Strengthen China-Thailand Partnership in Remote Sensing to Combat Natural Disasters and Climate Change

— An Interview with Dr. Anond Snidvongs, Executive Director of Geo-Informatics and Space Technology Development Agency (GISTDA), Thailand

BCAS: *You are an outstanding and influential climate scientist in Thailand. What is the main concern for climate change in your country at present?*

Dr. Snidvongs: Generally speaking, our concern is in three aspects. One is agriculture. The change in world climate and rain patterns may affect the production of crops in Thailand including rice, cassava and fruit trees. The second is the urban area, mainly related to disasters such as flood and drought. Drought is concerned because the water supply in some cities has become a problem. If extreme weathers persist in the future, many urban areas in Thailand would be affected, and that's why the government has invested about ten million US dollars to address water-related disasters. The third is the coastal area. The problem with coastal areas is a combination of sea level rise and land subsidence. Now the situation is serious in many areas, including Bangkok. If we don't do anything, half of Bangkok will probably be below the sea level within 30 years. GISTDA has been supplying information to support government planning and decision-making concerning climate change, especially with information from radar satellites and optical images.

BCAS: *GISTDA has made remarkable progress in remote sensing with THEOS satellites, on which China and Thailand have a lot of cooperation.*

Dr. Snidvongs: Of course. China and Thailand have a strong tie in remote sensing. For instance, GISTDA has nurtured a very close relationship with some universities and companies in Wuhan, Hubei Province. Two days ago I was in the city again, discussing with Chinese colleagues about creating a geo-information industrial park in Thailand to use the satellite Beidou for disaster relief in our country and other Southeast Asian countries.

BCAS: *The two countries are both vulnerable to natural disasters. What kind of role can remote sensing play in fighting against disasters?*

Dr. Snidvongs: Remote sensing plays a very important role here. As for disaster preparation, remote sensing can provide a very big picture to show the connectivity of many things and zoom in on specific areas to give us details from different satellites. It can also be used for disaster monitoring, like the monitoring of rain, flooding and storms, and make the warning and forecast of disasters more accurate. It is also instrumental in assessing damages, finding safe places to relocate people and getting to know road conditions, as well as in disaster recovery and compensation. Remote sensing is useful at all stages of a disaster.

BCAS: What is the biggest challenge for remote sensing in the near future?

Dr. Snidvongs: I think the biggest challenge is to develop user-friendly products and services. We have invested a lot of money in the upstream part, building satellites and ground stations, but the work in the downstream part is not sufficient. The operational agencies always think it's the business of the space agency to do everything for them. We have to make them aware that we must join hands to strengthen communication along the value chain of satellite products.

BCAS: What will GISTDA do to cope with this challenge?

Dr. Snidvongs: Right now we are working on the so-called "Space Krenovation Park" in Thailand. It is going to be a comprehensive technology hub that brings the academies, industry and agencies together to develop better remote sensing products. As GISTDA has access to more than 20 satellites, we hope that all information and data can be fully used via this endeavor.