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# New Developments and the Legal Framework covering the Exploitation of the Resources of the Moon

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## *Exploitation of the Resources of the High Sea and Antarctica: lessons for the Moon?*

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### Introduction.

As you know, Hugo de Groot known as Grotius, a Founding Father of modern international law supported the freedom of the sea. He wanted to demonstrate that the Dutch had the right to sail to the East Indies and to engage in trade with the people there.[1]

To support this demonstration, Grotius qualified the sea as "res communis" that is to say a thing (res) which may be used by everybody and thus which cannot be appropriate by anyone. From the seventieth century the use of the high sea as a mean of communication was accepted as "res communis". This legal status is quite appropriate to this kind of utilisation as the use of somebody does not impede the use of somebody else. On the other hand, the consumable resources of the sea, mainly fishes, were supposed to be unlimited. They were "res nulius" i.e. things which belong to nobody and thus may be appropriate by anyone. When a fish is in the sea it belongs to nobody, but when it has been caught, it is the property of the fisherman. High sea could not be appropriate its living resources could.

When it became clear that the resources of the sea were no more unlimited, they could not stay "res nulius". It became obvious that, if everybody could appropriate them, they would soon be destroyed. When mineral resources of the bottom of the sea were discovered, a new legal framework was required. These resources are consumable, they are destroyed by their first use, they cannot be "res communis" as common use is impossible. If you use them, you necessarily appropriate them. States and particularly developing States did not want them to continue to be considered as "res nullius". A new notion

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The author intervenes here purely in his academic capacity, the views expressed here do not necessarily reflect the views of France, the State he has the honour to represent in the legal sub committee of the COPUOS.

[1] *The freedom of the sea or the right which belongs to the Dutch to take part in the East Indian Trade by Hugo Grotius* translated with a revision of the Latin text of 1633 by Ralph Magoffin New York university press 1916 Chapter 1 page 12.

was necessary in order to maintain as common property things which are destroyed by use. The solution was the *"Common Heritage of Mankind"* principle. The resource as a whole is common, but as a part, it may be exploited and legally appropriate[2]. The consequence is the difference between "res communis" and "common heritage": if the "common heritage" is exploited, an international management of the resource is a necessity. Only the owner of the resource –here Mankind- (or its representative) may authorise an appropriation of a part of the common resource.

## I The Common Heritage of Mankind principle for the High Sea.

I will not enter into the discussion to know whether the idea of Common Heritage of Mankind has been first defined in June 1967 before the UN COPUOS by professor Cocca or if it was in November of the same year by the representative of Malta, Arvid Pardo before the UN General Assembly. It is clear that we have here many reasons which are not scientific to support the first position.

In a narrow sense, Common Heritage "patrimoine", or "patrimonium" does not exclude appropriation, it does not make the resource "res extra commercium", "res sacrae" notion which would prohibit exploitation. It decides that this appropriation is made by Mankind. Then, the questions are to know what is Mankind and who is going to represent it.

*Mankind, humanité* is an interesting but complex notion. It includes not only the current population of the Earth, but also the coming generations. This is to be considered when decisions of use of the resources are to be taken. The destruction of these resources should not be done for a shortsighted profit. It should be controlled and used for benefit of current and future generations as well.

The second question which has been seen as a problem is the necessity for Mankind to be represented by an organ entitle to take decisions and to rule exploitation of the common resources. Within the current little organised international society this representation is not obvious.

Part XI of the Montego Bay Convention modified by the 1994 New York agreement deals with these issues. It creates an intergovernmental organisation: the Authority, whose main organs are the Assembly and the Council. As revised by the 1994 agreement, most States has accepted the system. It takes into consideration the interest of developed countries without whom nothing can be made in such a highly technical field on the one side, and the interest of developing countries guaranteed by the common heritage principle on the other side.

I will not study the whole system it should be much too long, I will only emphasise on the most significant issue: who decides the granting of a licence for exploitation. It is of course the main issue as it is the authorisation to appropriate a part of the common resource. The rules governing these decisions are taken by the Assembly on proposal of the Council. As a general rule, decision-making in the organs of the Authority should be by consensus. If all efforts to reach a decision by consensus have been exhausted, decisions by voting in the Assembly shall be taken by a two-thirds majority of members present and

[2] LOS convention article 137 / 2 : « *All rights in the resources of the Area are vested in mankind as a whole, on whose behalf the Authority shall act. These resources are not subject to alienation. The minerals recovered from the Area, however, may only be alienated in accordance with this Part and the rules, regulations and procedures of the Authority".* (http://www.un.org/Depts/los/convention_agreements/texts/unclos/part11-2.htm)

voting.[3] An interesting particularity has been adopted in the New York 1994 agreement: two chambers have been created among the Council, one for the developing States, one for the developed ones. The majority for a vote on such matter should be as usual two-third but should also include a majority in each chamber.

The Law of the Sea convention and the 1994 New York agreement set the rules to be applied by the Authority to manage the common heritage in the name of Mankind.

As you know, the current activity is very low in the "Area". The reason is economical and technical; it is not a consequence of its legal status. The case of Antarctica is different.

## II Mining Antarctica: the Wellington draft convention.

In 1988 the parties to the Antarctic treaty decided to organise the possibility to use the mineral resources of Antarctica. As you know, the legal status of Antarctica is very complicated. Some States claim for sovereignty on a part of this continent, some others refuse these claims and hold the continent for international domain. When you note that some States claim the same part of territory and that both the United States and the Russian Federation, have maintained the basis to a claim without claiming, you will see how complicated this situation is. The Antarctic Treaty of 1959 is said to have "frozen" the claims and the oppositions to the claims. Without solving this legal problem, it enables activities on the continent under the control of the most interested countries called the "*Consultative Parties*".

Despite this complex legal situation and despite the fact that some States consider themselves as sovereign on some territories, a draft status for mining the continent was adopted without a clear position on the legal status of the resources. This text never entered into force and will not. Following the reservation of Australia and France, the Consultative Parties of the Antarctic treaty decided in 1991 to restrain from mining Antarctica and to *"commit themselves to the comprehensive protection of the Antarctic environment and dependent and associated ecosystems and hereby designate Antarctica as a natural reserve, devoted to peace and science"*.[4]

Nevertheless, the Wellington draft convention stays an interesting example of what may be done to set an international status for international exploitation of mineral resources.

The main difference with the status of the seabed and ocean floor is that the Wellington convention does not qualify the resources. Given the opposition between parties to the Antarctic treaty on the claim issue, such a definition was impossible[5].

[3] Annex section 3 point 1 and 2. (http://www.un.org/Depts/los/convention_agreements/texts/unclos/agxis3.htm)

[4] Protocol on environmental protection to the Antarctic treaty (Madrid 1991) article 2: *objective and designation.*

[5] It is interesting to note the special reference which is made by article 29 / 2 at point a and b to *"the member, if any, or if there are more than one, those members of the Commission identified by reference to Article9(b)which assert rights or claims in the identified area* (a) and to b. *the two members of the Commission also identified by reference to Article 9(b) which assert a basis of claim in Antarctica;*(USA and USSR). In the last paragraph of article 29 it is nevertheless reaffirmed that -. *"Nothing in this Article shall be interpreted as affecting Article IV of the Antarctic Treaty"* (at point 7). This special position of claiming States is even more important in article 32 Decision making of the regulatory Committee. The vote of half the

The mineral resources of Antarctica have not been declared "Common Heritage of Mankind". It seems that if the convention had been in force some States not taking part in the "club" of the Consultative Parties may have had some strong opposition to the system. The legal status of these resources is very ambiguous like the legal status of Antarctica itself. Like in the Washington Antarctic Treaty, the Wellington convention does not solve the legal problem of appropriation; it found a pragmatic solution through agreement. Whether they claim, reserve their claim or refuse the claims, every Consultative Party agrees to authorise mining under the control of an international body. A very comprehensive "international regime" is set in force in order to respect other utilisations and the environment of the continent.

On the institutional level, the convention creates two kinds of organs. The *Special Meeting of Parties* and the *Advisory Committee* represent the parties to the Convention; they advise the *Antarctic Mineral Resources Commission* and the *Regulatory Committees* which have a decision power.

The *Special Meeting of Parties* shall be open to all Parties. It shall *"consider whether identification of an area by the Commission in accordance with the request contained in the notification would be consistent with this Convention, and shall report thereon to the Commission"*[6]

A scientific, technical, environmental advisory committee is open to all parties who shall advise the Commission and the Regulatory Committee, it will provide a forum for consultation and cooperation.

The "Antarctic Mineral Resources Commission" is the central organ of the system. Its members are mainly the Consultative Parties and other parties accepted by consensus.

The Commission manages the activities under the convention. It examines whether the proposed activities may be conducted in a way respecting the fragile environment of the continent. It identifies areas for possible exploration and development, adopts measures relating to these activities. The decisions are taken by a vote with a 2/3 majority and consensus on some special important issues like budget and identification of possible exploration and development areas. [7]

Regulatory Committees are created for each area identified by the Commission. Membership of these committees ensure an equitable sharing of responsibility, it includes claiming States and non-claiming States. The Committees have an important role of management. For instance they consider applications for exploration and development permits; approve Management Schemes; issue exploration and development permits and monitor exploration and development activities.

As we see, the Antarctic Mineral Resources Commission and the Regulatory Committees play, mutatis mutandis, the role usually played by States when national resources are involved or by the Authority

claiming States members of the committee and of half the non-claiming States is required.
The fact that this convention is dealing with mineral resources may explain this special reference to States supposed to claim rights on these resources even if many States refuse these claims.

[6] Article 28 and 40.

[7] Article 22 : *Decision making in the Commission.:* A decision by consensus is required for questions about he budget (articles 21 and 35) and identification of possible exploration and development areas (article 41 (2)

for the seafloor in the Law of the Sea Convention. Even if the resources of Antarctica had not been declared "Common Heritage of Mankind", an international regulatory mechanism and body was needed and accepted.

## III Resources of Outer space.

We have today to look at the moon and other celestial bodies and their possible mineral resources. Even if the Moon agreement is in force, we know that few States have ratified it and therefore it is not really applicable for the time being. Therefore, I will only consider the currently applicable rules specially the Outer Space treaty as such or as rules accepted as customary law.

Like the High Sea, Outer Space is "*free for exploration and use by all States*". It is also "*not subject to national appropriation*". These characteristics define a "res communis". It applies to orbits like it does for navigation on the sea.

But unlike the High Sea and Antarctica, resources of Outer Space cannot be appropriated by any means. The point is certain: according to article 2 of the OST: "*the moon and other celestial bodies, (are) not subject to national appropriation*" by any means. The wording of the rule is very general, it applies to any "national activity", "*whether such activities are carried on by governmental agencies or by non-governmental entities*" as stated in article VI of the treaty[8].

Authorising the mining of consumable non-renewable goods is undisputedly a way of appropriation; therefore the treaty forbids it. If a State accepts to grant permits to mine the moon, it commits a violation of the treaty and of well-accepted customary space law. What are the practical consequences of such a violation? The first one is usual in international law: the State is internationally responsible for its violation of international law. By the way it is also responsible for the violation by a national "non governmental entity" according to article VI of the treaty. Given the practical difficulty to force an implementation of international law, it may not refrain some States to do so.

It seems that an other consequence may be much more damaging to persons wanting to violate the rule: if a mineral is mined illegally from the moon or any other celestial body, this mineral and any product made from it when used on the Earth, are unlawful. If they happen to come under the jurisdiction of a State refusing this appropriation, local tribunals and courts may seize it. It was the case for instance when Chile nationalized copper mines. The nationalized companies obtained the seizure of the copper when exported. Such a procedure may be used if the moon is illegally mined.

I do not think that any entrepreneurs will accept to take such a risk. Mining the moon or any other celestial body is going to be very expensive. When such an amount of money is involved, serious investors need a stable and accepted legal framework. This preoccupation was common rule for searching and exploiting offshore oil in non-delimitated continental shelves.

[8] We can find in article 6 of the Moon agreement some interesting indications of customary law at the time of the drafting of this agreement and certainly still now. For instance the non-appropriation principle does not forbid *collecting and removing moon samples.* Saying so, I am not saying that the moon agreement is applicable; I only stress the fact that, at the time of this agreement, collecting samples was not considered as contrary to the customary and conventional principle of non-appropriation.

Is it possible to set a legal framework for mining the moon ? If it becomes interesting to mine the moon or any other celestials body what would be the solution?

*National* appropriation is forbidden by the treaty and by international customary law. The only possibility is *international* appropriation.

I would like to propose a theory to be discussed: There is two ways to legally mine the moon :

The first one is to internationally mine the moon by setting an international body in charge of this activity. From the experience of the seafloor and the international Enterprise created by part XI of the Montego-bay convention. I will certainly not support this idea.

The second possibility is to use the Common Heritage of Mankind principle Paradoxically, given the current treaties and customary rules, if we refuse an international Enterprise, it seems the only solution.

Many oppose this notion; they think that it impedes exploitation of the moon. The paradox is that they are wrong: the Common Heritage Principle is the only way to organise a legal exploitation of the moon and other celestial bodies.

As national appropriation is forbidden there is no way for a State to authorise a mining activity on the moon.

There is of course no way to accept mining by private entities without a State's authorisation. There are many reasons for that which I will not study here. One of them being that, as such, non governmental entities have no rights to explore or use Outer Space (as we know, according to article 1 of the OST this use *shall be free for exploration and use by* ***all States***, in the contrary, as stated in article VI of the same treaty, the use by non-governmental entities *shall require* ***authorization and continuing supervision*** *by the appropriate State)*

The only possibility is to authorise international appropriation. Who is going to authorise this mining activity ? No State, nobody but an international Authority.

Declaring the moon: "Common Heritage of Mankind" is the only way to mine it. For the time being resources of the moon are "res extra commercium" no appropriation is possible whether it is an appropriation of the resources as a whole through claim of sovereignty or as a part through mining. If, like for the seafloor, the moon is declared "Common Heritage of Mankind", Mankind appropriates the resource as a whole. Mankind may authorise appropriation of a part of them by mining. As astonishing as it may be, it seems to be the only solution to legally mine the moon. In this way, the legal status of the resources being defined, an international Authority can then authorise a mining activity on the moon.

**Conclusions.**

The past experience of the seabed and of Antarctica shows that mining an international space needs an international Authority to play the role of a State in a place where no territorial sovereignty can regulate and control.

It also shows that, if national appropriation is prohibited when consumable and non renewable resources are concerned, there is two ways to exploit international resources: to create an international Enterprise or to declare the whole resource Common Heritage of Mankind in order to enable Mankind to authorise a partial appropriation.