The principle of inter-generational equity, a recognised legal norm, is being threatened in the current global scene of rapid climate when those human resources which are common property are being destroyed at a very fast rate. At present, countries with more resources and technical know-how are able to exploit the existing natural resources, thus depriving present as well as future generations of the same. This paper proposes a system of compensation to be paid by those countries which appropriate the earth’s natural resources in the present to compensate those who do not acquire their benefits till a later stage, or at all. This paper shall also demonstrate how this compensation regime is economically sound and promotes sustainable development.

I. INTRODUCTION

The principle of Common Heritage of Mankind (hereinafter CHM) envisages that certain interests of humankind should be safeguarded by special legal regimes. This idea has been expressed in various and increasingly numerous international instruments. The concept, as it stands today, not only ensures peaceful use of the areas designated as CHM but also seeks to ensure the sustainable use of natural resources in these areas.

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In spite of the rhetoric designating certain areas as CHM, the technological and infrastructural inequalities and economic disparity in the international community lead to a situation where economic exploitation of these areas and the resources found therein is possible only for a limited number of nations. Given the exhaustible nature of most resources found in the areas currently designated as CHM, mainly the oceans, the corollary of this scheme is that those with technological and economic capability not only derive present economic value out of the commons, they also deprive those not as well situated of their potential returns from these resources at a future date when the latter may acquire similar capabilities.

Against this backdrop, equitable sharing of resources in the CHM areas has been advocated by many. The United Nations Convention on Law of the Sea (hereinafter UNCLOS) provides for equitable sharing of benefits and returns derived from resources found in the “sea-bed and ocean floor and sub-soil thereof beyond the limits of national jurisdiction”.1 The concept of equity remaining as ambiguous as it always was, there is no shared understanding as to what the basis for such sharing should be. While developed nations, incurring substantial investment in exploration of the region and deriving returns from it, prefer to understand the term ‘equitable’ as ‘proportional to investment made’, developing countries argue that the sharing must be either equal or based on the economic needs of the countries. I argue that a compensation-based regime is logically and legally more sound than the said proportions.

II. CONCEPT AND EVOLUTION WITH SPECIAL REFERENCE TO LAW OF THE SEA

The principle of ‘Common Heritage of Mankind’ as it stands today, was not propounded in a day – it was first proposed as a vague concept and evolved through UN Resolutions, treaties, conventions and international documents. The germ of this concept can be seen in the proposal by Malta’s Ambassador Arvid Pardo on September 21, 19672 that the seabed and ocean floor beyond the limits of natural jurisdiction are the ‘Common Heritage of Mankind’. His speech gives an indication of the salient features of this doctrine. According to him, the area designated as common heritage could be used but not individually appropriated, there had to be an international authority for managing the resources, the benefits should be actively shared, the area should be used only for peaceful purposes and the common heritage should be conserved for future generations.3

3 Arvid Pardo, Before and After, 46 LAW AND CONTEMP. PROBS. 95 (1983), 96.
reference to this principle though not explicitly, can be found in the preamble of the Antarctic Treaty signed on December 1, 1959 which mandates peaceful use of Antarctica “in the interest of all mankind”.

In Resolution 2340 of the General Assembly in the same year as Pardo’s proposal, the United Nations, recognising the ‘common interest of mankind’ in the seabed and ocean floor, established an ad hoc committee to study the peaceful uses of the Seabed and Ocean Floor beyond the Limits of National Jurisdiction. In Resolution 2467 in the following year, the committee was made a standing committee and was instructed to ensure the exploitation of the ocean’s resources for the benefit of mankind, taking into account special needs of developing countries. The concept also found expression in Resolution 15 of the World Peace through Law Conference in July 1967, where the ocean’s resources were termed as the ‘common heritage of all mankind’. Among resolutions that followed in the United Nations General Assembly, Resolution 2749 in 1970 was of considerable importance. It declared the seabed as the common heritage of mankind, but did not define it. Thus there were conflicting opinions of developed and developing nations. The declaration laid the foundation for the United Nations Convention on the Law of the Sea. This Convention, formed after three long conferences ending in 1982, has the clearest enunciation of the principle of CHM.

The preamble of the Convention recognised the desirability of promoting the peaceful use of seas, equitable and efficient utilisation of their resources and the preservation of the marine environment. This convention takes into account “the interests and needs of mankind as a whole and, in particular, the special interests and needs of developing countries.” It also clearly mentions that the area and its resources are the common heritage of mankind, which is reiterated in Article 136 of the Convention. Articles 309 and 311(6) of the UNCLOS prohibit reservations. Therefore, states had to accept the Convention in its entirety. As a consequence, States which had an objection to the principle, embodied in Part XI of the Convention, refused to ratify it. Part XI

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7 See, e.g., GA Res. 2574D, UN Doc. A/7834 (December 15, 1969).
10 Preamble, UNCLOS.
11 UNCLOS, Article 1(1): “‘Area’ means the sea-bed and ocean floor and subsoil thereof beyond the limits of national jurisdiction.”
also provides for an International Seabed Authority (hereinafter ISA), which would regulate the exploitation of seabed minerals. Developed States objected to this too, consequently many of them did not sign the UNCLOS. This hindered the universal acceptance of the principle. Developing states endorsed the principle since they depended largely on mineral exports and were concerned that if developed nations mined the seabed, the world demand for minerals would lessen and mineral prices would fall. Secondly, they were obviously in favour of equitable distribution of resources among developed and developing nations. That is precisely what the ISA was established to ensure. Developed States considered the concept to be too imprecise and argued that seabed resources could not belong to the entire community. They favoured the concept of the freedom of the seas. Having the technological capacity to mine the deep seabed, they would clearly not want to share the resources appropriated by them with countries in a less advantageous position.

To make the UNCLOS amenable to more number of states, and make it acceptable universally, amendments to Part XI of the UNCLOS were considered. The General Assembly then drafted the 1994 agreement, which was a redrafting of Part XI, and was accepted almost universally. The agreement is to be interpreted and applied together with Part XI as a single instrument. The modifications of Part XI included mandatory transfer of technology, training personnel and decision-making process of the ISA. The Review Conference mentioned in UNCLOS which was to form fifteen years after the commencement of commercial production may form at any time after the coming into force of the 1994 agreement. Other modifications include removal of production limitations, an economic assistance fund for land-based producers and alteration of financial terms of contracts. Most developed states have become parties to the 1994 agreement, but some like Canada and the United States have not yet ratified either the agreement or UNCLOS. The content of CHM remains the same; only certain provisions, which developed countries were objecting to, were redrafted.

Therefore, the problem with the concept of CHM still remains. Besides UNCLOS, the Outer Space Treaty, Moon Treaty and Antarctic Treaty also contain provisions comparable to CHM. However, they do not clear the ambiguities either. ‘Peaceful purposes’ has limited definitions in the Antarctic Treaty and Moon Treaty,
while UNCLOS does not define it at all. The purpose for which the common heritage may be used requires elaboration. Some scholars argue that the current management system under the 1994 agreement is skewed in favour of developed nations and thus goes against the elements of CHM.\textsuperscript{21} Equity is an undefined concept and if there is to be distribution of resources based on equity, sufficient guidelines are required for it. This is one of the most important characteristics of the concept of CHM, and has caused most amount of controversy. Lacking a proper definition, it has been interpreted differentially from various perspectives. While the developed nations, who are the ones who incur substantial investment in exploration of the region and derive returns from it, prefer to understand the term ‘equitable’ as ‘proportional to investment made’, the developing countries argue that the sharing must be either equal or based on the economic needs of the countries.\textsuperscript{22}

For successful implementation of the CHM principle and conservation of natural resources, two important consideration exist – firstly, the concept must be universally accepted as a principle of international law; secondly, equitable distribution of resources must be ensured or an alternative regime which would ensure conservation of natural resources for use by future generations. That is, essentially, the concept of ‘heritage’, and equity should be ensured not only at present in different parts of the world (inter-regional), but also for future generations (inter-generational). Thus two propositions will be considered in the following parts – CHM as part of customary international law, and an alternative means of equitable distribution of resources.

\section*{III. CHM AS A PART OF CUSTOMARY INTERNATIONAL LAW}

It has been already discussed how the principle of CHM has been embedded into a number of international instruments, especially international treaties\textsuperscript{23}. Treaties and customs, as sources of customary international law\textsuperscript{24} often interact with each other in terms of complementing, supplementing or even contradicting each other. A number of treaties codify a pre-existing rule of customary

\begin{thebibliography}{10}
\bibitem{note22} Cedric Grant, Equity in International Relations: A Third World Perspective, 71(3) International Affairs 567 (1995).
\end{thebibliography}
international law. For instance Article 31(1) of the Vienna Convention on Law of Treaties which mandates the accordance of plain meaning in good faith to the words of a treaty has on a number of occasions been held to be a codification of pre-existing customary international law. It is evident from the rule of parallel existence as laid down by the International Court of Justice in the Nicaragua case that a reservation to a provision of (or by analogy the non-ratification of the text of) a treaty codifying a rule of customary international law by a state does not exclude it from the customary obligation codified by the treaty.

Though the United States had raised serious objections to the provisions of Part XI of the UNCLOS especially with respect to the modalities of the international regulatory framework and principles on which equitable sharing of resources of the sea bed and benefits thereof are to be shared, it is common ground between the developing and developed countries that the basic principles underlying the CHM principle can be located in customary international law. The concept has even been described by a number of scholars as a *jus cogens* norm (a peremptory norm of international law) and as a rule of axiomatic nature which defies amendment. If this is the case, though certain states may not ratify the UNCLOS or even recognise the specifics of the modalities laid out therein, they cannot absolve themselves of the customary law in respect of CHM. The following paragraphs seek to establish how the principle of CHM, especially in respect of the law of the sea is well rooted in customary international law and hence the non-ratification of UNCLOS by any state or states does not alter the legal status of the sea bed and resources contained therein as common heritage even *vis-à-vis* such states.

Customary international law comprises of two elements, namely, state practice and *opinio juris*. It is an accepted proposition in international law that state practice in this regard need not be positive actions and can even include declarations made by states. Where a belief that a practice is legally binding

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27 Id.


upon the states is evident from a declaration, the declaration supplies both the elements. The act of making the declaration constitutes a state practice while the said belief embedded in it constitutes opinio juris. I make a humble attempt to bring to light certain declarations made by states prior to, during the drafting of and in the text of the treaties dealing with the CHM principle and to establish the existence of a customary norm based on these declarations.

Interestingly, one of the initial indications that the sea bed was to be treated as beyond national jurisdictions was put forward by President Lyndon Johnson of the United States in 1966. He described the sea bed as ‘common legacy of the mankind’ and warned against the unfettered exploitation of resources in the sea bed. It was subsequent to the proposal of President Johnson that Arvid Pardo of Malta put forward his historic proclamation regarding Common Heritage of Mankind in 1967. The General Assembly Resolution 2467 granted a certain level of recognition to the principle by underlining that exploitation of sea bed should be “for the benefit of mankind as a whole, taking into account the special interests and needs of the developing countries.” While the United Nations was in the process of codifying the law of the sea, the G-77 countries were quite vocal in support of the principle. On the other hand, though the developed countries opposed the specific modalities of benefit sharing and the extent to which there should be a mechanism of international regulation, they never raised an objection to the basic premise of the theory nor did they negate the common interest of mankind in the resources in question.

In May 1970, the President of United States put across yet another proposal in which he suggested that all resources located beyond a depth of 200 meters be regarded as the common heritage of mankind, with the area extending to the edge of the continental margin held in trust by each adjacent coastal State. Under this proposal, the revenue from the trust area was to be apportioned by an international authority between the trustee State and the rest of the humanity. The portion kept aside for the benefit of humanity was to be used by the authority with special importance to the needs of developing countries. It is more than obvious that the US, in this proposal reiterated the underlying assumption of common interest which it had already expressed in President Johnson’s declaration in 1966. Following the US proposal of 1970, the Latin American States met at Lima and came out with the Declaration of the Latin American States on the Law of the Sea and an

32 White, supra note 21, 516.
33 Wolfrum, supra note 6.
34 The Group of 77 at the United Nations is a loose coalition of developing nations, designed to promote its members’ collective economic interests and create an enhanced joint negotiating capacity in the United Nations. There were 77 founding members of the organization, but the organization has since expanded to 130 member countries, available online at http://www.g77.org (Last visited on February 20, 2009).
accompanying resolution in which they asserted *inter alia* that the resources of the deep sea bed was the common heritage of mankind and called for the establishment of an international regulatory mechanism.36 A similar declaration in even stronger words was made by sixty-five Asian, African and Latin American countries during the Third Conference of the Non Aligned Movement at Lusaka.37 The emerging consensus in this regard was also reflected in the General Assembly Resolution 2749 which held the sea bed and its resources as CHM, and mandated that all exploration and exploitation would be governed by an international regime and would be “carried out for the benefit of mankind as a whole (...) taking into particular consideration the interests and needs of the developing countries.”38

Since then though a number of proposals have been put forth by a number of States regarding a legal regime to govern the sea bed and the resources thereof and there has been not much consensus on the particulars, it is sufficient for the purpose of this paper to note that none of the proposals actually negated or disputed the legal status of the sea bed as common heritage or the common interest of mankind therein. On the other hand the number of declarations and proposals in favour of the principle is enormous. Hence it can be safely concluded that there exists widespread consensus among the States regarding the legal status of the sea bed and resources thereof and that the said consensus has been expressed clearly by declarations and proposals by a number of nations and by acquiescence by some others. Hence, I submit that the legal status of the sea bed as CHM has established itself as a principle of customary international law and applies irrespective of a country’s ratification or otherwise of the UNCLOS. Moreover, some scholars argue that the wide recognition accorded by the internal community to the UNCLOS, as evident from 158 States being signatories to it and 134 States having ratified it, has elevated the provisions of the convention itself to the status of customary international law.39 Some even argue that it constitutes a *jus cogens* norm.40

Having established the wide acceptance of the principle of CHM within customary international law, I shall proceed to argue how an axiomatic acceptance of the CHM status of sea bed calls for compensation for the exploitation thereof and of resources contained therein and how a compensation based regime will provide a stronger logical foundation to attempts at international regulation of exploitation and serve the goals of conservation.

38 *See supra* text accompanying note 9.
39 *Allen*, *supra* note 29; *Harry*, *supra* note 29; *Joyner*, *supra* note 29.
40 Chile had raised this argument in a proposal to the United Nations, UN Doc. A/CONF.62, GP 9, August 5, 1980.
IV. COMPENSATION AS EQUITY

Since this paper proposes a model of compensation based in equity, it is first essential to establish the principle of equity as a general principle of International Law. Article 38(1)(c) of the Statute of the International Court of Justice (hereinafter I.C.J.) lays down ‘general principles of law recognised by civilised nations’ as a source which the court needs to look into while adjudicating disputes. Equity has never been clearly defined either in judgments of International Courts or by judges in municipal courts. There have been complex analyses of the concept, and it has generally been interpreted to mean justice attained through fairness. Equity as it has been recognised and developed in international law is most closely related to western legal traditions. This is because the body of international law rules were developed in Europe after the Treaty of Westphalia in 1648 and the rise of statecraft in Europe in the 19th century.

The famous Greek philosopher Aristotle articulated broad concepts justice and equity simultaneously stating the need for correcting the shortcomings in law. Thus understood, equity necessarily entails the use of discretion in its application and extent. According to the father of international law, Grotius, equity, as described by Aristotle, is an understanding of what is right and just and also in its corrective capacity to moderate the general law. The concept of equity has been articulated by St. Thomas Aquinas, a celebrated natural lawyer thus, “Legislators in framing laws attend to what commonly happens although if the law be applied to certain cases it will frustrate the equality of justice and be injurious to the common good which the law has in view. In these and like cases … it is good to set aside the letter of the law and to follow the dictates of justice and the common good.”

The use of the principle of equity to decide a case was first seen in a domestic court. It was first used by the Supreme Court of the United States of America in the case West Virginia v. Virginia in 1907. The Supreme Court of India has the inherent power to do justice, as embodied in Article 142 of the Constitution of India. In the case before the I.C.J., Diversion of Waters from the River Meuse, Judge Hudson noted that under Article 38 of the statute, “if not independently of

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41 See generally MALCOLM N. SHAW, INTERNATIONAL LAW 33 (2003) (stating that Article 38 of the statute is generally recognised as an enumeration of sources of International Law).
43 Id., 104.
44 Id., 106.
47 Diversion of Waters from the River Meuse (Neth. v. Belg.), (1937) P.C.I.J. (ser A/B) No 70, 4.
that Article, the Court has some freedom to consider principles of equity as a part of the international law which it must apply”. 48 In several other disputes before the I.C.J., principles of equity have been applied judges to come to a decision. 49 These cases, among others, are an indication of a wide application and acceptance of the concept of equity in international law. Equity has been described in various contexts, sometimes representing equitable principles such as estoppel 50 and unjust enrichment, 51 sometimes as the principles of justice used by judges while deviating from the law. 52 For the purpose of this discussion, I am concerned with the application of equity as fairness.

Since World War I, equity as fairness has become relevant to one of the most pressing problems confronting international courts: the allocation of scarce resources among states. This problem arises primarily from the failure of the earth’s system of territorial boundaries to resolve satisfactorily the attribution of certain resources, such as the natural resources of the continental shelf and deep seabed. There are several approaches to equitable allocation, one of them being ‘common heritage equity’ which is most relevant to our discussion and wherein ‘equity serves a dual creative function: determining the conditions for exploitation and ensuring conservation of humankind’s common patrimony’. 53 Glimpses of this form of equity can be seen in the UNCLOS and the Moon Treaty. UNCLOS established an International Seabed Authority to manage and distribute equitably the benefits derived from the exploitation of the common heritage of the marine environment. 54 In its provisions relating to the seabed beyond the limits of national jurisdiction, UNCLOS assigns the Authority a very important role, involving not only the right to oversee, but also to participate in, exploitation, on behalf of ‘mankind as a whole’. The UNCLOS is concerned with the conservation of deep seabed resources to a limited degree. It emphasises more on exploitation.

48 Id.
51 Case Concerning the Factory at Chorzow, (Jurisdiction), 1927 P.C.I.J. (Ser. A.) No. 9, 47.
52 Decisions ex aequo et bono, see White, *supra* note 42.
54 See UNCLOS, Part XI, § 4.
While it did contemplate mineral production ceilings, they are not intended to ensure resource availability for future generations, but rather, to protect commodities-exporting developed nations from the price-depressing effect of overproduction. Further, this was removed by the 1994 agreement.

Equity as employed in current international instruments contains two distinct components regarding the utilization of resources. The first, called ‘inter-generational equity’ requires fair distribution of resources between human generations of the present and future. It calls for striking a balance between meeting the consumptive demands of existing societies and ensuring that adequate resources are available for future generations to meet their needs. Striking a balance between current consumption and foregoing use of resources or devoting resources for investment and thus for future generations, has been a matter of concern for all societies. The controlled use of resources, however, is now a much discussed issue, due to growing threats of environmental degradation and resource depletion arising out of current consumption patterns. The second component is referred to as ‘intra-generational’ equity, that is, fairness in utilization of resources among people of present generations, both nationally and internationally. It is directed at the socio-economic asymmetry in resource access and use, within and between societies and nations that has aggravated environmental degradation and the inability of a large part of humanity to meet adequately even its basic needs.

Developing countries have sought to correct the asymmetry in the rules regarding access to resources, their distribution and consumption. It has been a major feature of the international legal and politico-economic agenda of developing countries since at least the early 1970s, as evidenced by the adoption of resolutions in the U.N. General Assembly calling for the creation of a ‘New International Economic Order’, as well as efforts to obtain greater control over natural resources.

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55 UNCLOS, Article 151.
56 Sughrue and Franck, supra note 53, 592.
57 Supra note 19.
59 Id., 164.
The concept of ‘sustainable development’ has been propounded in Principle 8 of the Rio Declaration\textsuperscript{63} and its essence has been recognised in the political treatise ‘Our Common Future’,\textsuperscript{64} in meeting present needs without compromising the ability of future generations to meet their needs.\textsuperscript{65} Intergenerational equity has become an integral part of legal instruments dealing with sustainable development of natural resources. Till date, international law has done little to facilitate the realization of the intergenerational component, beyond mere pronouncements in the preambles of treaties and other documents. However, statements by Judge Weeramantry, arguing in favour of the customary law status of intergenerational equity, in \textit{Denmark v. Norway}, Nuclear Tests 1995, and the Nuclear Weapons Advisory Opinion, indicate that the concept has attained the status of customary international law. Additionally, the bold step by the Philippine Supreme Court\textsuperscript{66} in using intergenerational considerations as a basis for its decision regarding national resource exploitation indicates that rights and interests of future generations are being treated as a legal issue in some national jurisdictions, including developing countries. The specific dimensions of the intra-generational component are much more meaningfully elaborated in international instruments, largely as a result of the interests of developing countries in pursuing their long-term objectives for a new international economic order. The Rio Declaration, Agenda 21, UN Framework Convention on Climate Change as well as the Convention on Biological Diversity and Desertification Convention embody major normative expressions of intra-generational equity, such as Common Differentiated Responsibility, equitable sharing and environmental justice.

This paper proposes to implement this very aspect of the concept of equity – conserving the earth’s resources for all sections of present world society as well as for posterity. Specifically under discussion here are the natural resources of the deep seabed. A method of compensation will be proposed in the next section, under which countries which appropriate oceanic resources must equitably compensate those which presently cannot, due to lack of technology or other forms of backwardness. Article 151, paragraph 10 of the UNCLOS which provides for compensation to developing has remained untouched even after the 1994 Agreement. It however does not lay down a precise method. The economic assistance fund mentioned in Section 7 of the annex to the 1994 agreement does not give a reasoned basis for providing assistance to developing countries. The mode of compensation is not clearly mentioned either.\textsuperscript{67}


\textsuperscript{64} World Commission on Environment and Development, Our Common Future (1987). The Commission is also known as the ‘Brundtland Commission’ or ‘WCED’.

\textsuperscript{65} \textit{Id.}, 43.

\textsuperscript{66} Minors Oposa v. Secretary of the Department of Environment and Natural Resources (DENR), 33 I.L.M. 173 (1994).

\textsuperscript{67} \textit{Supra} note 13, § 7.
V. PROPOSED COMPENSATION REGIME AND ITS ECONOMIC IMPACT

It has been established in the foregoing sections how the common interest over sea bed resources is well established in customary international law and is capable of binding a State irrespective of its position with respect to the UNCLOS. Further, it has been stated that equity demands compensation to be paid by the exploiting country to the ‘mankind’ for the exploitation of resources in the common heritage area. In the following paragraphs the economic impact of such a compensation regime shall be analysed.

‘Tragedy of commons’ has been the subject of numerous economic analyses. It refers to the over-exploitation of common resources because the benefit of exploitation falls on the exploiting individual whereas the cost of the same is borne by a larger group. If a group has common rights over a set of resources, and the group as a whole does not have enforceable claims against one of the members who undertakes exploitation or a claim to the benefits accruing out of such exploitation, each member has an incentive to undertake super-optimal or unsustainable levels of exploitation as the marginal cost of exploitation for him is small (owing to the cost being shared by the entire group and no liability being imposed on the exploiter) and the marginal revenue is high (owing to it not being shared). In the sea bed regime prior to the establishment of the International Sea Bed Authority, this was the case. Exploitations were undertaken by States as long as it was commercially viable. While determining the commercial viability, the value of the resources exploited would escape the calculation of cost of exploitation as these resources fell outside national jurisdiction, did not belong exclusively to the exploiting State and as such the cost of these resources would be shared by the entire ‘mankind’. This was one of the reasons that gave rise to the over-exploitation of sea bed which President Johnson commented on in 1966. The establishment of the international sea bed authority and the provisions of Chapter XI that mandates equitable sharing were capable of solving this problem by reducing the incentives to exploit (by mandating sharing of the benefits). However, it is doubtful to what extent the UNCLOS with its current watered-down Part XI and non-participation of some major players will be able to attain this objective. The institutional structure of the Sea-bed Authority with developed-country domination in decision-making precludes any measure aimed at the reduction of incentives to exploit. This compels me to look at an equity based compensation regime as an alternative.

When a country exploits the resources in common heritage area, it comes in contact with the rights and interests of other nations in two ways, namely: (i) it uses and deprives the other countries of resources over which the latter holds

69 WOLFRUM, supra note 6.
a claim as good as that of the former, the only difference being the capacity to exploit, (2) it deprives the countries currently not capable of exploitation of a future value they could have enjoyed upon the attainment of such capability. Suppose a country exploits Q amount of resources in the CHM area in which mankind, represented by n nation states, has common interest. Assuming equality of claims of each country and joint ownership in the common heritage, the \((1/n)Q\) of the resources exploited would belong to the exploiting nation and \((n-1)/nQ\) would belong to the rest of the States. The exploiting country, through its economic activity, has deprived other nations as a whole of a value worth \((n-1)/nQ\). However, it is to be noted that not every country is capable of exploiting this value at the present moment and that the value of the resource would not have remained constant even if the resource was not exploited by the country in question. Hence, the actual value an exploiting State deprives the other States of will depend on a number of factors including the current value attached by the exploited resource by each of the States deprived of such resources, the time in which each of the other countries will acquire the necessary technology for exploitation, and a residuary variable accommodating all other influential actors.

To build the model, assume,
- Community of ‘n’ countries have claims in common over the CHM areas;
- Only country X has economic and technological capability to economically exploit CHM;
- \(V_i\) is the future value lost by the \(i^{th}\) country due to generation of one unit of value by X through exploitation of CHM.
- \(V_i = f(\text{current value of the exploited resource to the } i^{th} \text{ country, time taken by the country to attain capability, other factors})\)

Accepting the natural corollary of the CHM principle that an exploiting country deprives other nations of economic value to which they have legitimate claims and that compensation is to be paid for the same, country X has to pay a total compensation to the scale of \(\sum_{i=0}^{n-1} V_i\).

It is evident on the very face of the model that it ensures international equity by giving the developing countries their fair share of the benefits derived from CHM. These resources if held in trust by an international regulatory mechanism and utilised for poverty alleviation, employment generation or development requirements of the developing countries, a number of problems currently haunting the international community can be solved. In the long run, indirect benefits accrue even to the developed countries from such utilisation in terms of higher international demand for their products, solution for refugee problems faced by many developed countries, among other benefits.

The inter-generational implication of a compensation regime is equally important. Imposition of a liability to compensate increases the per unit cost of production of the resource in question increases by the amount of compensation, in our model \(\sum_{i=0}^{n-1} V_i\).
Plotting the marginal cost and marginal revenue graphs prior to and subsequent to the imposition of the liability to compensate, I arrive at the following diagrams:

**Figure 1**: Marginal Cost & Revenue Prior to Imposition of Compensation

**Figure 2**: Marginal Cost & Revenue Subsequent to the Imposition of Compensation

Figure 1 shows the marginal cost and marginal revenue curves prior to the imposition of the compensation. MC curve represents the marginal cost of production through exploitation of resources in the CHM. MR curve shows the marginal revenue from such production. Assuming rationality of the producer, production occurs till MC = MR which is represented by the intersection of the curves and corresponds to Q1 units of production.

Imposition of a compensation liability implies that the compensation to be paid needs to be accounted for while calculating the cost of production. When the compensation paid is equal to the value other nations are deprived of, the situation represents what is in economic jargon called the ‘internalisation of externalities’ or the ‘convergence of social and private costs’. This causes a parallel shift of the MC curve to the left as represented by MC2 in Figure 2. The intersection of MC and MR curves takes place at (Q2, C2) which represents a higher cost and a lower level of production than was the case in Figure 1.

It is clear from the foregoing how the imposition of a liability to compensate internalises or casts upon the beneficiary the costs which were earlier borne by the entire community, in this case the other States, and consequently reduces the level of production. Such reduction in production means more resources for the future generations (of the currently exploiting State and of other States which acquire the capability at a later point of time) to exploit. Inter – regional / international equity is ensured by the compensation paid and by the higher volumes of resources reserved for exploitation on a future date when the currently incapable States attain the capability. Inter-generational equity is ensured by the higher
quantity of resources left for the generations yet to come. This model is superior in logic and on equity considerations to the need based regime advocated by the developing countries and investment based model propounded by the developed countries. A need based allocation will mean the investing country has to bear the cost of economic and social needs of developing nations without any legal foundation for this proposition. As the needs of developing countries are enormous, the burden cast upon the investing nation by such a regime will be enormous and this will lead to sub-optimal production. On the other hand, the sharing proportional to quantum of investment proposed by the developed countries is based on the assumption that the investment is the only cost that needs to be accounted for and the share of the non-investing countries can be conveniently forgotten ignoring the true legal character of CHM and reducing it to unregulated 'global commons'.

VI. CONCLUSION

From the foregoing discussion, it is evident that Common Heritage as a concept is based on equity and a natural corollary thereof calls for compensation to be paid by exploiters of CHM resources to other nations holding interests in such resources. The compensation-based regime appears to be a compromise between the investment-based distribution model advocated by the developed countries and the need based distribution model proposed by the third world. It ensures international as well as inter-generational equity and warrants internationally efficient levels of output by accounting for and internalising trans-border externalities of CHM exploitation. It is admitted that several policy considerations come into play before such a regime is internationally accepted, especially by developed countries. However, in the present global scenario, it is imperative that such measures be taken not just from a developing country’s perspective, but so that the earth’s non-renewable resources can be conserved for use by generations several centuries into the future.