

**Thailand's statement**  
**Agenda Item 11: Space and Water**  
**By Ms. Kandasri Limpakom, Deputy Executive Director,**  
**Geo-Informatics and Space Technology Development Agency**  
**At the 65<sup>th</sup> Session of the Committee on the Peaceful Uses of Outer Space**  
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Mr. Chair, Distinguished Delegates,

Water distribution that is egalitarian, efficient, and sustainable still confronts huge challenges. Water shortage is a recurring problem due to a lack of available water supply and poorly regulated demand for water. Although conflict is unusual, towns and nations' reliance on single sources of water and upstream rivers, with or without transboundary agreements, can quickly lead to short-term crises and long-term unsustainable use.

On the supply side, in tropical climates such as Southeast Asia, climate change is projected to cause regional changes in water resources, owing to decreasing precipitation and increasing evapotranspiration. There is a chance that increased climatic unpredictability will result in more droughts. It is expected a fewer precipitation but more severe storms, potentially intense flood hazard. While, on the demand side, population expansion, rapid urbanization, and rising agricultural and energy production are expected to create high water demand.

To achieve water security and increased resilience to hydrological extremes, a thorough understanding of the basin-scale water resources dynamics is required. This knowledge serves as the foundation for successfully and efficiently managing water.

Mr. Chair,

Many regions in Thailand have insufficient hydrometeorological and agricultural monitoring networks with considerable latency, making real-time decision-making difficult. Satellite data is increasingly being used in Thailand to augment in-situ monitoring networks, and in many cases is the only feasible source of information.

Satellite-based sensors can now directly or indirectly measure nearly all components of the hydrological cycle including precipitation, evaporation, lake and river levels, and surface water to name a few. As a result, these sensors can

give critical data for water management and monitoring the spread of hazards and their consequences.

GISTDA, the space agency in Thailand together with our key partners are working on integrating data from several satellite-based sensors with supplementary in-situ data for Integrated Water Resources Management (IWRM). Although some of these satellite products are in their infancy, and there are limitations and challenges associated with their use. Their large spatial coverage and high temporal resolution allow them to provide near-global information in near real-time.

The increasing conflict between people regarding water consumption necessitates the monitoring of water volume and water quality. Challenges are remains. However, we believe that these satellite-based information will enhance our understanding on water dynamics which leads to a better and more efficient water resources management.

Thank you for your kind attention.

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