CANADA'S ROLE IN THE GLOBAL SPACE AND ANTARCTIC GOVERNANCE.

SAMUEL ADENIJI

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- Generally, the global commons have been “defined as those areas of the planet that fall outside national jurisdictions and to which all nations have access”. The global commons also refer to resource areas or domains that lie outside the limits of national jurisdiction of states. Global commons, according to the Center for New American Security, share certain broad attributes. First, their utility as a whole is greater than being broken down into smaller parts; second, they are not solely owned or controlled by any entity but collectively governed in most cases; and third, states and non-state actors with the requisite technological capabilities are able to access and use them for political, economic, cultural and scientific purposes.
- Therefore, the expression, “I belong to everybody, I belong to nobody” expresses the status of the global commons. The Deep Seabed, the High Seas, Antarctica, the Outer space, and the Moon with other celestial bodies, being veritable examples of global commons all fall squarely within the scope of this statement.

- **The outer space - including the moon and other celestial bodies - is home to diverse mineral resources of significant benefit to life in space and on earth. On 28 September 2015, the National Aeronautics and Space Administration (NASA) announced to the world that there is evidence of water on Mars, under certain circumstances.**
- **This development certainly holds great prospects for humanity. In fact, studies say these resources can dwarf the limited resources available on earth and reduce the dependence on earth's resources which are gradually depleting.**

- **The Antarctic is known to have mineral deposits and coal has been found in two regions in Antarctica – the Prince Charles Mountains and Transantarctic Mountains. Iron ore is widespread in surface rocks in the continent and has been traced deep under the ice. Also, the Dufek Massif in East Antarctica has been identified as a possible source of chromium.**
- **It has been suggested that rocks in Antarctica contain oil and gas deposits. The energy needs of many nations in 2048 will differ from today. The Lowy Institute predicted that the Antarctic has about 203 billion barrel oil capacity and if the predictions prove correct, the continent's energy reserves would be third largest in the world.**
- **Further, it is important to examine the magnitude and rate at which future climate change will expose the Antarctic to possible mineral exploitation.**

- **The mineral resources in outer space and Antarctica fall within the standard definition of property. Therefore, what is the legal framework for mining the mineral resources in outer space and Antarctica?**

- **Although there are several proposals for a legal regime to govern the diverse layers of the exploration of the natural resources of the moon and other celestial bodies, up till now, the international community is yet to adopt a concretised legal approach to this new wave of commercial exploration of the natural resources of the moon and other celestial bodies. Of particular concern to this research is the question of property rights over the resources to be mined because it is at the very foundation of space exploitation.**

The absence of sovereignty or property rights in Antarctica and Outer Space

- **A key feature of a commons resource is free or unrestricted access to its use in the absence of private property rights and, in a political sense, the absence of sovereign national jurisdiction over the resource.**
- **In the absence of recognized national political sovereignty and private ownership in Antarctica and outer space, access to Antarctic land and outer space mineral resources would be open or unrestricted were it not for the presence of an international treaty regime—the Antarctic Treaty System and Outer Space Treaty—that manages such access. Without the international legal presence of the treaty system, a scenario similar to a "tragedy of the commons" might occur. The mere fact that such a risk of serious over-exploitation exists seems to suggest, in itself, an important commons presence in Antarctica and outer space. It will be argued later that the comprehensive and effective management of Antarctic and space mineral resources is necessary in order to reduce the risk of such an unwanted long-run scenario.**

Property Rights over the Mineral Resources in Outer Space and Antarctica and the Significance of Locke and Libertarian Theories of Property

- Essentially, Locke and libertarian theories present a set of powerful tools for thinking about property and structuring property institutions and systems.
- Natural Property Rights in Outer Space and Antarctica - Refers to property rights acquired through the laborious excavation of extraterrestrial natural resources of celestial bodies and the extraction of mineral resources in Antarctica.
- Individuals who labour upon resources that are unowned or held in common are granted a natural property right to enjoy the fruits of their efforts – John Locke.

- **“Property is an almost redemptive social institution. And property does more: it identifies who has what. In performing this basic function, property allows owners to trade with one another, rather than getting into unproductive and wasteful fights over resources.” – Professor Carol Rose.**
- **Here, Professor Carol Rose stresses the essential argument for the protection of property interests.**
- **“… [P]eople will not work much without some inducement, and if there is no such inducement to labor, resources lie undeveloped and total wealth remains low. What induces people to labor? Property does. Let people have secure property, and they will learn to invest their labor on the things that they own, because they themselves will take the rewards. … Once able to trade, they will invest even more in socially useful activities, because the whole world becomes the market for their efforts.” – Professor Carol Rose.**

What role does Canada need to play on the global stage? What value can Canada offer to the world with regard to the management and governance of the international commons, especially the Antarctic and Outer Space?

According to Professor Michael Byers:

“Allowing private citizens to own space minerals is controversial because Article 2 of the Outer Space Treaty states: “Outer space, including the Moon and other celestial bodies, is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means.”

“The treaty was adopted in 1967 and ratified by the United States and the Soviet Union that same year. Article 2 helps to explain why the Apollo 11 astronauts did not claim any territory on the moon in 1969, even though they planted a U.S. flag.

But while everyone agrees that no country can own the moon or an asteroid, there is no agreement on whether the prohibition on national appropriation extends to private actors. Many developing countries, lacking their own space programs, support a “common heritage of mankind” approach that would see any revenue from space mining shared among all countries.”

“Today, [Canada] could lead the negotiation of a new [multilateral] treaty to provide agreed standards for space mining, including rules on containing debris and registering claims. But this will not happen until opponents of private ownership realize that commercial space mining is coming, with or without their input.

As it happens, Canada has been here before. In 1995, when unregulated high seas fishing threatened turbot stocks in the North Atlantic ocean, Canada successfully pushed for a new treaty to encourage the creation of “regional fisheries management organizations” that would assign science-based quotas to any interested state.”

“As part of that push, Canada acted unilaterally by arresting a Spanish fishing trawler on the high seas. The move was controversial, and denounced by some countries as illegal, but it led to improvements in international law.

Similar decisiveness is required today, to adopt a commercial space act that recognizes the right of Canadian companies to own minerals acquired in space.

Space mining might seem like a distant prospect, but so did the Internet just three decades ago. If Canada wishes to remain a world leader in mining, it must reach for the final frontier.”

APPRECIATION

- **THANK YOU, CIGI.**
- **HAPPY BIRTHDAY, CANADA.**