Media Update-2

4 January 2021

FAO

PRESS RELEASE

FAO enhances GIS professionals capacities for effective land monitoring in Pakistan

Land cover or land use information plays an important role for many environmental and monitoring tasks, including climate change, ecosystem dynamics analysis, food security, and others. Accurate information about land cover affects the accuracy of all subsequent applications, therefore accurate and timely land cover information is in high demand. In land cover classification studies over the past decade, higher accuracies were produced when using time series satellite images than when using single date images. Recently, the availability of the Google Earth Engine (GEE), a cloud-based computing geospatial platform, has gained the attention of remote sensing based applications designed to process large data sets for global applications, analysis and ultimate decision making.

In this regard, to develop the expertise and capacities of GIS professionals in Pakistan, FAO conducted a virtual course on Google Earth Engine and its applications for agricultural mapping and for land monitoring. This 10-days training was held in collaboration with the Geospatial Unit at FAO headquarters. Around 20 GIS professionals were able to complete the training, which will be shared online with a wider audience. The training aimed to provide essential skills on innovative topics related to the use of satellite images: from selection, process, manipulation and thematic classification required to assess and monitor natural and agricultural resources. While traditional desktop GIS and Remote Sensing (RS) tools are currently being used in Pakistan, the Google Earth Engine will provide users with a web-based application for the selection, access and analysis of satellite imageries such as Landsat, Copernicus, and Modis.

Speaking at the closing day of the training, Rebekah Bell, FAO Representative *a.i*. in Pakistan, defined the usage of GIS tools as beneficial for decision makers. “Timely and reliable data is important and with improved capacities and upgraded tools like GEE, constant access to up-to-date time-series information will allow us to monitor through specific indicators (e.g. vegetation indices) and algorithms the land dynamics so as to detect land use changes, land degradation and restoration”, she added.

FAO will continue to provide support to the country by enhancing remote sensing capacities and by providing innovative algorithms to monitor land dynamics. Capacity development of GIS professionals will help in mapping forest cover, detecting deforestation, classifying land cover, estimating forest biomass and carbon, mapping urban area expansion, population mapping, and changes in agricultural production and forecasting, and rangeland dynamics.

****