Lesson Plan for Unit 3

Objective:

The objective of this unit is to deal with the meaning of the term ecology, the different ecological issues and the formation of different international laws to deal with the ecological problems. The evolution of international laws dealing with the environmental problems have been dealt starting from the 1930s till 2020 specifically dealing with the important landmark agreements like the Stockholm agreement of 1972, the Rio de Jeneiro conference of 1992, the Montreal protocol and the Paris agreement.

Meaning of Ecology and the related Ecological issues:

The term ecology refers to the branch of biology which deals with the relations between organism and their environment. The application of the term ecology to humans takes it beyond the exclusive realm of Biology since the relation between humans and their environment is meditated by social and technological factors whose study is not limited to Science. A problem is ecological if it arises as a practical consequence of man's dealing with nature. Hence some scholars don't differentiate between ecological problems and environmental problems.

Environmental issues are harmful aspects of human activity on the bio-physical environment. Air pollution, water pollution, natural environment pollution, garbage pollution etc. are some of the major environmental issues that are causing immense concern. To tackle these ecological issues, protecting the environment is vital for which various laws both national and international is required so that humans do not misuse the resources any longer.

Evolution of international environmental laws

Over the last hundred years, international environmental law has evolved rapidly as environmental risks have become more apparent and their assessment and management more complex. During the 1930s and 1940s countries concluded several agreements aimed at protecting flora and fauna in specific regions namely the western hemisphere and Africa. They also negotiated agreements concerned with marine fisheries and concluded the landmark international convention for the regulation of whaling.

In the period between 1950s and 1970s states focussed on two environmental problems; marine pollution from oil and damage from civilian use of nuclear energy and negotiated several agreements. States concluded an African Convention on the Conservation of Nature and Natural Resources in 1968 and the Ramsar Convention on Wetlands in 1971. However during these early years in international environmental law there was little development of international environmental rules or principles. Two famous arbitration took place; the trial Smelter Arbitration between Canada and United States and Lac Lanoux Arbitration between France and Spain. The former dealt with the obligation not to cause trans-boundary harm and the latter with the procedural obligations of prior notification, consultation and negotiations. These decisions have been cited repeatedly in later writings on international environmental law, in part because few other relevant decisions exist today during this period.

The year 1972 was historic. The United Nations Conference on the Human Environment held in Stockholm in 1972 was the first international intergovernmental conference to focus on environmental problems. The central issue discussed in the agreement was the need to address the potential conflict between economic development and environment protection. Developing countries were especially concerned that an international effort to protect the environment would come at the expense of their own development.

The conference resulted in the adoption of UN Stockholm Declaration on the Human Environment which later helped in the development of principles of international law. The conference also established the first international intergovernmental organization focussed on environmental protection; the United Nations Environment Programme (UNEP) in Nairobi, Kenya.

From 1972 to 1992 the scope of agreements expanded from controlling trans-boundary pollution to ones that addressed the global pollution problems such as depletion of ozone layers. Protection of environment during warfare also emerged as an important subject of international law like the Convention on the Prohibition of Military or any other Hostile Use of Environmental Modification Techniques.

Scientific uncertainties during this period were not reflected in our understanding of environmental issues but agreements negotiated after 1970s increasingly tried to do so. Some of the agreements during this period were directed to conserving ecosystems example 1987s Protocol to address the groundwater pollution and atmospheric transport of pollutants as issues central to protecting the Great Lakes Basin ecosystem.

In June 1992, countries met in Rio de Jeneiro, Brazil which became an important milestone in the development of international environmental law and policy. The World Commission on Environment and Development (also called Brundtland Commission) created by the United Nations General Assembly prepared a report for the Rio conference, 'Our Common Future' which made the concept of Sustainable Development the leitmotif of environmental policy.

The Rio Conference produced four important documents for international environmental law:

- Rio declaration on Environment and Development
- > UN Framework Convention on Climate Change (UNFCCC)
- The convention on Biodiversity
- > Agenda 21 which set forth a comprehensive list of actions that states were to take

The conference also adopted a 'Non-legally Binding Authoritative Statement of Principles for a global consensus on the Management, Conservation and Sustainable Development of all types of forests and led to the subsequent negotiation of a convention on Desertification.

While governments were the formal actors in reaching agreements on these measures, the Rio Conference is specifically noteworthy for the roles that non-governmental organizations and the business sector played. The result bore fruit when 10 years later at the Johannesburg World Summit on Sustainable Development on public private partnership to address environment and development problems took shape.

The Years since Rio have witnessed major developments in international environmental law and policy. International inter-governmental organizations, civil society and industry as well as other groups have become more important participants. International environmental law has developed close links to trade, human rights and national security.

Principles of UNFCCC:

1992 Rio Earth Summit adopted a series of international environmental agreements including UNFCCC which was later ratified by US Senate and has since been embraced by virtually every nation on earth. The UNFCCC sets a long term objective of avoiding dangerous human interference with the climate change. Towards that end the agreement:

- > Commits all nations to take steps to mitigate greenhouse gas emissions
- Establishes the principle of 'common but differentiated responsibilities and respective capabilities (CDBRRC) recognising that the countries vary in their contributions to climate and capacities to address it so their obligations will likewise vary
- Commit developed countries to assist developing countries in reducing emissions and coping with climate impacts

Governed by the Conference of Parties (COP) which meets annually, UNFCCC serves as the foundation of an evolving global climate effort. COP annual meet in 1995 decided to establish binding targets and timetables for reducing developed country emissions but no new commitments for developing countries (in the non-binding Byrd-Hagel Resolution, the US Senate rejected this premise saying the agreement should also include new greenhouse gas limits for developing countries).

Kyoto Protocol

COP meet of 1997 adopted the Kyoto Protocol which incorporated a series of 'flexible or market based' mechanisms enabling developed countries to use different forms of emissions trading to achieve their targets more cost-effectively. President Bush refused to ratify it but other countries proceeded to ratify it and it came into force in 2005. Its initial emission targets however extended only through 2012 and when it came to negotiate a second round through 2020, several other developed countries refused to go along. The Kyoto protocol technically remains in force but its targets cover only a small fraction of global emissions and there is no expectation of future targets. One element of the protocol that may continue is the Clean Development Mechanism.

Copenhagen and Cancun agreements:

As it became clear that the Kyoto protocol was faltering, UNFCCC parties struggled to develop an alternative framework that would facilitate stronger action by all countries both developed and developing. The 2007 Bali Action Plan launched talks aimed at a new agreement providing for the UNFCCC's full, effective and sustained implementation. The agreement was to be adopted at the COP meet in 2009 in Copenhagen. More than 100 world leaders converged at Copenhagen for the summit but negotiators were unable to overcome their differences. President Obama and other leaders stepped into quickly hamming out the Copenhagen accord but a handful of countries objected keeping it from being formally adopted by the COP.

The Copenhagen accord while only a political agreement reflected significant progress on several fronts. It sets a goal of limiting global temperature increase to 2 degree Celsius, called on all countries to put forward mitigation pledge, established broad terms for the reporting and verification of countries' actions, set a goal mobilizing hundred billion a year by 2020 in public and private finance for developing countries and called for the establishment for a new Green Climate Fund.

In the next annual COP meet of 2010 at Cancun, the parties adopted Cancun agreement effectively formalizing essential elements of the Copenhagen accord under UNFCCC. The Cancun agreements were regarded as an interim arrangement through 2020 and the parties left the door open to further negotiations towards a legally binding successor to the Kyoto protocol.

Paris agreement

In December, 2015 world leaders adopted the landmark Paris agreement. The agreement represents a hybrid of the 'top down' Kyoto approach and the 'bottom up' approach of the Copenhagen and Cancun agreements. It establishes common binding procedural commitments for all countries but leaves to each to decide its non-binding nationally determined contributions (NDC). The agreement establishes an enhanced transparency framework to track countries' actions and calls on countries to strengthen their NDC's every five years.

Conclusion

Thus an overview of the concept of ecology and the problems associated with it along with the evolution of international environmental laws makes it ample clear that states are reluctant to bear the costs of environment degradation though all want the exclusive right to natural resources accruing from it. The period from 1930s to 1970s were marked by complete absence of international intergovernmental laws on environment and the only exceptions were efforts by individual states to curb pollution in the form of bilateral or multilateral arrangements. The breakthrough was the Stockholm agreement of 1972 where for the first time the countries of the world tried to achieve economic development keeping in mind its impact on environment. The Stockholm agreement paved the way for the Rio conference which mooted the idea of sustainable development and the realization that mother earth belongs to all (the issue of Global Commons).

Thus the evolution of international agreements related to environment brought one to the debate over global commons. The resources of the earth fall within the territorial jurisdiction of different countries which they regulate through various bilateral and multilateral agreements. However when state's action causes damage to the same environment they shy away from taking responsibilities. The earth is a common property which needs to be protected through common efforts. However states are at different levels of development and so the need for differentiated obligations was framed (the principles arrived at Rio agreement which were subsequently raised in Paris agreement) which till date has not been agreed upon by the developed and developing countries unanimously. Till the developing and developed countries arrive at consensus to reduce environment degradation one needs to work within the existing international rules and regulations and take national measures to combat environmental degradation.