CHAPTER - V
EVALUATION OF LEGAL AND INSTITUTIONAL MECHANISMS
I. INTRODUCTION

In this world of interdependence, the global system consists of complex linkages not only between states, but also between various political, economic or environmental components of the system. Such economic and ecological interdependence diminishes the ability of states to deal unilaterally with the burgeoning environmental issues on a national scale. Only through co-operative action states shall be in position to resolve or avoid the problems. Yet states, both developed and developing countries, are reluctant to cede sovereignty as it is likely to curtail their freedom of action as nations. Moreover, politics and divergence of individual national priorities provide a great obstacle in the international community efforts to achieve environmental co-operation. It is in this context that it becomes imperative to suggest the legal and institutional responses that address some of the limitations on global environmental co-operation and protection.

II. GLOBAL POLITICS IN THE CONTEXT OF NORTH-SOUTH DIVIDE

The conflict of interests and differing perspectives among different countries had caused a lot of tension in the arena of global environmental negotiations. The question of primacy between economic development and environmental protection has brought into focus the sharp differences between the North and the South in recent negotiations for International Environmental Agreements (IEAs). There is a great disparity in terms of income and consumption pattern between the North and the South. For instance, the USA, which has only 5 per cent of the world population consumes 25 per cent of the global energy, accounts for 22 per cent of all carbon dioxide (CO$_2$) produced and possesses a 25 per cent share of the global gross national product (GNP). On the other hand, India with 16 per cent of the world population consumes 3 per cent of the global
energy, accounts for 3 per cent of all CO₂ produced and possesses a paltry 1 per cent share of the global GNP.¹ Such stark inequalities and pervasive poverty in the developing world often shape the South’s policy responses to global environmental issues. The unsuccessful attempt of the South to transform the world economic order (i.e. to bring about a New International Economic Order) in the 1970s, the unfavourable trade barriers erected by the industrialised countries against imports of manufactured and processed goods from the developing countries in the 1990s, and Northern protectionism and subsidies to agricultural exporters of the North have been a cause of great concern to developing countries.²

For the developing countries, amelioration of poverty and underdevelopment is the primary concern. They are reluctant to take up environmental conservation measures for fear of the high costs involved. There is also a general mistrust of the environmental policies of the developed countries. Some developing countries even distrusted the 1972 Stockholm Conference on Human Environment (the 1972 Stockholm Conference) as an attempt to "ratify and even enhance existing unequal economic relations and technical dependence, miring them in poverty forever".³ For them, issues relating to ozone depletion, climate change, loss of biodiversity and conservation of endangered species are Northern agenda and a means to retain control over resources and technology or even gain control over resources located in

developing countries. One developing country diplomat even deplored the intention of "some countries" and remarked that the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer (the 1987 Montreal Protocol) was a "pretext to place new obstacles in the way to efforts by developing countries to develop their economies". Similar sentiments were also expressed during the negotiations leading to the adoption of the 1992 Climate Change Convention.

The developing countries took strong exception to any suggestions of increased environmental conditionalities on economic assistance by the developed countries or the restriction of their exports on environmental grounds. They are quite categorical in insisting that the industrialised countries, because of their historical dominance in the production and consumption of chlorofluorocarbons (CFCs) and burning of fossil fuels, are to be blamed for the thinning of the ozone layer and warming of the fragile planet. Moreover, they find the excessive consumption patterns of the developed countries deplorable. According to a report prepared for the UN Conference Environment and Development (the 1992 UNCED), the number of cars in developed countries is 28 times more than that of developing countries. The consumption of paper products per capita is also 13 times more. The annual consumption of petrol per person in the US and India is in the ratio of 45:1.

Equipped with such comparisons, the developing countries (the South) have, since early 1990s, begun to demand for more share of the "environmental space" (i.e.

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more share in the use of natural resources and environmental services) to ameliorate their sufferings. They also started insisting publicly that the developed countries should bear the financial burden of measures to reverse environmental damage and pay for the conservation measures that the developing countries are asked to undertake locally. They view this as an opportunity for the donor countries to rectify the past mistakes of colonialism.\textsuperscript{7} Along with the demand for funds, there is also a demand for transfer of technology on confessional terms. Thus, the recent negotiations for IEAs have witnessed an increasing demand for "new and additional" funding and transfer of technological know how to developing countries as an incentive for their participation and implementation of their respective international environmental commitments (IEC).

Another contentious issue during the recent environmental regimes for ozone depletion and climate change is about the inequality currently existing between the North and the South in the governing structures of international financial organisations such as the World Bank and the International Monetary Fund (IMF). The weighted voting system of such organisations gives undue advantage to a few donor countries to veto the wishes of the rest of the world. The developing countries demanded a democratic structure and an equal say in the governance of such institutions. Thus, they resorted to some tough bargaining before finally accepting Global Environmental Facility (GEF) as the interim funding mechanism for the 1992 Climate Change Convention. Later it led to the restructuring of the GEF itself in 1994.

There is, however, a gradual change in the adversarial posture of the developed countries vis-a-vis the developing countries with regard to recent environmental

negotiations. Many developed countries are beginning to accept that much of the global environmental degradation is caused by the wasteful consumption patterns in the developed countries. They are now ready to make concessions regarding finance, technology transfer, developing country commitments to environmental regimes etc. They also recognise the need for assigning a different level of responsibility to developing countries to reverse the process of environmental degradation. At the same time, they emphasise the commonality of interests of all countries to solve the global environmental problems.

There is also a growing recognition of the need for the participation of developing countries in environmental protection regimes. While the contribution of developing countries to global environmental problems is not substantial as compared to that of the developed countries, it is projected to increase tremendously in the coming years because of their endeavour to raise the standard of living by providing refrigerators, air conditioning and other amenities to the citizens. For instance, China and India together account for about 40 per cent of the World's population and they consume small amounts of CFCs at the time of negotiation for the 1987 Montreal Protocol. Yet their plans for development include dramatic increase in production of consumer goods, which may contain CFCs.

In order to persuade the developing countries to sign global environmental agreements, the developed countries are now willing to grant specific concessions them. Thus, apart from granting the developing countries a 10-year grace period to comply with the control measures of ozone depleting substances (ODSs), the 1987 Montreal Protocol invites Parties to undertake to facilitate access by developing countries to environmentally safe alternative substances and technology as well as to
provide them with financial assistance for the use of alternative technology and for substitute products. Further, at the 1990 London Meeting of Parties to the Protocol the developed countries agreed to meet "all agreed incremental costs" incurred by developing countries in complying with the Protocol. A Multilateral Fund was also established for the purpose. The agreement further provides for expeditious transfer of "the best available environmentally safe substitutes and related technology" to developing countries. Similar commitments are also given by the developed countries in the climate change agreements concluded at Rio de Janeiro in 1992 and at Kyoto in 1997.

However, it will not be wise to conclude that recent co-operation between the North and the South is a "win-win" situation for both. There are still problem areas which are to be sorted out. One such difficulty, in the context of the ozone regime, is how to fulfil the mandate to underwrite the "agreed incremental costs" of converting to ODS substitutes. Another is the reluctant donor countries to provide funds to those developing countries that are expanding the production of ODSs for domestic use during the 10-year grace period. Yet another problem in the North-South relation is the fear of some developing countries that old environmentally unsound technologies will be dumped on them as new clean technologies take off in the developed countries.

Therefore, it will be wise for both the North and South to shed some of their

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8 The 1987 Montreal Protocol on Substances that Deplete the Ozone Layer, Article 5(2) and (3) (hereinafter, the 1987 Montreal Protocol).
9 The 1990 London Revisions to the Montreal Protocol, Article 10 (hereinafter, the 1990 London Revision).
10 Ibid, Article 10a.
11 The 1992 Framework Convention on Climate Change, Article 4(3) (hereinafter, the 1992 Climate Change Convention) and the 1997 Kyoto Protocol to the UN Framework Convention on Climate Change, Article 11 (hereinafter, the 1997 Kyoto Protocol).
inhibitions and strive for greater financial and technological co-operation which have already begun, though in a limited way. It will be particularly important for the developing countries to seize the "window of opportunity" provided in the recent global environmental regimes and remodel their negotiating strategies for the good of humanity. One such strategy is provided by Adil Najam and he has a 8-point strategy for the developing countries,\(^{13}\) which is as follows:

i) Rather than invoking the North’s generosity or guilt of past wrong the South’s interests will be better served by invoking the interests of the North.

ii) Redefine the skewed balance of economic political and technological power. The South should utilise its power of numbers and power of being a victim of environmental crisis to explore innovative solution to global environmental problems.

iii) Rather than blaming the environmental offender, focus should be on issues. The fight should not be against the Bretton Woods institutions but for accountability, transparency and democracy in these institutions; not against American lifestyle, but for more conserving pattern of consumption; and not against the wealth of the North, but for poverty eradication in the South.

iv) Replace the present international environmental agenda, which the South feels is a pro-North agenda, by one which includes the interests of both the South and the North.

v) Reorganise the South’s negotiation strategy to pool the scarce resources of time, money and human capital for maximum effectiveness.

vi) Develop a strategy where South-South negotiations is a necessary part of the North-North Negotiations.

vii) The South should set its house in order first. It should begin by implementing at home the same systematic changes it has been demanding internationally.

viii) Strive for the planet’s environmental gains, rather than trying to extract victory from the other party. It is advisable for the South to develop and adopt a strategy that seeks blocks of small achievements which cummulate into a great environmental success.

III. LEGAL HURDLES

In recent times there has been an increasing recognition of the importance of the "soft law", instruments. What the term "soft law" describes are numerous norms which may not be executory per se, but such norms are generally observed by states. A norm is generally considered to be soft when it does not form part of a binding regime, whether of treaty or customary law. Even when it is contained in a binding regime, it will still be considered soft provided it is expressed only in an obligatory language. However, some commentators are of the view that the fact that such soft norms are generally observed and are expected to be so, gives them a somewhat similar status as those expressed in hard law which of course is also not observed very strictly.

Many writers underestimate the effectiveness of soft law. Cassese refers to soft law as "... general declarations, resolutions, acts, agreements and rules so loose in content to prove virtually ineffective". Prosper Weil contends that the proliferation of soft law does not help the international normative system, whereas hard law consists of norms creating precise legal rights and obligations. Moreover, in a continuum ranging from hard to soft law with many gradations, the soft law end is characterised by "norms whose substance is so vague, so un compelling that A's obligations and B's

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14 One important reasons for the popularity of such soft norms of states is the expansion of a number of interntaional bodies which lack the power to adopt mandatory texts but can easily make recommendations. See Alexander Kiss, "The Implications of Global Change for the International Legal System" in E.B. Weiss, ed., Environmental Change and International Law: New Challenges and Dimension (Tokyo: UN University Press, 1992), p.319.
rights all but elude the mind".\textsuperscript{18} Gruchalla-Wesierski has described soft law as no more than "a convenient shorthand to include vague legal norms".\textsuperscript{19}

Thus, if soft law is not as authoritative and prescriptive as hard law, what is the legal status of soft law? Is it really law proper, creating binding obligations upon states? A single uniform response to these questions is difficult as soft law instruments are varied. While some such instruments have a great degree specificity, others are rather abstract. Soft law instruments range from treaties having only soft obligations (legal soft law), to non-binding or voluntary resolutions and code of conduct formulated and accepted by international and regional organisation (non-legal soft law), to statments prepared by individuals, but which purport to lay down international principles.\textsuperscript{20} There are claims that some of the non-legal forms of soft law has hardened into hard law and have acquired legal force of a superior nature, i.e. a norm of \textit{jus cogens}.\textsuperscript{21} According to R.R.Baxter, several international agreements incorporate "norms of various degrees of cogency, persuasiveness and consensus" which do not create enforceable rights and duties upon states. He describes such norms as soft law. He further identifies three types of norms as having essentially soft law characteristics. They are:

(i) \textit{pacta de contrahendo}, provisions of a treaty which anticipate negotiations looking to the conclusion of further, more detailed agreements,

(ii) non-self executing provisions which require further, more detailed treaties to

\textsuperscript{21} Ibid, p.856.
give effect to the principal treaty, and

(iii) hortatory provisions which merely call for co-operation by states to achieve certain purposes.

As regards the enforceability of a legal norm, Baxter has argued that on many occasions states prepare "instruments which deliberately do not create legal obligations but which are intended to create pressure and to influence the conduct of states and to set the development of international law in new courses". Though there may be no direct legal sanction for non-compliance, incidental effect may include diplomatic and moral pressure, which in practice is a major enforcement for all international law.

In the field of international environmental lawmaking, soft law has distinctive advantages. It is more or less, free from the shortcomings associated with a treaty or custom. Multilateral treaties take time to conclude and slower still to come into force. The provisions of these treaties are binding only to the parties to them. There are also problems of obtaining consent in the light of the multiplicity of independent states. As stated above, an international custom requires sufficient evidence of state practice and opinio juris. In today’s heterogeneous society it is difficult to identify not only the practice of states but opinio juris when there are many ways of expressing it. Moreover, it will enable states to formulate obligations in a precise and restrictive form that would not be acceptable in a binding treaty. Given the right conditions, soft law has the potential to emerge as customary rule of international law. It comes in handy where textual inconsistencies between treaties and their interpretation become problematic. There is another line of thinking which claims that between the two

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extremities of those states which do not favour any regulatory instrument and those which favour a strong treaty, soft law instruments provide a politically convenient compromise as they leave wide discretion to participating states. Thus, a soft law form is preferable to having either a treaty with vague provisions or no outcome at all to negotiations.24

(i) Framework Convention-Protocol Approach

In a fast and rapidly changing society the law cannot remain static. The traditional treaty-based approach to international environmental standard setting has to give way to new approaches which can effectively deal with the increasing demands of global environmental problems. The convention protocol approach is one such approach which finds favour with an increasing number of states. As mentioned earlier, under this approach the general obligations of the contracting parties are first set out in the framework of convention and protocols are subsequently formulated on such general obligations.

The convention-protocol approach has distinctive advantages over the other methods of multilateral law-making. It can induce a would-be free rider state to enter a relatively cheap agreement (i.e. the Convention) as a prelude to more costly ones (i.e. the Protocols). It also facilitates states to negotiate specific agreements in the light of new scientific evidence.25 It encourages wider participation and co-operation among states in environmental negotiations by providing breathing space between the framework convention and subsequent protocols. The time gap can be utilised for

wooning adamant states to join the negotiations as well as for working out detailed and
tougher obligations in subsequent agreements.

The convention-protocol approach is not free from shortcomings or
weaknesses.\textsuperscript{26} First, the claim that states can reach agreements quickly under this
approach is deceptive. For any environmental regulation to come into force and acquire
legally binding, at least two rounds of ratifications, one for the Convention and another
for the Protocol, are necessary, and the relevant time-frame begins with the
negotiations for the Convention and ends when the Protocol enters into force.
However, to overcome this, the 1987 Montreal Protocol provides for making decisions
in the absence of unanimity and avoiding possible delays in time. In case no consensus
is reached, a two-thirds majority of Parties present and voting can make adjustments
to the list of controlled substances.\textsuperscript{27} The decisions then reached are binding on all
the parties.\textsuperscript{28} It also leaves no scope for any reservation\textsuperscript{29} unless the party concerned
withdraws from the entire Protocol.\textsuperscript{30} The 1973 CITES\textsuperscript{31} also contains similar
provisions to avoid delays. Secondly, it may not solve the “hold-out” problems. Many
states join a Convention to reap domestic political benefits, without everjoining a
Protocol or contributing to the costs actual of regulation. For instance the effectiveness
of CITES is restrained because of a reservation clause whereby a state can exempt
itself from any change in the lists of protested species.\textsuperscript{32} The 1987 Montreal Protocol,

\begin{itemize}
\item \textsuperscript{26} Ibid, pp.1542-50.
\item \textsuperscript{27} The 1987 Montreal Protocol, Article 2(a)(c).
\item \textsuperscript{28} Ibid., Article 2(a)(d).
\item \textsuperscript{29} Ibid., Article 18.
\item \textsuperscript{30} Ibid., Article 19.
\item \textsuperscript{31} The 1973 Convention on International Trade in Endangered Species of Wild Flora and Fauna,
27 UST 110-12, TIAS No.824924-26, 993 UNTS 254-55, Article XV (hereinafter, CITES).
\item \textsuperscript{32} Ibid, Article XXIII.
\end{itemize}
however, takes care of this problem by providing a disincentive structure for non-Parties.\textsuperscript{33} Thirdly, in some cases the convention-protocol approach may even accentuate hold-out problems because of the exclusion of issue linkage. It may be easier for states to reach an agreement on one issue because of a compromise on another issue.

However, it is not practically feasible to generalise the possibility of the successful application of this approach because each environmental issue is unique in itself. For future policy-making, what is needed is a strategy which incorporates the advantages of the convention-protocol approach, but is sensitive to the problems that it fails to address. Once such option is to augment the convention-protocol approach with a supplementary regime which calls for states to develop domestic environmental regulation.\textsuperscript{34}

(ii) Consent of States

One issue which requires a closer look is the unwillingness of states to yield up their sovereignty for the greater common good and the demand for reciprocal concession from their bargaining partners. In spite of the fears of impending global environmental catastrophe, states appear to follow the traditional process of law-making where they can still exercise their sovereign right to withhold their consent to be bound. Proponents of this theory find support from the fact that "the sovereignty and equality of states represent the basic constitutional doctrine of the law of nations".\textsuperscript{35} Thus, at the core of the whole issue is the traditional conceptions of consent and reciprocity

Brownlie pointed out that:

\textsuperscript{33} The 1987 Montreal Protocol, Article 4.
\textsuperscript{34} Developments, n.25, pp.1546-50.
\textsuperscript{35} Brownlie, n.16, p.287.
The jurisdiction of international tribunals depend on the consent of parties; membership of international organisation is not obligatory; and the powers of the organs of such organisations to determine their own competence, to take decisions by majority vote, and to enforce decisions, depend on the consent of member states.36

The requirement of the rule of consent, and in particular the rule of unanimous consent, is evident in many multilateral treaties. For instance, it may be provided in a treaty that "the consent of a state to be bound by a treaty may be express by signature, exchange of instruments constituting a treaty, ratification, acceptance, approval or accession, or by any other means if so agreed." There may also be other provisions in the said Convention spelling out when consent is present or when it can be inferred. Generally no Convention indicates anywhere that state can be bound without its consent. This treaty practice has been emphatically endorsed by Lord McNair as the "underlying principle that no state can be bound by any treaty provision unless it has given its consent, and that principle is applicable equally to all types of treaties".37

The complexity of the international negotiating process, caused partially by the growing number of sovereign states and the concretisation of scientific evidences, brought some sense on the international community and states have begun to recognise that the strict formal rules tend to lag behind the contemporary reality. Negotiation by consensus is found to be slow, time-consuming, cumbersome and generate a weak "least-common-denominator agreements." Furthermore, strict reciprocity may prove inequitable or unfeasible because states at different stages of economic development are unwilling to share the same burden for environmental damage. The urgency as well as global nature of many environmental threats cannot

wait for states to agree unanimously on a regulatory mechanism. Moreover, the non-cooperation of a single state may jeopardise the effects of many states to come to an agreement.

Realising such difficulties, states have begun to make minor, piecemeal concessions of sovereignty. Many multilateral treaties are seen to contain provisions which provide for modifications by majority vote. One method of such modification is commonly evident in many specialised agencies of the UN like the International Labour Organisation, the International Maritime Organisation, the World Health Organisation etc. For creating a legal norm, states agree in advance on procedure, which does not require unanimous consent in respect of certain rules or in certain circumstances. The norms created by such a procedure bind nations that did not consent because they were created by agreed procedures. For example, the binding norms for non-state aircraft over the high seas are made by a two-third majority of the members of the International Civil Aviation Organisation Council. Another increasingly used procedure is the rule of “tacit consent” where rules are adopted on the condition that certain percentage of the membership approves them to be binding norms.38

The avoidance of the rule of unanimous consent has found its applicability in some of the global environmental treaties. It is used in the 1987 Montreal Protocol. Article 6 of the Protocol provides for assessment and review, beginning in 1990 and at least every four years thereafter, of the control measures required for ozone depleting substances mentioned in the Annex A to the Protocol.

The scope, amount and timing of any such adjustments and reductions are

38 Palmer, n.24, p.273.
provided in Article 2(9)(a)(ii). As regards such adjustments and reductions, it is provided that:

In taking such decision, the Parties shall make every effort to reach agreement by consensus. If all efforts at consensus have been exhausted, and no agreement reached, such decision shall, as a last resort, be adopted by a two-thirds majority vote of the Parties present and voting representing at least fifty per cent of the total consumption of the controlled substances of the Parties.39

A decision taken on the basis of the above procedure is binding on all Parties.40 The departure from the rule of unanimous consent was fine tuned in the 1990 London Revision to the Montreal Protocol. The said Revision substituted the last sixteen words of the above provision by the following words: “a majority of the Parties operating under paragraph I of the Article 5 present and voting and a majority of the Parties not so operating present and voting”.41 Thus, apart from a two-thirds majority, a simple majority of each of the developed and developing country groups is required for the assessment and review of the control measures relating to the ozone depleting substances.

As regards the adoption and entry into force of amendment to any Protocol to the 1985 Vienna Convention, the Convention provides for ratification by two-thirds of the Parties to the Protocol concerned as a last resort. In order to expedite the development of the régime, the said provision has been modified so that amendment can be effected with the ratification by only twenty Parties to the Protocol.42 Thus, the ozone example demonstrates that while some degree of sovereignty can be ceded by consenting to certain procedural obligations in an agreement, it is difficult to avoid

40 Ibid, Article 2(a)(d).
41 The 1990 London Revision, Annex II Sec.H.
the rule of consent altogether.

Similar procedures are provided for effecting legally binding changes to the 1992 Framework Convention on Climatic Change (the 1992 Climatic Change Convention). The amendment to the Convention as well as the amendment to the annexes to the Convention can be adopted by consensus or should the Parties fail to agree, by three-fourth majority of the Parties present and voting. The same procedure is followed for the amendment to the 1997 Kyoto Protocol to the 1992 Climatic Change Convention as well as the amendment of the annexes to the Protocol. Thus, there is a growing level of recognition by states of the need for decision-making procedure which, on occasion, may not require consensus to create legally binding agreements.

IV. FUNDING MECHANISM AND TRANSFER OF TECHNOLOGY

The issues of providing finance and transferring technological know-how to developing countries to enable them to fulfil their commitments under multilateral agreements has been contentious between the North and the South for a long time. The developing countries have held the developed countries responsible for many of the ills of the environment. As a result, they demand financial and technical assistance as price for forgoing their economic development. Eager to ensure the participation of developing countries in multilateral agreements, the developed countries are ready to concede some of the demands. In fact they have agreed to meet the incremental costs incurred by developing countries in fulfilling their commitments under the agreements.

The inclusion of a provision on financial mechanism in the 1990 London

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43 The 1992 Climate Change Convention, Article 15(93) and 16(2).
44 The 1997 Kyoto Protocol, Article 19(3) and 20(4) (hereinafter the 1997 Kyoto Protocol).
Revision marked a turning point in the further development and expansion of the rules relating financial resources and technology transfer. These principles are further elaborated and concretised at the 1992 United Nations Conference on Environment and Development (UNCED) held at Rio de Janeiro. Agenda 21, which lays down the broad goals of the UNCED, defines the main sources of funding to include bilateral overseas development assistance (ODA), funds from multilateral development banks, regional and sub regional banks, the specialised environmental funds, bilateral assistance programmes, debt relief, private funding, direct foreign investment, innovative financing etc. Some of these funding mechanisms are briefly discussed below:

(i) Overseas Development Assistance

At UNCED the developed countries reaffirmed their commitments to reach the accepted UN target of 0.7 per cent of the gross national product for ODA and where the commitments fell short of the target, they agreed to continue their efforts to achieve the target as soon as possible. As a matter of domestic policy, many developed countries have committed to the allocation of a portion of ODA to environmental activities while at the international level they have not made any such commitments. On many occasions the grant of ODA is subject to obligations like the compliance of certain basic environmental standards and the conduct of environmental impact assessment. For instance, the OECD Council recommended the conduct of an early environmental assessment for development assistance projects and programmes which are likely to affect the environment significantly.

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45 Agenda 21, Paras 33.16, 33.17 and 33.18.
46 Ibid, Para 33.15.
(ii) Multilateral Development Banks

The World Bank group has been criticised for resorting to environmentally unsound lending activities. Large-scale projects like those relating to energy, transport and construction of dams have often caused significant environmental damage. Small-scale projects like those relating to agriculture and transportation are criticised for failing to assess long term environmental costs and also for causing unsustainable development in the developing countries. In response to such criticisms, the World Bank group along with the European Community (EC), the Organisation of American States (OAS), the UNEP and the United Nations Development Programme (UNDP) adopted a Declaration of Environmental Policies and Procedures Relating to Economic Development.48 Under the Declaration, a procedure for the systematic examination of all development activities under consideration for financing was agreed to be instituted. In the late 1980s and early 1990s, the World Bank has started restructuring its programmes to give them an environmental touch. Such restructuring includes the creation of an Environment Department and adoption of many Operational Directives relating to involuntary resettlement, 49 the involvement of NGOs in World Bank-supported activities, 50 environmental impact assessment, 51 National Environmental Action Plans, 52 agricultural paste management etc. 53

Some of the regional development banks are also crucial for financing environmentally sound projects in many developing countries. The Environment Policy

48 19 International Legal Materials (ILM)(1980).
Paper of the African Development Bank provides guidelines for environment impact assessment of project and non-project loans. The Inter-American Development Bank has an Environmental Protection Division. The Division supervises the activities of the Bank so that its operations comply with the environmental legislation of the recipient countries and its own environmental impact assessment requirements. The Asian Development Bank has also adopted its own guidelines for integrating environmental concerns into its loan projects. The European Bank for Reconstruction and Development is required by its Constitution to "promote in the full range of its activities environmentally sound and sustainable development". Similarly, the European Investment Bank has spent a lot of money on environmental projects or on the environmental component of projects.

(iii) Environment Funds

Though the establishment of environmental funds is not a new development, the Multilateral Fund (for Ozone Regime) and the Global Environmental Facility (GEF) highlight the formal financial mechanisms through which developing countries can seek funds for fulfilling their commitments under multilateral agreements. The Multilateral Fund established by the 1990 London Revision of the Montreal Protocol is to provide financial and technical co-operation, including the transfer of technologies, to developing country parties so that they are able to comply with the control measures.

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54 The European Bank for Reconstruction and Development Constitution, Article 2 (I)(VII)
56 There are many environmental funds established since 1972. Mention may be made of the UNEP Environment Fund established in 1972 by the UN General Assembly resolution 2997, the World Heritage Fund established in 1972 by the 1972 Convention for the Protection of the World Cultural and Natural Heritage and Wetland Conservation Fund established in 1990 by the Parties to the 1971 Ramsar Convention on Wetland of International Importance Especially as Waterfowl Habitat.
provided in the Protocol. The Fund's primary objectives are:

i) to meet, on a grant or consessional basis, the agreed incremental costs of developing country Parties;

ii) to finance cleaning house functions to assist in identifying their needs for co-operation;

iii) to facilitate technical co-operation, to distribute information and relevant materials, and to facilitate and monitor other co-operation available; and

iv) to finance the secretarial services of the Fund.\(^57\)

The GEF was established 1990 as a three-year experiment. It is to provide grants for investment projects, technical assistance and research to developing countries and to finance environmentally benign technologies.\(^58\) Originally it was designed to assist developing countries and counties with economies in transition in pursuit of global benefits in the four focal areas of biodiversity, climate change, international waters and ozone layer depletion. Land degradation was added as the fifth focal area in 1992. The pilot project which had started with a committed budget of $1.3 billion, funded has (by December 1992) more than ninety projects worth $723 million spread over Asia and the Pacific, Latin America and the Caribbean, Africa, the Arab States, and Central and Eastern Europe.\(^59\) By an Instrument for the Establishment of the Restructured GEF,\(^60\) the GEF was restructured in 1994 with a capitalised amount of $2 billion. As before, the GEF has to cater to the activities relating to the five focal areas.

Agenda 21 has conferred on the GEF a status of the financial mechanism to cover "the agreed incremental costs of relevant activities under Agenda 21" subject to

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\(^57\) The 1990 London Revision, Article 10(1), 10(2) and 10(3).

\(^58\) Resolution No.91-5 of the Executive Directors of the World Bank, November 1991.

\(^59\) Sands, n.55, p.737.

the fulfilment of certain conditions. The 1992 Climate Change Convention has also designated the GEF as the international entity entrusted with the operation of the financial mechanism referred to in Article 11 on an interim basis. in this connection, connection, the GEF has to be appropriately structured and its membership be made universal.

V. TRANSFER OF TECHNOLOGY AND TECHNICAL ASSISTANCE

Until recently, many international environmental agreements (IEAs) included only vague and general provisions relating to transfer of technology and technical assistance by developed countries to developing countries. However, there is a growing awareness of the need to ensure that financial resources are made available to meet the costs of transferring environmentally sound technologies. Many of the IEAs recognise the linkage implementation by developing country parties of their treaty commitments with the transfer of technology from developed-country parties. As such, the 1985 Vienna Convention requires the Parties to facilitate and encourage the exchange of scientific, technical, socio-economic, commercial and legal information as well as to co-operate consistent with their national laws, in promoting the development and transfer of technology and knowledge. The 1987 Montreal Protocol also requires Parties to co-operative, consistent with their national laws, in promoting research, development and exchange of information as well as to co-operate in promoting technical assistance. The 1990 London Revision provides for the Parties to take every practicable step to

61 Agena 21, para 33.16(a)(iii).
62 The 1992 Climate Change Convention, Article 11 defines a mechanism for the provision of financial resources on a grant or confessional basis, including for the transfer of technology.
63 Ibid, Article 21(3).
ensure that the best available environmentally safe substitutes and related technologies are expeditiously transferred to developing country Parties.\textsuperscript{66}

Similarly, the 1992 Climate Change Convention requires all Parties to promote and co-operate in the exchange of prevalent scientific, technological, technical, socio-economic and legal information related to the climate system and climate change.\textsuperscript{67}

To enable the developing countries to implement the provisions of the Convention, the developed country Parties and the countries whose economies are in transition are required to promote, facilitate and finance the transfer of, or access to environmentally sound technologies and know-how to other Parties, particularly the developing-country Parties.\textsuperscript{68}

Apart from some honourable exceptions, the Northern countries have not kept up their promises made at Rio to deliver new and additional resources to the developing countries, to enable them to handle their development in a more sustainable and environmentally friendly way. In fact, the total official aid in the past five years has shrunk by 20 per cent.\textsuperscript{69} Most of the developed countries have failed to achieve:

The UN target, reaffirmed by most countries at UNCED, committing 0.7 per cent of their gross national product (GNP) to official development assistance (ODA) or the UN target, as agreed, of committing 0.15 per cent of GNP as ODA to the least developed countries.\textsuperscript{70}

The average ODA as a percentage of GNP of developed countries has also experienced a downward slide from 0.34 per cent in 1992 to 0.27 per cent in 1995.\textsuperscript{71}

\textsuperscript{66} The 1990 London Revision, Article 10a.
\textsuperscript{67} The 1992 Climate Change Convention, Article 4(1)(h).
\textsuperscript{68} Ibid., Article 4(5).
\textsuperscript{70} Programmes for the Further Implementation of Agenda 21, adopted by the General Assembly of 23-27 June 1997, Para 18 (hereinafter the UNGA Programmes).
\textsuperscript{71} Ibid.
The decrease in ODA has been particularly critical for the least developed countries, as they have little access to other sources of external finance and private investment.

One encouraging aspect of financing sustainable development is the sizeable expansion of private capital flows from developed to developing countries. It is evident from the average annual private capital flow from the Organisation for Economic Co-operation and Development (OECD) countries to developing countries, which was to the tune of US $102 billion during the two-year period from 1993 to 1994 or 60 per cent of the total flows from OECD countries to developing countries. However, the poorest countries have not obtained the necessary flows of capital. Their ratio of FDI to GNP is still very poor. While the debt situation of some middle-income countries has improved, the debt burden of heavily indebted low income countries is still a major constraint to their development capabilities.

Similarly, technology transfer and technology related investment from public and private sources in developed countries have not been sufficiently directed towards developing countries and this is not in consonance with what was committed at UNCED. Further, the technology gap between the developing countries and, in particular, the least developed countries is still widening.

Therefore, any significant increase in funding to developing countries can come from reorienting the existing bilateral and multilateral ODA programmes and from adopting innovative international approaches to financing. Some suggestions for generating additional financial support to developing countries may include the

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72 Report of the UN Secretary General, Overall Progress Achieved Since the UNCED, D/C N.17/1997/2, 31 January 1997, Paras 101 and 102.
73 The UNGA Programme, Para 20.
74 Ibid. Para 21.
a) There is a need to refocus the multilateral bank programmes and bilateral assistance on environment friendly projects that are supportive of environmental regimes and sustainable development objectives.

b) Taxing international currency transactions, air travel, or the trade in arms or in fossil fuels can be a good mechanism for generating funds which the developing countries badly require.

c) Forgiving the debt obligations of the least developing countries and of lower-middle-income countries can eliminate diversion of domestic funds to environmentally unsustainable developments.

d) The developed countries should set an example for developing countries by eliminating subsidies in developed countries for use of natural resources like water and energy and for environmentally harmful activities such as using pesticides and fertilisers.

e) It will be prudent for commodity producers and consumers to negotiate for an "international commodity related environmental agreements" which call for managing of and trading in specific commodities in a sustainable way.\(^75\)

VI. JOIN IMPLEMENTATION

The 1992 Climatic Change Convention may be credited for formally introducing the concept of Joint Implementation (JI) as a means for reducing the global emission of greenhouse gases (GHGs) at the lowest possible overall costs. Simply stated, it is an arrangement between two or more states where they agree to jointly meet their environmental protection objectives in the most cost-effective manner. Apart from encompassing arrangements among states, the concept is flexible enough to include arrangements among private sector companies or between private sector companies and public sector companies.\(^76\) It can be used to address a variety of pollution problems including climate change.\(^77\)

\(^75\) Porter, n.2, pp.168-71.

\(^76\) Richard J.King, "The Law and Practice of Joint Implementation", RECIEL, vol.6, issue 1, 11997; p.62.

\(^77\) For instance, the 1994 Protocol to the convention on Long-Range Transboundary Air Pollution on Further Reduction of Sulphur Emission Provides in Article 2(7) for the signatory Parties to jointly meet their sulphur reduction targets.
The concept was viewed with some scepticism during the negotiation for the 1992 Climate Change Convention. However the process for its concretisation begun when the Annex 1 Parties agreed to adopt national policies and measures to limit their anthropogenic emission of GHGs "with the aim of returning individually or jointly to their 1990 levels" by the year 2000. Article 4(2)(a) of the said Convention further elaborated that the Annex 1 Parties may implement such policies and measures jointly with other Parties and may assist other Parties in contributing to the achievement of the objectives of the Convention.

As the wordings of the above provisions indicate, the Convention does not indicate any specific guidance on the meaning and application of JI and it is left to the Conference of the Parties (COPs) to set such rules. As a result, the COP-1 (held in Berlin in April 1995) launched a pilot phase for "activities implemented jointly" (AIJ) by replacing the term, JI. The Berlin Mandate specifically stated that the Parties to the 1992 Climate Change Convention "establish a pilot phase for activities implemented jointly among Annex 1 Parties and, on a voluntary basis, with non-Annex I Parties that so request". Thus, a developed country Party may jointly enter into a Project with a developing country Party if the latter consents to it. As regards the criteria, the COP-I further stated that:

1. (c) all activities implemented jointly under this pilot phase require prior acceptance, approval or endorsement by the Governments of the Parties participating in these activities;

d) activities implemented jointly should bring about real, measurable and long-term environmental benefits related to the mitigation of climate change.

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78 Annex 1 Parties means those developed countries and countries whose economies are in transition, listed in Annex 1 of the 1992 Climate Change Convention.
79 The 1992 Climate Change Convention, Article 4(2)(a) and (b).
change that would not have occurred in the absence of such activities; the financing of activities implemented jointly shall be additional obligations of the developed countries within the framework of the financial mechanism as well as to current official development assistance flows.81

Thus, under such a scheme, one country can invest in an energy-efficient project in another country to fulfil the Convention’s objective of reducing GHG emissions. It can also encourage the flow of funds to developing countries and they can use the funds for adopting energy-efficient technologies and implementing complex carbon-sequestration projects.82 However, no credit for the reduced emissions is granted to the investing state during the pilot phase. Participation in the pilot phase is also optional and it is to be reviewed before the end of 1999 so that the experience gained during the pilot phase can help in starting a more comprehensive phase.83 In spite of the potential benefits of the AIJ, there is a fear among the developing countries that the AIJ may become just a way subterfuge to transfer the responsibility for cutting GHG emissions from the developed countries to the developing countries. It can also be used as means to dump obsolete or environmentally harmful technologies in the recipient countries. Another adverse effect may be to blunt local technological innovations in developing countries. However, after hectic deliberations in the following years, an agreement was reached at the 1997 Kyoto Protocol to the UN Framework Convention on Climate Change (the 1997 Kyoto Protocol) where, for the purpose of meeting their commitments under the Protocol, the Annex 1 Parties are allowed to "transfer to, or acquire from, any other such Party emission reduction units

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81 Ibid, Decision 5/CPI, Subsection 1(C),(d) and (e).
resulting from projects aimed at reducing anthropogenic emission by sources or enhancing anthropogenic removals by sinks of GHGs in any sector of the economy..."84

For the implementation of such a project, the prior approval of the Parties involved is required. The project must also provide a reduction in emission by sources, or an enhancement of removals by sinks that is additional to any that would otherwise occur. The Protocol further provides that a Party involved in the project cannot acquire any emission reduction units if it does not comply with the estimation and reporting obligations provided in Article 5 and 7 respectively of the said Protocol. Furthermore, such an acquisition of emission reduction units is to be supplemented by domestic actions for the purposes of Meeting the Party’s commitments under Article 3.85 The COP, serving as the meeting of the Parties to the 1997 Kyoto Protocol, may now be called upon to elaborate guidelines for the implementation of such projects. The Protocol provides for the involvement of intermediaries in the generation, transfer or acquisition of emission reduction units.86

The 1997 Kyoto Protocol has thus put to rest the controversies regarding transfer of "credit" for emission reductions in JI project, by allowing transfer of credit for emission reductions within the Annex I Parties. Regarding the entities that can participate in a JI project, the Protocol provides for the participation of only the Annex I Parties i.e. the developed countries are excluded from participating in a JI project. However, if handled correctly, the participation of developing countries in a JI project can encourage the transfer of financial and technological knowhow from the North to

84 The 1997 Kyoto Protocol, Article 6(1).
85 Ibid.
86 Ibid. Article 6(2) and 6(3).
the South, without compromising the needs of the South. For a successful JI regime a careful thought to the following criteria may be a good beginning:

i) The market for JI project should be open and accessible to many participants/players so as to ensure high level of activities.

ii) A JI project should enhance the flow of financial resources for the co-development and transfer of advanced, environmentally sound technologies to developing countries as well as to those with economics in transition.

iii) It is beneficial for both the investing and host countries to keep the transaction costs low. It will encourage investments in new JI projects.

iv) Systematic monitoring and review of JI project will enhance the credibility of the projects and gain international confidence.

v) All participants in the project should fulfil their financial commitments in the absence of which it would be difficult to start the project.

vi) Assigning liability for failed projects should be given due consideration.

vii) Transfer of environmentally sound technologies rather than recycling conventional technologies should be maximised.

viii) A JI project should encourage sustainable development.\(^87\)

VII. REGULATORY APPROACHES TO ENVIRONMENTALLY PROTECTION\(^88\)

In the international arena two types of regulatory techniques are generally recognised to control pollution. The first category uses the traditional form of direct regulation and

\(^{87}\) The Criteria is based on the one given in Irving M. Mintzer, "JI and Sustainable Development", Climate Change Bulletin, Issue 4, 3rd Quarter, 1994, pp.4-5.

\(^{88}\) The categorisation of the different approaches to regulatory mechanism is mainly based on Philippe Sand's book. See Sands, n.55, pp.126-136.
referred to as "command-and-control" regulation. The second category makes use of economic incentives and are referred to as "economic instruments". Another approach to environmental regulation is beginning to gain favour at the domestic level, but it is still under consideration at the international level. It aims to provide a more comprehensive approach to regulation and is referred to as "integrated pollution control".

The international community is in favour of adopting a balanced mix of regulatory approaches to control pollution. Support for a proper balance between the two types of regulations was evident at the 1990 Ministerial Declaration of the Second World Climate Conference. Recent international environmental agreements, however, reflect the assignment of a primary role to the command-and-control regulation to be supplemented by economic instruments, wherever appropriate.

(i) Command-and-Control Regulation

Under this approach pollution control bodies prescribe environmental standards to be followed uniformly by their addressees and the enforcement or control is ensured by public authorities or, in some cases, by private individuals as well. These standards may take the form of environmental quality standards, product standards, emission standards or process standards.

Environmental quality standards set the level beyond which pollution, nuisance or environmental interference is not permissible. A variety of such standards is used at the international level. They may range from absolute prohibition of polluting activities to the acceptance that certain amount of environmental interference as the inevitable consequence of human activities. Examples of the latter include a 30 per
cent reduction in emission of sulphur dioxide for all EC countries, setting "critical loads" which can be translated into individual country's target of nitrous oxide reduction and stabilising GHG concentrations in the atmosphere "at a level that would prevent dangerous anthropogenic interference with the climate system".

Product standards provide the maximum levels of pollution and nuisance that can be tolerated in the manufacture or emission of a product. They specify the properties or characteristics of design of a product, or are concerned with the ways in which a product is used. They may also include specifications relating to testing, packaging, marketing, labelling and distribution. Many international agreements have now incorporated product standards and they include the permitted use in manufacture of certain ODSs and parts of endangered species.

Emission standards set the levels for pollutants (or nuisances) which must not be exceeded in emissions from installations or activities. Examples in the international arena include those used for controlling atmospheric emissions from aircrafts, automobiles and industrial enterprises. Process standards which are generally applied to installations and activities are of two types, viz., installation design standards and operating standards. The former deals with the standards required in the design and construction of installations whereas the latter deals with the standards required in the course of activities and the operation of installations to protect the environment. Many international agreements include examples of process standards such as processes for

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89 The 1989 Protocol on the Reduction of Sulphur Emissions or their Transboundary Fluxes by at least 30 per cent.
90 The 1988 Protocol Concerning the Control of Emission in Nitrogen Oxides or their Transboundary Fluxes, Article 2 (hereinafter the 1988 No Protocol).
91 The 1992 Climate Change Convention, Article 2.
the treatment of municipal wastes, the incineration of hazardous wastes, the means and method of conducting fishing activities etc.

Public authorities are required to play a crucial role in the implementation of the above standards at the national level. They have the power to set the standards and to implement them through various means. Under international law also, public authorities are obliged to enforce international standards at the national level through appropriate administrative, judicial and other means.

(ii) Economic Instruments

There is a general feeling among states that the existing regulatory mechanisms are not adequate to limit environmentally harmful activities and they need to be supplemented or supplant ed by the use of economic instruments which attempt to internalise environmental costs. Explicit support for the use economic instruments are found in many soft law instruments including the 1990 Ministerial Declaration of the Second World Climate Conference and the 1992 Rio Declaration. The 1992 Climate Change Convention specifically calls on developed country Parties to co-ordinate relevant economic instruments, and the 1992 Convention on Biological Diversity, without specifically mentioning economic instruments, calls on the Parties to "adopt economically and socially sound measures" which will provide "incentives for the conservation and sustainable use of components of biological diversity". There are different types of economic instruments available to the international community. They

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94 The 1992 Climate Change Convention, Article 4(2)(e).
include charges and taxes, marketable permits, deposit-refund systems, financial assistance, enforcement incentive, administrative charges; liability and compensation for damage, trade measures, and consumer information incentives.

Charges and taxes provide disincentive to polluters engaged in environmentally harmful activities, such as emissions, the generation of wastes and the excessive use of natural resources. Emission charges, a form of charges, are levied from all discharges of effluents and gases. However users charges, also another form of charges, are levied for services rendered by authorities, such as the removal of municipal wastes, hazardous wastes etc.

Tradeable permits as a regulatory mechanism to protect the environment is quite popular in the USA. Under this scheme, regions or utilities are allocated a fixed quota of pollution rights and if any region or utility manages to use less than the allocated quota, they can sell their excess amount to another region or utility. This concept is still not very popular at the international level. The 1997 Kyoto Protocol incorporates a similar form of this concept by allowing developed country Parties to participate in emission trading for the purposes of fulfilling certain obligations under the Protocol.96

Under the deposit-refund system, a deposit is to be paid on potentially polluting products, such as batteries, bottles and other packaging, and the return of the product or its residuals is compensated by a refund of the deposit. Though the mechanism is used quite often at the national level, it has not found favour at the international level.

Subsidies may take the form of grants, soft loans or tax allowances. Though subsidies are criticised for bringing market distortions, many states resort to the grant

96 The 1997 Kyoto protocol, Article 16 bis.
of subsidies and they justify their actions on the ground that subsidies bring environmental benefits. There are many recommendations and treaties, specially in Europe, which seek to remove or reduce subsidies. Yet many exceptions are made regarding the grant of subsidies, which is quite often used in many countries. For instance, the 1992 Treaty of the European Union (the 1992 Maastricht Treaty) permits the grant of subsidies “to promote culture and heritage conservation where such aid [subsidy] does not affect trading conditions and competition in the Community to an extent contrary to the common interest”.97 A similar objective is also provided in Article XVI(1) of the 1947 General Agreements on Tariffs and Trade (GATT).

Another type of economic instrument which is quite popular in Europe is enforcement incentives. They may include non-compliance fees and performance bonds. Non-compliance fees are imposed on polluters who exceed the prescribed environmental standards. In case of performance bonds, payments made to the concerned authorities are returned when the polluter fulfils the terms and conditions of licence. Though international law does not recognise enforcement incentives, recent developments seem to suggest their emergence.

The rules concerning liability and compensation for environmental damage may provide economic incentives for complying with international environmental obligations. However, they are in an early stage of development, and low financial limits on liability provide hindrance to their development.

Regulations and prohibitions on international trade are designed to promote environmental protection objectives either by limiting the availability of certain

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products in the marked or by making available products on certain conditions. However, they remain controversial and subject to a trade regime under GATT.

Consumer information incentives generally measure the environmental performance of companies through tools like eco-labelling and eco-auditing. They are designed to capitalise on the presumption that consumers will go for environmental friendly products and services. The concept of eco-labelling emerged recently and an international eco-labelling legislation was adopted for the first time in 1992 by the European Community. 98

(iii) Integrated Pollution Control

There has been an increasing recognition, especially in the industrialised countries, that the traditional method of addressing particular activities, substances or environmental media like air, water, soil and biota is inadequate to handle the complexities of the environment. In fact, different substances and activities can move along and have different effect upon a range of environmental media and these can be handled better by an integrated approach which seeks to prevent or minimise the risk of harm to the environment taken as a whole.

The application of such an integrated approach is reflected in a number of international instruments. The OECD Council Recommendation, 99 in particular, calls upon member countries to support the approach by addressing impediments to it, removing those impediments and adopting laws and regulations when appropriate. The Recommendation recognises certain polices essential to an effective integrated approach and these include sustainable development, the use of no-or-low waste technology and

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recycling strategies, precautionary action, public information, and consistent and effective compliance mechanism. Such an integrated approach would help in shifting priority of focus from the traditional method single-sector environmental regulations to a combination of the substances, the sources and the geographical region. Moreover, for an effective integrated approach, constructive changes in institutional arrangements, management instruments and technical methods. Besides the OECD Council Recommendation, the application of such an integrated approach is endorsed by other commissions such as the Oslo and Paris Commissions. Thus, rather than adopting a vast body of regulatory obligations, it will be crucial to have an improved and fine-tuned economic instrument, supplemented by more integrated approach to environmental pollution control which seeks to address all environmental media on a comprehensive basis.

VIII. RESTRUCTURING INTERNATIONAL INSTITUTIONS

Developments in the field of environment are taking place so fast that many commentators have started questioning the adequacy of the existing institutional framework to control and ultimately reverse the growing environmental decay. There is also a general feeling that the existing international institutions, though relevant in the context of the situation prevailing at the time of their establishments, are no longer suitable to counter the present as well as anticipated dangers to our planet. Some commentators have proposed the strengthening of the existing institutions, whereas others have talked of creating a new one. While both the proposals have merits and demerits, it is useful to understand the relationship among the various institutions now
functioning within the international community and the handicaps these institutions face in coping with environmental changes, before deciding in which direction the international community should go.

(i) Problems Associated with the Existing System

One of the basic problems associated with the present institutional structure is the existence of a multitude of separate units with overlapping jurisdictions. This makes the task of environmental co-ordination difficult. Furthermore, there are some domestic environmental agencies which have jurisdiction over international environmental issues.\(^{101}\)

The Administrative Committee on Co-ordination (ACC) and the UNEP, two of the UN bodies ostensibly responsible for co-ordination, have not achieved as much as desired. The ACC represented by only high-ranking officials meets too infrequently to resolve conflicts. Since environmental issues are of peripheral concern for many international institutions, such a representative body of high-level officials may not be the right forum to achieve environmental co-ordination. Moreover, regional institutions and non-state actors have no representation in the ACC\(^{102}\) and as such their views are no incorporated in the co-ordination efforts. In spite of remarkable success in establishing Earthwatch, a scientific assessment programme and the regional seas programmes, UNEP is still a relatively small organisation which lacks authority and financial resources. Its place in the UN organisational chart remains unclear and it does not have sufficient clout to influence the environmental policies and programmes of the UN, the specialised agencies or other organisations outside the UN system.

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\(^{101}\) Developments n.25, pp.1581-82.

\(^{102}\) Ibid. p.1584.
Another weakness of the UN institutional structure is that environmental issues cannot receive sufficient attention of the General Assembly as demanded by the growing environmental concern. The General Assembly has traditionally concentrated on issues like decolonisation, disarmament, human rights etc. As of today, environmental issues occupy comparatively a small portion of the already overcrowded schedule of the Second Committee of the General Assembly.\(^{103}\)

Outside the UN system, many international institutions face difficulties in co-ordinating efforts to conserve and protect the environment. No doubt, these institutions play a crucial role in the development of IEL. Many of the environmental treaties are concluded at the initiative of these institutions. They provide secretariat service to many treaties. However, their role is mostly confined to laying down technical standards and they cannot promulgate rules binding either on states or on individuals. Under international law, for a rule to be binding the consent of the state is necessary. Though there are signs of gradual erosion of some portions of state sovereignty in recent years, it is extremely difficult for intergovernmental organisations to lay down binding rules upon states.\(^{104}\)

(ii) Possible Improvements on the Existing Structure

In view of the difficulties in achieving environmental co-operation, many commentators have suggested possible improvements under the existing institutional structure. One such suggestion is to assign new responsibilities and powers to principal UN organs. In this regard, it has been suggested that since the Fourth Committee of  


\(^{104}\) Developments, n.25, pp.1586-87.
the General Assembly has successfully completed the task of decolonisation of many territories, the responsibility of environmental protection can also be entrusted to it. Szasz, however, feels that the Fourth Committee has not attained the prominence sufficient to justify an exclusive assignment of environmental responsibility. Instead, he has preferred the General Assembly to work in tandem with some special environmental body, so that effective law-making decisions are taken with the concurrence of both the organs.\footnote{Szasz, n.103, pp.357-59.}

As regards assigning the Security Council with exclusive responsibility for environmental protection, the Council may not be a suitable forum. While the UN Charter empowers the Security Council to take appropriate action for the maintenance of international peace and security, it would be inappropriate to impart a liberal meaning to include environmental security. Moreover, the composition and the voting system of the Security Council is such that only the five permanent members, who were the principal victors in the World War II about half a century ago, will have the right to veto over environmental enforcement actions. Therefore, it does not make much sense to imagine that such a right is not available to, among others, some of the most advanced economies such as i.e. Germany, Japan, India, and Brazil etc.

There are also some suggestions to let the Trusteeship Council assume environmental functions as the Council has successfully completed the task of achieving independence of practically all trust territories. However, there is no Law of Conservation of UN Principal Organs. An organ which has accomplished the task for which it was set up may be abandoned or abolished. Further, the composition of its
members\textsuperscript{106} may be quite unsuitable for the effective implementation of environmental functions. Similarly, the ECOSOC with 54 member is considered too large a body to be a forum for environmental debates but too small to be representative.

Some improvements can be made in the functioning of the ICJ on environmental matters. It has the power to form chambers "for dealing with particular categories of cases" under Article 26(1) of its Statute. Accordingly, it can create a chamber exclusively dealing with environmental disputes. This will permit the judges to acquire expertise in the scientific and technical aspects of environmental disputes. Moreover, some expert assessors may also be appointed to assist the Court in deciding environmental disputes. The advisory competence of the Court can also be extended, on authorisation by the General Assembly, to whatever lead organ handling environmental matters. Other organs of the UN may also secure the advisory opinion of the Court by passing on their legal queries through a suitable environmental organ.\textsuperscript{107}

Even under the existing system, there is a room for upgrading and transforming UNEP. One area is the provision of enhancing financial resources, preferably from assessed contributions. The functions of the Programme may be more specifically defined to improve its operations. The number of treaty organs to which UNEP provides secretarial service or otherwise may also be increased. This will not have any

\textsuperscript{106} The Trusteeship Council consists of all UN members administering trust territories, the permanent members of the Security Council and other members elected by the General Assembly to balance the number of administering and non-administering states.

\textsuperscript{107} Article 96(2) of the UN Charter empowers the General Assembly to authorise other UN organs or any specialised agency to request advisory opinion " on legal questions arising within the scope of their activities".
financial strain on UNEP as these treaty organs have their own budgets.\textsuperscript{108} However, it need to be remembered that an excessive proliferation of such organs will cause problems of co-ordination and supervision of activities, decisions and staff.

(iii) Creating a New Environmental Institution

Recognising the weaknesses of the existing institutional arrangement, many commentators have contemplated the creation of a new centralised supranational institution which can assume the important responsibility for environmental legislation and enforcement. The signatories to the Hague Declaration on the Environment called for the establishment of a new institutional authority that would "develop instruments and define standards to enhance or guarantee the protection of the atmosphere".\textsuperscript{109} U. Thant, former Secretary General of the UN, had also suggested during the preparations for the 1972 Stockholm Conference a new global authority which will function as "a legislative body capable of establishing binding standards... and an enforcement authority, with power to make conclusive determination as to compliance".\textsuperscript{110} Many questions, however, arise from such a proposal and they relate to whether the new organisation should function within the UN system, whether it should be endowed with the power to impose rules on states, whether it should be large enough to be considered reasonably representative of the world community, or whether it should be a small body capable of enforcing rules effectively.

It is in this context that Palmer has proposed the creation of "a proper international environmental agency within the UN system that has real power and

\textsuperscript{108} Szasz, n.103, pp.370-71.
authority". At the same time, he suggested the restructuring and reorganisation of the other environmental components of the UN. The kind of organisation he had in mind is based on the model of the International Labour Organisation. It should perform both legislative and enforcement functions. Such an organisation should take decisions by two-third majority, should receive annual reports from member countries and should ensure compliance of rules. Similarly, the Commission of Global Governance, an independent group of 28 World leaders, proposed the creation of an Economic Security Council within the UN system. The Commission should provide leadership in economic, social and environmental fields. However, it should not be empowered to take legally binding decisions and environmental standards should be set by consensus. Matters concerning global commons should be referred to a restructured UN Trusteeship Council on the recommendation of the Commission.\textsuperscript{112}

The creation of a new international environmental organisation is also supported by Dan Esty. According to him, such an organisation should perform both legislative and adjudicative functions, develop environmental norms and settle environmental disputes.\textsuperscript{113}

However, there are various impediments to the creation of a supranational environmental authority and its existence seems unlikely. Centralisation of authority to a single unit may threaten the sovereign ability of states to establish any entity outside the central structure. There is difficulty in defining its jurisdiction. It may not be flexible enough to incorporate the fast changing environment. Under the

\textsuperscript{111} Palmer, n.24, p.262.
international legal system, states are bound by only those obligations to which they have consented. It is difficult to get their consent particularly if the compliance of the obligations is going to affect their domestic interests negatively. Even when a state is bound by certain obligations it may be willing to violate the obligations if it is ready to suffer domestic and international consequences. Further, the new system will still be troubled by the question as to how states can be induced to conform to international norms. In the light of the discussions above, it may be prudent to abandon the search for a single entity with coercive enforcement power. It may be advisable to look in the direction of facilitating co-operation among international actors, broadening participation in policy formulation and implementation, and encouraging compliance of international norms. 114

Achieving co-operation within the decentralised institutional structure is regarded by many to be a difficult task. Many IGOs are criticised for overlapping their activities. Moreover, the decentralised structure of the institutional system gives states an opportunity for forum shopping by selecting the process or institution best suited to their needs. Both these criticisms, however, do not hold much water. Duplication of function can be streamlined by amending the Charter of the each of the IGOs or, alternatively, by expanding reciprocal relations among different environmental IGOs. 115 Further, duplication in some cases may even lead to healthy competition and safety-net redundancy. Regarding the second criticism, it may be stated that having a choice among many processes or institutions will ensure consideration of more issues and encourage formulation of policy innovation. Moreover, a particular IGO may be

114 For a detailed analysis of the merits decentralised form of institutional structure, see Developments, n.25, pp.1590-609.

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more technically or politically suitable to handle a specific issue.

In fairness to all interested parties, an effective international institution should also give an opportunity for meaningful participation to all non-state actors affected by environmental degradation. Apart from enhancing the legitimacy of the international legal regime, greater involvement of non-state actors will provide useful information to the decision making process and facilitate the enactment of domestic legislation also. However, there is always a danger of the IGOs being swamped with NGOs and individuals. Such a situation, however, can be avoided by adopting a more systematic procedure for considering the public's view. A beginning may be made by notifying the public of upcoming proposals and by receiving and disseminating their comments before any decision is made.

In a decentralised structure having many IGOs, states may be induced to observe international obligations by adopting procedures to raise the political costs of non-conformity. IGOs may recommend substantive environmental standards followed by auditing compliance of such standards. In case of any complaint for non-observance of recommended standards, such complaints should be properly investigated. As it connotes an adversarial inquiry, it is better to lay down the procedure for investigation in the institution's Charter or by agreement of the members.116 Another option for ensuring compliance is for the IGOs to set binding standards, subject to potential annulment in case of objection by a plurality of states. When a state accepts such standards, the burden of proving compliance lies with the state. Yet another option is to set binding standards, with liberty to states to opt-out. While states are at liberty to

reject the standards political and economic pressures discourage states to opt-out.

Thus, even without a centralised supranational authority, a decentralised institutional system can effectively address the ‘global environmental problems. It can facilitate co-operation and provide increased regularity and openness in the decision-making processes of the international institutions. A decentralised system is preferred because it ensures consideration of more issues, allows for greater policy innovation and it has more adaptability to change. Under such a system, broadening participation of non-state actors in policy formulation and implementation, and compliance of environmental norms by states as well as individuals are encouraged. Merely redesigning the institutional decision-making procedures, however, will not solve the problem of environmental degradation. It will require firm commitments from states through financial and technological assistance as well as political co-operation.