

Statements of Pakistan Delegation
60th Session of the Scientific & Technical Subcommittee (STSC) of the
United Nations Committee on the Peaceful Uses of Outer Space (UNCOPUOS);
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Agenda Item No. 08: Space-System-Based Disaster Management Support

Mr. Chairman and Distinguished Delegates

SUPARCO, being the National Space Agency, provides space based information to NDMA/PDMAs during all phases of disaster management namely preparedness, response, recovery and mitigation in the events of natural disasters i.e. flood, drought, landslide, GLOF and earthquake. Besides provisioning of rapid maps, technical assistance to National Disaster Management Authority (NDMA) and Provincial Disaster Management Authority (PDMA) is provided for conducting Multi Hazard Vulnerability and Risk Analysis (MHVRA) studies in most vulnerable districts.

SUPARCO is currently undertaking Development of geo-referenced database for natural catastrophe (NatCat Model) Project for National Disaster Risk Management Fund (NDRMF). Main components of the project include; floods, droughts, earthquakes and cyclones probabilistic hazard assessment, exposure and vulnerability assessment, financial risk assessment and development of spatial database and Web Portal. In addition, project will also assess impact of climate change on flood, drought and cyclone hazards frequency and magnitude. The NatCat project will eventually provide baseline data/info regarding quantification of the Total Value at Risk (TVAR) against floods, droughts, earthquakes and cyclones. Moreover, NatCat model outcome will help decision makers in prioritizing development fund for mitigation projects keeping in view probabilistic hazards magnitude and frequency.

Mr. Chairman

This year monsoon season 2022 was 175% above normal and has caused history worst flash flooding and inland inundation in southern part of Pakistan especially in Balochistan and Sindh provinces. Monsoon 2022 has caused severe flash flooding in south-western part of country which never received monsoon rains in history of Pakistan. Hence, severity of monsoon and shifting of monsoon tracks towards western part of the country highlights consequences of climate change phenomena. Furthermore, climate change impacts on weather pattern are quite

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significant in Pakistan in 2022 i.e. direct transition from winter to summer (no spring season), long heat wave in the month of April and May, GLOF event, approx. 200 x forest fire events across Pakistan and 22 June was the coldest day in the history of Pakistan instead of the hottest. It is important to note that most of flood / rain affected areas received 4-5 heavy rain spells during monsoon 2022. Urban flooding in some of the metropolis has disrupted life during monsoon. Flood 2022 affected 31 M population in 84 x districts, 1700 peoples lost their lives, caused heavy losses to cotton crop & horticulture resulting in cumulative economic losses of \$28b. Additionally, Shishper Glaciers is continuously surging since July 2018 and has so far caused 3 x GLOF events. SUPARCO provided near real time support i.e. rapid inundation mapping, infrastructure and crops damage assessment maps and post damage need assessment to NDMA, PDMAs via dedicated web-portal DisasterWatch.

Mr. Chairman

SUPARCO is participating in various programs /activities organized by UN-SPIDER, International Charter for Space & Disaster Management, Sentinel Asia Framework, and United Nations Economic and Social Commission for Asia and the Pacific (UN-ESCAP), Regional Space Applications Programme (RESAP) for sharing data and expertise. SUPARCO is also hosting UN-SPIDER Regional Support Office (RSO) in Pakistan since 2010. More recently, SUPARCO also joined Global Partnership on Space Technology Applications for Disaster Risk Reduction (GP-STAR). In 2022, SUPARCO being Pak-RSO, participated in UN-SPIDER Annual Regional Support Meeting at Vienna and UN/Austria Symposium "Space for Climate Action" and shared experience learned with regional countries/RSOs.

SUPARCO actively participates in international humanitarian satellite aided search and rescue COSPAS-SARSAT Programme since 1990 as a Ground Segment (GS) provider. The GS collects accurately, timely and reliable distress alert and location data for transmitting information to Search and Rescue (SAR) agencies. Currently, SUPARCO is augmenting the existing facility with Medium-altitude Earth Orbit Search and Rescue System (MEOSAR) system, which will improve both the speed and location accuracy for detecting beacons. Moreover, number of RCCs would be increased to minimize the communication delay of distress alerts for search and rescue efforts.

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Mr. Chairman

Pakistan is also participating in a project titled “Integrating Satellite and Ground Observations for Earthquake Precursors and Signatures-Phase II” and “Disaster Management Framework Joint Research Projects Phase-II” under the framework of APSCO.

Thank you Mr. Chairman

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