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## Fostering Southeast Asian Discourse on Space Technologies

*By Chua Chee Yong Sean and Tan E-Reng*

### SYNOPSIS

*Space technologies have undergone significant advancements in the last few decades. While Southeast Asia stands to benefit from such developments, the discourse on its involvement in the space industry within the region has been small-scale and muted. There is a need to do more.*

### COMMENTARY

Over the past 50 years, space technologies have shown the [potential](#) to augment and improve the quality of life. This should interest us all but currently much of the discourse on the development of space technologies tends to focus on the efforts of agencies based in big countries such as the United States, China, Russia, Japan, and India.

The discourse on the development of space technologies within Southeast Asia is noticeably small-scale and muted despite the significant progress achieved in recent years. In fact, Southeast Asia has become an active hub for space-based activities over the last decade with [Thailand](#) and [Singapore](#) leading the countries involved. A [space race](#) between Thailand and Vietnam is also predicted.

### The Need for More Discourse on Space Technologies

Developments in Southeast Asian space technologies have brought about enhancements to the agricultural sector as well as [benefits](#) like disaster monitoring. These are crucial to Southeast Asia as many of the countries in this region are [prone](#) to natural disasters arising from climate change. Furthermore, at least [eight](#) of these countries are heavily reliant on agriculture.

The avoidance of economic losses arising from weather extremes is also dependent on space-based disaster monitoring technologies. However, there seems to be space [data gaps](#) that hinder a more accurate understanding of environmental issues in Southeast Asia. It is important for Southeast Asian countries to increase collaborative discussions for information-sharing to help in the development of space technologies.

Additionally, the economic potential of the space economy for Southeast Asia is [high](#). In recent years, there has been a growing interest in space tourism, which could lead to an [expansion](#) of the space tourism market, creating new opportunities and [jobs](#) for space doctors, lawyers, and food engineers. Some of the countries could leverage the latest space technologies for competitive advantage.

Thailand and Vietnam are reportedly looking at [competing](#) with the US and China for customers in the space domain. As this could bring about countermeasures from the two great powers, including the possibility of higher tariffs on goods and services, it is important for these countries to engage in strategic dialogues and partnerships to avoid them.

## **Stepping Up Collaborative Discussions**

Policymakers in Southeast Asian countries can consider the following measures to mitigate issues associated with the current lack of dialogue on the development of space technologies.

### *Fostering public awareness and adoption of space technologies*

Policymakers can consider engaging the mainstream media to provide more coverage of space companies and the burgeoning developments in the Southeast Asian space sector, hence fostering greater public awareness of the space technologies useful and available to them. Examples of such technologies include those developed by companies such as [Eartheye Space](#), a company headquartered in Singapore that provides easily accessible and affordable space-based data, and [Fahfon](#), a Thailand-based mobile application that uses information gleaned from satellites to provide more detailed information on weather forecasts and pollution levels.

With higher levels of adoption amongst the general public, new avenues for feedback can be opened at the grassroots level, allowing policymakers, the space sector, and academia to find out which technologies would be useful to ordinary people, and to refine their policies, products, and services accordingly.

### *Educating the young*

Education on space technology can begin in school. By starting young, students will be better primed to consider how the technologies figure in everyday life, spurring the spirit of innovation within them. Such an approach – the [“Tomorrow Space”](#) programme – has been undertaken in Vietnam.

### *Fostering discourse through cross-institution networking*

Think tanks and research institutions can foster greater discourse on space

technologies through cross-institution and cross-national networking events. Singapore has played host to various space-related events like the [Singapore Space Symposium](#), the [Space Health Symposium](#), and the [COSPAR Symposium](#). Such events could further increase opportunities for space experts to collaborate in discourse for policymaking.

#### *A space agency for Southeast Asia*

The Outer Space Treaty of 1967 is currently not signed by Cambodia and Timor-Leste. These countries as well as Brunei, Myanmar, and Laos are also not members of the United Nations Committee on the Peaceful Uses of Outer Space. Nevertheless, there is [marked interest in starting a regional space agency](#).

A space agency would help in consolidating and coordinating space-related strategic discussions and initiatives pertinent to Southeast Asia, besides spurring collaborative projects on issues such as the space data gaps highlighted above. Furthermore, the agency can potentially work with the US' National Aeronautics and Space Administration (NASA) and the European Space Agency (ESA) in [responding](#) to climate change.

#### **Conclusion**

The advancement of space technologies has made it attractive for Southeast Asian countries to invest more in the space industry, and to compete in the arena. Southeast Asian policymakers should step up the level of discourse, coordinate their efforts and cooperate, to ensure that space technologies will be mutually beneficial to all. Stakeholders of the Southeast Asian space ecosystem – the policymakers, space sector, and academia – need to keep the discourse on space technologies going.

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