change convention, 1992
 - 6.5.11 Biodiversity Convention, 1992
 - 6.5.12 UN Convention on Desertification, 1994
 - 6.5.13 HNS Convention, 1996
- 6.6 Environmental Laws - Their implications to South Asia.
- 6.7 Summary
- 6.8 Answers to SAQ's
- 6.9 Model examination questions
- 6.10 Glossary
- 6.11 References

6.1 AIMS AND OBJECTIVES

After studying this unit you will be able to:

- identify the general principles of international environmental law,
- discuss the salient features of major international environmental agreements
- examine the impact of North Vs. South dynamics on the development of international environmental law.
- apprehend the implications of strong environmental standards to the development prospects of the south.

6.2 INTRODUCTION

With the rise of environmental problems, international law has expanded to cover environmental issues also. This was necessary because as everybody knows pollution knows no boundaries which are manmade. A respectable number of international agreements are concluded on environmental issues. However, it is not possible or desirable to discuss all of them. Therefore, only the general principles of International environmental law and salient features of some of the important agreements have been discussed in this lesson.

6.3 GENERAL PRINCIPLES OF INTERNATIONAL ENVIRONMENTAL LAW

On an overall examination of international environmental law, the following principles can be identified.

6.3.1. Principle of State Responsibility

A state incurs state responsibility if it commits a breach of international obligation say, not to pollute an International river. An International obligation stems primarily from an International treaty, custom or judicial decision. A state will be responsible if the wrongful act/omission has resulted in the breach of any International obligation. It will be responsible if the breach is committed by the agents of the State. It will be responsible even if the wrong is done by a private individual and the state did not exercise due diligence to prevent the damage. State responsibility is a traditional principle of general international law which can be applied to environmental wrongs.

6.3.2. Principle of good neighbourliness

According to the most basic principle of international law, every state has an absolute authority to use and enjoy its own territory. However according to the customary principle of good neighbourliness, a state has to use its property in such a way that its action does not injure the property or the other legal interests of another state. Good neighbourliness is a back door through which environmental law has entered the international field. Eg. In Trail Smelter Arbitration, the toxic fumes from the smelting operations which were carried out in the Canadian territory escaped into USA. As a result, the property of US citizen was damaged. Canada was made liable on the basis that it violated the principle of good neighbourliness.

6.3.3. Principle of Cooperation

This is also a general principle of International law. It is quite useful for environmental problems. Global environmental problems cannot be managed without state cooperation.

6.3.4. Principle of sustainable development

Principle 3 of Rio Declaration describes sustainable development as a development that meets the needs of present generations without compromising the ability of future generations to meet their own. This principle is popularly understood as principle of integration between ecological and economic concerns. It is based on the understanding that the goals of environ-

mental prosecution and economic development are complementary to each other, one cannot be achieved without the other.

6.3.5 Principle of Polluter Pay

It means polluter has to pay for the consequences of pollution. That is, the polluter has the responsibility to bear the costs of rectifying the environmental damage the results out of pollution. This principle has a special importance so far as North-South relationship is concerned. North has major share in global pollution. So South demands that the North has to take greater responsibility and pay more for the costs of pollution abatement measures.

6.3.6 Principle of Precaution (Sic utero tuo ut ad alienum)

We know that prevention is better than cure. There are some kinds of environmental damages which are serious and irreversible. In such case scientific uncertainties about the possible harm should not be used as a reason for postponing preventive actions.

6.3.7 Principle of Intergenerational equity

It is a principle of fairness. This principle requires us to remember that the earth is not the exclusive property of the present generation of human beings only. It is a common endowment for the entire mankind. So, we should hold the planet earth in trust for the future people. We should use the natural resources carefully and avoid passing on unnecessary environmental damages to the future people. A judgment of Philippine court is worthy of mention here. When the Philippine government gave permits for deforestation, 44 minors and an environmental organization challenged the government. They contended that they are representing not only themselves but even the future people. The court allowed them to represent the case of unborn future people also. This shows that intergenerational equity principle is gaining good acceptance.

6.3.8 Principle of Common But Differential Responsibility

All countries realized that the ill effects of environmental degradation will eventually affect all countries. Therefore, all states have to assume the common responsibility for protecting the environment. But the share of the contribution cannot be equal. It has to be different because all countries do not have equal capacity to maintain the environment. Those states who polluted more and who have higher capacity should take up major responsibility in maintaining the environmental quality.

SAQ 1 What are the general principles of international environmental law ?

6.4 INTERNATIONAL ENVIRONMENTAL POLICY SOUTH PERSPECTIVE

Stockholm conference, 1972 and Rio conference, 1992 laid down a broad and comprehensive international environmental policy. The North-South (includes South Asia) dynamics has a great role in shaping the framework of this policy. South opposed strong environmental policy South's arguments and demands are as follows:

- Environmental problems arise not just from over development, Poverty due to

- underdevelopment is a major source of environmental degradation.
- South does not have the economic and technological strength to follow strict legal commitments and international standards.
- State has sovereign freedom to use and enjoy their resources for their development in accordance with their individual policies.
- North's extensive development and excessive consumption of natural resources caused major environmental degradation. Hence, it should assume greater responsibility for protection of environment, (principles of polluter pay & common and differential responsibility)
- Economic developmental concerns should be integrated in environmental policies (Principle of sustainable development).
- North should transfer financial and technological resources to South to make it capable to protect the environment (principle of equity).

Due to the South's opposition, no legally binding commitments could be adopted in the two conferences. They adopted only Declarations namely, United Nation Conference on Human Environment, 1972 (26 principles) and Rio Declaration on Environment and Development, 1992 (27 principles). These declarations consist of only non binding principles.

In the Rio conference, apart from the Rio Declaration on Environment and Development, following documents are adopted.

- Agenda 21,
- Climate Change Convention.
- Biodiversity Convention,
- Non-Binding Principles of Forests.

Rio Declaration consists of 27 principles. It contains all the general principles of international environmental law i.e sustainable development, polluter pay, precautionary principle, common but Differential responsibility, good neighbourliness, state responsibility, Intergenerational equity etc.

SAQ 2 What is the main reason for south's opposition for implementation of International Environmental policy?

6.5. IMPORTANT INTERNATIONAL ENVIRONMENTAL AGREEMENTS

6.5.1 Ramsar Convention, 1971

This convention is adopted for the protection of wet lands. It recognizes ecological functions and the economic, cultural, scientific and recreational value of wet lands. Under this, the state parties should designate at least one national wetland of international importance. Parties should assess the impacts of any change of use of wetlands, should establish wetland natural reserves, manage and wisely use of migratory stocks of waterfowl (bird) etc.

6.5.1 World Heritage Convention, 1972

It highlights the universal value of the cultural and natural heritage. It advocates for the international support for maintenance of the World Heritage sites. A state party has an obligation to identify, protect, conserve and transmit to future generations the unique cultural and natural Heritage of that country. Those sites that are nominated by states will be enlisted on the World Heritage list.

6.5.2 London Dumping Convention, 1972

This convention is designed to control the dumping of wastes in the sea. It requires the states to limit dumping of such substances as radioactive material, biological and chemical warfare agents, persistent plastics, heavy metals and toxic organics. In 1993, bans on the ocean disposal of low level radioactive material and industrial wastes were adopted. A protocol is added in 1996. Under this, seven more substances are listed. These substance can be dumped only after getting permission.

6.5.3 Marpol Convention, 1973/78

This convention is aimed at preventing or reducing discharges (international or accidental) from ships into seas. It greatly limits the amount of oil and ship generated waste which can be discharged into the sea. There is a complete ban against dumping in areas designated as special areas. Eg. Carribbean & Gulf of Mexico.

6.5.5. CITES, 1973 (Convention on International Trade in Endangered Species)

Under this convention, parties should identify species that are, or may be threatened by trade. They also should identify those species that may be threatened unless the trade is regulated. The former should be listed in Appendix-I and the latter in Appendix-II. Commercial trade is forbidden for species listed in Appendix-I. Eg. Dolphins and Whales. While not banned, the trade is strictly regulated in respect of species listed in Appendix-II.

6.5.6 Law of the Sea convention, 1982 :- (Parts V & XII)

It seeks to protect and preserve marine environment. It directs the states to take measures to prevent, reduce and control the marine pollution, protect fragile ecosystems, monitor risk/ effects of marine pollution etc. A state should not cause damage to other states by pollution. It should notify other states where marine environment is in imminent danger. In the EEZ (Exclusive Economic Zone) there should not be over exploration of living resources by the coastal state.

6.5.7 Vienna Convention on the Protection of the Ozone layer, 1985 & Montreal Protocol, 1987

Ozone is a protective layer of the atmosphere. It shields the earth from the sun's harmful radiation. We all know that CFCs (Chloro Floro Carbons) deplete Ozone. The Vienna Convention, 1985 followed by 1987 Montreal Protocol aim to phase out the production and consumption of ozone depleting substances. The Montreal Protocol sets firm targets for the states for phasing out the CFCs. But it permitted the developing states to delay their compliance of the protocol. It also provided for transfer of necessary technology to the developing states. The convention also restricts the trading of ozone depleting substances.

6.5.8. Based convention (on the control of Transboundary Movements of Hazardous Wastes), 1989

Hazardous wastes cause severe damage. Most often these Hazardous Wastes (hereafter referred as HW) are exported by the developed states to the developing states. Therefore, this convention has special significance to them. This convention seeks to minimize the level of HW from its source of generation. No export is allowed to the countries which prohibit the HW unless consent is given by them. There should also be no export if there a reason to believe that these wastes will not be managed by the importer in an environmentally sound manner. Availability of disposal facilities in the importing state should be ensured by the exporting state before exporting the HW. State parties should develop guidelines for environmentally sound management of HW.

6.5.9 Agenda - 21

It is a massive 800 paged document adopted by the Rio conference. It contains Action-Programme for attaining sustainable development. It lays down 115 specific programmes. It is a key document but is not binding.

6.5.10 Climate Change Convention, 1992

Global warming is a major environment problem shaking the world. It is caused due to GHG (Green House Gas) emissions. This convention aims to stabilize the GHG emissions. The convention lays down general commitments applicable to all (annexed as well as non-annexed) state parties. They are to limit GHG emissions, gather relevant information, develop plans to mitigate and adapt to climate change, cooperate in research and development.

Under the convention, state parties fall into two categories, Annexed and Non-Annexed states. Annexed states are sub-divided into Annex I (consisting of industrial states OECD states and economies in transition) and Annex-II states (consisting only of OECD States). Annex-I states have specific commitments to bring down their GHG emission to 1990 level. The Annex-II states also have to bring down GHG emissions but their baseline limit is not 1990. The base line can be fixed by themselves. In 1997, Kyoto Protocol is attached to the convention to supplement it. By this, specific and legally binding targets are fixed for industrialized states (to cut at least 5% from 1990 level. The target period is between 2008-2012). The Protocol also suggested mechanisms for fulfilment of targets. They are joint implementation emission trading 85 clean Development Mechanism (see glossary).

6.5.11 Biodiversity Conventions

It is the first global treaty which adopted a comprehensive ecosystems approach. Biodiversity is very essential for ensuring sustainable development. Initially the North wanted to declare biodiversity as the Common Heritage of Mankind. But South refused because it wanted to retain the sovereign supremacy over its biodiversity. The convention outlined 3 objectives.

- Conservation of biodiversity.
- Sustainable use of the components of biodiversity.
- Fair and equitable sharing of the benefits of using biodiversity.

Under the convention, the states have obligations to develop national programmes for

conserving and sustainably using the biodiversity, prepare inventories of bio-resources, take *ex-situ* & *in situ* conservation measures, establish a system of protected areas etc. it should be noted that the South is very rich in its biodiversity. Hence it has high stakes in this convention.

Cartagena Protocol is an attachment to biodiversity convention. It is based on precautionary principle. The benefits and dangers of biotechnology are not fully known. Therefore according to this Protocol, adequate measures of protection must be taken in matters of transfer, handling and use of living modified organism.

6.5.12. UN Convention to combat Desertification, 1994

States are directed to give priority to combat desertification and mitigate effects of draught. They have to prepare and implement the national programmes in this regard.

6.5.13 HNS Convention, 1996 (International Convention on Liability and Compensation for Damage in connection with the carriage of Hazardous and Noxious substances)

This convention provides for liability and compensation for damage resulting from maritime accidents involving the carriage of hazardous and noxious substances.

An overall examination of the international environmental agreements show that they have laudable objectives. But most of these conventions do not contain firm legal commitments. They at the most represent weak political compromises. Unfortunately, states do not follow even those commitments that are agreed upon. The major draw back of international law is that there is no effective enforcement machinery. Therefore, most international obligations relating to environment, are consistently violated. The economic implications prevent the South from agreeing to the adoption of strong environmental laws at International level. Being rich, the North is expected to take the major lead and help the South by transferring its economic & technological resources. But so far, North's contribution in this regard is nominal. Therefore, the weakness of International environmental law is likely to continue as long as the stalemate between the South and North continues.

6.6. ENVIRONMENTAL LAWS - THEIR IMPLICATIONS TO SOUTH ASIA

South Asia is on the worst side of both environmental and economic problems. The levels of both the poverty and environmental degradation are alarming.

South Asia's economic development and public health are at stake with the rise of environmental problems. In response to environmental problems, South Asian countries did adopt legal and administrative measures. But these measures suffer from the drawbacks of superficiality, laxity, out datedness of standards, high bureaucratic content, bad implementation, corruption, lack of coordination amongst enforcing agencies, people's ignorance, no adequate right to information to public etc.

Though it is true that the economic and technological backwardness prevents them from adopting tough environmental laws, it is important for South Asia to take into account the long term implications of poor laws to their economic development and public health. For eg. if

energy resources are inefficiently used due to ineffective environmental management, no economic development is possible in future. South Asia has to keep this in mind and develop its internal laws so as to protect its environment and economic development in the best possible way.

Environmental laws have both local and international implications. Environmental standards are high in North and poor in South Asia. Industrial enterprises are attracted towards South Asia because of its loose environmental standards. North views this as unfair trade advantage. Environmentalists warn that this leads to a "race to the bottom" situation i.e. countries will reduce their environmental standards further and further to attract industries. This will severely damage the environment, South Asia has to seriously think about the environmental and public health implications if all dirty industries concentrate in this region.

North's high environmental standards also pose challenge to South Asia's economic prospects. In many instances North has banned or restricted the trade imports from South Asia on the ground that these goods do not conform to their local standards. Eg. recently USA banned shrimp from South Asia because these shrimp were caught without using TED (Turtle Excluder Device) resulting in the killing of turtles, an endangered species. On the basis of free trade principles, the World Trade Organization has given a decision in favour of India & Pakistan in this case. But the larger issues remains unanswered. How to reconcile the differences in the local environmental laws and standards? Whether trade restrictions could be used for improving environmental standards? how to know if the trade barrier is a disguised domestic protection? Hot debates are going on about these issues. This lesson however, does not warrant a detailed discussion about them. But we have to remember that the South Asia has a great diplomatic responsibility to see that international environmental standards are not allowed to be set through WTO mechanism.

SAQ 3: What are the implications of Environmental laws to South Asia?

6.7 SUMMARY

Environmental law is one of the tools to tackle the environmental problems. But due to many economic and political reasons (as reflected in North/South dynamics[^]) international environmental law could develop itself only as a framework law with no strong legal commitments on the part of the states. South which includes South Asia has strong economic reasons to oppose the adoption of strong legal commitments. However it is now caught in whirlpool situation. It is experiencing the economic as well as environmental consequences both at we National and International level due to its weak environmental standards.

6.8 ANSWERS TO SAQ's

SAQ 1: State responsibility, Good neighbourliness, Cooperation, Sustainable development, Polluter pays, Precaution Intergenerational equity and common but differential responsibility.

SAQ 2: Lack of economic and technological strength to follow strict legal commitments and international standards does not provide a level field and puts South in a disadvantageous position.

SAQ 3 Industrial enterprises are attracted to locate their production facilities in South Asia because of the tax environmental standards. This in turn will reduce the environmental stand-

ards further to attract production facilities from North countries resulting in "race to the bottom" situation damaging the environment in South Asia further.

6.9 MODEL EXAMINATION QUESTIONS

1. Elucidate the general principles of international environmental laws.
2. Explain the South's perspectives about international environmental policy.
3. Give an account of the salient features of the law relating to marine environment.
4. Give an account of the salient features of international agreements adopted during Rio conference.
5. Explain the implication of environmental law & standards to South Asian states.

6.10 GLOSSARY

1. **North/South**: Countries in the Northern hemisphere are economically well developed. Countries in the southern hemisphere are under developed. With exceptions of course. North/South dynamics represent the dynamics of developed/underdeveloped states.
2. **Convention**: It is an agreement of legally binding commitments.
3. **Declaration**: Consists only of principle. Violation of principles does not give rise to state responsibility.
4. **State party**: A State which has formally entered the agreement.
5. **GHG**: Green House Gases eg. CO₂. They trap the solar radiation.
6. **JI**: Joint Implementation. According to this, the state listed in Annex-I of the climate convention can validly implement its emission reduction in the territory of another state listed in the same Annex-I.
7. **CDM**: Clean Development Mechanism. According to this, the state listed in Annex-I of the climate change convention can fulfil its emission targets in the territories of those states which are non annexed (which are developing states).
8. **Emission Trading**: Commitment to reduce the GHG emission may be traded amongst Annex-I states of the climate change convention.
9. **Bio-diversity**: Variation in the life forms.
10. **Wetlands**: They occur where the water table is at near the surface of the land or where the land is covered by shallow water. Eg. Marsh lands. They are very rich in biodiversity.
11. **EEZ**: It is exclusive economic zone. The coastal states are entitled to have a maritime zone up to 200 nautical miles from their base line. Only the coastal state has got the authority to use the resources of the zone.

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UNIT 7: U.N. AGENCIES ROLE

CONTENTS

- 7.1 Aims and Objectives
- 7.2 Introduction
- 7.3 Structure of the United Nations
- 7.4 UN's Environmental Agenda
- 7.5 UN Agencies Role
- 7.6 Obstacles for an effective UN Role
- 7.7 Future Role of UN
- 7.8 Bretton Woods Institutions
- 7.9 Summary
- 7.10 Model Examination Questions
- 7.11 Answers to SAQs
- 7.12 References

7.1 AIMS AND OBJECTIVES

By the time you complete this unit you will be able to

- (i) Get a factual back ground of United Nations
- (ii) Appreciate the role of UN in terms of international environmental governance
- (iii) Critically analyses the role of functioning of UN Agencies
- (iv) Assess the role of Bretton wood Institutions.

7.2 INTRODUCTION

The United Nations was officially formed on October 24, 1945, but its forerunner the League of Nations was conceived of in similar post-war circumstances in 1919 itself. The League of Nations was meant to promote international cooperation and to achieve peace and security. Its demise was because of its failure to prevent the Second World War. The term United Nations was first coined by the U.S.-President Franklin D. Roosevelt and was first used as a collective pledge of representatives of 26 nations on January 1, 1942, as a commitment to continue to fight against the Axis Powers.

On October 24, 1945, AS MANY AS 51 countries signed the United Nations Charter in South Africa. The charter was worked out based on proposals drafted by representatives of China, the United Kingdom, the Soviet Union and the United States. The central role of the United Nations was

the promotion of peace and security, development and human rights. In order to attain these goals, the UN was meant to take effective collective measures to prevent war, to develop friendly relations between countries and to achieve international cooperation for resolving international problems. The UN was meant to be the harmonising centre for all member nation states.

At present, there are 191 sovereign states who are members of the United Nations, which is virtually all nation-states. The United Nations is based on the principle of sovereign equality of each nation state. However, the United Nations is also the place where countries are meant to come together to address common problems. The United Nations is meant as a conduit through which countries cooperate together and build structures of international governance that are acceptable to all and which help improve the standard of living of all.

7.3 STRUCTURE OF UNITED NATIONS

The United Nations consists of six main organs - the General Assembly, the Security Council, the Economic and Social Council, the International Court of Justice, the Secretariat and the Trusteeship Council. Second, there are a number of UN programmes and funds such as the UN Children's Fund (UNICEF), UN Development Programme (UNDP), UN Environment Programme (UNEP) etc. These programmes and funds fall under the Economic and Social Council of the UN but also report to the General Assembly. The third set of actors within the UN are the specialized agencies and analogous bodies working in such diverse areas such as agriculture, health, labour and meteorology. Well known among these bodies are UNESCO, ILO, FAO and the World Bank set of institutions.

The UN system has a vast array of responsibilities. These responsibilities include peacekeeping, disaster management, health, natural resource management and even lending of money. In that sense, the scope of the UN mandate is huge and is aimed very broadly speaking at providing a more stable and secure world with enhanced opportunities for all across the globe.

General Assembly

The General Assembly is the mainstay of the UN. The General Assembly is a unique body, in the sense, that it is the only forum where all countries sit down together and discuss their pressing problems. Moreover, all nation states have equal voting rights regardless of their economic status. The vote of the General Assembly represents at one level world opinion. The decisions of the General Assembly, however, are not legally binding on the Member States and thus only represent at best the moral authority of the community of nations.

Security Council

The Security Council is the UN organ which is in charge of security and international peace and deals with crises as they arise. Under the UN Charter, the Security Council's decisions are legally binding and so Member States are obligated to carry them out. At present, the Security Council is made up of 15 members out of which 5 members are permanent and 10 non-permanent who are periodically elected for 2 year terms. The permanent members - China, France, the Russian Federation, the United Kingdom and the United States - have the veto power, i.e. they can block a proposal by casting a negative vote something which has often happened and which perhaps casts aspersions on to the egalitarian nature of the United Nations.

Economic and Social Council

The Economic and Social Council (ESOSOC) is the central UN forum with regard to international economic and social issues. It has 54 members who are elected by the General Assembly for three year terms. ESOSOC plays a central role in strengthening regional cooperation for development as well as setting priorities in terms of economic and social work. Most of the UN programmes and funds and functional commissions including environmental ones such as the Commission on Sustainable Development (CSD) fall under the purview of ESOSOC. It thus coordinates the work of UN specialized agencies, programmes and funds and undertakes follow-up action in terms of major UN conferences. This role has become all the more important in the context of globalization and with regard to issues such as sustainable development. Environmental concerns fall under the jurisdiction of ESOSOC.

Secretariat

The UN Secretariat comprises of the various UN departments and thus is in a sense the backbone of the UN system. A number of the offices/departments within the Secretariat address environmental concerns. These departments, are used in various UN programmes, but often they function in a very fragmented manner. As of late, under the process of UN reform, attempts were made to create a separate department called the Department for Economic and Social Development. This was further split into two departments, one of them being the Department for Policy Coordination and Sustainable Development (DPCSD) which was to be the backbone of the UN's environmental agenda. This has led to a certain amount of overlap and conflict within the UN.

International Court of Justice

The International Court of Justice arbitrates on disputes between nation-states. In 1949, the Court confirmed an important principle, namely that every state has an obligation not to allow its territory to be utilised for actions which could harm the rights of other states. This act subsequently became important vis-a-vis environmental concerns as well and was to later emerge as Principle 21 of the Stockholm Conference. The International Court of Justice is an important body in terms of international environmental governance.

SAQ 1. What are the main organs of UN?

7.4 UN's ENVIRONMENTAL AGENDA

There is nothing specific in the UN charter which addresses environment per se. The UN is, however, to achieve international cooperation with regard to economic, social, cultural and humanitarian problems which are of international scale. Moreover, environmental concerns have been subsumed under Article 55 of the Charter which aims at higher standards of living, social progress and solutions for health and related problems. Also, under Article 22 of the UN Charter, the General Assembly can and has established a number of specialized Agencies as well as launched a number of programmes and conferences related to the environment.

In addition to action taken by the General Assembly, a number of other UN agencies have indirectly addressed environmental concerns though they have been largely peripheral to wider socio-economic concerns. For example, the International Labour Organisation has addressed issues of occupational health. The Food and Agriculture Organisation (FAO) has been involved in issues related to soil, land and forest management. UNESCO has also addressed natural

resource concerns whereas UNDP too has a significant environmental mandate (see later section).

The beginning of environmental action by the UN itself (not other autonomous agencies) started in 1947 when ECOSOC passed a resolution to convene a UN Conference on the Conservation and Utilisation of Resources (UNCCUR) which took place in 1949. This conference highlighted the need for the conservation of natural resources. But it was essentially a conference to exchange ideas and had no mandate to make recommendations. In 1954, the General Assembly convened another conference on the Conservation of the Living Resources of the Sea which led to the 1958 Geneva Convention. A number of other treaties emerged as a result of these UN conferences though not all were under the auspices of the UN. These included the 1958 High Seas Fishing and Conservation Convention, the 1971 Ramsar Convention on Wetlands, the 1968 African Nature Convention and the 1972 Oslo Dumping Convention on hazardous substances.

Such initiatives were very fragmentary in nature. In 1968, Sweden had tabled a resolution within the Economic and Social Council calling for a comprehensive look at prior initiatives around the environment and an examination of how global environmental problems could be solved through international cooperation through the UN. The Secretary General was requested to prepare a report which highlighted the work of various UN organisations and programmes which were relevant to the human environment.

UNHCE

The Swedish initiative led to a recognition that human environment had to be put onto the agenda of the UN in a more comprehensive way. A preparatory committee (PC) was established with the aim to identify urgent environmental problems and priorities for international action. The Committee prepared a *Report on the State of Human Environment* and governments were asked to prepare national reports with regard to their experience in confronting environmental problems. The foci were management of human settlements in terms of environmental quality, management of natural resources, control of pollutants, international institutional implications and the economic, financial, social and educational aspects of environmental issues.

The 1972 UN Conference on the Human Environment (UNCHE) for the first time brought developed and developing countries together to map out a common future with regard to protection of the environment. Representatives of 113 member countries of the UN attended as well as members from UN bodies, GATT and the IAEA. The broad agreement which emerged from the meeting came in the form of: (1) an Declaration on the human environment highlighting a collective commitment to govern the environment, (2) an Action Plan of 109 recommendations calling on governments, UN agencies and international organisations to cooperate in taking specific action in the area of human settlements, natural resource management and pollution control and (3) the need for continued UN institutional commitment in the area of environment accompanied with the necessary financial arrangements.

UNEP was created as a result of UNHCE and was situated in Nairobi, Kenya. It was to act as a focal point for environmental action and coordination and was to be headed by an Executive Director to be elected by the General Assembly. UNEP was to have its own assembly elected every three years and responsible to the General Assembly through the Economic and Social Council. In addition to UNEP, a voluntary environment fund was to be established based on energy consumption of nations which was to help finance programmes. Finally, and Environmen-

Environmental Coordination Board (ECE) was to be formed as an inter-secretariat body and was to meet under the chairmanship of the UNEP Executive Director.

The conference put forth a number of recommendations in the form of an Action Plan for the Human Environment. One of the important programmes included the Global Assessment Programme which was a programme to both monitor pollution and aimed at curtailing the release of dangerous pollutants into the atmosphere. Other initiatives were aimed at natural resource management, protection of the world's genetic resources, control of pollutants and toxic wastes etc. The Conference also called for a 10 year moratorium on commercial whaling and called for a draft convention to control marine pollution. In addition, the Conference strayed into issues of trade and environment urging countries not to use the environment as a means to prevent free trade. This was to be a precursor to the debates within the World Trade Organisation (WTO). The Conference also led to follow-up meetings to discuss vital 'environmental' questions with regard to food, housing, safe drinking water etc.

Despite the importance of the UNCHE, little headway was made in the 1970s with regard to global environmental concerns. One of the major reasons for this was that there was substantial disagreement amongst member states with regard to the recommendations and proposed action plans. Furthermore, there was a lot of criticism that the recommendations made were not based on adequate data and good scientific analysis. All of this coupled with the fact that the Declaration put forward by the conference was not in anyway legally binding meant that little progress took place in the 1970s.

WCED

In 1983, the UN General Assembly established the World Commission on Environment and Development (WCED). The Commission was an independent body outside of the auspices of governments and the UN system but linked to it. The Commission had three main mandates: (1) to critically examine once again environment and development issues with a view to dealing with them through realistic proposals of action, (2) to suggest ways in which international cooperation could be fostered to deal with these issues and (3) to promote understanding and involvement of individuals, non-government organisations, institutes, governments etc. with regard to environmental issues.

The Brundtland Report (which was the output of WCED) was published in 1987. The report was important for a number of reasons. It explicitly (much more than in the past) highlighted the linkage between development and environmental degradation and spoke about sustainable development. It paid significant attention to the 'common future' of the North and the South and the need for collaborative work. It also spoke explicitly about inter-generational equity, i.e. the possible consequences of phenomena such as acid rain, global warming, ozone depletion, desertification or biodiversity loss for future generations.

While the Brundtland Commission was pivotal in highlighting the need for North-South cooperation, its aftermath brought out the difficulties involved in such cooperation. While the linkage between development and environmental destruction was becoming clear, nation states were reluctant to cut back on their living standards in order to protect the global environment. As a non-legally binding document, the Brundtland Commission did not have much power behind it.

SAQ 2. What is the mandate of WCED?

7.5 UN AGENCIES ROLE

In 1992, the UN Conference on Environment and Development (UNCED), popularly known as the Earth Summit, was held in Rio de Janeiro, Brazil. The Conference was the culmination of a process which started in 1989 of planning, negotiations and education of all member states of the UN. The primary aim of the Earth Summit (a result in a sense of the Brundtland Commission) was to support socio-economic development and prevent the continued deterioration of the environment through cooperation between developing and developed countries. The Summit was a landmark in a number of ways: not only were a large number of countries represented by their officials, but a parallel conference of NGOs also took place which ensured that environment was firmly placed on the international agenda.

The Earth Summit went beyond previous UN conferences in emphasizing the need for all international development initiatives to account for environmental impacts. It recognised the need for governments and business to pay greater attention to eco-efficiency in terms of patterns of production, the search for alternative sources of energy, the reduction of sources of pollution and the use of scarce water resources.

Earth Summit Agreements

The Rio Conference resulted in three broad agreements aimed at moving nation states towards more sustainable development practices. These were Agenda 21, the Rio Declaration on Environment and Development, and the Statement of Forest Principles. Agenda 21 was the successor of *Our Common Future* (Brundtland Commission) aimed again at promoting sustainable development and cooperative North-South environmental management. Agenda 21's 40 chapters addressed varied topics such as toxic chemicals and radioactive waste, biodiversity conservation, sustainable agriculture, patterns of production and consumption, poverty etc. The document addressed not only questions related to environmental degradation but also political, economic and financial aspects of sustainable development.

The UN Commission for Sustainable Development (CSD) was established by the General Assembly in December, 1992, under the umbrella of ECOSOC, to follow up on Agenda 21. The CSD has its own small secretariat and an assembly of representatives. CSD was given two main tasks: to monitor and highlight national initiatives in pursuit of Agenda 21 and to follow-up on questions of financing Agenda 21 (a concern of the South especially) and the transfer of technology which would enable the South to adopt more sustainable development practices. CSD was given general guidelines (13 guidelines) by which to monitor the implementation of Agenda 21. CSD was to follow up how individual countries adopted policies to meet the goals of Agenda 21, institutional mechanisms countries adopted for sustainable development including mechanisms by which NGOs could become more involved, and assessments of progress. CSD was also, however, to look at how the adoption of new sustainable practices effected developing countries, the capacity of countries to adopt such measures and the impact of sustainable practices on trade policies.

The Rio Declaration on Environment and Development was a supportive agreement to Agenda 21. The Rio Declaration defined the rights and responsibilities of States vis-a-vis the goals of Agenda 21 and urged swift international action even if a certain amount of scientific uncertainty existed (precautionary principle) so as to avoid irreversible environmental damage. The Declaration highlighted the importance of sustainable development practices within states, the need for developed countries to take responsibility in pursuing sustainable development given the on

pressure they place on the global environment and the need to eradicate poverty in order for sustainable development to be achievable. The full participation of women in sustainable development was also highlighted.

The third agreement was The Statement on Forest Principles which addressed the issue of sustainable forest management. This statement was a non-legally binding statement of principles which highlighted the need for countries to green the world through reforestation and conservation, that countries should develop their forests within the context of national sustainable development principles and financial resources should be channeled into promoting economic and social substitutes to forest resources.

UN Conventions

Two high profile conventions also emerged from the Rio Summit, the UN Framework Convention on Climate Change and The Convention on Biological Diversity, both of which are legally binding for the signatories. The Convention on Biological Diversity had three main aims: to conserve biodiversity, to ensure the sustainable use of biodiversity and to share the benefits arising from the commercial and other utilization of genetic resources in a fair and equitable way. The Convention recognized that biological diversity is 'a common concern for humankind' and set overall goals, policies and general obligations. However, it was left for nation states to take steps towards conserving biodiversity. Some countries like the United States are still to ratify the convention because of concerns related to intellectual property rights and thus the impact of the treaty has been diluted to some extent (see module on conventions).

The Convention on Climate Change like the Convention on Biological Diversity is binding for its signatories. The Convention was aimed at countries committing themselves to reduce pollutants which would cause climate change (see module on conventions). Like the Convention on Biodiversity, it has not been ratified and followed up upon by a number of countries unwilling to cut back on their standard of living.

World Summit on Sustainable Development (Johannesburg Summit)

The Johannesburg Summit was authorized by the United Nations General Assembly and took place in 2002. The Johannesburg Summit was a recognition that progress in implementing sustainable development had been extremely slow and disappointing since the 1992 Earth Summit. At Johannesburg, delegates affirmed the need for more action and results. There was also much greater dialogue than at Rio between governments, civil society and the private sector.

Unlike at Rio, there were no major agreements and treaties. There were also no grand solutions to solving the problems of environmental degradation and poverty. But new targets were set such as: halving the proportion of people without access to basic sanitation by 2015, using and producing chemicals by 2020 in ways that do not lead to adverse effects on human health and environment, maintaining or restoring fish stocks so that sustainable yields can be produced on an urgent basis by 2015 and reducing the loss of biodiversity significantly by 2010. Commitments were also made with regard to energy, improving agricultural yields and improving ecosystem management. Of course, there were many who felt that Johannesburg did not go far enough, especially in terms of commitments for moving towards non-polluting and renewable energy sources.

7.6 OBSTACLES FOR AN EFFECTIVE UN ROLE

Despite significant UN initiatives in the area of global environmental policy, there is not much clarity and coordination in terms of overall efforts at moving towards sustainable development. Part of the problem has been that the current global ecological order is complex and often different actors are at loggerheads with each other. Although UNEP was formed in 1972 to serve as the global environmental institution, it has been unable to take the lead. This is because there are a number of other institutions and forums within the UN (such as CSD) which compete with it. In fact, after the Rio Conference, CSD assumed a much more important role than UNEP. In financial terms as well, UNEP is relatively under funded. In addition to other institutions and forums, there are also secretariats tied to the various multilateral environmental conventions, institutions such as the Global Environmental Facility, the multilateral fund for the implementation of the Montreal Protocol which are in charge of financing and other UN and autonomous bodies such as the UNDP and World Bank which have large global environmental programmes.

These competing environmental voices have at times resulted in different bodies competing for turf. CSD, for example, claims that while UNEP is only interested in the environment, it is concerned with both environment and development. Another example of this was the GEF objecting to UNEP playing a greater role in shaping GEF's priorities. The UNDP and the World Bank have much larger budgets than UNEP. Though initiatives have been taken to give UNEP a higher profile, this has not happened because other agencies (for example CSD) have been unhappy with it.

North-South Divide

A significant North-South divide exists which hampers major progress on international environmental issues within a broad UN framework. Not only are there vast differences in the positions which are taken by countries of the North and South, but little change has taken place in terms of individual country positions. One major source of contention is with regard to sustainable development in general. G77 countries argue that sustainable development must include concern for sustained economic growth. The G7 countries do not equate sustained economic growth with sustainable development. There are also huge differences with regard to individual conventions/treaties. Examples of this include the Kyoto Protocol and the Convention on Biodiversity both of which the US are reluctant to ratify. The lack of attention given to the Convention to Combat Desertification is another case in point. The fact that these conventions are only legally binding for those who are signatories means that countries can opt out if they so choose.

UN and Bretton Woods Institutions

The role and authority of UN bodies has been increasingly challenged by Bretton Woods institutions such as the World Bank (though broadly speaking the Bank is also a specialised body of the UN). Unlike the UN which operates on the principle of one country one vote, the Bank operates under the principle of one dollar one vote. Over the years, as UN programmes have experienced budgetary cuts and the Bank has increased its environmental profile significantly. At the same time, the US has been withholding its financial contributions to the UN, maintaining that there is a need for structural reform within the UN. Developing countries have highlighted this unequal relationship between the UN and the World Bank. Southern countries are increasingly insisting that the reform of the UN (see next section) should be accompanied by the

reform of Bretton Woods institutions as well, giving developing countries a greater role. At present, however, the already limited influence of the UN is being further undermined.

WTO

International trade has also had considerable impact on the effectiveness of international environmental initiatives. Developing countries in particular have expressed concerns that trade should not be restricted because of global environmental governance. In the age of globalisation, the concerns of developing countries are overlapping with those of free trade proponents. For example, the US's decision to ban tuna imports from countries where dolphins were being killed in the process of catching tuna fish was deemed to be illegal under the General Agreement on Trade and Tariffs. With the advent of WTO, it is likely that economic considerations will continue to dampen the effectiveness of environmental treaties. For this reason, some countries are calling for the establishment of a World Environment Organisation (WEO).

7.7 FUTURE ROLE OF THE UN

A number of concerns have intermittently arisen over the years with regard to more clearly redefining the role of the UN with regard to global environmental management and specific agencies within the UN. Calls for reform have come from different circles with regard to various concerns: defining the role of UNEP more clearly, restructuring the UN itself and creating a World Environment Organisation (WEO). It is important to take note of some of these initiatives.

Restructuring the UN

Debates around the restructuring of the UN have been taking place for a long time now. The Pronk-Iglesias report in the early 1990s suggested the restructuring of ECOSOC to give environment a higher profile through CSD and the establishment of high-level Advisory Board on Sustainable Development which would report to the Secretary-General. While an Advisory Board was established, it was non-functional and was finally disbanded in 1997. Attempts were also made at reforming UNEP (discussing above) so as to make it more prominent in terms of setting global environmental priorities. This too, however, did not materialize effectively.

UNDP's role became more prominent with its *Agenda for Development*. *Agenda for Development* was an attempt to get the World Bank and IMF to have stronger developmental policy inputs. The report again suggested the restructuring of ECOSOC into an Economic and Security Council. This agenda too did not materialize because of differences with regard to questions of sustainable development, i.e. developing countries wanted the focus to be on economic growth.

A number of other initiatives at UN reform have taken place. The 'Quiet Revolution' of reforms initiated by Kofi Annan recommended the establishment of four executive groups: a peace and security group, a humanitarian affairs group (including the World Food Programme), an economic and social group (including UNCTAD, UNEP and CSD) and a development group (including UNICEF and UNFPA). While these broad reforms took place, there are still huge differences between developing and developed countries. The United States in particular has been eager for UN bodies to be tied closely to Bretton Woods institutions in the context of open economies, a thriving private sector and more emphasis on good governance and human rights (as defined by them) whereas developing countries would prefer to see the UN role strengthened in Bretton Woods institutions and more emphasis on sustained economic growth. The reform of the

Security Council has also been an important concern of developing countries.

World Environment Organization

One other area of proposed reform has been the establishment of a World Environment Organization. Some countries such as France and environmental NGOs have tabled the idea of a WEO to work alongside the WTO. The idea of a WEO has emerged in the context of increase international trade and the fear that the environment will be the loser. Developing countries fear that such an organization will result in the institutionalisation of global environmental governance which will restrict trade from the developing countries and consequently their efforts at development. Efforts at creating such an organization have not materialized thus far.

7.8 BRETTON WOODS INSTITUTIONS

The Bretton Woods institutions which were created after World War II originally to help reconstruct Europe, have become major financiers of development projects in the Third World. Organisations such as the World Bank, in particular, have also developed huge environmental portfolios. In fact, today the World Bank spends more on the environment than any other international organization. At the same time, the Bretton Woods institutions are accused of not alleviating but aggravating poverty and causing massive environmental destruction. This section looks at the role of Bretton Woods institution (mostly the World Bank) in the context of environmental issues.

Bretton Woods Institutions

In 1944, in Bretton Woods, New Hampshire, USA, three organizations were proposed to be created to form the foundation of new, post-World War II, economic order. The three organisations were the World Bank, the International Monetary Fund (IMF) (collectively known as the Bretton Woods institutions) and the International Trade Organisation. The first two were set up but the third aroused a considerable controversy (see trade and environment discussion in Unit 2). The World Bank and the IMF are considered to be independent, specialised agencies of the United Nations and are also member observers in many United Nations' bodies. But unlike the United Nations' institutions which function on the basis of equality of nation-states, the Bretton Woods' institutions wield power to those who contribute more. Meaning, the UN is based on the principle of one nation one vote whereas Bretton Wood institutions are based on the principle of one dollar one vote.

World Bank

The World Bank was originally created to finance the reconstruction of war-torn Europe. However, over the years it has become the primary financier of Third World development projects. The role of the Bank, however, was not uncontested. A 1951 report of a group of experts entitled 'Measures for the Economic Development of Underdeveloped Countries' in fact recommended the establishment of a Special UN Fund for Economic Development (SUNFED) which would give grants to developing countries. The North was opposed to this and came out with an alternative, namely an institution which would give soft loans based on capital subscribed from Northern countries - later to be known as the International Development Association (IDA).

The World Bank encompasses both the International Bank for Reconstruction and Development (IBRD) and the International Development Association (IDA). The former was established in 1945 following the Bretton Woods Conference and mainly provides development assistance and

loans to middle income countries and creditworthy low income countries. The IBRD raises finance on the international capital markets. Only about 5 per cent of its funds come from member countries. The IDA was established in 1960 and is more concerned with poverty reduction. It receives significant contributions from member countries (especially wealthy countries). The IDA, unlike IBRD, provides interest free loans (on paper) to countries who cannot afford commercial rates. Loans can be paid back in 35-40 years with a ten year grace period.

The World Bank is the largest multinational lending and technical agency for Third World Development. Its mandate includes consolidating loans for large scale development projects, as well as providing structural adjustment loans for countries who have balance of payment problems. In the 1970s, with McNamara at its helm, the World Bank's resources increased manifold from \$2.7 billion a year in 1968 to \$8.7 billion a year in 1978. Alongside this increase in funds was a greater focus on poverty reduction.

The World Bank Group also includes the International Finance Corporation (IFC), the Multilateral Investment Guarantee Agency (MIGA) and the International Centre for Settlement of Investment Disputes (ICSID). While the IFC was established in 1956 to promote private sector development in the developing world through technical assistance, MIGA (formed in 1988) was formed to stand guarantor to foreign investors for developing countries. ICSID, established in 1966, was established to deal with investment disputes between foreign investors and their host country.

International Monetary Fund (IMF)

The IMF also had a chequered history. Originally, it was conceived of as a guardian institution of global liquidity, a function that it was to pursue through the maintenance of stable exchange rates. However, in the 1970s when US President Nixon inaugurated a new era of floated exchange rates, the IMF became redundant. Its focus changed therefore. The IMF today has three main objectives: (1) to promote international monetary cooperation, (2) to facilitate the expansion of international trade and (3) to promote exchange rate stability. To meet these objectives, the IMF advises member countries on economic policies and provides conditional assistance to countries who are experiencing balance of payments problems.

The IMF is probably most famous, for its **Structural Adjustment Programmes (SAPs)**. Structural adjustment refers to free market economic policy reforms imposed on developing countries as a condition for receiving loans. SAPs aim to improve a country's foreign investment climate through the promotion of exports and reduce government deficits through cuts in public expenditure. The stated logic of SAPs is that they will help developing country economies recover and grow. Economic growth is seen in terms of private sector foreign investment which will eventually trickle down to the poor.

SAPs have been heavily criticized for a number of reasons. SAPs, critics argue, impose harsh economic measures on countries which deepen poverty, undermine food security and result in unsustainable environmental and social development. These consequences are seen to be a result of a shift away from food crops and an emphasis on cash crops, the abolishment of food and agricultural subsidies (to reduce government expenditure), cuts in social programmes in the areas of health, education and housing, currency devaluation which increases import costs, liberalization of trade and investment and privatization of government

World Bank's Environmental Agenda

Although the environment is not an explicit part of the World Bank's agenda, it has taken aboard environmental concerns over the last few years. Not only has the Bank spent a lot of money on the environment and brought aboard over 300 specialists, but it has also put together broad environmental objectives. These objectives are: (1) addressing potentially adverse environmental impacts of World Bank financed activities, (2) assisting member countries promote environmental protection, (3) helping member countries set and implement sound environmental programmes and (4) promoting global environmental participation through the Global Environment Facility (GEF).

These aims have been pursued in a number of ways. The Bank has Operational Policies, Bank Procedures and Good Practices all of which are aimed at addressing environmental and social concerns. In 1984, the Bank consolidated its environmental focus into an Operational Manual Statement. The most important feature of this statement is the requirement of an environmental assessment (EA). The World Bank makes it mandatory for borrowers to perform an EA for projects which could have adverse environmental impacts according to the nature of the project. The EA is meant to ensure that development is 'environmentally sound and sustainable' in terms of natural environment, human, health and safety issues, social aspects such cultural property, involuntary resettlement and transboundary and global environmental aspects. The EA should include an assessment of the project's potential negative and positive environmental impacts and viable alternatives. It should also make recommendations with regard to how environmental impacts can be minimized.

The World Bank has also put in place a number of other measures aimed at environmental protection. It has a policy on public information which aims to make available relevant document about its development projects to the public. As part of the EA, borrowers are made to consult with project-affected people. The Bank also maintains a list of international treaties and applicable laws so as to ensure that its projects do not conflict with any international environmental agreements. Finally, an independent Inspection Panel was set up in 1993 to address the concerns of private citizens who feel their interests have been harmed by a World Bank Project

SAQ 3. What is the main difference between UN institutions and Bretton wood institutions?

Assesing Bretton Wood's Institutions

The record of the Bank and IMF in poverty alleviation and environmental protection has been poor. In February 2000, the International Financial Institution Advisory Commission said the Bank was irrelevant to solving the problem of poverty. Even within the Bank, there is acknowledgement that the Bank's primary mission of poverty alleviation has not been very successful. Some critics have gone much further and argued that World Bank has functioned mainly as an export financing facility for Northern corporations and that southern countries have in fact benefited little. Criticism of the IMF is even more severe. SAPs, some argue, have resulted in exacerbation of economic crises in countries of Africa and Latin America and a vicious cycle of debt.

On the environmental front, things are no better. A recent World Bank review of its own projects (Wapenhans Report) highlighted the significant deterioration of the overall quality of project lending. Another internal report on the IDA funded Sardor Sarovar project pointed out that the Bank failed to live up to its own internal guidelines. Many have accused the Bank of

responsibility for displacement and environmental destruction.

Challenges to Bretton Woods

In the 1970s, some southern countries challenged the omnipotence of the global economic order dominated by the Bank. With the rise of OPEC, World Bank aid became less crucial as banks were much more willing to give loans from the billion dollar deposits of OPEC. The emergence of the Non-Aligned Movement, G77 and especially UNCTAD also challenged the status quo. UNCTAD argued for a global reform strategy which included a call for commodity price stabilization; a scheme of preferential tariffs and expansion and acceleration of foreign assistance. The UN General Assembly Special Session in 1974 called for a new international economic order. Most of these efforts however did not result in any real reform.

7.9 SUMMARY

This unit looked at the genesis of the United Nations and the role of UN Agencies in the environmental governance both in terms of UN bodies and Conventions and their role before and after Rio. The unit also gives an idea how international agencies function as also how the functioning is plagued by conflicting agendas of nation states as well as inter-organisational disputes.

7.10 MODEL EXAMINATIONS QUESTIONS

1. Write a detailed note on main organs of UN and their functioning
2. What are the different agencies that work towards the preservation of global environment?
3. Critically examine the obstacles for effective functioning of UN and its future Role as a World Environmental Organisation.
4. What are the challenges faced by Brettonwood Institutions in environmental protection?

7.11 ANSWERS TO SAQs

SAQ 1. The General Assembly, the Security Council, the Economic and Social Council, the International Court of Justice, the Secretariat and the trustship Council

SAQ 2. (i) Critically examine the environment and development issues with a realist proposals of action

(ii) suggest ways how international cooperation could be fostered to deal with environmental issues and

(iii) to promote involvement of individuals, NCOs and government in addressing environmental issues

SAQ 3. UN institutions function on the equality of Nation State where as Brettonwood institutions give more power to those who contribute more

UNIT 8: ENVIRONMENT IN MULTILATERAL PERSPECTIVE

8.0 CONTENTS

- 8.1 Aims and Objectives
- 8.2 Introduction
- 8.3 International Standards and Environmental Trade
- 8.4 Trade-Environment Trade off – Policy Initiation
- 8.5 WTO and Environment
- 8.6 Work Programme on Committee on Trade and Environment
- 8.7 The Role of The World Bank
- 8.8 Multilateral Agreements
- 8.9 Summary
- 8.10 Model Examination Questions
- 8.11 Answers to SAQs
- 8.12 References

8.1 AIMS AND OBJECTIVES

After studying this unit you will be able to

- explain the environmental concerns in the multilateral perspective
- discuss the efforts of global community in addressing these issues and
- highlight some important multilateral initiatives.

8.2. INTRODUCTION

Trade liberalization is being pursued vigorously by many countries across the world as part of the globalization strategy to accelerate growth through market expansion and improved competitiveness. The implication of this global increase in economic activity on global environment has been debated extensively by economists, environmentalists and policy makers. The World Bank, focusing its 1992 World Development Report on environment raised the following three important questions. (a) What are the environmental effects of trade liberalization? (b) should trade policies be used to influence environmental standards of other countries? and should trade policies be used to enforce or implement international environmental agreements. An attempt is made in what follows to answer these questions. The trade-environment inter-linkage is analyzed first before discussing an appropriate trade policy in the context of increasing openness under globalization. The role of multilateral agencies, particularly World Bank and the World Trade Organization, WTO in resolving the environmental concerns is analyzed before concluding the lesson.

8.3. ENVIRONMENTAL STANDARDS AND INTERNATIONAL TRADE

The relationship between the environment and international trade has become a matter of concern to both economists and environmentalists. Economists are basically interested in analyzing the influence of environmental factor on the pattern of international division of labor and the gains from such specialization. Environmentalists on the other hand are concerned about the impact of expanded market and output through international trade on the local and global environmental conditions. In other words, the links between trade and the environment are complex and also two-way- one affects and in turn gets affected by the other.

One effect is that trade can raise production volumes. This effect is always considered positive, as the amount of resources used to produce the same level of output will decline. However, if international trade induces a change in the composition of output, it is possible that dirty industries even when large-scale operations are realized may increase and clean industries contract, nullifying the benefits of scale effects. International trade may also permit greater access to more advanced and cleaner technology. The net effect therefore, depends on the change in the output mix and technology that occurs with trade induced growth.

Environmental regulation is likely to change the pattern of international trade and the location of 'dirty industries'. One hypothesis is that pollution intensive industries take flight to countries with liberal environmental standards. Also, when environment is treated as a factor of production like capital and labor, environmental abundance will encourage countries to specialize in pollution intensive industries. However, the evidence on the specific linkages between environmental regulation and international trade is mixed. While some studies analyzing selected pollution intensive industries in 23 developing countries could conclude that environmental regulations have resulted in a change in the trade pattern, other studies taking the case studies of North American Free Trade Area (NAFTA) could not find any evidence to that effect. A third group of studies, using gravity models could not establish any relationship between differences in environmental standards and changes in bilateral trade between developed and developing countries.

Notwithstanding the inconclusive evidence on the linkages between trade and environment it is generally held that there is a direct trade-environment trade off as production and consumption of traded goods use and damage the environment. These externalities are considered important and relevant as trade in goods and services is the difference between domestic production and consumption of countries in the form of their imports or exports. A dilemma is that as trade is otherwise welfare-improving the attitude of the new world is to encourage more and more free trade through globalization and liberalization under WTO framework. Since most national or transnational industries have been expanding their international markets a concern about the size of the actual and potential damages to environment consequent to this expansion is being articulated by many analysts.

A simple hypothetical example could be used to highlight the essential nature of the trade-environment trade-off and its global dimensions. Consider a human settlement surrounded by a common land including adequate source of timber and space for waste disposal. With population growth, increasing activities and exchanges, emissions, deforestation, and waste

discharge will increase beyond the carrying capacity of the regions. The resource base therefore gets depleted. Hence activities of some individuals produce adverse effects on others through the environmental impact of these activities and exchanges. If individuals in this example are treated as nations in the world economy, it would be evidently clear as to how activities of individual countries would erode the common resource base of the global economy.

Pure theory of international trade argues that trade is welfare improving for the world as a whole and also for individual countries. The theory however, ignores the effects of trade on environment. There is evidence in support of the view that international movement of goods has been associated with significant adverse changes in the bounties of nature involving negative international externalities.

From the view point of the global economy, environmental consequences result from two interrelated aspects. Firstly, economic activities in all countries, domestic or trade oriented, resulting in an adverse impact on the natural resource base of the global economy is matter of concern for the whole world. Secondly, specifically international trade among countries and as a result trade policies, impact the resource base in the form of accumulative negative externalities, either confined within or crossing territories. Issues of global concern associated with environmental degradation and those related to international trade essentially overlap. It is of extreme importance to the world population as these effects are not confined to a region or to any particular country producing the sources of degradation but are spread across borders and affect a significant proportion of the present and future population across the world.

8.4. TRADE-ENVIRONMENT TRADE-OFF – POLICY INITIATIVES

Against the background of what has been said on the linkages between trade and environment, it is necessary to ask a simple question, what policy tools and institutions are best suited to promote higher levels of environmental protection? One way of restricting access to a developing country market is introduction of trade sanctions to support environmental protection. However, they may become counterproductive if environmental regulations restrict trade and growth. Also, sanctions penalize whole industries, the clean firms, as well as the polluters in an industry. Besides, many produce for the local market and therefore are not affected by sanctions. Finally, it is argued that domestic pollution and environmental protection can be effectively controlled through appropriate domestic measures like taxes.

Analysts consider establishment of policy coordination among the participating countries a more productive approach than sanctions. This would allow for joint regulation of common watershed and air basin controls in areas of trans-border pollution and for development assistance to transfer clean technology and environmental aid to strengthen environmental protection overtime. Global environmental agreements such as the Montreal Protocol that bans certain ozone depleting chemicals and others, if based on sound cost benefit analysis can raise environmental quality overtime.

Kym Anderson, analyzing the theme, environmental standards and international trade at the 1996 World Bank Annual Conference on development economics arrived at two important

points. First, as for as domestic environmental problems are concerned, countries should be allowed to set their own standards as low income countries may choose lower air and water quality standards than high income countries to develop comparative advantage in pollution-intensive industries. Differences in competitiveness that result from differences in domestic environmental standards, according to Anderson are not a source of inefficiency and therefore do not call for a trade policy response.

Second, when a country's production or consumption decisions impose environmental externalities on other countries, there may be a theoretical case for using trade policy to correct these externalities. Many international environmental problems including acid rain, global warming, bio-diversity destruction require multilateral cooperation to achieve a first best solution. But if the first best solution cannot be achieved, trade policy may produce a second best outcome. The threat of trade sanctions might provide an incentive for countries to abide by multilateral environmental agreements. Anderson concludes that even in such cases trade policy must be used with caution since as a second best solution it is likely to be an extremely blunt instrument for correcting environmental externalities.

Maureen L. Cropper commenting on the presentation of Anderson take a view that environmentally motivated trade policies might improve welfare only under certain specific instances

- (a) when domestic environmental standards do not reflect social preferences,
- (b) when nothing else is done to correct transboundary pollution problems,
- (c) when endangered species are being over harvested, and
- (d) when used as an enforcement mechanism for environmental agreements.

SAQ 1 What are the issues involved in imposing sanctions on polluting industries.?

8.5 THE WTO AND ENVIRONMENT

The World Trade Organization (WTO) established on 1 January 1995, is the successor to the General Agreement on Tariffs and Trade (GATT) and the embodiment of the results of the Uruguay Round. As the legal and institutional foundation of the multilateral trading system, the WTO provides the principal contractual obligations that determine how governments frame and implement domestic trade legislation and regulations. The WTO provides the platform on which trade relations, among members evolve through collective debate negotiation and adjudication. The WTO provisions include a number of references to the environment, such as the preamble to the Marrakesh Agreement, which notes the importance of "allowing for the optimal use of the world's resources in accordance with the objective of sustainable development, seeking both to protect and pressure the environment and to enhance the means for doing so in a manner consistent with their respective needs and concerns at different levels of economic development." Specific references to the environment are included in the Agreements on subsidies and Countervailing Measures, Agriculture and Technical Barriers to trade and a number of other WTO provisions. The principal focus of the WTO's work on trade and environment is contained in the Uruguay Round Final Act, under which ministers adopted a decision on trade and environment that called for the establishment of the Committee on Trade and Environment (CTE) and outlined its work programme.

8.6 WORK PROGRAMME OF THE COMMITTEE ON TRADE AND ENVIRONMENT (CTE)

The CTE has an agenda of 10 items for discussion

1. The relationship between trade rules and trade measures used for environmental purposes, including those in MEAs.
2. The relationship between trade rules and environmental policies with trade impacts.
3. a) The relationship between trade rules and environmental charges and taxes
b) The relationship between trade rules and environmental requirements for products, including packaging, labeling and recycling standards and regulations.
4. Trade rules on the transparency (that is, full and timely disclosure) of trade measures used for environmental purposes, and of environmental policies with trade impacts.
5. The relationship between the dispute settlement mechanisms of the WTO and those of MEAs.
6. The potential for environmental measures to impede access to markets for developing country exports, and the potential environmental benefits of removing trade restrictions and distortions.
7. The issue of the export of domestically prohibited goods.
8. The relationship between the environment and the TRIPS Agreement.
9. The relationship between the environment and trade in services.
10. WTO's relations with other organizations, both non-governmental and inter-governmental.

Environmental rules according to the strong groups from developed countries should not confine to simple pollution control or natural resource management standards. They need to provide the ground rules for international commerce and serve as an essential bulwark against market failure in the international economic system. Building environmental sensitivity into the trade regime in a thoughtful and systematic fashion should therefore be of interest to the trade community as well as environmental advocates. This certainly contradicts with the view point and interests of the Third World. Trade liberalization certainly provides many opportunities for developing countries and is very important for countries like India. The gains from trade are not without costs, and the environment might suffer as the result of liberalized trade in several ways. Overall, trade liberalization is likely to produce negative environmental externalities, but also some environmental gains. The negative association does not imply that freer trade should be halted. It suggests that most cost-effective policies should be under-

taken to optimize the externality. Thus the solution to the growing environmental challenge for countries like India clearly lies in developing a firm environmental framework and implementation capacity. Freer trade may give some accidental benefits to the environment, but also result in serious environmental consequences if environmental policy framework remain as weak as it is now. Therefore environmental policy must be designed to minimize the environmental effects from the economic activity and not by restricting trade. A firm environmental policy may itself have positive international trade effects.

SAQ 2: What is a way to protect interests of third world in the light of trade liberalization?

8.7 THE ROLE OF THE WORLD BANK

The World Bank makes significant contributions to control industrial pollution on several counts. By encouraging nations to adopt needed economic reforms, the Bank influences pollution "hidden half". In the long run, support for growth oriented policies will encourage strict pollution control by more prosperous societies. The World Bank has also realized that all economic reforms may not have clean impacts. Therefore, the Bank has revised its operational guidelines to ensure that Bank-Supported reform Programmes incorporate environmental concerns. Successful implementation of these guidelines would need sustained effort, coordination between the Bank's economists and environmental specialists, and active collaboration between economic ministries and environmental agencies in partner countries. The World Bank has also financed decentralized environmental information systems that support the new regulatory model with an emphasis on scale. This comprehensive approach, which could be encouraged by World Bank's preference for Big Loans' can easily distract regulations from confronting their communities' most critical pollution problems. World Bank also provides direct finance for pollution control as the Bank has realized that subsidizing abatement investments by large individual polluters is seldom the best way to control air and water emissions.

8.8 MULTILATERAL AGREEMENTS

International agreements on environmental issues may take two forms – bilateral and multilateral. In cases where only two countries are signatories in an agreement, it is a bilateral agreement. If it involves many countries as signatories it is identified as multilateral arrangement. We provide below a representative list of multilateral environmental agreements.

Some Important Multilateral Initiatives

Transnational Air Pollution	S	E	N ¹¹
Convention on Long-range Transboundary Air Pollution (CLTAP)	1979	1983	30
Protocol to CLTAP on European Programme of Cooperative Financing of Monitoring (EMEP)	1984	1988	27
Protocol to CLTAP on Sulphur Emissions by at least 30 per cent	1985	1987	18
86 Protocol to CLTAP on nitrogen oxides	1988	—	24

Vienna Convention for the protection of the ozone layer	1985	1988	36
Montreal protocol on ozone layer depleting substances	1987	1989	43
Kyoto protocol	1997	—	—
International Convention for the prevention of pollution of the sea by oil	1954	1958	71
Agreement for cooperation on controlling pollution of the North Sea by oil	1969	1969	8
International Convention on civil liability for oil pollution damage	1969	1975	63
International Convention for intervention on the high seas in cases of oil pollution casualties	1969	1975	54
International Convention on prevention of dumping of wastes and other matter	1972	1975	—
International Convention on prevention of pollution from ships	1973	—	19
International Convention on prevention of marine pollution from land-based sources	1974	1978	13
International Convention on protection of the Mediterranean Sea against pollution	1976	1978	18
Protocol on the constitution of an International Commission for the protection of the Moselle against pollution	1961	1962	3
Agreement on International Commission for the protection of the Rhine against pollution	1963	1965	6
Convention on the protection of the Rhine against chemical pollution	1976	1979	6
Convention creating the Niger basin authority and Protocol relating to the development fund of the Niger basin	1980	1982	8
Biodiversity			

European treaty on the conservation of birds useful to agriculture	1902	1902	11
Convention on nature protection and wildlife preservation in the Western Hemisphere	1940	1942	19
International Convention on regulation of whaling	1946	1948	43
International Convention on wetlands of international importance especially as waterfowl habitat	1971	1975	50
International Convention on international trade in endangered 1982 species of wild fauna and flora	1973	1975	96
Others			
United Nations Convention on the law of the sea 161	1982	—	
Basel Convention on the control of the transboundary movement of hazardous wastes and their disposal	1989	—	116

Source: Field, B. (1997), Environmental Economics, Tata-Mcgraw Hill, New Delhi.

8.9 SUMMARY

It is generally accepted that trade liberalization does not have to conflict with sustainable development provided certain measures are taken at both the national and international level. There is no denying the fact that there are both costs and benefits from trade liberalization and trade expansion. From an environmental perspective, trade liberalization can have a negative or positive effect on the environment. But most experts feel that, in general, the direct effects of trade on the environment are limited, as only a small share of environmentally sensitive goods enter into trade and also because trade is only one of many factors affecting the environment.

Thus the best way to correct externalities is by implementing the popular "polluter-pays principle (PPP)", not restricting the level of trade. Where PPP is not feasible (because exporter is a poor country), cooperative policies or assistance in cleaning up activities are preferable compared to adopting trade restrictions. Therefore there is need to review both international trade and global environmental laws and agreements in the interests of both developing countries and advanced countries. However, the interest of the developing countries need to be kept at the top of the agenda given their basic concerns of development.

8.10 MODEL EXAMINATION QUESTIONS

- 1) Explain the inter-linkages between trade and environment
- 2) How does multilateralism affect environment?
- 3) Examine the role of multilateral agencies like WTO and World Bank in protecting the global environment.
- 4) Discuss the multilateral initiatives to control environment

8.11 ANSWERS TO SAQs

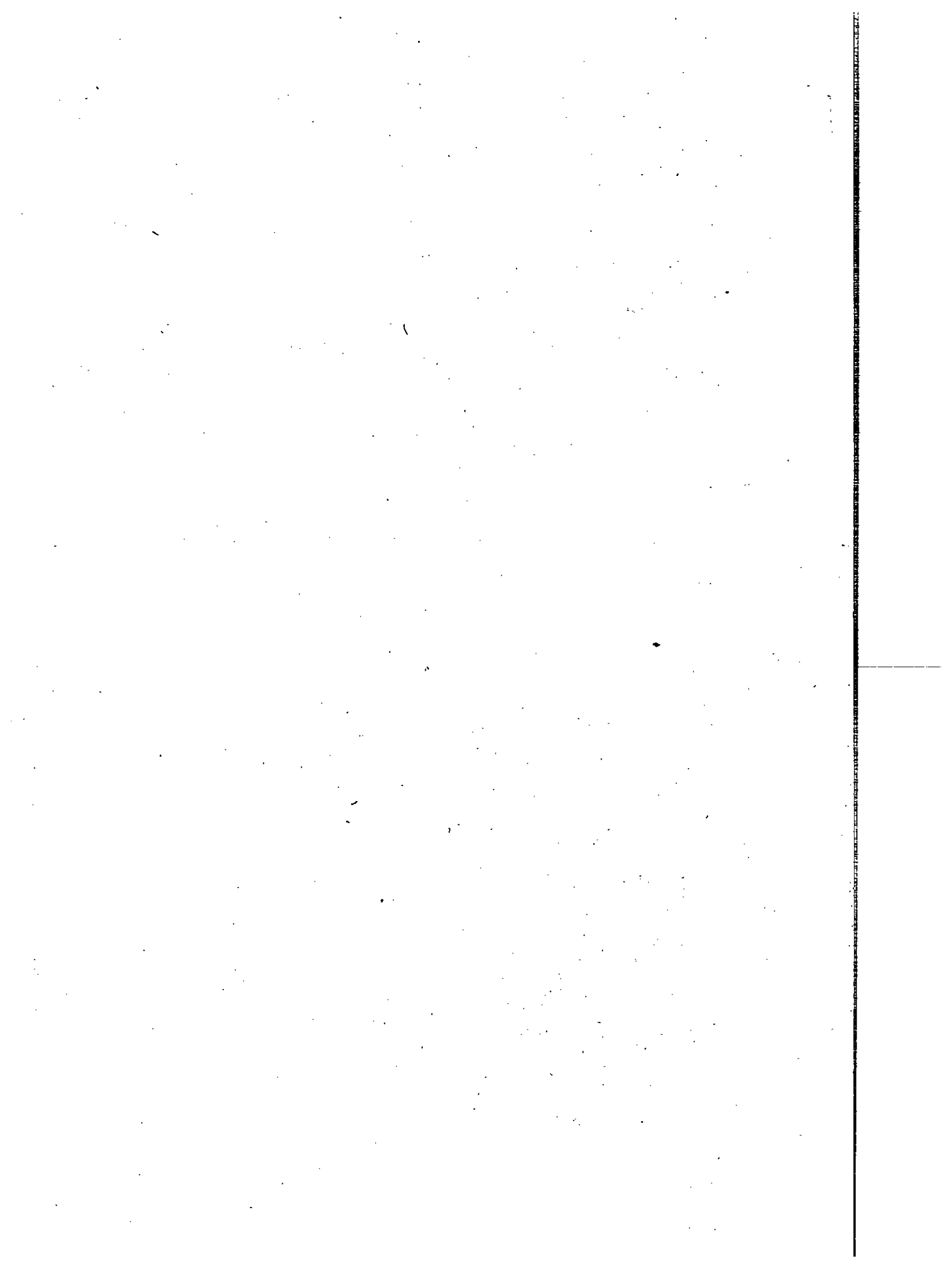
SAQ 1 . Sanction penalize whole industries, the clean firms and also the polluters in an industry. The firms that produce for local markets escape effects of sanctions. Sanctions may restrict trade growth.

SAQ 2. Building environmental sensitivity into the over all trade regime and a frame work for implementaiton capacity of the trade agreements

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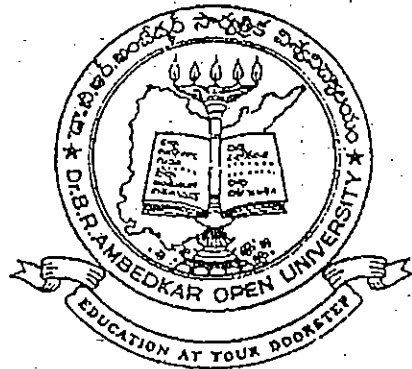
Prof. K.C. Reddy



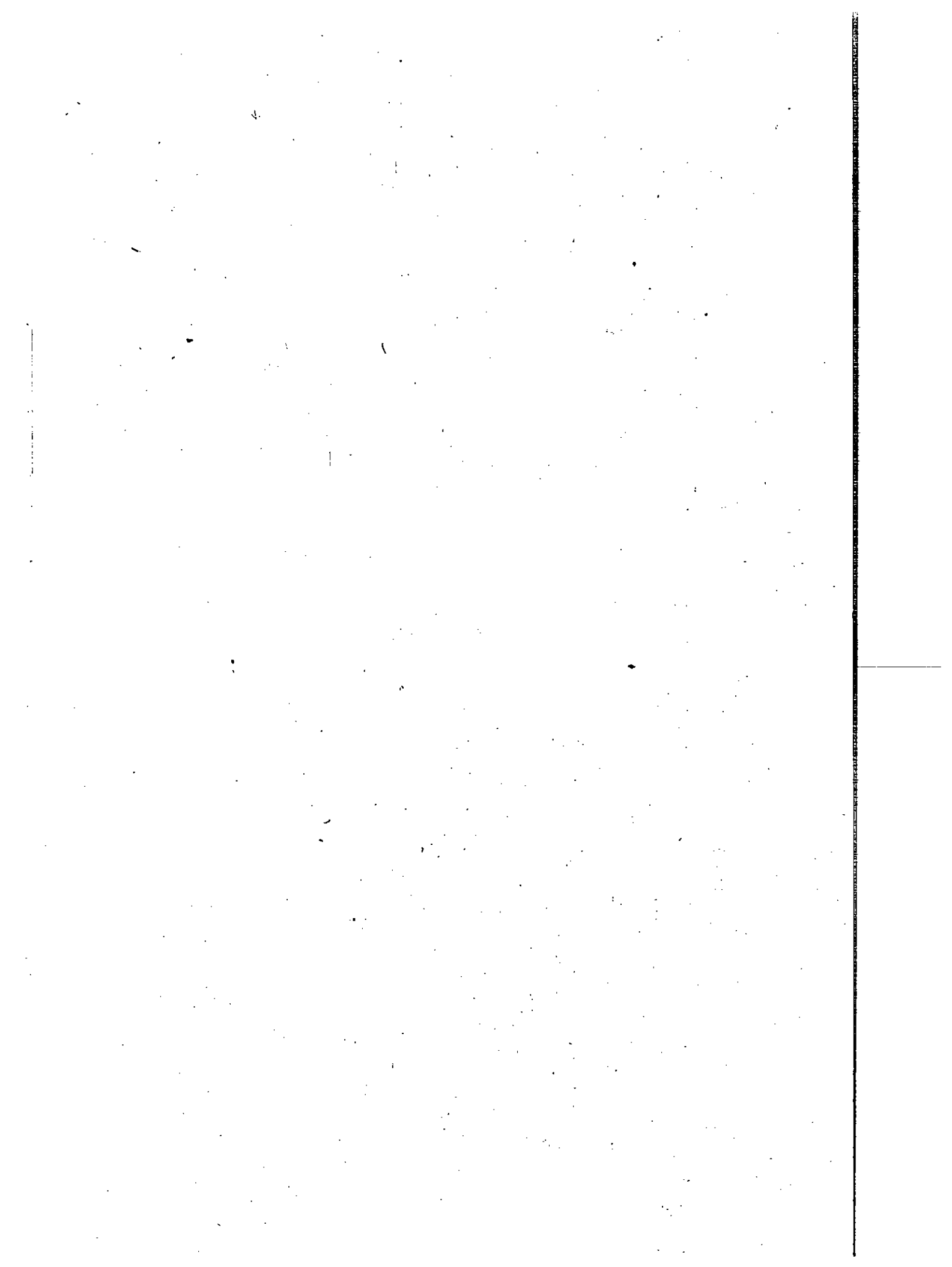
C-V

GLOBALIZATION AND ENVIRONMENT

South Asia Foundation Learning Initiative(SAFLI) is designed to promote regional cooperation and lifelong, learning that emphasises humanism and celebrates the rich heritage of South Asia's unity in diversity at all levels and sections of society.



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Uttar Pradesh
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**GLOBALIZATION AND
ENVIRONMENT**

BLOCK

3

GLOBAL MOVEMENTS EXPERIENCES

Unit - 10

Non Governmental Agencies Initiatives

Unit - 11

People's Initiatives

Unit - 12

Case Studies and Alternatives

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PREFACE

The politics of language is often embedded in the language of politics. Of late words like globalization, environment and development have become politically loaded concepts. If globalization means free flow of information, technology, capital and trade across the nations without any barriers or constraints, then the inflows and the out flows should balance each other resulting in a state of stable equilibrium. However, in reality, the multi and transnational conglomerates, with unlimited access to capital and technology have affected the economies of the South countries by transforming them into exporters of raw materials, dumping grounds for industrial wastes and for location of polluting industries. The countries in the South have become the direct victims of the policies and developmental patterns of the countries in the North.

The United Nations' Environmental Programmes (UNEP) considers among others, climate change, fresh water contamination, air and soil pollution, greenhouse effect, ozone depletion and biodiversity loss, as environmental problems that need urgent attention. Globalization, through large-scale development interventions, has the capacity to order and-reorder human lives.

This Course examines diverse issues related to globalization and environment under three heads: Global Concerns, Global Responses and Global Movements and Experiences. Environmental standards, technology concerns, role of UN agencies, International Laws and Agreements, Initiatives from NGOs and people have been highlighted. Some Case Studies from South Asian countries have been discussed.

The editors place on record their appreciation to South Asia Foundation Learning Initiatives (SAFLI) for their support in the development of the learning material for this Course.

BLOCK-III: GLOBAL MOVEMENTS AND EXPERIENCES

It is a known fact that the Governments alone could not be depended upon to bring about solutions to the burning environmental issues in the context of globalization. Non-governmental agencies and initiatives from the people of civil society have a role to play and should involve themselves in activities that may influence these processes. NGO initiatives, people initiatives and the case studies of South Asian countries have been highlighted in this Block

UNIT 9: SOUTH ASIAN RESPONSE TO ENVIRONMENTAL CONCERNS

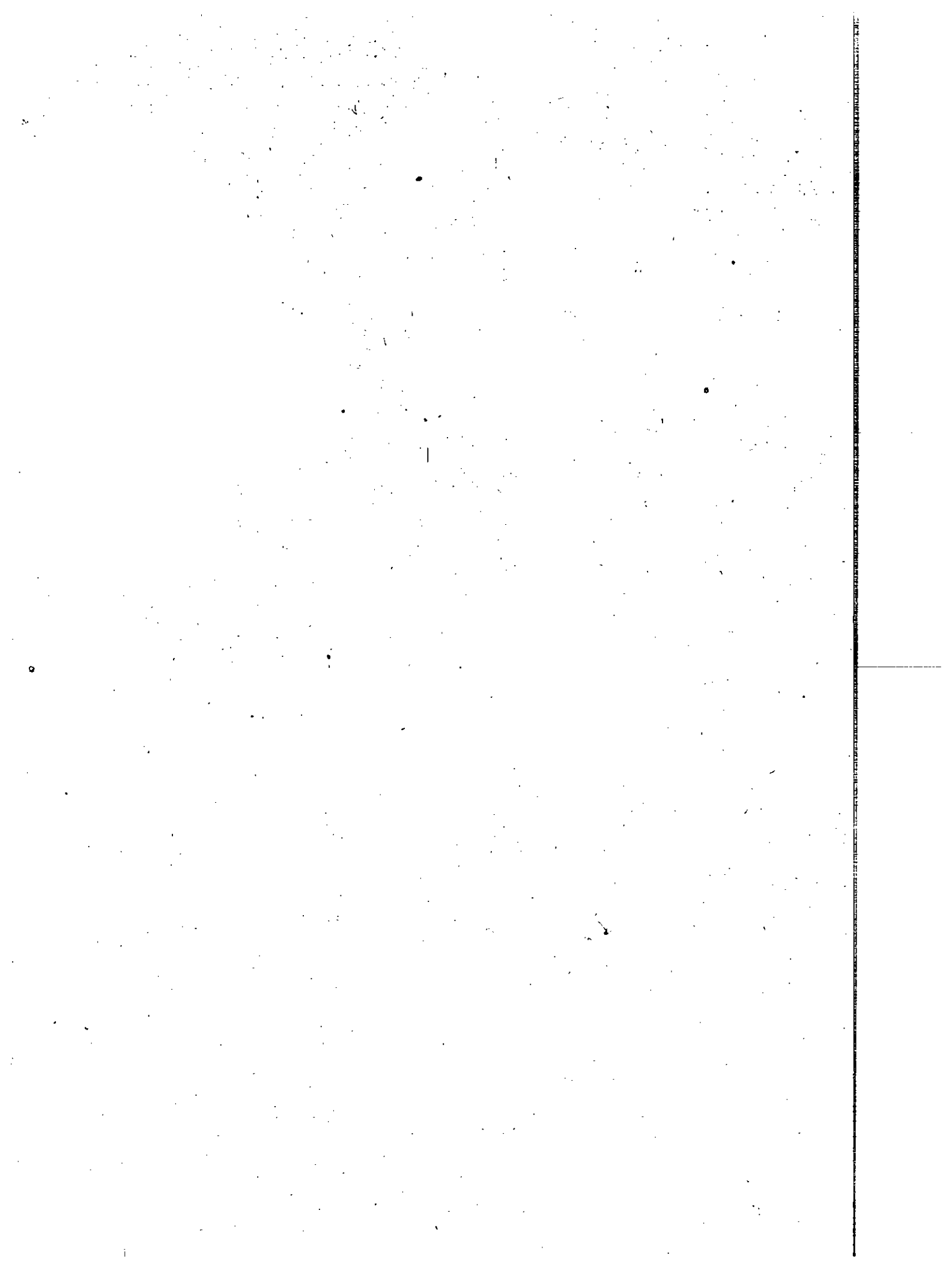
CONTENTS

- 9.1 Aims and Objectives
- 9.2 Introduction
- 9.3 Environmental Concerns and Developing Countries
- 9.4 Environmental Concerns of South Asia
- 9.5 South Asian Response to Environmental Concerns
 - 9.5.1 Bangladesh
 - 9.5.2 Bhutan
 - 9.5.3 India
 - 9.5.4 Maldives
 - 9.5.5 Nepal
 - 9.5.6 Pakistan
 - 9.5.7 Sri Lanka
- 9.6 Governmental Commitment towards Environmental Concerns in South Asia
- 9.7 Summary
- 9.8 Answers to SAQs
- 9.9 Model Examination Questions
- 9.10 References

9.1 AIMS AND OBJECTIVES

After studying this unit you will be able to

- a) identify the major environmental concerns of the South Asian countries;
- b) explain the response of the South Asian Societies towards these concerns; and
- c) elucidate the commitment of the South Asian Governments towards protecting the environment in their countries.



9.2 INTRODUCTION

The South Asian Association for Regional Cooperation (SAARC) comprises the seven countries of South Asia, viz., Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan and Sri Lanka. SAARC is a manifestation of the determination of the people of South Asia to work together towards finding solutions to their common problems in a spirit of friendship, trust and understanding and to create an order based on natural respect, equity and shared benefits. The primary objective of the Association is the acceleration of the process of economic and social development in member States, through collective action in agreed areas of cooperation.

South Asian countries, like other developing countries have taken to industrial development as a main instrument to accelerate economic growth with a view to provide better quality of life to their subjects. They have opened their economies to both goods and capital. Globalization implies different things to different people. Therefore views and perceptions on globalisation differ widely, influenced by the particular vantage point of an individual or a country. Globalisation has affected the South Asian economies from many sides covering production, distribution and institutions. For most South Asians the outcomes of globalisation have been higher prices, fewer employment opportunities, increased disparity in income and higher incidence of poverty. South Asia remains a home for the largest number of poor people in the world (over 520 million). Higher incidence of poverty is expected to contribute negatively to the overall environment of a country or region. It is the purpose of this lesson to explain the environmental concerns of South Asian countries and the response of the governments of these countries to meet these challenges.

9.3 ENVIRONMENTAL CONCERNS AND DEVELOPING COUNTRIES

The conventional wisdom that environmentalism is a phenomenon peculiar to the rich nations of the North and that the citizens of the developing countries do not care about environment is contested by both the people and the policy makers of the poor countries on many counts. To equate environmentalism exclusively with affluence and to argue that poor societies should become prosperous first before embarking on green movements only reflects the mindset of the western scholars and diplomacy. There is now adequate literature, both theoretical and empirical to the effect that the environmental concerns are important to the developing world like those in the advanced world as there is no trade-off between growth and environment. In fact concerns of environment appear to be more critical to the poorer countries as environmental degradation most often intensifies economic deprivation.

However, there are significant differences between the environmental differences in the Northern and Southern countries: While the Northern environmentalism has highlighted the significance of value change (the shift in post materialism), southern movements seem to be more strongly rooted in material conflicts, with the claims of economic justice, i.e., the right to natural resources of poor communities being an integral part of green movements. Consequently, these movements work not only for culture change but also for a change in the production system.

Environmental protection as a struggle is increasingly being understood as a part of democratic struggle to build and consolidate a "new model of citizenship". Efforts to promote environmental rights have brought together numerous segments of the social movement with a basic

purpose to provide access to essential public goods such as water and air in adequate quantity and sufficient quality to guarantee decent living standards. It is necessary in this context to seek a kind of development that is not limited to preserving the supply and prices of resources as productive inputs. Majority of the people in the Third world including those in South Asia, are not interested in a development that pretends to be sustainable simply by technically reconverting productive systems adopting a capitalist rationale in the use of natural resources. It is therefore necessary to change the determinant logic of development to ensure that the environmental variable be incorporated as a component of the peoples living and working conditions. This change depends basically on the democratization of political processes: This may be appropriately summarised as follows: "To democratize control over natural resources, to deprivatize an environment that is common to society and nations, to introduce democracy into environmental administration, and to ensure the public character of common natural patrimony constitute the agenda of issues."

Demands for environmental quality in a society depend on a set of complex factors. In a way these factors shape people's preferences and government priorities. The most important of these factors is per capita income. The evolution of environmental awareness of a region depends on political and economic influences covering both domestic and international dimensions. However, in a developing region like South Asia, the international developments probably will influence more significantly the perceptions of policy makers and industrialists. International events like the first UN Conference on the environment at Stockholm in 1972, and the second conference (on environment and development) at Rio de Janeiro in 1992, have helped to focus governments attention and efforts on environmental problems. Similarly, the Brundtland Commission Report (WCED, 1987) has served to legitimise the concept of sustainable development and place it in the mainstream of policy debates. International donors have also become far more sensitive to the environmental impacts of their assistance programmes in recent years - a sensitivity, which in turn has spilled to aid recipients.

SAQ 1. What is the significant difference in approach to Environmental concerns in the developing and developed countries?

9.4 ENVIRONMENTAL CONCERNS OF SOUTH ASIA

Many political observers feel that contemporary South Asia is highly vulnerable to violent conflicts. They also argue that this vulnerability will be amplified because of population growth and environmental changes. Most of the South Asian countries suffer from resource scarcity and the scarcity of common property resources like water is clearly evident in these countries. Environmental scarcity can contribute to civil violence including insurgence and ethnic clashes. Resource scarcity is the product of three factors: a) insufficient supply, b) too much demand, and c) an unequal distribution of a resource that forces some section of a society into a condition of deprivation. The three sources of scarcity are explained by - (a) population growth, (b) economic development, and (c) pollution. These three variables interact in several ways to make resource scarcity and environmental degradation more serious. For example rapid population growth increase demand for one group to seize control of a natural resource such as farm land, forcing another group onto an economically marginal landscape. This increased scarcity of natural resources contributed largely by the growing demand consequent to rapid growth of population will drive societies towards negative social effects such as health problems social segmentation and decline in agricultural and economic productivity. South Asia is in the midst of this environmental crisis, which is described by the western media as the neo-Malthusian conflict thesis. In a region of about 1.5 billion population a rate of growth of population at 2 per cent with a low per capita income around \$ 400 will make matters worse for

the region. As the population of South Asia grows, its environment deteriorates and with intensified inequalities the situation in the region appears to be unsettling. However, it must be maintained that it is not beyond remedy. Thus issues of environment related resource scarcity and management have emerged as matters of grave concern.

A matter of grave concern for South is the distribution of population across different countries and regions. A heavily populated region, the settlement pattern in South Asia is non-uniform. Population density is very high in areas where land is arable and irrigated. Population is particularly crowded into the sharp band that runs east from the Pakistani Punjab across northern India and Nepal and into Bangladesh. As population density grows, competition for water has been increasing contributing to degradation of both soil and water resources due to pressures on their use. South Asia is the region with lowest precipitation. It should be noted that rainfall variability will be highest where precipitation levels are low. Consequently South Asia has been the region with very common severe droughts and occasional floods.

Demographic and economic trends in South Asia have also been showing significant shifts in energy-use patterns having profound environmental consequences. During three decades beginning with 1971 South Asia did not show any increase in per capita renewable energy consumption. In contrast the consumption of non-renewable energy consumption has increased significantly. There is high "income elasticity of demand" for modern energy sources, particularly electric power produced with fossil fuels for the following reasons.

- (a) Renewable fuels are becoming increasingly scarce.
- (b) Urbanization and rising incomes are leading to more energy intensive lifestyles.
- (c) The region has reached a stage in its development in which large numbers of people will switch from using traditional fuels (wood, dung, etc.) to modern fuels.

As the population of South Asia overtakes the 1.5 billion mark and marches towards 2 billion its environment must be understood and managed in fundamentally new ways taking into account the resource base and the future demand for resources. The environment must be managed as an essentially man made space irrespective of its qualification, 'green', blue or brown. Natural resource management in South Asia cannot be separated from the trajectory of industry, urban and rural incomes, productivity, trade, technology and governance. This is a challenging task to the Regions' environmental and economic policies and institutions. We present below the response of each of the South Asian countries towards environmental concerns under governmental, non-governmental institutions and environmental initiatives.

SAQ 2. What is the grave Environmental Concern for countries in South Asia?

9.5 SOUTH ASIA RESPONSE TO ENVIRONMENTAL CONCERNS

9.5.1 Bangladesh

Governmental Organizations:

The Department of Environment was created in 1989 to ensure sustainable development and to conserve and manage the environment of Bangladesh. Bangladesh Fisheries Research Institute has a mandate to carry out basic and adaptive research for development and optimum utilization of all living aquatic resources and coordinate fisheries research activities in Bangladesh.

Bangladesh Meteorological Department (BMD) is responsible for all official meteorological activities in the country.

Flood Forecasting and Warning Centre operates a Flood Information Centre as a focal point for disaster management for cyclones and floods.

Non-Governmental Organizations:

Bangladesh Center for Advanced Studies (BCAS) is an independent non-profit, nongovernment policy research and implementation institute working on sustainable development (SD) at local, national, regional and global levels.

Bangladesh Unnayan Parishad (BUP) is a non-profit organization devoted to the promotion of basic as well as action research on socio-economic development and environment.

Bangladesh Environment Network (BEN) works to gather and disseminate information about environmental degradation in Bangladesh, establish and strengthen connection among various environmental organizations in Bangladesh, formulate various policies that can be adopted to solve and avoid environmental problems in Bangladesh.

The Centre for Environmental and Geographic Information Services (CEGIS) is an organization for integrated environmental analysis using geographic information system and remote sensing, information technology and databases. Its activities are inter-disciplinary that address sectors such as water resources, agriculture, fisheries, environment, engineering, and transportation.

Environmental Organizations/Initiatives

UNDP Energy and Environment in Bangladesh

In Bangladesh, UNDP helps strengthen capacity to address challenges at global, national and community levels by seeking out and sharing best practices, providing innovative policy advice and linking partners through pilot projects that help poor people build sustainable livelihoods.

IUCN Wetlands and Water Resources Program in Bangladesh

The aim of the project is to restore degraded wetlands and promote sustainable development to enhance biodiversity and the quality of life (especially of women). The project encourages local participation in the establishment of management plans.

9.5.2 Bhutan

Governmental Organizations:

Department of Geology and Mines

The main roles of the Department include geological mapping, exploring mineral resources, providing engineering, geological services and ensuring environmentally friendly exploitation of economic mineral resources.

National Environment Commission (NEC) serves as an environmental adviser to the government on matters related to sustainable development.

Non-Governmental Organizations

Solar Electric Light Fund (SELF) is a non-profit charitable organization started in 1990 to promote, develop, and facilitate solar rural electrification and energy self sufficiency in developing countries.

Bhutan Trust Fund for Environmental Conservation is an independent grant-making organization that uses its annual investment income to finance conservation activities.

Environmental Organizations/Initiatives

In Bhutan, the foundation of UNDP's work is to ensure that progress is based on people - on their needs, their efforts and their rights.

9.5.3 India

Government Organizations:

The Ministry of Environment and Forests is the nodal agency of the central government for planning, co-ordination and overseeing of environmental and forestry programmes necessary.

Ministry of Water Resources has a nodal role in all matters concerning India's water resources. Ministry of Non-Conventional Energy sources has a mandate to cover the entire renewable energy sector, including solar, wind, hydro, biomass, geothermal and tidal energy sources.

The Department of Biotechnology, Geological survey of India and the National Institute of Oceanography deal with matters relating to seismology, understanding of the seas in relation to sustainability of the environment.

Central Pollution Control Board (CPCB) was constituted in September 1974 to serve as a field formation and also to provide technical services to the Ministry of Environment and Forests.

Non-Governmental Organizations:

Indian Institute of Forest Management is a sectoral management institute which constantly endeavors to evolve knowledge useful for the managers in the area of Forest, Environment and Natural Resources Management and allied sectors.

Wildlife Institute of India (WII): The prime concern of the Institute is to build capacity and develop skills for providing solutions to problems of wildlife conservation in general and protected area management in particular.

Wildlife Protection Society of India (WPSI) was formed in order to bring a new focus to the task of tackling India's growing wildlife crisis. In particular, WPSI aims to provide additional support and information to combat the escalating illegal wildlife trade. **Wildlife Trust of India (WTI)** is a non-profit conservation organization committed to urgent action to prevent the destruction of India's wildlife.

Centre for Science and Environment (CSE) was established in 1980 by a group of engineers, scientists, journalists and environmentalists to increase public awareness of vital issues

of science, technology, environment and development. **India Environmental Society (EES)** has been set up to increase consciousness and knowledge about the environment, including the major environmental problems facing the world today. While the vision of IBS is global, its roots are firmly entrenched in India.

World Wildlife Fund (WWF) India:

Its mission is the promotion of nature conservation and environmental protection as a basis for sustainable and equitable development.

Environment Protection Training and Research Institute (EPTRI)

The main objective of EPTRI is to provide training, consultancy, applied research services and advocacy in the area of environment protection to industry, regulatory bodies, Government and NGOs

National Environmental Engineering Research Institute (NEERI)

The mission of the NEERI is to dedicate itself to the service of mankind by providing innovative and effective solutions to environmental and natural resource problems. It strives to enable individuals and organizations to achieve productive and sustainable use of natural resources on which all life and human activity depend.

9.5.4 Maldives

Governmental Organizations:

Environment Maldives

This website is intended to disseminate information on the environment and the Environment Section of the Ministry of Home Affairs, Housing and Environment of Maldives.

Ministry of Fisheries, Agriculture and Marine Resources has the mandate for sustainable management and development of fisheries, agriculture and marine resources of the nation.

Ministry of Communication, Science and Technology (MCST) was established in November 1998 for the purpose of developing and strengthening the country's science and technology infrastructure for the betterment of people's lives by improving economic productivity, personal health and environmental quality.

Environmental Organizations/Initiatives:

UNDP Country Office in Maldives:

The Maldivian Government and UNDP have collaborated in furthering people-centered development and building partnerships with island communities to fight poverty. UNDP has undertaken numerous projects that resulted in increased employment, environmental friendliness, and empowerment of people and equity.

9.5. 5 Nepal

Governmental organizations:

Ministry of Population and Environment (MOPE) is responsible for formulating and implementing policies, plans and programmes; preparing Acts, Regulation and Guidelines; conducting surveys; studies and research; disseminating information and carrying out publicity; monitoring and evaluating programmes; developing human resources; and acting as a national and international focal point in the domain of population and environment.

Ministry of Forests and Soil Conservation oversees issues related to forests and soil conservation in Nepal. It also serves as Nepal's CBD National Focal Point.

Ministry of Science and Technology (MOST) has a mandate to create conducive environment for the adequate development of science and technology and to make necessary arrangements for its effective application in the task of national development.

Department of National Parks and Wildlife Conservation works to conserve the country's major representative ecosystems; unique natural and cultural heritage and give protection to the valuable and endangered wildlife species.

Non-Governmental Organizations:

King Mahendra Trust for Nature Conservation (KMTNC) has a mission to promote, conserve and manage nature in all its diversity balancing human needs with the environment on a sustainable basis for posterity - ensuring maximum community participation with due cognizance of the linkages between economies, environment and ethics through a process in which people are both the principal actors and beneficiaries.

Environment and Public Health Organization (ENPHO) is an autonomous, non-governmental, non-profit research-based organization established in 1990. The vision of ENPHO is research, development and dissemination for action.

Alternative Energy Promotion Centre (AEPCC) is an institution recognized as a regional/international example for promotion of large-scale use of renewable energy and a national focal point for resource mobilization.

Centre for Environment Education Nepal (CEEN) works to bring awareness about environmental problems to young and old, students and the public at large and to suggest new ideas.

Clean Energy Nepal (CEN) is a non-profit group that conducts research-based public education and advocacy campaigns to promote sustainable energy use and environmental conservation, particularly in the Kathmandu Valley.

Lotus Energy: Lotus Energy is a Nepal-based company, which manufactures and installs renewable energy technologies. Specializing in solar energy, Lotus provides remote lighting systems for villages as well as power for water pumps, vaccination fridges and water purification systems.

Society of Population & Environment Journalist Nepal (SOPEJ-Nepal) another non-profitable, non-political, non-partisan & liberal organization, established in 1995 is tirelessly.

working to raise awareness in the field of population management and environment deterioration check among the general public in the national interest.

Forum for Environmental Management and Research —Nepal aims to assist in conservation and promotion of Nepal's biological diversity, ecology, physical environment, traditional indigenous knowledge and human welfare, from the adverse impacts arising due to unsustainable development and lack of appropriate and visionary management of the environment.

Environmental Organizations/Initiatives

International Centre for Integrated Mountain Development (ICEVIOD) works to promote the development of economically and environmentally sound mountain ecosystems and to improve the living standards of mountain populations in the Hindu Kush Himalayan region.

UNDP - Nepal Energy and Environment is dedicated to balancing the conservation of nature in Nepal with the needs of local people subsistence.

Environment Programme Sector Support (ESPS) started with the assistance of the Danish development agency DANIDA, which has been strengthening the urban environmental management capacity in Nepal. It supports prevention, minimization and control of pollution emanating from industrial and urban development without hampering development and economic growth.

9.5.6 Pakistan

Governmental Organizations:

Ministry of Environment, Local Government and Rural Development:

The charter of the Ministry includes environmental planning, pollution abatement and mitigation, ecology, housing, physical planning and human settlements, including urban water supply, sewerage and drainage.

Pakistan Environment Protection Agency (PAK-EPA) provides protection, conservation, rehabilitation and improvement of the environment, for the prevention and control of pollution, and promotion of sustainable development.

Pakistan Forest Institute is the premier institution of the country conducting research and training in forestry.

Geological Survey of Pakistan (GSP) has a mission to develop, interpret and provide geological information about the country in all its pertinent details that may lead to the prudent management of its natural resources and contribute to the well being and prosperity of its people.

Non-Governmental Organizations:

Aga Khan Foundation (AKDN) is a group of development agencies working in health, education, culture and rural and economic development, primarily in Asia and Africa.

LEAD Pakistan International was established in 1991 by the Rockefeller Foundation. The goal of this independent, non-profit organization is to foster a global network of future decision-makers that would facilitate environmentally sustainable and socially equitable use of the earth's resources.

Environmental Organizations/Initiatives:

Global Environment Facility Programme in Pakistan

GEF was launched to forge cooperation and finance actions addressing critical threats to the environment.

IUCN - The World Conservation Union Pakistan

IUCN's mission is to influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable.

International Water Management Institute (IWMI) Pakistan is a non-profit scientific research organization focusing on the sustainable use of water and land resources in agriculture and on the water needs of developing countries.

World Wildlife Fund (WWF) contributes towards conserving Pakistan's unique natural diversity in a way that takes into account the future needs of its people. Along with the rest of the WWF global network, WWF-P is working to achieve the conservation of nature and ecological processes.

Sustainable Development Policy Institute (SDPI) : SDPI's mission is to catalyze the transition towards sustainable development, defined as the enhancement of peace, social justice and well-being within and across generations. It provides the global sustainable development community with representation from Pakistan as well as South Asia as a whole.

9.5.7 Sri Lanka

Governmental Organizations:

Ministry of Environment and Natural Resources implements policies plans and programmes in respect of irrigation and water management.

Department of Wildlife Conservation (DWLC) has a mission to conserve wildlife and nature by the sustainable utilization of human resources, material and land through participatory management, research, education and law enforcement and ensure the maintenance of biodiversity and forest cover as exists today.

National Science Foundation (NSF) objective is to initiate facilitate and support basic and applied scientific research by scientists.

Non-Governmental Organizations:

Lanka Jalani is made up largely of institutions with an interest and a commitment to the principles of Integrated Water Resources Management (IWRM) eminent individuals

have the potential and willingness to make a contribution to the Partnership.

The Wildlife Heritage Trust of Sri Lanka

The Wildlife Heritage Trust of Sri Lanka is a non-profit organization dedicated to the scientific exploration and documentation of Sri Lanka's biodiversity.

Environmental Organizations/Initiatives

IUCN - The World Conservation Union, Sri Lanka embodies the overall mission of the World Conservation Union to help nations throughout the world to protect and use their natural resources for the benefit of their peoples.

International Water Management Institute (IWMI) Sri Lanka is a non-profit scientific research organization specializing in water use in agriculture and integrated management of water and land resources.

9.6 GOVERNMENTAL COMMITMENT TO ENVIRONMENTAL PROTECTION

All the five major countries of SAARC, viz., Bangladesh, India, Nepal, Pakistan and Sri Lanka have completed national action plans. However, only Bangladesh, India and Sri Lanka have signed the Kyoto Protocol (Convention) on climate change.

Bangladesh prepared an environmental profile in 1989. A biodiversity assessment strategy for the country was prepared in 1990 and the Chloro-Fluoro Carbons (CFC) emissions control was signed in 1990. In 1991 the environmental strategy or action plan was prepared. Bangladesh has participated during 1990 to 2001 in four important treaties: The Treaty on ozone layer was signed in 1990, the treaties on climate change and biological diversity both in 1994 and the Law of the sea was signed in 2001. In case of India, the environmental profile was prepared in 1989 and the environmental strategy or action plans were finalised in 1993. The CFC was signed in 1992. However, the biodiversity assessment and action plan was prepared only in 1993. India has also participated in all the important treaties, the ozone layer treaty in 1991, the climate change and the biological diversity treaty in 1994 and the Law of the Sea treaty in 1995.

An environmental profile was prepared for Nepal in 1983 itself, but the country took ten full years to finalise the environmental strategies on action plan. Nepal is yet to evolve biodiversity assessment strategy. However, Nepal like other South Asian countries participated in most of the treaties including the treaties on climate change, ozone layer, biological diversity in 1994 and the treaty of the Law of the sea in 1998. The CFC emission control was signed in 1994.

A biodiversity assessment and strategies for Pakistan was prepared in 1991 and the country's environmental profile together with an environmental action plan was ready by 1994. Pakistan was a signatory to all the important treaties. The ozone layer treaty and the CFC emission control were signed in 1992, the climate change and the biological diversity treaty in 1994 and the law of the sea treaty in 1997.

The response of Sri Lanka towards, environmental concerns among the South Asian countries appears to have started early and have become more stronger over the years. An environmental profile for Sri Lanka was prepared in 1983 itself. Sri Lanka was also the first country

in South Asia to sign CFC control in 1989. And the biodiversity assessment and strategies were made available in 1991. Finally, the environmental strategies for Sri Lanka were designed by 1994. The country like the other South Asian countries is a participant in the important environmental treaties designed and implemented by the global society from time to time. The ozone layer treaty was signed in 1989 and Sri Lanka's participation in all the other treaties, climate change, law of the sea and biological diversity was started with effect from 1994.

SAQ 3 Do you agree that the Governments of South Asian countries are now serious about their commitment to Environmental protection?

9.7 SUMMARY

South Asia presents a picture of unequal growth which is threatening to become unsustainable. Most of the indicators of ecological balance indicate disturbing trend. However, it is very appropriately described by many analysts that the situation has not gone out of control. Urgent policy initiatives, under both governmental and non-governmental agencies need to be designed and implemented.

The history of institutional evolution in South Asia to address the environmental concerns appears to be quite satisfactory looking at the number of institutions that have come into existence in most of these economies. The non-governmental initiatives also appears to be remarkably significant in terms of their symbolic presence. What is required at this point of time is a will on the part of both political institutions and civil society to move towards a more effective implementation of the environmental laws as ultimately the quality of life depends significantly on the provision of both fresh water and clean air beside growth of income.

9.8 ANSWERS TO SAQs

SAQ 1. The concerns of developing countries are rooted in material conflicts – access to quality air and water to guarantee decent living standards. The concerns of developed countries are rooted in prices of resources as inputs for production.

SAQ 2. Distribution of population across different countries and regions. It is non – uniform with high population density in arable and irrigated areas with energy intensive life styles.

SAQ 3. Yes. In the past three decades there is an awareness of the environment protection resulting in setting up of several agencies and signing several protocols and agreements in reducing CFC emissions, protecting biodiversity and treaties on climatic change.

9.9 MODEL EXAMINATION QUESTIONS

1. Explain why environmental concerns are important to the developing countries
2. Discuss the environments problems of South Asian countries
3. Analyse the South Asian response to resolve their environmental problems.
4. State the commitment of the South Asian governments to resolve environmental problems.

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UNIT 10: NON GOVERNMENTAL AGENCIES INITIATIVES

CONTENTS

- 10.1 Aims And Objectives
- 10.2 Introduction
- 10.3 Origin, Structure and Ideology of NGOs
 - 10.3.1 Definition
 - 10.3.2 Understanding the Origin of NGOs
 - 10.3.3 Structure of NGOs
 - 10.3.4 Perspectives on NGOs
- 10.4 NGOs and MNC's Links
 - 10.4.1 The New Trade Regime, MNCs and Development
 - 10.4.2 The New NGOs
 - 10.4.3 NGOs and MNCs
- 10.5 NGOs versus Socio-Political Movements
- 10.6 Alternative NGOs
- 10.7 Summary
- 10.8 Model Examination Questions
- 10.9 Answers to Self Check Questions
- 10.10 References

10.1 AIMS AND OBJECTIVES

After studying this you will be able to

- (a) To define NGOs and describe the origin, structure and ideology of NGOs.
- (b) To explain the relation between NGOs and MNCs.
- (c) To analyse the interrelationship of NGOs and Socio-Political Movements.
- (d) To have a perspective on Alternative NGOs.

10.2 INTRODUCTION

With the emergence of MNCs and TNCs as powerful players in global markets, the role of sovereign governments has been reduced to that of maintaining law and order. This has resulted into the emergence of a "third economy," based on local community organisations rooted in "civil society". These organisations known as Non Government Associations or Non Government Organisations are seen as either anti-systemic struggle groups or project implementation agencies or constituents of new paradigm of developments. Many argue that there is hidden agenda for the NGOs and they act as World Bank's agents for Cooperation for development. Some of the NGOs are neither non governmental in their funding sources nor in their local collaborative activities. It is reported that there are about 50 thousand self styled NGOs in the third world countries receiving more than \$10 billion from diverse sources. Many NGOs have become powerful actors in political and social arenas influencing public opinion at local levels. The NGO structures are often criticised as internally elitist and externally servile and foster new type of cultural and economic colonialism often "selling" projects to local communities. All this may not be entirely true but is not entirely far from the reality either. This unit examines some of the basic issues related to NGO links with MNCs and TNCs and their juxtaposition in relation with other sociopolitical movements.

10.3 ORIGIN, STRUCTURE AND IDEOLOGY OF NGOS

10.3.1 Definition

A standard definition of NGOs acceptable to a large section of academicians and practitioners is the one given by the World Bank. The World Bank defines NGOs as 'groups and institutions that are entirely or largely independent of government and characterized by humanitarian or cooperative rather than commercial objectives private organisations that pursue activities to relieve suffering, promote the interests of the poor, protect the environment, or undertake community development'ⁱ

However, NGOs are organisations that are extremely diverse in nature. It is therefore almost impossible to find a coherent definition that can represent this diversity. Joan Mencher points out that *the term NGO is really a catchword for an enormous variety of structures, pursuing diverse strategies, of widely differing sizes, aims or missions, and defies definition because of this diversity.*

Environmental NGOs may be defined as those civil society based non-profit organisations articulating environmental concerns either from, a 'productive', 'protective' or an 'alternative' standpoint.

10.3.2 Understanding the Origin of NGOs

Historically, the origins of NGOs is often traced to the many associations and movements appearing in the United States and Western Europe after the World War II. It is pointed out that these were a result of the initiatives of various middle-class individuals in response to the devastating effects of war; some examples of such NGOs are the International Committee of the Red Cross, CARE, World Vision and Oxfam.ⁱⁱ These organisations were referred to as "non-governmental organisation" because of their status in the United Nationsⁱⁱⁱ. It is maintained that these associations and movements were founded for the defence and promotion of

various values. In the third world, the origins of NGOs could be traced both to the anti-colonial, anti-feudal struggles of the early twentieth century and the nation building exercise in the post-colonial periods of the newly emerging nations during the middle years of the twentieth century.

The Stockholm Conference of 1972 and the Agenda-21 of 1992 that envisaged legal liability regimes, economic regulation and environmental impact assessment as international regulatory instruments for protection of environment certainly had a significant role of NGOs in their making. It is pointed out that the NGOs assembled at the Flemingo park to discuss about various environmental issues. Groups as diverse as the Ohio Spiritual Health Organisation, Auroville, Green Peace, The International Campaign for Tibet, The Royal Institute for International Affairs, and the World Bank expressing different views and perspectives. The International NGO forum coordinated an alternative treaty process initiated by the largely environmental activist organizations.^{iv}

SAQ 1: List some of the NGO which made a positive impact on society.

10.3.3 Structure of NGOs

There are perhaps three approaches to understand the structure of NGOs viz., an approach based on functional indicators and another based on structural or relational indicators. In the first approach the structure of an NGO could be viewed based on (a) composition, (b) size, (c) mission or purpose, (d) sources of funding, (e) histories, (f) focus on a specific sector, (g) entrepreneurial capabilities, and (h) effectiveness in achieving set tasks.

A second approach is based on the idea that State represents authority sector and market a profit sector, The NGOs represent a 'third sector' and can be classified based on the incentives used to gain cooperation or compliance into; voluntary sector, the membership sector, the self-help sector and the participatory or collective action sector.

The third approach to understanding the structure of an NGOs is based on its relationship with:

- (a) The dominant development paradigm, which at the moment is the achievement of development through deregulated, globalised, competitive markets and minimisation of state's role in the domain of economy;
- (b) Different socio-political movements articulating interests of the vulnerable and interests that have been neglected; and different traditional institutions and structures¹.

While analysing the environmental NGOs, all the above approaches could be relevant. However, there is a tendency for the 'productivist school' to use the first approach, the 'protectionist school' to use the second and the 'alternative school' to use the third approach. And the reasons for this lie in the perspectives the NGOs under consideration adopt:

10.3.4 Perspectives on NGOs

There are different perspectives on the role of NGOs. The dominant perspectives may be classified into two broad categories viz., (a) The Development Perspective and (b) The Advocacy Perspective.

The Development Perspective: The development NGOs have been around since the 1960s. However, they have acquired an important space as part of the economic reforms carried out in the third world in the post-mid-1980s regimes. The development NGOs have come to dominate this sector. According to the development perspective, the rise of NGOs is a result of the failure of state-led development model. The state has been criticised for being an inefficient agent in determining resource allocation. The major critique has been that developmental policies in a state-led model are not based on rigorous rational economic reasoning and are rather an outcome of populist demands. And the implementation side in a state-led model has been critiqued for being centralised, bureaucratic and often seen to be rampant in the phenomenon of 'rent-seeking'. This perspective endorses the neo-liberal view of the international agencies such as the World Bank and the IMF assigning the major role in determining the development agenda to the Market.

Baumol and Gates (1988) who belong to the development perspective, while analysing choice of appropriate environmental policy argue that one has to consider costs and benefits of reducing pollution. It is estimated by Baumol and Gates for instance that if the industries in caste for example.

The United States for-example have to achieve 100 percent pollution free production, it would cost them \$200 billion (:213). They therefore conclude, that it is irrational to reduce pollution below a certain level.' Thus the development NGOs operate within the 'Productivist school' of environmental NGOs.

The Advocacy Perspective: Advocacy groups usually find space in societies where institutions, especially the state are conservative, irresponsive, corrupt or repressive. These groups lobby to influence public policy and are often in conflict with the State and/or the dominant groups in the society.' The conflict is often an outcome of differing value frameworks. The advocacy groups talk in terms of alternatives to the dominant models. Their activity involves not only providing humanitarian services but also mobilisation of and articulation of dissenting voices. In this sense they play a role of democratisation and social reform. We may identify, NGOs articulating anti-patriarchal, anti-caste, anti-communal, human rights and anti-modernisation perspectives as belonging to this category of NGOs. These groups not only articulate the interests of those that are marginalized and excluded from the development process, but also point-out to the structural causes and constraints in the system that actually result in the marginalisation and exclusion. These groups usually consist of professionals and activists.

The environmental NGOs that fall under this category are usually those belonging to the biologists school advocating limits to growth or idealists who believe in construction of alternative communities through affirmation of shared spiritual values, or they could be different types of communications viz., Conventional Marxists, Ecological Marxists or other non-Marxist traditions of communitarians including anarchism, agrarianism or also those that are loosely termed as 'decentralised socialists'

SAQ 2: What are the two broad perspectives by which NGOs could be classified?

10.4 NGOs AND MNCs LINKS

10.4.1 The New Trade Regime, MNCs, NGOs And Development:

It is maintained that in the context of recent economic reforms and the emergence of the new trade regime and its consequences for various social groups, and especially its fallout on nature, environmental NGOs have acquired increased importance.

In most of the post-colonial third world countries, the old trade regime adopted soon after their independence was in short aimed at investing in key sectors for self-reliance and adopted an import substitution strategy. It was designed to reduce rural poverty, initially through huge investments in agricultural sector and later by way of providing non-farm employment including employment in the manufacturing industries. For a long time, the economic model was designed with the purpose of preventing concentration of economic power and solve problems of regional imbalances. It was also aimed at improving the standard and quality of life of the rural people by way of regulating the labour markets and implementation of various employment generation and poverty eradication programmes. All these objectives were to be realised by various measures of protection promotion and regulation.^{vii} Although ecological consciousness found place in the third world development policy very recently. The state was again a crucial institution in both setting and in administering environmental standards.

The New Trade regime is associated with the policies of deregulation, disinvestments and opening of the economy by removing the barriers to international trade popularly called as the Liberalisation, Privatisation and Globalisation (LPG) Policies. The old policy was critiqued on the basis of the arguments that distortions in the relative prices of inputs and outputs due to the imposition of protective measures lead to inefficiencies in resource allocation that entail a cost for the national economy^{viii}. It was asserted that protection tends to create monopoly positions in some industries and the producers will have little incentive for product improvement and technical change. In fact product quality deteriorates, firms do not take the risk of introducing new products and therefore innovation suffers. By maintaining prices at high levels, the lack of competition, limits the expansion of domestic markets^{ix}. It is further asserted that high levels of protection may affect economic growth in various ways. Unless protection leads to increases in profits that are in turn reinvested, the static cost of protection due to inefficiencies in resource allocation reduces the amount available for investment^x. Based on this understanding, the economic reforms, also called as the structural adjustment policy (SAP), were introduced in various third world economies.

The introduction of the reforms including, de-licensing and removal of protections (removal of product reservations), disinvestments in public sector, reduction and removal of subsidies, removal of quantitative restrictions on imports and reduction of import duties and provision of a freer access to foreign technology etc., have led to an adverse impact on various sections of the society and more often than not, nature also suffered the costs of this new development model. The conditions especially of traditional agriculturists, artisans, those employed in rural service sector, some local industries and labour have been adversely affected. In some of the South-East Asian countries where initially the reforms were thought to be successful, later saw political instability followed by mass violence in the society. In other Latin American countries such as Mexico as well, there were peasant uprisings against the reform policies. In India, drought and the lack of irrigation and drinking water, a spate of suicides by farmers who cultivated non-traditional crops, starvation deaths of artisans, famine raids, retrenchment of industrial labour, and deterioration in labour, environmental and public health standards have been

witnessed. It is therefore pointed out "in fact, a large segment of what presently passes for the environmental movement is a peasant movement draped in the cloth of environmentalist!!". Thus a number of local initiatives in defence of traditional rights in land, water, forests and other living resources collectively constitute what sympathetic intellectuals have termed the 'environmental' movement.

Following these experiences, it was realised by those strongly advocating reforms that there was a need for what they called a strong 'safety net'. The civil society organisations such as the NGOs therefore grew extremely important in the effort to prevent a crisis.

10.4.2 The New NGOs

The NGOs that have come as a complement to the reforms agenda are the New NGOs. It is pointed out that NGOs have an important role to play in supporting the World Bank's policies. They are seen as integral part of the structural adjustment packages through which the World Bank and the IMF impose public sector reforms centred on reducing expenditure, restructuring the public sector and ending state intervention in markets and projects. This is where the NGOs come in, as partners and agents of social funds and other compensatory schemes designed to limit the social and political upheavals resulting from these adjustment programmes. By giving a larger role to NGOs participating in 'cushioning the shock of SAPs, mainly by creating new jobs, the Bank is hoping to gain for itself a 'kinder, gentler' image.^{xiii}

10.4.3 NGOs AND MNCs:

As part of the economic reforms, the role for markets as institutions and MNCs as organisations has increased. And over a period of time, their social relevance has been getting redefined.

Traditionally, it was argued that the purpose of business was only profit-maximisation. It is presumed that in a competitive market, inequalities in wealth are legitimate as the possession of wealth is in essence a reflection of the contribution of its possessor to the generation of wealth. And since more wealth and economic activity meant more opportunities, generation of wealth was seen as a meaningful contribution to the social well-being. Those building business empires were admired as those that contributed to development. However, it was after the bitter experience of the great depression of the 1930s, followed by the devastation created by the Second World War that demands for greater egalitarianism were raised by the social justice movements. These took varied forms such as consumer forums, trade unions, human rights and environmental movements. This was also the time when Welfare states became a general model in most of the countries adopting capitalism. The Welfare state was a strong instrument of redistribution of wealth. It was in this backdrop that notions of 'free market' capitalism had to stand the litmus test of their social commitment. It was this social pressure that brought about the concept of 'Corporate Social Responsibility'. According to Bowen, the social responsibilities of a businessman consisted of obligations "to pursue those policies, make those decisions, or to follow those lines of action which are desirable in terms of objectives and values to society." In the later periods, the World Business Council for sustainable development defined Corporate Social Responsibility as "the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local communities and society at large". It is as part of this understanding that the Corporate sector started actively involving itself in philanthropic activities, as part of which the Corporate sector started to contribute both by way of direct involvement and/or by providing the necessary resources to a number of activities including Community Development, Educational Founda-

tions, Environmental Protection Projects and Charity. It is these kind of activities where NGOs and the Corporate sector find a common ground.

10.5 NGOs VERSUS SOCIO-POLITICAL MOVEMENTS

The failures of Market, State and the exploitation perpetuated by various structures of dominance in the society have ushered various transformative socio-political movements in the third world. These movements have critiqued the role played by the NGOs. Some points of this criticism are presented here.

On NGO Funding:

In a recent move in India, the Home Ministry has decided to regulate funding of various NGOs. It is pointed out that by 31 March, 2001, there were 22,924 NGOs registered as receiving foreign funds. Another 638 NGOs had secured approval for foreign funding. In the year 1999-2000 the total foreign funding received by these NGOs amounted to Rs.39246.3 million. In the following year the foreign funds received by NGOs increased by 15.56 percent to Rs.45352.3. Among the nations that were identified as the major donors were the United States, which contributed Rs.6775.9 million, United Kingdom, which contributed Rs.6445.1 million, and Rs.6445.1 million from Germany. Apart from this, in the Seventh Five Year plan, the Government of India has allocated Rs.3800 million for the NGO sector. It is further pointed out that out of these funds, the highest amounts was received mainly by the NGOs specialising in rural development and health and family welfare. A total of Rs.5477.4 million were received for rural development activity, Rs.4329.8 million towards health and family welfare^{xiii}.

However, it is pointed out that unlike the socio-political activists, those that are involved in the NGO activity work not because of their idealism, but because they get paid for it. They are like any professional employee in a job. They are often said to be receiving substantial money in the form of salaries. Their commitment to the cause that they represent therefore is said to be in doubt. It is also evident from various experiences that the attitude that these NGOs as organizations take towards various problems are often mechanistic, aimed more at reaching the targeted numbers to show on going work rather than genuine concern, leading to frustration amongst those employees of these organizations that evince passion for social change.

Some Questions about NGO Politics:

The functions that NGOs perform and the manner in which they conduct themselves, according to a school of thought, have great significance in terms of their political implications. In the first place, in continuation of the earlier comment on social activity as a professional obligation rather than a social obligation resulting from the salaried employee status of the activists, it is seen to be part of a larger political process. It is argued that this reduction of social obligation into a professional one is part of a neo-liberal strategy to de-politicise problems of the masses. It is also seen as a process of co-option of the politically articulate critiques of the system. It is observed that the bulky salaries, the standards of living, the life styles and the language of conducting the discourse about social change by the employees of some of the affluent NGOs, are quite evidently elitist alienating themselves from mass politics. Going a little further, there are also the critiques who see a conspiracy in the rise of certain types of NGOs. Michael Edwards observes that the concept of development as defined by the NGOs in-fact reinforces a counter revolutionary thinking. Palmer Jones argues on similar lines that NGOs are essentially statusquoists creating distortions about notions of development and democratisation. There are also some of those scholars who have seen NGOs as part of the financial capital based

imperialism. It is also alleged that since in the neo-liberal regime both the state and the Markets are reluctant to perform the welfare activities, NGOs are seen as organizations that are cheap substitutes, as they would be willing to carry out the same tasks at far lesser costs. However, it is pointed out that while these organizations work amongst the poorest of the poor they actually operate within the frameworks of the donor country's foreign policy and also indoctrinate people with ideas and opinions that are in essence in the interests of the donor country, thus resulting in what is called 'manufacturing of consent'. In fact, it is also argued that the developed nations do not donate money without expecting any returns. Rather, the act of donation is a conscious self-interested process of moral coercion and is guided by a quid-pro-quo reasoning. There are also other trends of critique, associated with the role of various religion based NGOs, raising controversies about carrying out religious conversions in the garb of developmental activities.

Despite some socio-political movements raising these points of critique, the relationship between NGOs and various socio-political movements is much more intricate and we try to present this in what follows.

Socio-Political Movements and NGOs Interaction:

There are instances where NGOs and socio-political movements have entered into conflicts and there are also the instances where they have been able to work together. The relationship often depends on the nature and demands of the sociopolitical movements. It is quite obvious that usually, socio-political movements have much larger concerns than what is possible in the framework of the NGOs. However, it is in instances where certain demands put forth by the NGOs/ sociopolitical movements, reinforce the NGOs' understanding of development and are perceived as a desirable change towards transformation by both the NGOs and the socio-political movements, that both these social forces have struck a common ground. Since the relationship between NGOs and socio-political movements have been contingent upon the common demands, there are instances where NGOs and socio-political movements have been conflicting and complementing one another. We present here both the instances.

A Moment of Conflict:

We may look at how in some instances, NGOs have entered into a conflict with socio-political movements. In case of the proposed Sardar Sarovar Project (SSP) across the Narmada river, certain questions have been raised by movements such as the Naraiada Bachao Andolan. It is pointed out that in NBA's understanding, SSP implied:

Unprecedented displacement, violation of the right to life and livelihood of people, the degeneration of land, water and forest resources, the un-tenability of benefits, the staggering financial burden, and the consequent international debt trap...

It is said that to counter NBA's criticism of SSP, the Gujarat government organised rallies, festivals, and exhibitions throughout the state and tried to propagate the idea that the SSP was the real lifeline of Gujarat. Amongst those supporting the government's view were various NGOs of Gujarat. Some of these NGOs argued that their primary concern was to bargain for a fair compensation for those affected by the project. The radical opposition by the NBA was characterised by these NGOs as 'lofty ideal' and 'not responsible activism'. The NGOs also maintained that 'rehabilitation was impossible' as 'enough land is not available'. A large number of NGOs therefore took a stand that NBA's total opposition to the project was couched in rhetoric and romanticism. However, it is maintained by other scholars such as Kothari, that the

stand NBA was taking was 'nothing short of challenging the fundamental structures of power and patronage, received categories and ideologies as well as representative processes that discriminate against the primary victims of economic development'.^{xiv} Thus we find from the above instance that the orientation of developmental NGOs is quite different from the socio-political movements articulating alternative development thinking, which might as it did in this case lead to a conflicting relation between socio-political movements and the NGOs.

A Moment of Solidarity:

There are a number of areas where NGOs and socio-political movements have cooperated. In the struggle opposing the practice of untouchability against 'lower castes' for instance, large number of NGOs have been part of this campaign. The struggle for equal opportunities and dignity for Dalits and the abolition of caste system and social transformation are much larger issues being addressed by the Dalit movement. While some NGOs have emerged with the specific objective of addressing Dalit issues, other organisations such as civil liberties and human rights groups have also taken up these problems. As also in the case of feminist movements, one finds that the feminist movement has solidarity with some NGOs. In the recent constitution of micro-credit societies as part of the formation of self-help groups for instance, a section of feminists have noted that these societies have certainly contributed to an increased socialization of women. It is maintained that at least in case of some women, it is for the first time that they have entered the public space. They found that these societies might not have actually accomplished the original task of elevating the status of women by providing them with economic independence from the male heads of the household. However, they have certainly contributed towards giving women an opportunity to ventilate their woes, thus reducing their suffering and giving them an opportunity to become aware of the world around them.

SAQ 3: List some of the areas where NGOs and socio political movements have converged?

Addressing the Challenges - the Civil and Political Space:

The analysis of the conflicting and solidarity moments between the socio-political movements and the NGOs can be analysed if one takes into consideration the different spaces in which these institutions operate and the interconnections between these spaces. However, even before one starts analysing these interconnections, we may discount those NGOs that have degenerated into commercial ventures and have no real social commitment. We may also find this analysis not relevant to analyse those political movements that legitimise oppression of the vulnerable by the dominant, whether it be on religious, caste, region, gender or based on any such grounds. Organisations working for social change have been conceptually classified into civil society organisations and political organisations, though in concrete, no such strict separation exists. The classification depends on what is the reference point of the organisation, in terms of who is the organisation addressing. If the reference point is the state or various other political organisations, then it is essentially operating in a political space. If the reference point is the various social institutions, whether it is family, caste, community etc., then it is essentially operating in a civil society space. There is a long debate in social and political theories on the relationship between these spaces. While one school of thought believes that the state essentially is an instrument in the hands of those that are dominant in the society, the other school of thought sees no such structured interconnection between the two spaces. It maintains that the state and civil society are completely autonomous of each other. A third point of view argues on the lines that despite the fact that the dominant sections in the society do have greater influence on the state, there is also a democratic space which exists as a result

of the search of these dominant groups for legitimacy. And it is this self-conflicting act, that generates some space for progressive social change. Thus despite the structural connection between the civil society and the state, there is a level of autonomy. If one takes the first perspective on the relation between the state and the civil society, all social transformation essentially gets located in the political space. If one takes the second perspective, then social transformation becomes independent of the political space. However, if one takes the third perspective, then social transformation can be seen as a continuum, and both the political and civil society spaces become relevant. These conceptual categories may help us in understanding various NGOs and analysing their relation with different socio-political movements.

10.6 ALTERNATIVE NGOS

Based on the above understanding that NGOs' relation with markets on one hand and their relation with socio-political movements on the other is varied and evolving, we may approach the idea of identifying conventional NGOs and the alternative NGOs.

In order to understand what alternative NGOs could mean we need to first of all understand what conventional NGOs are and also understand the possible alternatives that could exist. As already pointed out, at this point of time, the development NGOs are the conventional NGOs. However, this does not mean that all NGOs that are pursuing development agendas are conventional NGOs. A conventional NGO more specifically refers to those NGOs that have endorsed the view that markets are the primary institutions in accomplishing the tasks of development. However, within this paradigmatic framework, there are alternatives possible. If the dominant viewpoint in the 'how of development' suggests giving greater role to the industrial sector for instance, the alternative NGOs could mean those that strive to change the priorities and articulate the interests of other sectors for resource allocation. The 'alternative' could also mean, how the wealth so generated is distributed and how this perspective of distributive justice is articulated, while the conventional NGOs believe in the economic rationale of distribution, by arguing that the method of redistribution must ultimately lead to greater economic benefits than costs. Alternative NGOs would then mean either those that take a long term benefits perspective in arguing that the distributive justice might not show up immediate benefits but certainly there would be long term returns or the alternative NGOs could in fact argue for an altruism in redistribution. Apart from these possible meanings of alternative NGOs within the broad conventional framework, alternative NGOs could be those that radically differ with the framework itself and look at themselves as located outside it. Alternative in this sense of the term could be either those NGOs that denounce the proposition of a limitless growth of wealth and argue that the development process must take into consideration the constraints posed for instance by nature that have a different set of rules guiding its sustenance and regeneration or alternative could also mean those NGOs that challenge the very idea of an anthropo-centric worldview. These are the ecology conscious ISIGOs that have altogether different measures of valuing the 'good of the society'. Generation of wealth in this perspective might well be a marginal or an irrelevant indicator of social well-being. While all the above mentioned NGOs are alternative only in an incremental sense, the last variety of NGOs are alternative in a qualitative sense of the term.

10.7 SUMMARY

Thus we may sum up that the NGOs in general including environmental NGOs are defined in various ways. The NGOs have existed for a very long time but have taken a structured existence only since the post- II World War period and "environmentally conscious NGOs" are relatively a recent phenomena. There are different ways of understanding the structure of NGOs and the role that they play in the society. Different analytical perspectives determine choice of indicators to analyse the structure of NGOs. As part of the new economic orientation, there is an increased role of markets and especially the MNCs have become crucial. While the markets determine the rules of engaging in the process of development, the MNCs control large amounts of resources. Thus it has become necessary for the NGOs to take a clear perspective on their relationship with markets as institutions and the MNCs as business organisations. This process of taking positions has also changed the character of the NGOs leading to the rise of what are referred to as new NGOs. While the market has become central to the development process, interests of the marginalized and the excluded, have got articulated through various socio-political movements. These movements have critiqued the NGOs about their funding mechanisms, their political positions and questioned their role. While NGOs have remained mostly focussed on issues, the socio-political movements have raised structural questions. As the socio-political movements are often mass based, it has become necessary for the NGOs to address them and to define their relationship with these movements. Based on the perspective adopted by the NGOs about the relationship between the civil-society space and the political space, their relationship with socio-political movements get determined. If one understands what type of NGOs have come to be conventional and dominant, and if one grapples with the possibilities within and outside the existing frameworks, we can come up with what alternatives exist for NGOs and what alternative NGOs could mean.

10.8 MODEL EXAMINATIONS QUESTIONS

1. Discuss the origin of NGOs and their impact on influencing global policies.
2. Explain the linkages between MNCs and NGOs and their attitudes to development.
3. What according to you will be the impact of alternative NGOs on the future society.

10.9 ANSWERS TO SAQs

SAQ 1: Red cross Society, CARE, Oxfam, NHRC.

SAQ 2: Development and Advocacy

SAQ 3: Civil liberation and human rights, empowerment of women, mainstreaming of socially challenged groups.

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UNIT : 11 PEOPLE'S INITIATIVES

CONTENTS

- 11.1 Aims and Objectives
- 11.2 Distinction between NGOs and people's initiative
 - 11.2.1 World Development Report on Sustainable Development : People's initiatives
 - 11.2.2 Human Development Report on South Asia : Need for people's initiative
- 11.3 Globalisation : People's Response
 - 11.3.1 Indian Scenario and Movements
 - 11.3.2 Swadhyaya Movement
 - 11.3.3 Narmada Bachao Andolan
 - 11.3.4 Chipco Movement
 - 11.3.5 Chilka Bacho Andolan
- 11.4 Pakistan's experience
 - 11.4.1 Community Response: water, land and ethnicity issues
- 11.5 Bangladesh experience
 - 11.5.1 Water logging and Embankments
 - 11.5.2 Anti - F. P movement
 - 11.5.3 Movement Against Trade in Toxic Materials.
- 11.6 Summary
- 11.7 Model Examination questions
- 11.8 Answers to SAQs

11.1 AIMS AND OBJECTIVES

By the time you complete studying this unit you will be able to

- a. Explain the distinction between the NGOs and peoples initiatives
- b. Discuss the importance of civil societies role in sustainable development as emphasized by the World Development and Human Development Reports.
- c. Highlight peoples' responses and initiatives to environment, water, big dams, forest,

- toxic trade with special focus on south Asian Experience.
- d. Draw meaningful lessons from people's initiatives to consider a people-centric Development Paradigm.

11.2 DISTINCTION BETWEEN NGOs AND PEOPLES INITIATIVES

In actual practice the distinction between the NGO and the peoples initiative is not as clear as it could be demarcated in a conceptual discussion. For there is either overlapping or convergence between the NGO activity and people's initiative. It is difficult to delineate what activity belong to the NGO domain and where it ceases to be so. When we call a collective activity as peoples initiative needs clarity.

Four distinct characteristics that could be identified include:

- i. it emanates more from the internal compulsions of the vulnerable people and they constitute the principal actors in the collective action.
- ii. it has a mobilizational facet either in support of a programme or in building resistance to a programme in the form of social movements.
- iii. it always presents either an alternative developmental mode or preserves the indigenous practices which are eco-friendly and people-friendly.
- iv. it draws its strength largely from the local resources, physical or financial. These characteristics underline the need for primarily depending on the locally available critical mass resources and capabilities rendering the initiative self-sufficient, people sensitive and sustainable in the long run.

These initiatives have a meaning in the sense that in the current neo-classical modes of market-centric development, there is the inherent propensity of the large segment of the people not only being excluded from the developmental process itself, but their sources of sustenance are hard hit. For globalisation in combination with privatization and liberalization may throw up new avenues for generating the wealth but it also opens the flood-gates which may overwhelm the traditional modes of production and life systems without absorbing the affected people. It is precisely this reason that warrants the search for alternatives: the alternatives rooted in peoples experience and consciousness. In a way there are global forces presenting powerful desirable and undesirable modes of development, it is for the local cultures and specific modes of development; to absorb, modify or reject them. That is how an examination of people's initiatives in the wake of globalization and its compulsions, a lesson on environment and sustainable development assumes critical importance. This point is duly emphasized by the World Development and Human Development Report. This argument is all the more relevant when the discussion relates to South-Asian sub continent which has not only a huge population in a narrow demographic sense but the largest vulnerable segments of the global population.

11.2.1 The World development Report: Sustainable Development

The World Development report (2003) on Sustainable Development in a Dynamic world defines sustainable development as "enhancing human well being through time. What constitutes a good life is highly subjective and the relative importance accorded to different aspects of well-being varies for individuals, societies and generations". But as the World Commission on Environment and Development held that we need "progress that meets the needs of the present without compromising the ability of the future generation to meet their own needs". The

dence suggests that the social stress and at the extreme, social conflict is likely to lead to a breakdown in the accumulation or preservation of all assets, thereby jeopardizing intergenerational wellbeing. So the Development Report maintains that "to ensure that the wellbeing of future generations is not compromised some attention has to focus on environmental concerns- in particular the avoidance of irreversibility that may matter for future wellbeing". For this purpose there has been considerable discussions on the institutional strategy and international cooperation. As the changes in the next 50 years are bound to trigger urbanization, technological innovations, economic growth, shifting social values, changing scenarios for environmental and natural assets and stronger linkages among nations. This change has to be handled by several institutions or players like Market, Government and Civil society. While the role of market and government is important in balancing interests in the process of ensuring sustainable development, the civil society may have to play a far greater role than what it did in the past.

The World Development Report further observed that "a society in which the majority has no voice can lose out in two ways", first, it can lose because the potential creativity and productivity resting in the majority of the people is ignored or valued in part; second, because beneficiaries to communal and natural assets are not heard, the potential of these assets may be wasted too". It adds "institutions such as the law necessarily involve coercive powers and one of the potential benefits of broad based voice- an inclusive democracy -is that it better commits these powers to serving society at large".

The Report argues that the lack of assets, opportunity and effective voice for larger segments of the population blocks the emergence of general welfare-enhancing policies, impedes growth and undermines the potential for positive change. At the national level it robs us of the talents of those left out in the society. And at the international level, it deprives us of the contribution poor countries can make to a more just and sustainable future. It also emphasizes that a more sustainable development path is more socially inclusive, it enables societies to transform and solve collective action problems. The challenge now and in the future is to develop the courage and commitment to manage the process that underpin human life and well-being and to bring about transformation that improves quality of the environment, strengthens even social justice and enhances the quality of peoples lives, the more people heard, the less assets wasted"

11.2.2 Human Development Report on South Asia; Need for people's initiative

This Report (Human Development in South Asia 2001) maintains that "globalization is no longer an option, it is a fact" and adds "developing countries have either to learn to manage it far more skilfully or drown in the global cross-currents." The report states that the first message is that "during the globalization phase about half a billion people in South Asia have experienced a decline in their incomes and income inequality has increased." It is further noted "the record so far shows that it is the poor who bears the heaviest burden and they are the ones who do not have any means to support themselves in bad times". It also points out that "greater economic integration has yet to translate into sustained growth for the majority of South Asian countries."

Reporting about some of the trends in South Asia in the wake of globalization the report points out that "the initial conditions did not improve much during globalization as the average growth rate fell from 5.8 per cent during 88-89 to 5.4 per cent in 1990-98". It adds "here were no adequate policies and funding in the social and economic development fields to reduce poverty. South Asia is home of the largest number of the poor people in the world. On education front over 40 percent of children did not reach grade five in 1990s. Health expenditure was re-

duced to levels that were lower than those in the pre- globalization period. Over one fifth of population in the region did not have access to health care services. The social services expenditure in the post-globalization period remained stagnant at the prevailing pre-reform levels reducing the average effectiveness of service delivery. The report fears that the " structural adjustment programmes of subsidy elimination, removal of trade restriction on agricultural commodities and on overall unification of local with global prices will leave the poor farmers in South Asia most vulnerable"

In view of these very disturbing trends the Report suggests that "the role of civil society in guarding the poor against the disproportionate burden placed on them, and the private sector in playing a supportive role in humanizing globalization are essential. It further reiterates "from human development perspective institutional policies of multi lateral organizations have resulted in increased deprivation of the poor, rising unemployment and unsustainable development practices." It adds "governments alone cannot monitor everything and deliver all the services."

SAQ 1. What are the four characteristics that distinguish People's initiative?

11.3 GLOBALISATION PEOPLE'S RESPONSE

These developmental trends did lead to resentment or resistance- both at the global and local levels. At the global level, forces of civil society have been active in organizing demonstrations at the meeting of multi- lateral institutions. Their voices have been drowning their official deliberations at each meeting. The Mahabubul Haq Institute report very aptly observed "the problem, however, is in creating a critical mass of support and awareness amongst the larger public for the issues that affect them at local, national, regional and global levels." It also suggests "in a globalising world, civil society movements present perhaps the best method of guarding against disproportionate burdens being placed on the poor. However, it is important for civil society to strengthen itself sufficiently and also to look beyond national boundaries." It also exhorts that " the south Asian states need to work together to mitigate the impacts of new trade regimes, civil society in South Asia must work together on issues of common concern."

In a lesson of this space, it would not be possible to cover the wide ranging people's response to the process of globalization at one level and at another level search for creative alternatives contributing to sustainable development. The following part of the lesson presents some of the experiences of people's initiatives in the south Asian societies. This includes experiences relating to people's response to the development and their own search for protecting their interests. These micro level experiences provide not only an understanding of the implications and consciousness of macro level policy shift but a clue to peoples capacities and creativity in terms of resistance at one level and throwing up alternatives at another level. They are, however, illustrative. Those interested in the issues may further probe into them and that would be a worthwhile endeavour.

11.3.1 Indian scenario and Movements

Indian people inherited people's action, by and large, from their long traditional practices and also from the freedom movement. This continues to be one of the civil forces in either pushing a programme forward or containing it or forcing the withdrawal of a programme. There has been a visible presence of NGOs (covered in the earlier lessons) who have been taking up wide range of issues. In building protest movements the NGOs proved to be inadequate and the political space used by them or allowed for them is very limited. This does raise the question whether the NGOs, apart from providing incremental relief, would be able to enlarge the

democratic space and build the necessary social capacity to cope with the unanticipated consequences of globalization and work out developmental alternatives by tapping the peoples' creativity.

In Indian context the scholars working on voluntary action point out the influence of Gandhi. There have been several people's initiatives: some of them include Swadhyaya, Siddhi, Agakhan Rural support programmes, Kundala Taluka Gram Seva Mandal, Summangali Seva Ashram, Self Employed Women's Association, There are any number of such Associations which have come up during the last two to three decades. Although it is difficult to neatly distinguish an NGO from peoples initiative as there can be some overlapping as was pointed out earlier, for the purpose of this lesson Swadhyaya, Narmada Bachao, Chpico and Chilka Bachao Movements are selected for a discussion and to draw some meaningful lessons.

11.3.2 Swadhyaya Movement

The Swadaya Movement has been essentially concerned with the poorest of the poor. It championed not for the cause of the collective action but against the notion of 'personal wealth' in the process of building the collective on the principle of collective wealth. This idea itself is a fundamental departure from the globalisation based on self-interest and competition. Panduranga Shastri- the architect of the movement -believed in the spiritual potential of every human being and tapping it for promoting harmony and brotherhood. As a part of this belief they have successfully organized collective projects such as fishing cooperatives, collective farms and orchards. They also encouraged deepening of wells through collective labour. The movement has been able to undertake a number of activities but to cite one example, they have initiated a project Vruksha mandir farm at Rajhad on 711. 6 hectare of land on which 11000 trees and 1617 fruit trees have been grown. It has a tube-well and 14 acres of land watered by drip irrigation through a network of PVC pipes.

Swadhyaya work is not restricted to assisting the poor to augment their income through improved farming but has spread among more than two million people covering 150000-villages and towns in Gujarat, Maharashtra and some other states of India as well as in the USA, the UK and other countries in the West and the Middle East. This individual initiative transforming itself into a major peoples initiative with altogether different premises is one example evidencing that in the developmental model, there are alternatives which are creative and viable enough for a sustainable development.

11.3.3 Narmada Bachao Andolan

This was another movement that questions the very premises of development paradigm. Narmada Bachao Andolan has been built in the wake of construction of a major dam across the Narmada river having not only developmental implications but several other social consequences to the project affected persons. The model in a way is inclusive in that it brings in new wealth and makes a few prosperous but is also excluding, as those affected by the project do not have any viable options and alternatives for sustenance. This is what led to this new challenge.

The developmental history began with the major irrigation project in the nineteenth century and continues to have its sway on the developmental vision of post-independent India. Nehru - the first prime minister of India— described these irrigation projects as modern temples. This was perhaps the way that developing countries like India fell in line with the global developmental model. But by the time globalization gained momentum in 1990's, these projects - once the mostowemost most powerful symbols of development-turned into most controversial symbols.

The pilgrimage of multipurpose dams from an intensive hope to extensive despair is due to the nature of development that they triggered. They created two worlds- a world of prosperity and another of poverty. It turned one area into greenery and the other into graveyard.

The poor people gathered information and experience from the major dams and therefore are not willing to wait and fight. For the state, it posed several sets of problems and a different level of confrontation:

- it challenged the state power;
- questioned the very model of development,
- deployed different forms of protest;
- secured support from national and international media.

No strategy or coercive methods that the state adopts in the case of armed resistance or rights movement would work. In the case of armed resistance the state can employ arbitrary force and the lawlessness of the State secures support from at least one section of the people, as the very foundation of the State stands questioned. In the case of NBA, any lawless behaviour on the part of the State invites wide attention and delegitimizes the governance without much space for the state manoeuvrability of the very powerful.

After a prolonged confrontation and crisis, the issue went before the Supreme Court of the land. The judiciary, a part of the overall organized power, is perceived as an autonomous institution providing considerable legitimacy to governance. It is called upon to resolve the competing and contending interests of those who constitute the social base of power. It is this crucial and critical position that makes judiciary a special organ of the state power. In the case of NBA, the court delivered 'justice' in favour of the State. The leaders of the movement, worst comes to worst, may serve a sentence of imprisonment, which would in the ultimate, lend considerable legitimacy to the movement, and may result in delegitimation of the State.

Narmada Bachao Andolan indeed reflects the culmination of acute dilemmas of development, and represents a process, which ended up in 'developmental mess.' The model of development not grounded in people-centric approach alienates the people who ultimately end up as opponents of that form of development than mere passive spectators. In such cases people's participation as expression of freedom takes an antagonistic role. This is the price the non-participant approach has to pay in a society which is unequal and struck with a development process, giving rise to either under -development or uneven -development.

11.3.4 Chipco Movement

Chipco movement was a movement built by the Himalayan peasants as a part of their assertion of the traditional community control over forests against commercial exploitation. It was also characterized as eco- feminist perspective in terms of assertion of rural women who have persistently engaged in struggle to recover the feminine principle which privileges nature over the economic growth.. The principal aim of the Chipco centered on gaining access to small scale extraction from forests and pressurising the state government into providing financial and developmental assistance to communities in the region. The protestors were a heterogeneous group belonging to diverse political affiliations . But all the groups agreed on the point that the forest be protected from the powerful commercial interests.

The leaders of the movement fought with the forest bureaucracy, but failed in their attempt.

This was followed by a step which took the entire question to the attention of the national Government under the leadership of Sundarlal Bahuguna. Bahuguna argued that National security and defence along the Himalayan borders of India hinged on the well-being of its ecology and resident communities. This was essentially aimed at forces of commerce that robbed the region of its forests. Himalayan peasants depended on forests not only to meet their simple needs, but could no longer survive because non-local timber contractors were cutting them down for private project. It was felt that these contractors neither respected the sacred mountains nor displayed any concern for the Nation's security. Floods, forest protection, anti migration, the everyday struggles of women in the hills collecting fuel wood and fodder for household substance were all the inevitable consequences to reckon in timber extraction by non-local forest contractors. The whole issue was such that it was able to mobilize a wide section of the people in support of the cause.

The movement caught the imagination of the environmentalists, feminists, democrats, national elite and the media. It also caught the attention of the international environmentalists. The movement was acclaimed as the response of the Indian civilization to the ecological crisis in the Himalayan Region. It was also acknowledged that the ideals and principles that it inspired across the world were far more important than the aims it had initially set out to achieve.

The concerted political gains of the Chipco was that it led to the passage of the UP Trade Protection Act 1976 which prevented cutting of 'protected' trees on private lands. The Indian parliament responded in 1976 with a constitutional amendment that required the states to seek the national governments approval before undertaking any developmental project involving large scale conversion of forests to other land uses. There was also a creation of new Ministry for Environment and Forest. There is a wide spread acknowledgement that but for the Chipco movement, given the pressures of globalization and commercialization, the damage to the forest wealth would have been far greater and irreversible than what one witnessed during the last two to three decades.

11.3.5 Chilka Bachao-Andolan

Chilka lake is situated in the eastern coastal part of Orissa. It is the largest natural water lake of Asia and designated as wet land of international importance. The recent 'developmental' activities have been causing rapid siltation, decreasing the salinity of lake water and gradual lowering of depth of water. This has been a result of coming up of industries. A cosmetic alkali unit discharges effluents directly into the lake resulting in the mercury accumulation in the lake eco-system. Added to it, there was deforestation resulting in soil erosion and silting of the lake. The problem got all the more aggravated by the spreading of prawn culture by the Tata's. The cumulative effect of all these trends is that the life of the lake got reduced. This is a result of encouraging or patronizing the developmental direction driven by export led growth, not having any regard for the environmental quality and protection of a lake of enormous importance.

The lake has had a long history and survived several political regimes. The local fisher-folk depended on the lake and enjoyed traditional rights over the lake. However, there was also a group of middle men who exploited these fisher folks. During the 1950s with the advent of Independence there was an attempt to free the fishermen from the clutches of middle men. They were organised under the cooperative banner. This helped in improving the condition of the fishermen. This did not last long. By early 1970s prawn became an important export commodity and that tempted the outsiders to come in and that was the beginning of the crisis of Chilka lake on which the fishermen depended for their livelihood. By 1980s outsiders

gained control over the fish of the lake. The fisher-folk were gradually squeezed out of the resources with the money and muscle power of the outsiders.

In 1984 Ministry of Agriculture made an abortive attempt to establish a forum and Tatas—a prominent industrial groups in India - entered the fray. The Orissa government had put the lake for public auction providing the entry of big business houses in the name of economic development of the region. In fact the central and state government went on encouraging modernization of the production system as a part of export led growth on the grounds that a lot of foreign exchange could be earned. However, the modern methods and big money adversely affected the area giving rise to Chilka Bachao Andolan.

By early 1990s the neighbouring villages had started protesting against the government policy. The question of health of the lake became an important question. These questions were taken up by Orissa Krushak Mahasangh (OKM)—a peoples organisation. The Chilka Bachao Andolan took up the question of environmental protection and the livelihood of the poor people. The private groups hired by big business started terrorizing the activists and the people. Notwithstanding these threats, a powerful peoples movement got built. The fishermen all over expressed solidarity and joined the movement. Different political parties lent their support to the movement. This culminated into a broad based movement and a massive state level convention in 1992. At last the government of India intervened and the project, already halfway, was stopped because of the non-clearance by the Union Ministry of Environment and Forests. After more than five years the Tata's had to withdraw.

The Chilka Bachao Andolan is a significant development and has several insights to offer. Firstly; a local struggle developed into a larger movement as it focused attention on development model and nature of development and it successfully exposed the state and big business houses. Secondly; the popular movement was able to secure international support as environmental issues were involved. Thirdly; it has challenged the process of globalization through mass mobilization. Fourthly; it has demonstrated the organic link between sustainable development and social justice.

SQA 2. What is theme on which Chipko movement was built?

11.4 PAKISTAN'S EXPERIENCE

The development model leaves no country untouched. It is in the anxiety to partake in the global competition, the indigenous methods are being substituted, if not subverted, by the outside modes of development. This is not only leading to several undesirable social consequences but hitting the very material and natural base of development like land, water and soil. The unhealthy competitive ethic is giving rise to ethnic conflicts because of uneven development and the consequent widening disparities across the communities and regions. This can be seen in Baluchisthan region of Pakistan.

11.4.1 Community Initiative :water, land and ethnicity issues

Here is the case from Baluchisthan region in Pakistan relating to Land, water and ethnicity. With the current concern over the degradation of the rural environment through desertification, deforestation, soil erosion and lowered ground water table, interest in local resource management organizations has increased. The breakdown of institutions is often identified as the cause of the degradation of rural environment, but, because they are seen to represent long term interests in the protection of natural resources and because they often include enforcing mecha-

nism, traditional resource management institutions are also seen to hold the key to ecologically sustainable development.

In Baluchistan traditionally the local communities manage their small scale water resources. Baluchistan's climate ranges from hyper arid to dry. Before the development of large scale irrigation in the eastern plains districts from Gudder to Sukkur barrages in the Indus river, nomadic pasturage and small scale irrigation persisted and dominated the agricultural economy of the region. The Baloch society is also open to outsiders as there is a large class of non-Baloch (Jat and Sindh) peasant cultivators. The incorporation of outsiders into Baloch communities is also made possible by the comparatively open character of water and land tenure. Both communal and individual system of land tenure are active in Baloch society and each have the capacity to absorb outsiders. In contrast there are different rules in Pushtun agricultural communities which tend to originate from a single distinct lineage or class and they tend to be impenetrable to outsiders. Even tenants who lived for generations in a village will continue to be regarded as 'settlers' and will not be accepted as full community members.

Water resources management basically takes place at the level of the community and the middle level tribal organizations have no role to play in day-to-day operations. The role of the government is equally passive and limited. The community management of water involves such collective activities as the distribution of water in a fair and efficient manner, the preventing of water theft and the coordination of channel cleaning and repair. Where water shares are small, water distribution is complex or maintenance tedious, special irrigation managers are appointed. The main function of the managers is frictionless operation of a collective system in which a large number of persons have defined institutional stakes. This is an example of prompting the developmental model overtaking the indigenous production system.

In Pushtun communities the same solutions to collective management problems have evolved despite the differences in their social organization. However, the commercialization of agriculture in Pushtun highlands has undergone a major change. High-value or cash horticulture have largely replaced the cultivation of tobacco, potatoes, onions and cereals. The change among Baloch was not this striking. Yet there is new problem and conflict of using the ground water. Until two decades ago, ground water in Baluchistan was extracted only by Karezes and Persian wheels.

As a part of the process of globalisation and the whole thrust on competitive development, the entire water usage system has undergone a significant change. This led to the introduction of diesel and electric pumps and tube well technology which has created new possibilities but also resulted in decline in ground-water tables and many Karezes have dried up or their discharge has fallen below levels that justify major rehabilitation. In a few areas of Baluchistan communities have imposed restrictions to protect local Karezes. Water-right holders do not allow the pumping of ground-water near karezes. In certain areas no dug wells or tube-wells were allowed. As violations do take place now they have state agencies supposed to be enforcing some of these regulations.

Management of large surface flows has also become problematic. In several cases conflicts have developed over the distribution of the rights to river water which reveal how the social organization of the two ethnic groups affect resource management. It is also seen that the water that the group gets corresponds to the power that it wields. But there are instances where the protest and resistance helps the people. The example is Benar weir which was built on the Narechi river in Loralai District. The weir diverted the flood water to one community on the river and provoked protest from the other community, who claimed that the weir was built

on their territory though they received no benefit from it. A dispute ensued between the two sections of the Luni Pusthum that live in the two localities. Although those benefiting from the water were Shamezas, the Luni sardars own chief was more preferred, and the matter was decided in favour of the downstream water- users, the weir was dismantled, because of the resistance.

11.5 BANGLADESH EXPERIENCE

In Bangladesh as is the case with many of the agrarian countries they are traditionally environment- friendly. They do not over use the resources and are happy with relatively modest life. Most of the practices try to protect land, water and surroundings. Given this background most of the environmental initiatives are local and indigenous. This could be seen in the way that the local people deal with water- logging and embankments. This is an initiative where the local people resort to cutting of - embankments when they do not have the adverse impacts of water logging potential during the monsoon. The activity would subside when the people are relieved. This task would be carried out on the scale of a movement. However, these movements normally used to be spontaneously organized by the individuals, groups and Voluntary organizations or local activist or political organizations.

11.5.1 Water Logging and Embankments

The movement by the people in the water logged Bed Dakatia is an example of peoples initiative. In this case local people had to combat with specific environmental problem created as there was raising of embankments to store the water in order to increase the crop production. Although the embankments in the wake of competitive ethic helped increase crop production in the initial years, it did not realize the objectives for which the measures were initiated. On the contrary from early 80's water began to be logged in the beels due to the embankments. Gradually about 2000 hectares of the land of the total area was submerged. The water logging caused immense hardship to the inhabitants of Beel Dakatia.

Faced with tremendous economic and environmental pressures the people began to organize at different levels to find ways and means to negotiate with the problem. To get out of the crisis in 1986/87 a peasants action forum Krishak Sangram Samiti was formed. There was another initiative under the banner of Beel Dakatia Sangram Committee led by different political parties. However the two organizations got united and came under Sangram Committee. The Government authorities remained insensitive to the public agitations. The local people decided to cut the embankments, which the Bangladesh Water Development Board was not able to carry, or not willing to carry.

11.5.2 Anti-FAP Movement

Another water related initiative is the anti-FAP movement which started when different groups realized the danger of structure measures prepared for the water management in the controversial Flood Action Plan. This was undertaken by the NGO'S, the left — political parties, peasant organization, student organizations and the concerned individuals. The FAP-20 has been implemented in Tangali District bringing 13305 hectares of land of 202 villages under the project. This has affected the area. The sand deposit in soil has increased because of mud walls which interrupt the natural flow of water. This has affected life stock and plant resources. The fish got reduced in Lamhajang River.

The concerned groups started mounting the pressure. They demanded all FAP I related construction be stopped, all FAP affected people be compensated, an independent evaluation and

and full audit of FAP be done and an integrated water management programme be designed. The anti—FAP campaigning resulted in the UNDP's withdrawal of technical assistance to FAP. This has also led to the acceptance of PIL (Public interest litigation) in Bangladesh.

11.5.3 Movements Against Trade in Toxic Materials

There was yet another initiative in Bangladesh against Trade in Toxic materials. In the field of environment in Bangladesh in 1988 varied groups came together when the news spread that there was an attempt to bring foreign waters into Bangladesh under a business venture and a ship with toxic material was roaming in Bay of Bengal. It was also reported in the press that a ship with 15000 tons of toxic incinerator ash was around. This led to the promotion of "Foreign Trade Resistance Committee" to stop the proposed plant and to make the Government active in monitoring the movement of the foreign ship. The major political parties also joined the movement. In response to strong citizens and scientists reaction and concern the government activated the Navy to trace the foreign 'Felicia.'

As a part of this movement the scientists warned that import of industrial waste could be radioactive and dangerous for public health. The scientists urged the government to ratify the convention on trans- boundary movement of hazardous waste sponsored by the UN Environment programme. The media also played a critical role in regularly updating the public on the toxic water debacle. The government finally dropped the proposal for import of industrial waste from a developed country into Bangladesh.

11.6 SUMMARY

Development; if it is to result in generation of wealth with equity and distributional justice, has to be inclusive in terms of spread, access and sustainability. The market driven mode of development over emphasizes on production even at the expense of equity and sustainability. Most of the countries including the South Asian countries have opted for a model with state as a principal actor in development This includes regulation of the market. From the decade of 80s there is a shift in the approach which is leading to marginalisation of the State. In a market- centric approach the emphasis is on profit maximization through intense competition. This thrust poses danger to the principle of equity and desirability of sustainability.

It has been the experience of South- Asian countries that the model has hit the poor and the vulnerable at one level and the traditional indigenous practices and the natural resources without providing viable alternatives at another level. In the absence of the role of the state as the protector of the collective will and common good the damage can be irreparable and irreversible. It is in this background that the peoples direct pressure on the system at one level and their role in safeguarding the community interest at another level assumes considerable importance. There are evidences suggesting that the people do take initiative in containing the aggressive advancement of the model and have succeeded in engendering sustainable alternative practices.

The grass roots movement by the affected communities for protection of water, land, soil, forest, environment, traditional resources of livelihood are quite striking. These movements have been coming up in the South Asian sub- continent irrespective of the specificity of the Nation states. It is the peoples initiative that seem to hold the clue for humanizing the developmental direction and preserving the resources and modes of production that is sustainable. It is, in the ultimate, these initiatives which are the hope and promise wherein the global processes of development can be confronted, contested and contained. The global vision of devel-

agement, in future, will have to be informed not by the competitive market interests but the community initiatives of the ordinary people at the other end of development spectrum.

11.7 MODEL EXAMINATION QUESTIONS

1. How do you define development and what do you think are the critical ingredients?
2. Why do people's initiatives assume importance in the modern development context?
3. What are the common features of peoples initiatives in the south Asian sub—continent?
4. What precautions will you take if you are required to design a development model?

11.8 ANSWERS TO SAQs

SAQ 1. Internal compulsions, mobilisation facets; indigenous practices; local resources.

SAQ 2. Gaining access to small scale extractions from trees in the forest in the Himalayan region and stop commercial exploitation of forest wealth.

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UNIT 12 CASE STUDIES AND ALTERNATIVES

CONTENTS

- 12.1 Objectives
- 12.2 Introduction
- 12.3 Globalization and Implications
- 12.4 Globalization Debates
- 12.5 Lessons from the Past
- 12.6 South Asian Scenario
 - 12.6.1 Seed Suicides (India)
 - 12.6.2 Enron Power Project (Nepal)
 - 12.6.3 Mining Project (Sri Lanka)
- 12.7 Peoples Resistance
- 12.8 Alternatives
- 12.9 Summing up
- 12.10 Model Examination Questions

12.1. OBJECTIVES

After studying this Unit you would be able to

- Discuss the environmental implications of globalisation
- Detail the experiences of various developing countries under neo-liberal and global economic policies
- Explain Environmental implications of South Asian countries in Globalisation
- Discuss alternatives of present form of Globalization.

12.2 INTRODUCTION

Globalization, the word, which is echoing all over the world, has many dimensions. This unit deals with some of those dimensions and their implications for the environment. Globalization is not new. But globalization is in the news today. Perhaps, that is because the pace of globalization has accelerated in the past century, and even more so, in the last decade. The end of the Cold War has made dialogue possible among nations and regions of the world that formerly viewed each other as enemies. We are now working together as nations to promote free trade, to punish genocide, and to protect the environment. This lesson discusses the most important

relationships between globalization and the environment and also attempts to give some background of the different experiences and implications of globalization with reference to environment.

Not everyone views globalization positively. Every time whenever the promoters of globalization and partners of global trade organise their meetings to take important decisions on global trade policy formulation, millions of people gathering to register protest and oppose the process out right. The latest example is Concoon WTO ministerial-level conference that ultimately ended up with out taking any decision on very important issues related to global trade. Some times these protests turn violent and leading to self-immolations and police firings. Why? What is so scary about globalization? Why is it eliciting this kind of protest? The Cold War has ended. Democracy has prevailed. Free market economics are widely accepted. Shouldn't this new global situation be supportive of globalization? Isn't globalization and an ever-closer world what we all want?

We need not consider globalization to be either good or bad. Instead, we can consider globalization as a process that will continue, and is in many ways inevitable. At the same time it should not be taken for granted and one should strive to understand it and consider its implications.

12.3 GLOBALIZATION IMPLICATIONS

The argument of best practices of Globalization need to begin with the basic and the fundamental questions i.e. what globalization in all its manifestations, means for governance, freedom, legitimacy, and accountability? What globalization means for the very planet we live on. Will globalization help us to protect the environment as some argue? Or is globalization itself a threat to the environment?

Now let us see other set of issues related to globalization and the environment. It is important to realize that the environment has the power to affect globalization as well. Environmental degradation can have powerful regional and global impacts.

Our economic activities—activities that may be enhanced with globalization—are causing considerable environmental damage, some of which are irreparable. Our burning of fossil fuels at ever-greater rates is contributing to global climate change. We do not even know what the full consequences of climate change may be, but we know that they may be severe.

Sea levels could rise. Extreme weather conditions could become more common. Weather patterns could shift. Some species could parish. The economic disruption that could ensue from such large scale environmental degradation is great. Other examples could be given as well. The rapid destruction of the world's tropical rainforests and old growth forests, the over-fishing of the oceans, the rapidly diminishing sources of fresh water—while perhaps not happening as fast as predicted by the likes of Pau Ehrlich and other environmental critics of industrialization—are nevertheless occurring.

Does this generation have the right to leave future generations a planet scarred by our greed? Do we have the right to condemn the inhabitants of some parts of the globe to yet greater environmental stresses than they already face because of our desire to live more comfortable

lives—lives that are based on the consumption of fossil fuels?

If we do not begin to pay more attention to how economic activities, life styles, and population growth affect the environment we will most certainly see more environmental migrants in the future. There are already an estimated 20 million stateless people. These numbers will certainly grow. There are an estimated 100 million migrants within China alone—people moving from the rural areas to the cities in search of jobs during the period when agricultural work is low. This too places great strains on the urban environment.

Environmental degradation can result in e.g. large-scale desertification, loss of agricultural land, or loss of livelihoods (e.g. with the loss of a fishing industry). This can have major implications for global corporations, insurance companies, and aid agencies. It can cause great despair at the individual level too.

Environmental degradation can be linked to the spread of disease. Disease has killed more people in the world than has war. The great plagues—like the Black Death—wiped out one in four people. The flu killed more people during World War-I than did bullets and bombs. There is growing concern that diseases that are now under control could come back again. Malaria is an example.

Environmental destruction can place great additional burdens on the international aid system and on insurance companies as more communities are damaged or destroyed by severe weather conditions—hurricanes, floods, drought, or soaring temperatures.

Environmental degradation can negate the benefits of economic growth. China, for example, is recognizing that pollution control is not just a luxury for the rich. Pollution is causing China great economic loss in terms of damaged agricultural products, loss of worker time, and the health costs associated with pollution.

Environmental degradation can exacerbate existing ethnic tensions and even result in civil wars. In the period since the end of the Korean War—there have been many disputes among Russia, Japan, the two Koreas, and China. Many of these disputes revolve around fishing rights. There have been a surprisingly high number of deaths associated with these disputes as fishermen and coast guards shoot at boats believed to be trespassing into their territorial waters.

12.4 GLOBALIZATION DEBATES

Many see globalization, the spread of a global culture, the strengthening of financial and economic interdependence, and the diffusion of knowledge, technology, and norms as positive for society and the environment. According to this logic, globalization brings people and cultures closer together. We can now easily travel long distances in a short amount of time and be in different cultures. As the world becomes smaller we can work together, play together, learn from each other, teach each other. Globalization makes far away places seem less strange, less exotic. It gives us common points of reference. It reduces inefficiencies. It promotes interdependence. It is a positive development that we should encourage. It will remove the artificial boundaries established by the nation state and allow local cultures to flourish. It will tie societies together—thus, reducing the potential for conflict among peoples.

Some people strongly advocate the technological dimensions of globalization. They argue that the spread of modern technology, science, regulations, and the like are helping to raise living

standards, and over the time, this is improving health care and sanitation. Through developments in medicine, we have wiped out some deadly diseases—like polio and have controlled others; fewer women are dying in childbirth, fewer infants are dying in infancy. Air pollution control technology has disseminated and thus, the air is far more breathable in many of the world's major cities than it was a few years ago. Life expectancy is growing in most parts of the world. Therefore the assumption that economic development—which can be enhanced by globalization—will improve economic conditions and that this will reduce human suffering, pollution, and environmental degradation.

Yet, not everyone agrees with this logic. Critics of this view point to the globalization of finance and trade as a factor in the growing differential in wealth between the North and the South. Globalization is not benefiting all groups equally. Rather, the rich are getting richer and the poor are getting poorer. When two billion people live in abject poverty in the world, it is argued that, it is hard to talk of the benefits of globalization. It is a fallacy to talk about the improving quality of life.

On the other hand some see that there are certain problems associated with globalization. The spread of AIDS is a problem that we have failed to overcome. The growth in wealth and consumption—which has led to growing dependence on the automobile, use of air travel, and appliances requiring energy—is contributing to global climate change.

With globalization of consumer lifestyles, consumption levels are increasing both in the rich countries and in the transition states. This adds yet more pressures to the global environment, as more people are able to heat their homes, enjoy refrigerators, or ride motor scooters or cars. The globalization of consumer cultures may improve the quality of life, but at what expense is this to the global environment?

Globalization has raised many fears—some of them valid. There are those who think globalization is little more than a new form of imperialism—a process that is manipulated by a few wealthy countries at the expense of developing countries. They seriously raise their concerns about the lack of democratic accountability in many international institutions. There are many valid concerns that can be raised about globalization and what it means for labour, health, and the environment.

12.5. LESSONS FROM THE PAST

For South Asia, there are lessons to be learnt from recent developments in Africa and Latin America, where the consequences of the surrender of essential services to corporate interests have been drastic. Water has been one of the main targets of corporate attention and Africa has been at the receiving end of some cutthroat multi-lateral intervention. Both Mozambique and Tanzania have privatized water supply under threat from the International Monetary Fund (IMF). In 1999 Mozambique had to sell off 70 percent of its water services to European multinationals as a precondition for debt relief.

Water utilities across Africa have been brought under the “full cost recovery” model, under which those who cannot pay their water bills are left out of the supply loop, besides also being evicted from their homes. Since 1994, in South Africa alone, over 10 million people have been denied water services and some 2 million have been ousted from their homes for non-payment of water dues. This failure to pay is not unusual since tariffs have increased dramatically ever since water was privatised. For instance, between 1994 and 1996, in the black townships of Fort Beaufort, service charges have increased by 600 percent. As a result of

such extortionary rates the consumption of drinking water from unsafe sources has increased.

In Ghana, World Bank conditionalities for assistance required the sale of water services. Five multi-nationals, among them Vi-venti and Bi-water, whose annual turnovers exceed the GDP of Ghana, bid for providing water-services. Interestingly, the proposed Private Sector Participation, gives the corporate participants the responsibility to only operate and manage the water systems without requiring them to extend services, a task that has been left to the public sector. Latin America too has seen its share of water profiteering. In 1999, Bolivia privatized water supply and the resulting 200 percent hike in tariffs led to an eight-month long agitation in Cochabamba, the country's third largest city, that eventually forced the cancellation of the private contracts.

These are the compelling realities of liberalisation of services in many third world countries over the last few years to which South Asia needs to pay close attention. Since one of the major issues on the anvil at Cancun is the further liberalisation of trade in services, midwives, nurses, municipal refuse workers, tourist guides, teachers and other such service providers who normally play a negligible role in global commerce are likely to figure prominently on the agenda for negotiations.

Under GATS, trade in services is divided into four modes or categories. The first of these is "cross-border trade in services", which covers the flow of services from the territory of one member-country into the territory of another member-country. These include subjects like banking or architectural services performed via telecommunication or mail channels. The rubric "consumption of services abroad" is the second category and covers those situations where a service consumer, for example a tourist or a medical patient goes to another member-country's territory to obtain a service. The third category of trade services is "commercial presence". This concerns those situations where a service supplier of one member-state establishes a territorial presence, including through ownership or lease of premises, in another member-state's territory to provide a service. The last and perhaps most contentious category is "movement of people" and deals with persons of one member-country entering the territory of another to supply services.

As the pre-GATS experience of Africa and Latin America suggest, the liberalisation essential services under WTO mandate is a sensitive matter for developing countries. Critics fear that the GATS will allow global service delivery corporations to engage smash and grab operations in the arena of public services once the push for privatisation gains momentum. The ramifications of this are grave especially for South Asia whose large populations and always on the lookout for easy commission makes it a soft target for global conglomerates. These are countries with between a third and a half of the population living below the poverty line and therefore will not be able to afford privatised services. It is imperative therefore to debate the issue as South Asia economies take a decisive step towards finalising the opening up of different service sectors for negotiations.

12.6. SOUTH ASIAN SCENARIO

SOUTH Asia is one of the poorest regions of the world. With 22 per cent of the world population and that too with high rate of density it is plagued by high level of illiteracy prevalence of poor health conditions and above all, a poor degree of gross national product. Historically, the region has been the profitable hinterland for several colonial powers, which perhaps is a major reason for backwardness in all sectors I education, health, agriculture, industries and environment.

On the other side of the coin, the potentials in the region are not too bad. In fact, the region is rich in terms of natural resources, which if utilised appropriately, could perhaps change the entire scenario. However, this is the particular area where there is tremendous flaw despite the known facts of the opportunities. It is true that there is great amount of disparity in the distribution of economic resources in the region. It is also true that all the countries in the region are striving to accumulate as much physical and human capital to achieve and accelerate their economic development. Against this backdrop and particularly in the face of growing competition in global trade, economy and investment, concerted cooperation among the countries of the region has become imperative.

On the other hand many multinational companies (MNCs) and Transnational Companies (TNCs) are entering in to South Asian countries and taking the control of regional natural resources. This is ultimately affecting the people and the conditions are forcing them agitate against to and express their protest in different forms.

Some of the case studies drawn from South Asian countries show the people perceptions on the Globalization.

12.6.1. Seed suicides (India)

Indian agriculture sector is facing a crisis called seed suicides. For more than a decade the farm community has been fighting against multinational seed companies which forced poor farmers to invest huge amounts on agriculture. On the other hand hundreds of farmers are committing suicides every year. In Andhra Pradesh, a South Indian state when Globalization is in full swing and multinational companies are having free field, more than thousand farmers committed suicide within the period of three years. Across the country farmers are taking the desperate steps of ending their lives because of the new pressures building up on them as a result of globalisation and spread of capital-intensive agriculture. The promise of huge profits linked with clever strategies evolved by the seeds and chemical industries include the lure of huge profits and easy credit for purchase of costly inputs. However the reality of globalisation is different from the corporate propaganda and from the promises of trade liberalisation and agriculture inputs offered by the World Bank, the WTO experts and economists in various ministries.

Indian environmentalists like Vandana Shiva, observes that "the epidemic of farmer: suicide is the real barometer of the stress under which Indian Agriculture and India farmers have been put by globalization of Agriculture. Indebtedness and crop failure are the main reasons that the farmers are committing suicide along the length and breath of rural India. Indebtedness and crop failure are also inevitable outcomes of the corporate modal of industrial agriculture being introduced in India through globalisation. Agriculture driven by MNC's is capital intensive and creates heavy debt for purchase of costly internal inputs such as seeds and agri-chemicals. It is also ecologically vulnerable since it is based on monoculture of introduced varieties and on non-sustainable practices of intensive farming".

In her study "Seeds of Suicide" she has analysed the impact of trade liberalisation on Indian agriculture and Indian farmers, the study is a detailed account of the social and ecological costs of globalisation.

The study strongly feels that the Andhra Pradesh tragedy highlights these high social and ecological costs of the globalisation of non-sustainable agriculture which are not restricted to the cotton growing areas of this state but have been experienced in a commercially grown and chemically farmed crops of all regions. While the benefits of globalisation go to the seeds and Chemical Corporations through expanding markets, the cost and risks are exclusively borne by the small farmers and landless peasants.

The two most significant ways through which the risks of crop failures have been increased by globalisation are the introduction of ecologically vulnerable hybrid seeds and the increased dependence on agri-chemical inputs such as pesticide, which are associated with the use of hybrids.

The privatisation of the seed sector under trade liberalisation has led to a shift in cropping patterns from polyculture to monoculture and a shift from open pollinated varieties to hybrids. In the district of Warangal in Andhra Pradesh, this shift has been very rapid, converting Warangal from a mixed farming system based on millets, pulses and oilseeds to a monoculture of hybrid cotton.

The focus of the cotton failure has been on the excessive use of pesticides or of spurious pesticides. However, pesticide use is intimately linked to hybrid seeds. Pesticides become necessary when crop varieties and cropping patterns are vulnerable to pest attack. Hybrid seeds offer a promise of higher yields, but they also have higher risks of crop failure since they are more prone to pest and disease attack as illustrated by the Andhra Pradesh experience. Monocultures further increase the vulnerability to pest attacks since the same crop of the same variety planted over large areas year after year encourages pest build ups.

The problem of pests is therefore a problem created by erosion of diversity in crops and cropping patterns. The most sustainable solution for pest control is rejuvenating biodiversity in agriculture. Non-sustainable pest control strategies offer chemical or genetic fixes while reducing diversity, which is the biggest insurance against pest damage.

As the cotton disaster shows, the globalisation of agriculture is threatening both the environment and the survival of farmers. Biodiversity is being destroyed, the use of agri-chemicals is increasing, ecological vulnerability is increasing and farmer debts are skyrocketing leading to suicides in extreme cases. The social scientists have undertaken this study both to take stock of the impact of the seven years of trade liberalisation and to create help policies for a more sustainable future.

Not only agriculture but also the water, Minerals and other natural resources are becoming targets of the Multi National Companies. Enron's episode in Nepal and IMC attempt of Sri Lanka shows how the people are refusing the globalization.

12.6.2. Enron Power project (NEPAL)

Enron's withdrawal from the Karnali-Chisapani hydroelectric project in Nepal, is a classic example of the social resistance for a wrong policy decision. After nearly two years of doggedly pursuing, the US gas and energy giant Enron Corp pulled out of the Karnali-Chisapani hydroelectric project in 1998, citing "changing trends in the international financial and power markets." Enron's bombshell decision came a mere 4 months after the company submitted a request for a license to survey the 10,800-megawatt Karnali project. Back in September 1996, Enron had proposed investing US 6-9 billion dollars to develop the project with the intention of exporting power to India and China.

Enron's saga has several lessons relevant for the Glocal (local and global). At the local level, the company's first stint in Nepal was damaging. The company's proposal should have surprised all: how would a project of such magnitude be build in a country with a weak economic base, institutional capacity and deteriorating political context. No nationalism here, it is the bare and simple truth. Also the company did not have a track record of building hydropower plants. Perhaps smart executives wanted to project a facade of work ethos and professionalism as the cornerstones of their corporate existence. So it seemed, until the later months of 2001. The company's appearance was totally deceptive.

At its core, Enron was a corporate mirage created to fool the public while its unscrupulous leaders enriched themselves even while the company came crashing down. The company's answer to every problem was to bulldoze its way through using financial and political clout. Its managers were told to "go out there and secure". They did that by flouting all the rules of the game. Questions were swept under the carpet. And the political establishments of both India and Nepal bent over backwards to accommodate it's illegitimate demands. The company just could not have continued. Enron imploded like a house of cards under the weight of its own hubris.

The project has long been controversial, with both Asian and Western environmentalists and conservation organisations - including WDCS - presenting powerful arguments against the construction of such massive dams. WDCS opposes high dam and barrage projects, since their construction greatly threatens already endangered river populations. Whilst controlling the natural flow of a river arguably has economic and political advantages, including generating hydro electricity which is clean, relatively cheap and reliable, and providing fresh water for crop irrigation and industry throughout the year; these 'advantages' must be weighed against the considerable environmental price which must inevitably be paid in return.

A severely modified river environment means a huge loss of bio-diversity, threatening entire river ecosystems, of which the fish varieties form an integral part. Dams not only alter the flow of water and sediment, changing the entire makeup of rivers; they also create artificial 'barriers' which subdivide and isolate already vulnerable river fish populations, as well as other riverine species. The natural migration patterns of fish and their prey are irreversibly altered, with potentially devastating results.

The Karnali River contains the last remaining population of susus that might contain enough individuals to be genetically viable. Should the Chisapani project go ahead - still a possibility, although so far, no other major backer has shown an interest - this would surely seal the fate of this beleaguered river fish population.

cross section of the Nepali decision-and-opinion-making classes, it was left to dissenting civil society groups in the country to raise questions and concerns. These concerns were not purely local. Questions of a similar nature were being posed in international quarters as well.

From the panchayat era, which ended in 1990, Nepal's development was equated with export-driven power projects. In the time of democracy the definition of development remained unchanged. Politics had eroded itself in the pursuit of one policy to the exclusion of all other considerations. Nobody in power paused to reflect on why and how a private company with track record of raking unjustified profit, would help lift the country's economy. If hubris escaped nemesis a second time around, it was not through acumen but happenstance. Enron, just happened to collapse in time.

12.6.3. Mining Project (Sri Lanka)

Scientists, trade unionists and priests joined farmers from northeast Sri Lanka against government plans to hand over phosphate mines to a US-based transnational company (TNC). This is another example of people's collective action against global economic forces, which create environmental hazards. The protest was spearheaded by the Committee for the Protection of the Eppawela Phosphate mines and was joined by Colombo-based trade unions, scientists and clergy from Sri Lanka's main religious groups. The issue was debated in the context the government's attempt to sell the immense rock phosphate deposits at Eppawela to a consortium of foreign mining companies led by IMC Agrico, a US-based group, for the manufacture of phosphate fertiliser for export.

IMC Agrico is a merger of IMC Global Inc and Freeport McMoran Resources Partners, which was the company first involved in the project. The project covers an area of 56 sq kms and would result in the re-location of some 12,000 people from 26 villages. Buddhist temples, schools and a large number of government buildings also face destruction. Earlier the government decided to go ahead with the project, because of the enormous financial worth of the phosphate deposits that have not been properly utilised since its discovery 25 years ago. Later it was decided that the project has to go to a foreign firm as Sri Lanka lacked the know how, capital and machinery to tap this huge phosphate resource base. Environmentalists say if you allow foreign gaga companies the annual phosphate output will jump to around 1.2 million tonnes compared to 40,000 tonnes at present. Local scientists say it is safe to extract up to 350,000 tones per year without disturbing the ecology and future use.

Eppawala is located near Kekirawa, some 50 kilometres from Anuradhapura of Sri Lanka's North Central Province. In the entire region smaller canals feed the Kalawewa water to smaller tanks, and to smaller tanks still, all carefully calibrated to the natural watersheds in this region full of rock outcroppings like the Eppawala Phosphate Deposit. It has been speculated that phosphate leaching into the Jayaganga as the water clears Eppawala has contributed to the spectacular fertility of this region, which has been one of Sri Lanka's major "paddy baskets" since ages. The region is known for its landscapes, natural watersheds and self-sustaining conservation ecosystem. By utilizing every drop of rain water and irrigation water, and every inch of good soil, to support not only agriculture but also irreplaceable stretches of old growth jungle filled with rare medicinal herbs, useful wild fruits, the region protects endangered wildlife.

The careful calibration to natural watersheds is part of an intricate man-made mechanism. Villagers in the region, who spend a lot of time in these jungles, attest that they are literally the gardeners of former times; not a single plant is useless, and the jungles are punctuated with known as well as unknown archaeological sites. This planned ecosystem, which was naturalized many centuries ago, has produced agricultural surplus for more than two millennia.

Government has demarcated 56 square kilometers of land for the initial exploitation of the phosphate where about 87 villages are located. The residents of the ancient villages in the affected region are the descendants of the same people who have enjoyed the bounty of this incredible feat of human ingenuity since centuries. Their temples are the same temples, which their ancestors built; they worship the same *stupas*, which were constructed when their village tanks were first excavated two thousand years ago. The acres-large stretches of jungle designated for burials and cremations (*sohon pitiya*) in each village are literally filled with the bones of those same ancestors.

Numerous Sri Lankan and international scientists, scholars, environmentalists and journalists who have examined the Eppawala scheme have warned of the severe consequences it will entail for the region, if the project was taken up.

These negative consequences are juxtaposed with the existing labor-intensive slow-extraction project at Eppawala - which will not deplete even "Phosphate Mountain" for centuries, all the time providing for Sri Lankan export crop fertilizer needs. The alternate plan for faster depletion suggested by a New Zealand study group, which found that the Sri Lanka Government itself could produce export fertilizer locally, for a manageable initial investment. Instead of looking to the alternative proposals for exploitation of the Eppawala Phosphate Deposit which, entails the degree of Eppawala and maximum local benefit, The Government's willingness to proceed with the more harmful and less beneficial proposal lacked any logic.

In fact there is no unimportant space within the 56-square-kilometre exploration area, because literally every inch which is not someone's home or livelihood is one of those stretches of pristine Dry Zone jungle. Particularly in the last two hundred years Eppawala has been known in the region as a major centre for traditional (Ayurvedic) medicine, and as mentioned these jungles were actually planted as medicinal gardens countless centuries ago. The bounty they provide makes possible the comfortable lives of the surrounding villagers, supplying in addition to medicine all sorts of culinary needs, fuel, cash "crops" such as curry leaves and rare mushroom, tank fish, and building materials. These "undeveloped lands" are moreover self-sustaining home to wildlife of all variety, and they are filled with important history and relics as Kyoto.

The project involved a huge displacement of people: the primary estimation says about 40,000 people in 12,000 families reside in the initial exploration zone, some 500,000 reside in the "buffer zone" will be affected by this project.

Further, it was going to create dangerous by-products: carcinogenic dusts and waste rock, noise, toxic run-off, pollution of ground water; even those who do not get displaced will suffer ill effects of the project, as phosphate mining is one of the dirtiest and most environmentally invasive of all such activities.

In addition, six miles of "the Giant's Canal" will be compromised by this project, while the proximity of mining operations to the canal will pollute the entire water works of the region; the intricate social, natural and technological networks, which sustain the entire Kalawewa-Jayaganga Water and Soil Conservation Ecosystem, will be disrupted.

The grassroots Committee to Protect Eppawala Phosphate, headed up by a charismatic Buddhist monk, has been working against this scheme since news of the secret negotiations was first leaked during the early 1990's. The Committee became especially active beginning in 1996 when the government, which had won the support of this region in 1994 with an explicit promise by the President of Sri Lanka that the Eppawala Phosphate Deposit would not be given to foreign companies, inexplicably initiated its own secret negotiations to turn Eppawala over to the Freeport-McMoRan conglomerate of "Jim Bob" Moffet. The first mass protest rally was held in Anuradhapura to correspond to Sri Lanka's 50th Independence Day Celebration, February, 1998; an estimated 20,000 participants fasted at the Sacred Bodhi Tree to protest this neo-colonial desecration of the very heartland of Sri Lanka's ancient civilization. Subsequent rallies have been held at Colombo (February 1998) and in Eppawala (June 1998, December 1998, March 1999, August 1999, October 1999) and have involved between one and ten thousands participants each.

While the express philosophy of the Committee is non-violent protest based on studies of Gandhian social action, these rallies have included much symbolic violence including the burning in effigy of "the company" (labelled "McMoRan") and of the President of Sri Lanka, and angry chanting, gestures and promises to fight even unto the death. Indeed, Rev. M. Piyarathana, leader of the local protest movement, has vowed just this in the event that his pleas are unheard. After several meetings with the President of Sri Lanka and the U.S. Ambassador, presented petitions signed by hundreds of revered Buddhist monks and publishing poignant articles in the Sinhala press, finally the government has taken the proposal back.

12.7 PEOPLES RESISTANCE

The anti-globalization movements are geared up in recent years. It was not so long ago that movements arose in many parts of the world to fight for greater openness of national governments or for equal rights or for greater democracy. It was not so long ago that environmental movements were fighting battles with government and industry for the right to protection of human health from pollution or for a voice in economic decision making that could affect the environment. The anti-globalization protestors focus their attention on some of the same shortcomings that exist at the global level that nation states have been accused of in the past. What does globalization mean for those whose voice is not easily heard? What does globalization mean for those who cannot talk—other species or future generations? These protest movements are focusing international attention on some of the same kinds of concerns regarding global institutions as they have risen in the past in relation to national institutions.

12.8 ALTERNATIVES

The anti globalization movements have not only been blaming the policy makers, market promoters but also have been suggesting alternatives for the sustainable future of the world. World Social Forum (WSF) has come up with several such alternatives against imperial globalization and neo-liberal economic policies. The World Social Forum was conceived as an international forum built around the slogan "Another World Is Possible" to contest the formulations offered by neo-liberal economic policies and capitalist-led globalisation. It seeks to provide a space for discussing alternatives, for exchanging experiences and for strengthening alliances between social movements, unions of working people and NGOs, as well as an opportunity for cross-sectoral dialogue. It says that global institutions like the IMF or the World Bank must be more transparent and citizens groups from the developing world be given

more voice in these powerful institutions. The citizen groups feel that it is not possible simply promote free trade and assume that this will benefit the environment in the long run. The short term cost to the environment might be too high. If we the people of South Asia are to continue on a path of economic and financial globalization, then it is imperative that we also develop global rules and mechanisms to enforce those rules—that will protect the environment and human health. We would also argue that we must develop systems that will lead to a fairer distribution of wealth in the world.

Well-known intellectuals like Samir Amin and others who are associated with WSF argue that there should be regional cooperation among the third world countries. At global level Asia, Africa and Latin American countries and regional level at Asia, the countries should come together. It is also necessary that Asian and South Asian countries join hands to counter the global forces. This type of formation of regional or sub regional cooperative endeavours is indeed imperative when resources are shared by the concerned countries and more so, when opportunities for accumulating common benefits are in place. While we should not ignore the possibilities of benefit from such cooperation, we must also ensure that these endeavours are based on natural concerns and share due advantages for each and every participating country. For accelerated economic development, sub-regional efforts should encompass some pragmatic steps. These include mainly simplification of tariff and taxation, and, of course, waiving of non-tariff barriers. To make sub-regional cooperation in the region comprising Bangladesh, India, Nepal and Bhutan meaningful, a wide array of current perspectives have to be taken into account. There are good possibilities for developing a workable economic interaction in the region, which can ensure a massive uplift of the socio-economic facade of the teeming millions here. But these possibilities are being overshadowed by huge trade imbalances between the countries in the region.

To boost sub-regional economic cooperation in trade, the first and foremost thrust has to be given to the development of the entire network of infrastructural facilities, which mainly entail transportation, telecommunication and banking. The physical constraints existing in missing linkages in road and railway network will have to be overcome. Then comes the transit facilities which have to be drawn and respected in governance of an individual country's economic sovereignty.

12.9 SUMMING UP

Globalization has many dimensions. It appears most positive and works very negatively on poor. We have to consider globalization as a process that will continue, and is in many ways inevitable. At the same time it should not be taken for granted and one should strive to understand it and consider its implications. IMF, World Bank, WTO and other Multi National Companies are promoting Globalization and especially these institutions are focusing on Asian countries.

The implications of Globalization on environment are quite dangerous and hampering the sustainable future of the people. More particularly after liberalization governments are encouraging MNCs and foreign companies to invest in their respective countries, without considering the ecological damages and environmental problems. The cases like permitting seed companies in India, inviting foreign firms to construct mega projects like Nepal's Enron and privatizing mining in massive scale are the best example of misusing the resources. The foreign mega companies investing huge money are working for only their profits and using Asian and other such countries as dumping yards for their wastage.

But across the globe people are rallying against globalization and privatization of public resources and opposing the designs of global market promoters with one voice. Every time whenever the promoters of globalization and partners of global trade organise their meetings to take important decisions on global trade policy formulation, millions of people are gathering to register protest and opposing the process

People are looking at regional and sub regional formations to protect not only the economic Sovereignty but also environmental sustainability.

12.10 MODEL EXAMINATION QUESTIONS

1. Define the concept of globalization and discuss its advantages?
2. Examine the experiences of various developing countries under neo-liberal economic reforms.
3. What is the impact of globalisation on South Asian countries?
4. Write about the people's resistance against globalisation?

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