



Permanent Mission of the Islamic Republic of Iran
to the United Nations Office and other International Organizations in Vienna

Statement by the Delegation of the Islamic Republic of Iran

The Sixty-First Session of the Scientific and Technical Subcommittee of COPUOS

Agenda item 7: Space-system-based disaster management support

1 February 2024 - Vienna, Austria

Madamchair,

Iran, with a rather vast land, is among top 10 most disaster-prone countries in the world, such that more than 30 types of natural disasters have occurred in our country. As well, while having only 1 percent of the world population, Iran suffers from nearly 6 percent of disaster's losses. Earthquakes, floods, drought, sand and dust storms, soil erosion and forest fire are the major disasters in Iran.

Despite high exposure to hazards, conversely, capacity to cope, and resilience to tolerate and back to normal situations is not much satisfactory. That's why in recent years, many authorities attached great importance to getting effective and rapid access to timely and accurate space-driven information aimed to integrate into other data sources to improve preventive measures, issuance of early warning notifications, coordination and preparedness procedures,

enhancing performance of post-disaster operations, including recovery and rehabilitation, more resilience to hazards, and minimizing damage and loss.

In the following, we briefly share a few relevant experiences in this area.

Given the most susceptibility of west, north and southwest regions to floods, numerous studies and experimental projects conducted to accurately detect changes, precisely measure of stricken areas, and investigate the effect of geomorphology on flood regions. Furthermore, using satellite radar data, incorporating in novel machine learning techniques, we are able to evaluate and analyze the role of other natural and man-made factors like vegetation and moisture topography on probability and intensity of flood occurrence.

Iran also has been faced with repeated occurrences of dust/sand storms in south and west provinces that originated from neighboring countries. Considering high pollution and the negative impacts on citizen's health, we developed innovative models to identify current, and predict the future spots that may become the potential origins of forming dust/sand storms.

At present, following the launch of indigenous satellites, we get continuous access to medium to high resolution images and observation data to monitor occurrence of major natural disasters. In addition, in case of emergency and demand, we can order required data provided by APSCO exclusively-established data sharing platform.

As a crucial complementary effort, developing a nation-wide data network for early warning applications, and incorporating other data types from a variety

of sources, including ground, meteorological and space-based data, is a necessity that is currently underway. it should be noted that the role of satellite communication, positioning and navigation data in coordination, and support conducting emergency measures and search and rescue operations is absolutely vital.

To conclude, it should be reaffirmed that Iran, as a hazard-prone country, urgently seeks to develop its indigenous satellites earth observation system comprising advanced platforms equipped with multi- and hyper spectral sensors, high resolution SAR instruments, and thermal equipment.

Thank you, Madamchair.