Forest Geo-Hub

A collaborative platform for sustainable management of Environment & Forests

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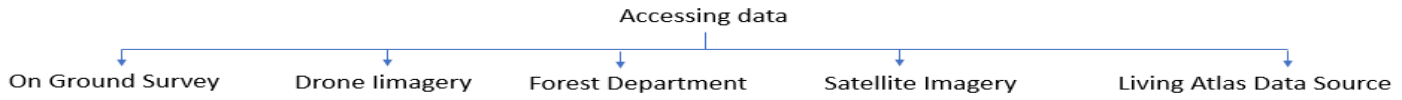## A collaborative platform for sustainable management of Environment & Forests

Forests cover approximately 31 percent of the global land area and in India, about 21.67% of the geographical area is covered by forests. With ever-expanding development activities and urbanization, deforestation and forest degradation continue to take place at alarming rates. To protect forest ecosystems and minimize the ongoing loss of biodiversity, access to accurate information is critical. Today, decision-makers need visibility on the latest forest cover data, change in the forest spread, tree plantation, or any illegal activity for effective forest planning, management, and sustenance.

Geographic Information System (GIS) empowers forest managers with essential tools to manage multiple workflows such as forest type - cover, landscape integrity, biological richness, and protected areas, etc.
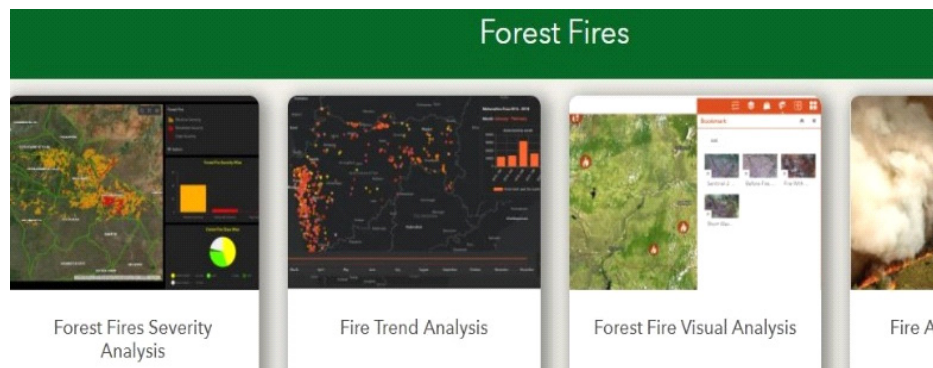
Esri India's Forest GeoHub is a single point destination for forest managers to share updated forest information and data sourced from different sources in a common GIS platform. It is a hub of all relevant applications featuring diverse workflows that provide an in-depth view of the jurisdiction forest area. The workflows provide pointed domain-specific information through data visualization over the web and enable users to visually interpret any change through trends data to further take actionable decisions. The main objective of this platform is to give a common view to the relevant authorities and departments involved in forest management to help reduce damage and focus on risk preparedness.

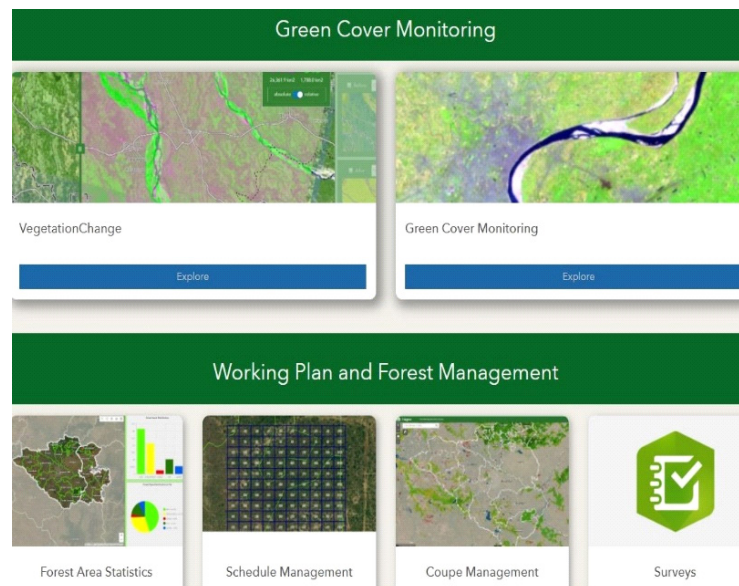# Some of the key application areas of Forest GeoHub:

1 **Forest GIS data clearinghouse:** A central hub of updated departmental GIS data i.e., satellite imagery, mobile photo, video or drone, and relevant PDF reports

Accessing data

On Ground Survey   Drone Iimagery   Forest Department   Satellite Imagery   Living Atlas Data Source

2 **Plantation Monitoring:** Dashboard view of multiple plantation activity backed by GIS-based data, web applications enabling report creation, and a corresponding mobile app for field reporting.

Forest Fires

Forest Fires Severity Analysis   Fire Trend Analysis   Forest Fire Visual Analysis   Fire A[...]

3 **Fire:** GIS-based web and mobile application enabling effective mapping of forest fire spread and populating dashboard to generate updated reports utilizing FSI information

Green Cover Monitoring

VegetationChange   Green Cover Monitoring
Explore   Explore

Working Plan and Forest Management

Forest Area Statistics   Schedule Management   Coupe Management   Surveys

4 **Monitoring:** Specialized Forest monitoring via satellite/drone multispectral imagery to identify any change in forest cover

5 **Forest Area Management:** Dashboard featuring forest cover and type map to identify any change or red flag early warning systems for deforestation.

6 **Forest Right Act:** Satellite imagery data and periodic drone activity to identify any illegal encroachment, or activity within the forest area. Also, Custom GIS mobile app and web app to delineate any claim.

7 **Wildlife Monitoring:** A centralized view of up-to-date data on animal-human conflict, damage to land or people, geographical pattern, and a corresponding mobile app for field reporting.

8 **Protected Area Management:** Application to detect and monitor forest degradation, eco-system restoration, log incidents, and present reports. ArcGIS for Protected Area Management allows protected area management staff to work more effectively and transparently on conservation area management challenges both within and beyond a park boundary.

Esri's Forest GeoHub is a robust platform backed by credible spatial data that is designed to help users explore data layers to improve planning, reporting, and understanding. With this, the users can identify any short-comings in their current approaches and further effectively pave way for policy, planning, strategy formulation for efficient forest management
.
If you have any questions about Forest GeoHub, email us at info@esri.in or visit us at https://www.esri.in

About Esri:

Esri, the global market leader in geographic information system (GIS) software, offers the most powerful mapping and spatial analytics tech-nology available. Since 1969, Esri has helped customers unlock the full potential of data to improve operational and business results. Today, Esri software is deployed in more than 3,50,000 organizations globally (more than 5,000 organizations in India) including the world's largest cities, most national governments, and 75 percent of Fortune 500 companies. Today, Esri engineers the most advanced solutions for digital transformation, the Internet of Things (IoT), and location analytics to inform the most author-itative maps in the world. Our core values revolve around a user-centric approach where we are committed to serving our users and customers.

Established in 1996, Esri India is headquartered in Noida, Uttar Pradesh, with multiple regional offices across India.

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