

Abstract:

Evolution of man kind has lead to the degradation of environment surrounding us as well as Outer-space. The exploration of space has now become the geopolitical rivalries between countries to show their power in technology. While establishing the facts that the exploration of outer space is for enabling the benefits of humankind, in contra it also results in degradation of space environment. This work presents the ways and means by which the space environment is exploited and can be protected by implementing universal laws.

Sovereign Equality :

The idea of establishing sovereignty in space where not many countries have been to seems to be an unrealistic one. Hence, if such idea is established then the developed states will dominate the territorial authority in space. The space will be under the exclusive control of the supreme authority of the states discovering it. Hence, the States irrespective of their geographical area or authority, have the same legal representative capacities and are therefore have one vote each in the United Nations General Assembly.

The doctrine of legal equality of states is an umbrella category for it includes within its scope the recognized rights and obligations which fall upon all states. Article 2 of the Outer Space Treaty of 1967 came into agreement with sovereignty issue and stated that outer space is not subject to any claim of sovereignty. Likewise the principle of *res communis*, as stated above in the article makes outer space the land of all mankind instead if allotting it to the a particular national powers. Therefore, any claim of sovereignty in outer space will lack a legal backing.

Effect of Debris on Outer Space:

It was in 1957 the launch of Sputnik 1 which was the first manmade object in the Earth orbit. Gradually the number of satellites increased because the outer space exploration and exploitation by the human being. It is undeniable fact that the increasing quantity of debris in the Earth orbit poses a danger to the users of the orbital environment, like spacecraft. It is not only the orbital environment but when such debris reenter the Earth's atmosphere it can cause risk to the humans or manmade structures . Orbital debris is the term for any object in Earth orbit that no longer serves a useful function. These objects include non-operational spacecraft, derelict launch vehicle stages, mission-related debris and fragmentation debris. All man-made objects, including fragments and elements thereof, in Earth orbit or re-entering the atmosphere, that are non-functional.

The very idea of bringing out outer space conventions was for a peaceful use. The outer space environment was once peaceful but now crowded and adversarial. Around the world the major powers, in practice, for many years space was used for military purpose like communication and surveillance. Though it serves many good outcomes it also creates new debris and create problems between countries to prove their supremacy and technological advancements.

- USA warfare in space might be a major threat to other countries
- China and Russia has illustrated that it can target satellites with missiles from its territory
- Oumuamua the first interstellar object that was noticed in the solar system.

Introduction:

The research activities in the outer space has boomed in the recent years which has exploited nature. The exploration of space which was considered to help the main kind has created rivalries among supreme powers. Due to the exploration of space which has led to exploitation of outer space, finds a series concerns for the United Nation to take corrective measure to stop such activities. The UN for the sustainable use of space had provide with certain regulatory principles for the rule of law in outer space exploration and governance. Article 3 in the Outer Space Treaty states that the State Parties should carry on activities in the exploration and utilization of outer space in line with international law and the United Nations Charter. Appling international directives to the geographical area such as outer space is very confusing and unpredictable. But, today the legal status of outer space is developing similar to that of the laws of the high seas, ages back. **Judge Manfred Lachs** of the International Court of Justice, has stated that "Whenever a law is confronted with facts of nature or technology, its solution must rely on criteria derived from them. For such laws that intended to resolve problems poses by such facts and it's herein that the link between law and the realities of life is manifest. The legal theory does not provide answers to such problems, it only adopts the one best serves its purpose and integrate with the frame work of law".

The second *United Nations Conference* on the exploration and peaceful uses of outer space held at Vienna, August 1982 (UNISPACE 82) that legal control over all activities in the outer space are out of the questions. It was understood by the international community that a large portion of the outer space law will be institutional law which will consists of rules governing the relationship between many international and national agencies relating to outer space issues, like United Nations Committee on the Peaceful Use of Outer Space (COPUOS), the International Telecommunications Satellite Organization (INTELSAT), the International System and Organisation of Space Communications (INTERSPUTNIK), the European Space Agency (ESA), the United States National Aeronautics and Space Administration (NASA), Indian Space Research Organisation (ISRO), and the Centre National d' Etudes Spatiales (CNES) in France.

State Responsibility:

Though outer space is not the property of any nation but since it belongs to mankind as a whole, the states are made responsible for their act which inflicts injury. The rules of international law as to state responsibility concern the circumstances in which, and the principles whereby, the injured state becomes entitled to redress for the damage suffered. The laws of state responsibility are the principles governing the breach of obligations by the state. It mainly deals with three elements to be dealt in the concept state responsibility. State responsibility, first, means responsibility for "internationally wrongful acts" towards another state.

The other two criteria for deciding the state responsibility to arise are the following "a breach of an international obligation of the State Responsible" in respect of the second state has taken place, which is called 'objective fault'," and that that breach "is attributable to the State responsible under international law". Responsibility is defined by the Oxford English Dictionary as "The state or fact of having a duty to deal with something or of having control over someone". State responsibility has been generally stated to be limited to the responsibility of states for internationally wrongful acts. Since, the laws has not been codified yet for imposing the liability on the states and the laws not being mature enough to lay down the responsibility, for any breach the sole reliability then arises out of the sources of international law.

India and Space Law:

Space law is typically vague and the great cost and potential benefits of space exploration have sparked controversy about the obligations of spacefaring nations to share the fruits of their ventures into space with other countries. India has the potential to cope up with the developed nations in the space explorations but has a weaker side in formulating space legislations. At the international level experience demonstrates that the formulation of acceptable and viable system of space legislation is impossible without the consensus of the major space powers. This fact is recognized on both doctrinal and official levels.

India has a comprehensive earth observation data policy. This Remote Sensing Data Policy, which was established in 2001, sets forth a licensing mechanism and guidelines controlling the dissemination of remote sensing data. As to licensing, a licence/permission issued by the Department of Space is required to operate remote sensing data as well as to acquire/disseminate data within India. The Department of Space assigns licensing operations to two entities: the National Remote Sensing Centre, which is responsible for acquisition and distribution of remote sensing data within India, and Antrix Corporation Limited, which is in charge of granting licences for acquisition/distribution of data outside of India.

India has become another important emerging spacefaring nation, in particular because of the launching services it provides. The Indian launch facilities are owned by the government, and launch services are offered to national and foreign entities exclusively by the Indian Space Research Organization (ISRO). However, since 2000, the government has permitted commercial satellite and operations facility ownership to national companies. Consequently, licensing mechanisms had to be introduced to control and supervise private space activities. India has, however, not yet enacted a specific law in this respect.

Conclusion:

Development of Space technologies and its utilization for space exploration is the current focal point among the developed and developing countries. But when it comes to outer space exploitation - like collecting of minerals from celestial bodies etc., is approved by world nations should also concentrate on formulating space law at domestic level. Countries like China, USA and Russia have successfully tested weapons that are capable of destroying a satellite which could create a cascade of debris in the outer space.