



Sher-e-Kashmir University of Agricultural Sciences & Technology of Kashmir

Main Campus, Shalimar, Srinagar Kashmir (J&K) India-190025

ONE WEEK

CAPACITY BUILDING PROGRAM

SMART CONSERVATION

TECHNOLOGICAL SOLUTIONS FOR FOREST & WILDLIFE PROTECTION

INDIAN FOREST SERVICE (IFS) OFFICERS

DATE

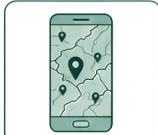
20
TO
24
July, 2026



Eco-Cam 4K



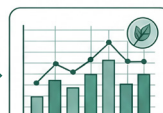
FIELD DATA COLLECTION & GPS TRACKING



ENVIRONMENTAL SENSOR NODE

VENUE

SKUAST
KASHMIR
Shalimar



BIODIVERSITY TRENDS & ANALYTICS



CONSERVATION RANGER INTERFACE



POACHING & INCIDENT ALERTS

CHIEF PATRON

Prof. (Dr) Nazir Ahmad Ganai

Honourable Vice Chancellor, SKUAST-Kashmir

PATRON

Prof. Raihana Habib Kanth

Dean/Director Extension, SKUAST-Kashmir

CO-PATRON

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Chief Conservator of Forest, Kashmir

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Organized by Division of Basic Sciences and Humanities, Faculty of Horticulture, SKUAST-Kashmir.

In collaboration with Ministry of Environment, Forest and Climate Change (Research & Training Division), Government of India.

About Training Course

Smart Conservation: Technological Solutions for Forest & Wildlife Protection

Smart Conservation refers to the integration of advanced digital technologies, artificial intelligence, remote sensing, and data-driven tools into traditional conservation practices to improve the monitoring, protection, restoration, and sustainable management of forests and wildlife ecosystems. It represents a shift from reactive conservation to predictive, real-time, and precision-based ecosystem management. Smart conservation represents a transformative shift in how forests and wildlife are protected, integrating advanced technologies with traditional ecological knowledge to enhance monitoring, management and sustainability. In the present era of accelerating biodiversity loss, habitat fragmentation, climate change, and intensifying anthropogenic pressures, technological innovations have become indispensable for achieving effective conservation outcomes. The integration of advanced tools and data-driven approaches into conservation strategies is now essential to enhance monitoring, improve decision-making, and ensure adaptive, efficient, and sustainable ecosystem management.

This specialized training programme is designed for Indian Forest Service (IFS) officers to enhance their capacity in applying cutting-edge tools for effective forest and wildlife management. Technological Solutions for Forest and Wildlife Protection is a forward-looking IFS training programme designed to equip forest officers with cutting-edge tools and data-driven approaches for effective conservation management. The programme integrates advanced technologies such as Remote Sensing, Geographic Information Systems (GIS), Drone-Based Surveillance, Camera Trapping, Artificial Intelligence, and Real-Time Biodiversity Monitoring Systems to strengthen forest governance and wildlife protection. It emphasizes smart patrolling, early warning systems for forest fires, habitat mapping, and the use of mobile-based applications for field data collection and enforcement. By combining traditional ecological knowledge with modern innovations, the training aims to enhance decision-making, improve response to illegal activities like poaching and encroachment, promote sustainable ecosystem management and ultimately empowers IFS officers to safeguard biodiversity, ensure ecological resilience, and address emerging conservation challenges in a rapidly changing environmental landscape. By bridging research, innovation, and field-level implementation, SKUAST-K ensures capacity building of Indian Forest Service (IFS) officers in smart patrolling, early fire detection, habitat mapping, and real-time data management. This collaborative initiative strengthens scientific forest governance, enhances wildlife protection strategies, and promotes sustainable ecosystem management in ecologically sensitive regions like the Kashmir Himalaya.

The "Smart Conservation: Technological Solutions for Forest and Wildlife Protection" is a one-week training programme for IFS (Indian Forest Service) officers (20-24 July, 2026) organized by the Division of Basic Sciences and Humanities, Faculty of Horticulture at the Sher-e-Kashmir University of Agricultural Sciences & Technology of Kashmir (SKUAST-K) Shalimar campus, Srinagar.

The training course will focus on achieving the following objectives:

- Integrate advanced geospatial technologies (remote sensing and GIS) for real-time monitoring of forest cover, habitat dynamics and biodiversity conservation.
- Deploy Artificial Intelligence and data-driven tools for efficient wildlife monitoring, species identification and predictive management of human-wildlife conflicts.
- Strengthen forest protection systems through IoT-based sensors, drones and smart surveillance for early detection of illegal activities and environmental threats.
- Enhance ecological research and decision-making by leveraging big data analytics, wildlife tracking systems and digital conservation platforms.
- Development of data-driven, climate-resilient strategies for sustainable forest and wildlife management.

Field-Based Learning and Hands-on Exposure:

The training programme integrates intensive field-based modules to provide hands-on exposure to diverse ecosystems and real-time application of smart conservation tools:



Dachigam National Park & Wildlife Rescue Centre, Srinagar

A premier protected area known for the endangered Hangul, offering rich insights into wildlife conservation, habitat management, and biodiversity monitoring in the Himalayan landscape. Participants will undertake field visits

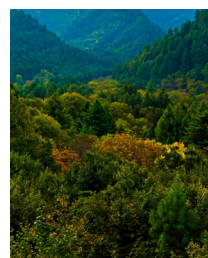
to assess wildlife habitats, conservation breeding, and rescue operations. Emphasis will be placed on species monitoring, habitat evaluation, and the use of camera traps, GPS tracking, and digital data collection tools in managing flagship species such as the Hangul (*Cervus hanglu hanglu*).



Gulmarg Biosphere Reserve

A high-altitude ecosystem showcasing diverse flora and fauna, ideal for understanding forest dynamics, climate-sensitive habitats, and technology-enabled conservation approaches. This module focuses on technology-driven conservation practices in high-altitude ecosystems. Officers will explore the

applications of remote sensing, drone surveillance, and GIS-based habitat mapping for monitoring forest health, biodiversity patterns, and tourism-induced ecological pressures.



Overa-Aru Wildlife Sanctuary

A biologically rich sanctuary representing alpine and sub-alpine ecosystems, supporting diverse wildlife and offering opportunities for habitat and species-level ecological studies. A dedicated wildlife habitat exploration visit will provide insights into alpine and sub-alpine biodiversity, species distribution, and ecosystem dynamics. Participants

will learn advanced techniques in biodiversity assessment, ecological monitoring, and conservation planning in fragile mountain landscapes.

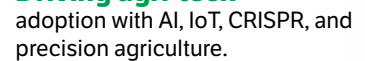


Zabarwan Hills Protected Forest Landscape, Srinagar

A strategically important forest landscape overlooking Srinagar, crucial for studying habitat connectivity, urban-forest interface, and landscape-level conservation practices. Field exploration of the Zabarwan range will focus on landscape-level conservation

approaches, including habitat connectivity, forest degradation assessment, and smart patrolling strategies. The session will demonstrate the integration of geospatial tools and mobile-based applications for real-time forest monitoring and protection.

SKUAST-K Cultivating Innovations, Harvesting Excellence



Glimpses of 2025 Capacity Building Programme of Indian Forest Service (IFS) Officers

(B) One Week Training Course on "Forest Landscape Rebuild-An Integrated approach to Climate Mitigation & Adaptation" 27-31 Oct, 2025

