

Technology to the aid of forest dept in covid times

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BHUBANESWAR: Technology can be a great ally during the pandemic and the State Forest Department would vouch for that. In the peak of lockdown restrictions imposed in wake of the Covid outbreak, it mobilised its Geographical Information System (GIS) cell for effective monitoring of forestry activities and wildlife resources management.

The Forest Information Technology and Geomatics Centre (FITGC), the GIS cell of the department, tracked execution of different programmes and activities undertaken at the field level using the Geospatial data. Digital monitoring was carried out for 23 different programmes including plantation, nursery work, mitigation of forest fire, foot patrolling and collection of inputs for preparation of work plan and survey of areas under Forest Rights Act.



A big challenge was to distribute as well as plant 15 crore saplings under Sabuja Odisha Mission of the Government against last year's target of 5.5 crore. It included selection of sites, prevention of duplication and monitoring of nurseries where saplings are to be grown during the lockdown when manpower utilization was very low due to social distancing.

However, Geomatics, the discipline concerned with the collection, storage, analysis and processing of geographical information in digital form, simplified the monitoring process to a great extent.

“Data collection and validation was done with the help of GPS enabled personal digital assistant (PDA) and smart phones in which field staff visited the site and sent photos and inputs for creation of geo-tagged vector polygons of the location having information regarding area of plantation along with the details of their latitude and longitude,” Principal Chief Conservator of Forest (PCCF) Sandeep Tripathi said.

Vector polygons of a total 2,660 artificial regeneration, assisted natural regeneration and avenue plantation sites, spread over 1.15 lakh hectares, have already been uploaded on Odisha Forest Management System portal of FITGC and official website of the PCCF so far for effective monitoring of the progress. As the plantation this year will be carried out over 1.30 lakh hectare, the department plans to complete upload of data for the rest of plantation sites soon.

Geo-tagging method also helped the department to get the latitudinal and longitudinal details of 5,220 nurseries where these saplings are raised. The technology enabled forest officials in regular monitoring of foot patrolling and preventing forest fire during the lockdown. The 7,690 GPS-PDAs and android mobiles used for collection of geographical information by the field staff aided in tracking foot patrolling done by the forest guards in all the circles for a total 1.40 lakh km length every month.

The FITGC Forest Fire Cell that functions round the clock has even used the technology in controlling forest fire in the State effectively during the lockdown. Staff visiting sites to put out forest fires are required to send action taken reports along with geo-tagged images of the location immediately which is then updated online. Geo-tagging helped attend forest fire incidents in 10,043 out of 11,088 points across 4,000 forest blocks in the State. The department was also able to upload data related to these incidents that affected 6,070 hectare area on its website to make the process more transparent.

The PCCF said using the remote sensing and GIS, the department has also been able to complete Differential Global Positioning System based geo-referencing survey of notified forests in 13,968 square km this year so far. “Odisha is the first State to take up such an ambitious project and plans to complete the survey of the entire 60,999 square km notified forest area within four years,” Tripathi said. The department is also aiming to do satellite based monitoring of the plantation sites in the coming years with the help of ORSAC.

The new normal

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