

## Insight - African Perspectives on the Space Resources Dialogue

*By Executive Director, Peter Martinez, and Director of Private Sector Programs, Ian Christensen*

On May 23-24, 2019, a group of space agency, space industry, and academic experts from across the continent of Africa, as well as from the United States, Luxembourg, and Japan gathered in Pretoria, South Africa, to discuss space resources in the context of African space activities and policy. This first-of-its-kind discussion on space mineral resources was timely as many African countries are in the process of developing national space policies and the continent as a whole is developing a regional space program.

Since 2015, the topic of private sector access to, development, and utilization of space resources has attracted considerable attention in national and multilateral space policy fora. Beginning in 2016, SWF has been a member of the [Hague International Space Resources Governance Working Group](#) (Hague Working Group), a multi-stakeholder civil society dialogue working to develop [Building Blocks](#) for a common legal framework to enable space resources development in a manner consistent with the established treaty regime governing space activities at the international level. Our involvement is driven not only by the near-term legal and policy questions of space resources utilization, but also in recognition of the long-term potential of space resources as a key enabler of an expanding space economy and the need to provide a stable and responsible legal regime to enable such an economy.

The [Outer Space Treaty](#) states that the “exploration and use of Outer Space shall be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific benefit.” As initial business plans and national policy initiatives focused on space resources were announced, discussions of the potential for trillions of dollars of space-based platinum resources or control of access to potential lunar resource sites were tempered by the reality that space resources activities will be initially executed by a relatively small number of established spacefaring nations. This led to a perception that the benefits of space resources utilization will be inequitable. Accordingly, in many of the multilateral policy discussions surrounding development of space resources, the question of socioeconomic benefits has emerged as a key theme. Industry and governments [have a duty to work together](#) to articulate how space resources will provide socioeconomic benefits and to develop policy and legal regimes to help realize those benefits. Indeed, the Hague Working Group has spent a considerable amount of effort discussing benefits and focuses one of its Building Blocks on the topic.

The Hague Working Group process has been a productive dialogue, not only in the sense of producing the Building Blocks, but also in the sense of allowing a wide range of stakeholders to begin to develop shared understandings of certain issues and terminology. However, processes like the Hague Group, and other similar non-governmental dialogues on space resources, are, to a large extent, a dialogue among well-informed participants whose views coming into the discussions are already aligned in certain respects. So, it is not surprising that such groups can reach consensus views on a number of questions. The fragility of the outputs of these non-governmental space resources dialogues manifests itself when their outcomes are referred to multilateral fora, such as the United Nations Committee on the Peaceful Uses of Outer Space (COPUOS), where the majority of the member States may not have the capacity or informed positions necessary to engage purposefully in policy and regulatory dialogues on space resource utilization topics, and where geopolitics also comes into play. This can lead to a reluctance on the part of

States to hold discussions on topics that they are not yet ready to discuss beyond some general principles and definitions. This lack of appetite to hold such discussions in COPUOS manifested recently with the lukewarm response by the Legal Subcommittee of COPUOS at its 58th session in April 2019 to a [proposal by Belgium and Greece](#) to establish a Working Group on Legal Aspects of the Exploration, the Utilization and the Exploitation of Space Resources within that Subcommittee during 2020 - 2022. The Subcommittee agreed instead to again hold a general exchange of views on potential legal models for activities in the exploration, exploitation and utilization of space resources as a single item for [discussion in 2020](#).

One way to broaden the space resource utilization dialogue is to build awareness and capacity among space professionals and government officials in developing countries. To this end, SWF partnered with the South African National Space Agency to organize a [Workshop on SocioEconomic Benefits of Space Resources Utilization - African Perspectives](#). The workshop, which took place in Pretoria, South Africa, May 24-25, 2019, brought together diplomats from several African countries and experts from terrestrial mining, space agencies, space industry, and academia to discuss questions of space resources benefits in the developing/emerging space nation context.

A number of key themes emerged from these discussions that may help broaden the space resource utilization debate. The African participants in the workshop emphasized that while informal processes such as the Hague Working Group are fruitful exercises to explore ideas, when it comes to developing legal and regulatory principles for space resource utilization, the discussions should be carried out in a formal multilateral forum such as the United Nations. However, they also acknowledged that, before being able to engage in such discussions, a number of African countries would have to build capacity and develop national positions on a number of space resource utilization issues. Such capacity building should encompass both technical and policy aspects, and efforts should be undertaken to socialize space resource utilization topics to policymakers and the public through education and grassroots outreach activities. It was also noted that emerging spacefaring countries need to determine proactively the contributions that they might make to space resources activities, rather than solely focusing on attempting to stop or delay activities in the established spacefaring countries.

A number of delegates from the international space industry pointed to the expertise of private companies in extractive industries in many African countries and suggested this as a possible contribution that Africa might be able to make to international industry-led space resource utilization efforts. It was suggested that conducting an inventory of existing African expertise and capabilities in topics related to space resource utilization might be the first step in identifying what African academic and industrial actors could place on the table in future space resource utilization discussions.

It was also emphasized that the space industry is lacking the skills and operational experience accumulated by terrestrial extractive industries, and that experts from those industries could suggest technological solutions for space resource utilization activities at a fairly low space technology readiness level, and that space companies could then develop these technological solutions further to space-qualify them.

The development of space resources is set to become a prominent space governance issue in the coming years. As more commercial actors become interested in pursuing space resource-related activities,

pressure will mount on governments to provide the regulatory certainty these actors need in order to attract investment. Already, the [United States](#) and [Luxembourg](#) have enacted legislation that is designed to provide regulatory certainty to space resources companies wishing to start preliminary test campaigns on the Moon and nearby asteroids. SWF believes that the time is ripe to facilitate dialogue among States and non-State actors on a future space resources governance regime. As such, SWF will continue to organize regional dialogues, such as the one held in Africa, on space resource governance issues. We are open to working with international partners in government, space agencies, industry and academia to organize these dialogues. Such discussions aim to allow all States, regardless of their level of development, to engage purposefully in space resources debates in multilateral fora.

Don Flournoy, Sugar Bush Farm  
6675 Baker Road, Athens Ohio 45701  
740-591-0021

