

Agenda Item No. 06: Remote Sensing

Mr. Chairman and distinguished delegates

The use of remote sensing technology and its applications has significantly improved the way we live and work today. The information obtained through remote sensing satellites is used to take pragmatic decisions in a timely manner. In order to meet country's high resolution imagery needs, Pakistan has so far developed two remote sensing satellites.

Mr. Chairman

As the national space agency, SUPARCO is providing its services in a variety of fields such as development of geospatial systems for irrigation management, crops monitoring systems, glaciers mapping and monitoring, river and flood vulnerability assessment, crop damage assessments, sea water intrusion mapping and ground water prospection etc. Remote Sensing (RS) / Geographic Information System (GIS) labs have also been established in different provinces and in agriculture universities of Pakistan. A Crop Information Portal has also been developed to support agro industries for resource optimization. Overall scope of these projects includes system development, data analysis, and capacity-building of stakeholders. These projects have helped in providing accurate information to stakeholders for pragmatic decision-making. The benefits include improvements in environmental indicators, adequacy of resources, understanding resource management.

Mr. Chairman

Food security concerns accentuated by population growth, limited production resources and climate change dynamics entail necessity to continually find ways to meet the challenge. Satellite Remote Sensing plays a vital role in mapping, monitoring and estimation of agriculture resources. Space technologies have helped increase crop yield, reduce environmental waste of commonly overused chemicals and have led to an emergence of new high technical professions in traditionally conservative rural

communities worldwide. Precision agriculture is based on whole farm management, with the goal of optimizing returns on inputs while preserving resources. By providing navigation, communication and data acquisition (earth observation) capabilities, the space based segment of smart farming technologies is one of the most important set of tools in the adoption of new and innovative practices.

Mr. Chairman

SUPARCO is providing consultancy services to National Highways Authority (NHA) for monitoring of NHA network using satellite technology. NHA road network is being monitored to report development of new infrastructure within NHA building line limits and progress monitoring of ongoing construction projects. A Geographic Information System (GIS) dashboard has been developed for visualization of temporal images and Geo-spatial Temporal Analysis (GSTA). Furthermore, Digital Elevation Model (DEM), land cover assessment and cut & fill analysis based services are provided for optimum route planning.

Thank you Mr. Chairman