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Statement Item 11: *Space and Climate Change*

Mr. Chair, Distinguished Delegates,

Space technologies are essential for understanding and tackling climate change, thanks to satellites that provide global, continuous, and precise data supporting science, early warning systems, and evidence-based policies. As climate change has no borders, international cooperation—through data sharing, joint missions, and capacity building—is vital. Italy, through the Italian Space Agency (ASI), promotes open access to space-based data and technologies to enhance global resilience and inclusive climate action.

Italy's Earth observation capability is rooted in innovation. The **COSMO-SkyMed** radar constellation provides high-resolution imagery in all weather conditions, supporting disaster response and environmental monitoring. The hyperspectral satellite **PRISMA** helps track pollution, land degradation, and methane emissions.

Building on this foundation, Italy is implementing the **IRIDE constellation**—an ambitious, government-funded programme led by ASI with ESA, to be fully operational by June 2026. IRIDE will integrate six complementary constellations (radar, optical, hyperspectral, and multispectral) to deliver frequent, high-quality data on greenhouse gases, drought, urban heat, and land use, supporting national strategies and global frameworks such as SDG 13 (Climate Action) and SDG 11 (Sustainable Cities). Eight satellites of IRIDE's HEO segment were launched on 21 June from Vandenberg.

In parallel, ASI is developing **LUCE**, a global interdisciplinary mission carrying the first spaceborne Raman elastic fluorescence lidar. LUCE will offer new insights into atmospheric particles, clouds, ocean biology, and terrestrial ecosystems, delivering data on snow, water, and plant health. These observations will reduce uncertainties in climate models, inform policy, and strengthen resilience.

In May, Italy co-hosted the **GEO Global Forum 2025** in Rome, including a ministerial segment, advancing a politically supported agenda to use space-based observations against climate change. GEO's Post-2025 Implementation Plan prioritizes Earth intelligence for emissions monitoring, disaster management, ecosystem protection, water and food security, and effective policy—underpinned by international cooperation.

Italy remains strongly committed to advancing space-based climate solutions, leveraging innovation and inclusive partnerships to help all nations understand, adapt to, and mitigate climate change.

Thank you.