





OCTOBER, 2018 - MARCH, 2019 VOLUME 1 | ISSUE 8







#### FOREST SURVEY OF INDIA

(Ministry of Environment, Forest and Climate Change) Kaulagarh Road, Dehradun - 248195

#### INSIDE THIS ISSUE

- Two-day Pre-Fire Season Workshop on Forest Fires for State Nodal Officers organized by FSI, Dehradun
- Participation of Director General, FSI in NRSC User Meet
- Workshop at GeoSmart India Conference 2019 Event Theme: Forest Fire Monitoring and Early Warning by FSI
- Workshop for IFS Officers on "Forest Fire Monitoring and Damage Assessment"
- Celebration of National Wildlife Week-2018 at Forest Survey of India, Dehradun
- Workshop on Application of SAR data for biomass estimation
- Workshop on "Forest Resource Assessment (FRA), Remote Sensing Survey-India"
- Two-day Workshop for IFS Officers on "Forest Fire Monitoring and Damage Assessment" held at FSI, Dehradun
- Participation of Director General, FSI in FEHB-2019 National Conference on Frontiers in Environment, Health and Biosciences, CSJM University, Kanpur
- 24<sup>th</sup> All India Forest Sports Meet held at Raipur, Chhattisgarh
- Republic Day Celebrations
- International Day of Forests, 2019 at the Forest Research Institute, Dehradun
- FSI exhibits a stall at Kumbh Mela 2019, Prayagraj
- Launch of JPSS-1 based Fire Products
- Application of DGPS, Drone/UAV in Forestry, Three Days Training programme
- Trainings and Workshops attended by the officials of FSI
- Blood Donation Camp organised at FSI, Dehradun
- Training Courses
- Visitors to FSI
- Promotion of Hindi
- News From Zones
- Repatriation/Retirement/Joining

# FROM THE DIRECTOR GENERAL'S PEN....

In the monitoring and assessment of forest resources of the country, Forest Survey of India always endeavors to use latest technologies, for this, regular refinement in the methodologies becomes a concurrent activity. Trial and research to test different approaches and use of different software and equipments is necessary in the organisation. To further strengthen research and methodology development in FSI, an in-house 'Centre for Research and Methodology Development (CRMD)' has been set up. It is hoped that in due course of time, the centre will play an important role in strengthening forest resource monitoring and assessment activities in the country, particularly the climate change related assessments. About three months ago another initiative was taken when 'FSI Technical Information Series' was launched. The series will serve as a vehicle to disseminate important research findings. It is satisfying to see three numbers of the Technical Information Series issued in the last three months. Wish FSI to continue making steady progress!

(Dr. Subhash Ashutosh)

#### TWO-DAY PRE-FIRE SEASON WORKSHOP ON FOREST FIRES FOR STATE NODAL OFFICERS ORGANIZED BY FOREST SURVEY OF INDIA, DEHRADUN ON 16-17TH JANUARY, 2019

A two-day Pre fire season workshop on Forest Fires was conducted by Forest Survey of India on 16-17<sup>th</sup> January, 2019 with the objective to sensitize the State nodal officers to the recent developments in technology especially in monitoring the forest fires across the country. The event provided a platform for States to learn about the recent developments in the FSI's Forest Fire Alert System, raise issues faced by them, gather from each other experiences and also identify best practices across the country.

The Chief Guest of the workshop, Dr. Harak Singh Rawat, Hon'ble Minister, Forest and Environment, Government of Uttarakhand, inaugurated the workshop by launching the FSI Forest Fire Alert System version 3.0.

Major features of Fire Alert System ver. 3.0 (FAST)

The version 3.0 of the FSI Fire Alerts System has the following features:

- Large Forest Fire monitoring programme based on satellite sensor (SNPP-VIIRS) to automatically identify and track large forest fires
- Van Agni: FSI Forest Fire Geoportal to view forest fire related data along with other thematic layers
- Web Map Service (WMS) available for integration to State Forest Departments
- Customized alerts for 20 states at beat level and 2 states at Range level
- Improved feedback system (via SMS and nodal officer page)
- Improved Nodal officer page

The dignitaries who attended the inaugural session of the workshop were Dr. Subhash Ashutosh, Director General, Forest Survey of India; Dr. Rakesh Shah, PCCF and Chairman, Uttarakhand Biodiversity Board; Sh. D.K. Sinha, Inspector General (EAP), MoEF&CC, New Delhi. The workshop was attended by the State Nodal Officers from 14 States and the senior officers, officials and technical staff of Forest Survey of India.

The various features of the FAST 3.0 and activities of FSI in Forest Fire Monitoring were discussed in detail during





the two day workshop. Various presentations were made by the officials of FSI on different topics viz. significant improvements in ver. 3.0 of 'Forest Fires Alert System' over the previous version, newly-launched large forest fire monitoring programme by FSI, Early Warning Alert System and New Fire Danger Rating System (FDRS) based on Fire Weather Index (FWI), grid-based analysis of forest fire prone areas from the year 2004 to 2017, analysis of forest fire scenario in the country based on feedback received for the year 2018 etc.

Besides inputs from Forest Survey of India, additional sessions from various reputed organizations were also planned in the workshop. Dr. Rajashekar Reddy, Senior Scientist (Forestry and Ecology Group) from NRSC

OCTOBER, 2018 - MARCH, 2019 | Volume 1 | Issue 8

spoke on near real time processing of fire data by NRSC. Dr. D.M. Dimri, Scientist-D from Forest Research Institute, Dehradun shared his work on the 'Impact of Forest Fires on Soil properties in Chirpine and Oak Forests of Uttarakhand. A visit to Forest Research Institute for field demonstration of modern fire-fighting equipments developed by FRI has also been arranged for the participants.

Presentations were also made by the State Nodal Officers of few states to share the best practices carried out in their states for managing forest fires. Issues and problems faced by the State along with their recommendations and suggestions all discussed in the workshop for an improved and more reliable FSI Forest Fire Alert System.





#### PARTICIPATION OF DIRECTOR GENERAL, FSI IN NRSC USER MEET

Dr. Subhash Ashutosh, Director General, Forest Survey of India participated in the National Remote Sensing Centre (NRSC), Hyderabad on 22<sup>nd</sup> January, 2019 where he delivered keynote address in the Inaugural Session of the workshop. He also chaired the Technical Session 8 and

delivered the lead presentation. He also held a meeting with the Group Director, Forest & Ecology Division, NRSC and scientists regarding collaboration on Forest Biomass Mapping and assessment using SAR Data and data mining techniques.

#### WORKSHOP AT GEOSMART INDIA CONFERENCE - 2019 EVENT THEME: FOREST FIRE MONITORING AND EARLY WARNING BY FSI

Forest Survey of India conducted a workshop on 'Forest Fire Monitoring and Early Warning Systems' on 13<sup>th</sup> February under the umbrella of GeoSmart India 2019 at Hotel Pullman, New Delhi.The event focussed on the technology solutions offered by FSI in the form of Near Real Time (NRT) fire alerts, early warning, large forest fire monitoring besides presentations from SFDs and industry.

Hon'ble DGF&SS (MoEF&CC), Sh. Siddhanata Das chaired the event. Hon'ble DGF&SS (MoEF&CC) and Dr. Subhash Ashutosh, Director General, Forest Survey of India along with other dignitaries released the Technical



Series reports titled "Identification of Fire Prone Forest Areas Based on GIS Analysis of Archived Forest Fire Points Detected in the Last Thirteen Years" & "FSI Forest Fire Alert System (FAST 3.0)" on forest fires during the inaugural session.

Personnel from Forest Survey of India elaborated on the features of FAST 3.0 (FSI Fire Alert System) for general public as well as for the State Nodal Officers, FSI Forest Fire Geoportal, WMS Service provided to State Forest Department and various techniques to generate the Early Warning Systems. Lectures from PCCF (Maharashtra) and representative from MoEF&CC were focussed on the perspectives of the State Forest Departments in adopting

the latest technology for forest fire monitoring and an overview on the forest fire related initiatives of the organization respectively. There were also International Guest Speakers; Vivienne Wu (Canada) who addressed the major challenges in Forest Monitoring and also explored the power of using Synthetic Aperture Radar and Glenn Cockerton (Australia) who highlighted the Australian experiences of the Forest Fire Management.

The final session was chaired by Sh. Saibal Dasgupta, Additional Director General (FC), MoEF&CC. The panel focussed on the adoption of FAST 3.0 by States and discussed other available technologies to improve forest fire monitoring.



## WORKSHOP FOR IFS OFFICERS ON "FOREST FIRE MONITORING AND DAMAGE ASSESSMENT"

A two-day workshop on 'Forest Fire Monitoring and Damage Assessment' was organized for IFS Officers from 25-26<sup>th</sup> February, 2019. The objective of the workshop was to apprise the officers of the Near Real Time (NRT) Forest Fire Monitoring programme along with other activities undertaken by FSI and their benefits to the States.

Dr. Subhash Ashutosh, Director General, Forest Survey of India along with the dignitaries, Dr. H. S. Gupta, PCCF (R&T), Jharkhand, Sh. R.K. Singh, APCCF, WP, Karnataka and Smt. Madhu Sharma, APCCF & Secretary, Karnataka inaugurated the workshop.

Day I focused on the Features of Forest Fire Alert System (version 3.0), Large Forest Fire Monitoring Programme,

grid-wise analysis of forest fire prone areas from the year 2004 to 2017 and feedback analysis.

Besides the in-house presentations, representatives of Odisha Forest Department presented on the best practices from their state wherein they have developed a forest fire monitoring system for the state using mobile application, 'Odisha Forest Monitoring System'. An immensely interesting talk was



OCTOBER, 2018 - MARCH, 2019 | Volume 1 | Issue 8

delivered by Sh. Parag Madhukar Dakate, CF, Western Circle, Uttarakhand Forest Department on the upcoming new technology i.e. 'Application of Drone Technology for Forest Fire Monitoring'.

The second day of the workshop comprised of the presentations by the officials of FSI on the Burnt Area studies carried out by FSI, Use of Google Earth Engine for mapping fire affected areas, Early Warning Alert System and New Fire Danger Rating System (FDRS) based on Fire Weather Index (FWI). Useful features of State Nodal Officer's Portal were also discussed in detail so as to brief the officers on how they can manage the system at their end.

Besides inputs from Forest Survey of India, additional sessions from resource persons from various institutions were also planned in the workshop. Ms. Anasuya Barik, a Research Scholar from Centre of Atmospheric Sciences, IIT Delhi spoke on the topic 'Climate Change and Forest Fires in India'. Dr. G. Rajashekar, Scientist from NRSC





gave a detailed and in-depth information on Burnt Area Studies by NRSC. An extremely impressive presentation was made by Dr. Prakash Chauhan, Director, Indian Institute of Remote Sensing on the 'Effect of Forest Fires on Air Quality'.

Dr. Omkar Singh, Director, IGNFA chaired the final session of the two-day workshop wherein the participants were requested for their experience sharing, suggestions and feedback on the training.

## CELEBRATION OF NATIONAL WILDLIFE WEEK-2018 AT FOREST SURVEY OF INDIA, DEHRADUN

Wildlife Week is celebrated all over the country in the month of October from  $2^{nd}$  to  $8^{th}$  October every year with the view to preserve the animal life of India. Forest Survey of India, Dehradun celebrated the National Wildlife Week (NWW) - 2018 with full enthusiasm by organising various events and activities.

The celebrations for NWW 2018 began with a 'Cleanliness Drive' which was carried out on the occasion of Gandhi Jayanti i.e. on 02<sup>nd</sup> October, 2018; in the entire FSI office complex with the motto of 'Swatchh Bharat Abhiyan'. On 3<sup>nd</sup> Oct., 2018, Dr. Dhananjai Mohan, APCCF, Uttarakhand, was invited to deliver a guest lecture on the theme of wildlife week for the year 2018, "Wildlife and Big Cats-Predators under threat". To focus on the importance of conservation of the wildlife, a presentation competition on the topic 'Role of

Remote Sensing and GIS in Conserving the Wildlife' was also conducted on 04<sup>th</sup> Oct., 2018 for the Technical Staff of FSI. A wildlife photo contest was also organised for the staff of FSI wherein each participant could submit a maximum of 3 entries.

The concluding ceremony witnessed the most remarkable session of the programme. An extremely informative and interesting Wildlife Quiz was organised on 08<sup>th</sup> Oct., 2018 for the employees of FSI. 8 teams were short listed for the final round with 3 members per team.

The prize distribution ceremony was held following the quiz. The winners of various competitions as well as the volunteers were honoured with prizes and certificates by the Chief Guest, Smt. Meenakshi Joshi, Joint Director, FSI.





## WORKSHOP ON APPLICATION OF SAR DATA FOR BIOMASS ESTIMATION

Workshop on 'Application of SAR data for biomass estimation' was held at Forest Survey of India, Dehradun on 6<sup>th</sup> February, 2019. The meeting was chaired by Dr. Subhash Ashutosh, Director General (DG), FSI. The meeting was attended by Dr. C.S. Jha, Group Director, National Remote Sensing Centre (NRSC), Sh. PLN Raju, Director, North Eastern Space Application Centre (NESAC), Dr. C.P. Patnaik, Scientist SG, Space Application Centre (SAC) Ahmedabad, Dr K.K. Sarma, Scientist SG, NESAC, Dr Anup Das, Scientist SF, SAC Ahmedabad and Dr. Kasturi Chakravorty, Scientist SF, NESAC. FSI officers from FGD and FTID unit as well as members of the SAR task group were also present in the meeting.

DG, FSI in his inaugural address highlighted the importance of a wall-to-wall mapping of biomass similar to the forest cover as prepared by FSI. He further discussed on the role of SAR technology in precise estimation of forest biomass. The forest inventory data available with FSI shall be used for biomass estimation at sample plots that would be further used during the training and validation of biomass map.

The participants in their opening remarks shared their experience on the use of SAR technology and reiterated their continued interest and cooperation for improving methods for biomass estimation. All the participants in their address highlighted the role of FSI for leading the national initiative for wall to wall estimation and mapping of biomass using SAR and available data processing tools as the present estimates using global datasets and software tools are often not readily acceptable due to





errors in estimates and the uncertainty in the outputs are beyond the acceptable limits.

During the final round of discussion, issues on data sharing, knowledge exchange, capacity building and formulation of a timeline for achieving the targets in time were discussed. DG, FSI welcomed the participants for their vision and enthusiasm for achieving the prime objective on national biomass estimation and mapping. The members supported the idea and it was decided that the state or group of districts might be chosen for mapping in the initial phase. Further, they recommended generating trends between multi-temporal data using inventory data and SAR data. All agreed that forest inventory data of the 4-year period could be used for biomass estimation using single year SAR data. However, for gap filling of the unavailable biomass regions, the other datasets available with the partnering institutions could be shared and used.



## WORKSHOP ON "FOREST RESOURCE ASSESSMENT (FRA), REMOTE SENSING SURVEY-INDIA" HELD ON 11-16TH MARCH 2019

Forest Survey of India in collaboration with Food and Agricultural Organisation (FAO) hosted a National Forest Resource Assessment (NFRA) Remote Sensing Survey (RSS) 2020 workshop from 11<sup>th</sup> to 16<sup>th</sup> March, 2019. Twenty three participants from FSI headquarters and regional offices and one participant from MoEF&CC attended the workshop. Two delegates, namely, Adolfo Kindgard and Valeria Contessa from FAO, Rome and one delegate namely, Kel Markert from NASA conducted the workshop.

In total, four lakh sample points for the entire globe have been generated for the Forest Resource Assessment 2020 Remote Sensing Survey exercise. Out of this, India being a rich biodiversity Region has 8200 samples. In the workshop, the participants were trained on the methodology and the data for all the 8200 points were collected online using earth portal.

Remote Sensing based e-learning exercise aims to enable the participants to use a participatory approach for the data collection, using national experts for sample interpretation and thereby generate country ownership and improve national capacities in remote sensing based assessments.





## TWO-DAY WORKSHOP FOR IFS OFFICERS ON "FOREST FIRE MONITORING AND DAMAGE ASSESSMENT" HELD ON 25-26<sup>TH</sup> FEBRUARY, 2019 AT FOREST SURVEY OF INDIA, DEHRADUN

The workshop aimed at discussing the new initiatives of FSI on Forest Fire Alert System (version 3.0) focussing largely on the new Large Forest Fire Monitoring Programme, under which, FSI track large fire events across the country and disseminate specific Large Fire alerts with the objective to identify, track and report serious forest fire incidents.

The workshop also highlighted Near Real Time (NRT) Forest Fire Monitoring programme by FSI.

Grid-wise analysis of forest fire prone areas and Application of Drone Technology for Forest Fire Monitoring.



## PARTICIPATION OF DIRECTOR GENERAL, FSI IN FEHB-2019 NATIONAL CONFERENCE ON FRONTIERS IN ENVIRONMENT, HEALTH AND BIOSCIENCES, CSJM UNIVERSITY, KANPUR

Dr. Subhash Ashutosh, Director General, FSI participated in the National Conference on Frontiers in Environment, Health and Biosciences organised by Chhatrapati Shahu Ji Maharaj (CSJM) University, Kanpur on 17<sup>th</sup> February, 2019 and delivered the keynote address.



## 24<sup>TH</sup> ALL INDIA FOREST SPORTS MEET HELD AT RAIPUR, CHHATTISGARH FROM 9<sup>TH</sup> - 13<sup>TH</sup> JANUARY, 2019

The 24<sup>th</sup> All India Forest Sports Meet (AIFSM) was organized by the Chhattisgarh State Forest Department at Raipur, Chhattisgarh during 9<sup>th</sup>-13<sup>th</sup> January, 2019. A contingent of 26 players represented Forest Survey of India in the meet. They participated in various team as well as individual events viz. Basketball, Cricket, Volley Ball, Table Tennis, Badminton, Carom, Chess, Athletics etc. Smt. Meenakshi Joshi, Joint Director, FGD won Gold

and Smt. Savita Semwal, Assistant Director (I/C) won Bronze in the 21-km Marathon (Veteran). FSI's basketball team (Girls) stood 4<sup>th</sup> in the event. A week long training camp comprising of exercises and yoga sessions was also organized for the participants from 31<sup>st</sup> December, 2018 to 5<sup>th</sup> January, 2019 at Forest Survey of India, Headquarters, Dehradun.





#### REPUBLIC DAY CELEBRATIONS 26<sup>TH</sup> JANUARY, 2019

Forest Survey of India celebrated the 70<sup>th</sup> Republic Day with great fervour and enthusiasm in its Headquarters, Dehradun. Dr. Subhash Ashutosh, Director General, FSI extended his heartiest greetings and good wishes to all officers and staff of FSI on the auspicious occasion. This year, on the occasion of the 70<sup>th</sup> Republic Day, the

following employees of Forest Survey of India were awarded with certificates and cash prize by the Director General, FSI for their exemplary work in the organisation.

- 1. Smt. Ekta Singh, STA, FSI, Dehradun
- 2. Sh. Chandra Mohan Bhisht, Sr. T.A. FSI, Dehradun

- 3. Sh. Manoj Brijwasi, LDC, FSI, Dehradun
- 4. Sh. Amit Kumar, LDC, FSI, Dehradun
- 5. Sh. Ashutosh Singh, Deputy Ranger, FSI Central Zone, Nagpur
- 6. Sh. Phul Das Bhalawi, Deputy Ranger, FSI Central Zone, Nagpur
- 7. Sh. Jogindra Singh, Sr. Draftsman, FSI, Northern Zone. Shimla
- 8. Sh. G.S. Thyagraj Jr. Draftsman, FSI, Southern Zone, Bangalore
- 9. Sh. Maharaj Akka, M.T.S., FSI Eastern Zone, Kolkata

Smt. Meenakshi Joshi, Joint Director, FGD and Smt. Savita Semwal, Assistant Director (I/C) were also honoured on the occasion for their outstanding performance in the 24<sup>th</sup> All India Forest Sport's Meet held at Raipur, Chhattisgarh in January 2019 for winning Gold and Bronze, respectively, in the 21-km Marathon (Veteran).







#### INTERNATIONAL DAY OF FORESTS, 2019 AT THE FOREST RESEARCH INSTITUTE, DEHRADUN

International Day of Forests is celebrated every year on 21 March throughout the world. This celebration brings to focus, the role of Forests in safeguarding the ecological security & livelihood of millions of people all around the world. The theme of the International day of Forests - 2019 was Forests & Education.

On behalf of the Ministry of Environment, Forest and Climate Change (MoEF&CC), Indian Council of Forestry Research and Education (ICFRE), Dehradun hosted the celebration of this year's International Day of Forests on 19<sup>th</sup> March, 2019 at Forest Research Institute (FRI), Dehradun. The programme was attended by forestry institutions viz. Forest Survey of India, Forest Research





Institute, Wildlife Institute of India, Directorate of Forest Education, CASFOS, IGNFA, etc.

Forest Survey of India participated in the celebration by installing an exhibition stall depicting the various activities undertaken by Forest Survey of India.

#### FSI EXHIBITS A STALL AT KUMBH MELA -2019, PRAYAGRAJ

Prayagraj Ardh Kumbh Mela, 2019 was the Ardh Kumbh Mela which was held at Triveni Sangam in Allahabad, Uttar Pradesh, India from 15<sup>th</sup> January to 4<sup>th</sup> March 2019. A number of exhibitions had been set up at Kumbh Mela in Prayagraj to inform, educate and communicate about

various welfare schemes implemented by the Government.

Forest Survey of India participated in the Kumbh Mela 2019 by installing an exhibition stall depicting the various activities undertaken by Forest Survey of India.

#### LAUNCH OF JPSS-1 BASED FIRE PRODUCTS

Forest Survey of India attended the launch of JPSS-1 based Fire products by DG Forests & SS, MoEF&CC New Delhi on 19<sup>th</sup> January, 2019 through video conferencing.

PAGE

## APPLICATION OF DGPS, DRONE/UAV IN FORESTRY, THREE DAYS TRAINING PROGRAMME FROM 04.02.2019 TO 06.02.2019

To promote the conceptualization and operationalization of drone in forestry application, FSI as a leading organization in India striving to impart the training on Application of Drone/UAV, DGPS in Forest Resource Surveys.

To keep pace with the technology trends and to explore new and innovative horizons in application of drones/ UAV's in Sustainable Forest Management, Forest Resource Survey and demarcation.



#### TRAININGS AND WORKSHOPS ATTENDED BY THE OFFICIALS OF FSI

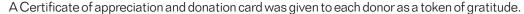
- Smt. Meenakshi Joshi, Joint Director, Forest Geoinformatics Division, attended a two-day workshop for IFS Officers on 'Contribution of Forests Plantation in Livelihood Support Industrial Production' from 4<sup>th</sup> to 5<sup>th</sup> December, 2018 at Bengaluru, Karnataka.
- Smt. Meenakshi Joshi, Joint Director, Forest Geoinformatics Division and Shri E. Vikram, Dy. Director, Forest Geo-informatics Division attended a training on CBM-CFS3 (Carbon Budget Model of the Canadian Forest Sector) from 25<sup>th</sup> to 29<sup>th</sup> March, 2019 in Canada.
- Shri E. Vikram, Dy. Director, Forest Geo-informatics

- Division attended a one-week Compulsory Training Course on 'Building Competencies for Personal Excellence' at The Art of Living Foundation, Bengaluru from January 21-25, 2019.
- Shri R. Arun Kumar attended the Food and Agricultural Organization's (FAO) Forest Resource Assessment (NFRA) Remote Sensing Survey (RSS) 2020 workshop at Bangkok, Thailand from 29<sup>th</sup> October to 2<sup>nd</sup> November, 2018. Participants from various Southeast Asian countries were trained on how to collect the data for the Remote Sensing Survey.

#### BLOOD DONATION CAMP ORGANISED AT FSI, DEHRADUN

A blood donation camp was organized at Forest Survey of India at its headquarters, Dehradun on 18<sup>th</sup> March, 2019. The camp was organized under the aegis of IMA Blood Bank, D.Dun.

A large number of staff turned up for donating blood. Doctors and the staff of the blood banks expressed their appreciation over the large volume of blood donation.





#### TRAINING COURSES

FSI has been conducting training programmes periodically since 1981 in various specialized courses designed to upgrade technical and professional skills, knowledge and understanding of the subject to sensitize State Forest Department officials.

Our curriculum is designed to build competencies and promote professional excellence through training in the field of RS/GIS geo-informatics in Forest Resource Surveys, Decision Support System (DSS), e-Green Watch,

Application of RS/GIS in Preparation of Working Plan, Inventory in Effective Forest Planning & Management, Application of Drone/DGPS in Forest Survey & Demarcation, Forest Fire Monitoring & Damage Assessment and tailor-made sensitization course on Forest Resource Monitoring are a few milestones of training conducted by FSI.

The following training courses conducted during the period October 2018 to March 2019.

Theme	Duration		articipants Level
National Forest Inventory	22.10.2018 to 26.10.2018	7	For Capacity Building of the Delegates of Indonesia
DSS, e-Green Watch & Forest Fire	12.11.2018 to 14.11.2018	11	ACF/DCF/CF
Forest Resource/Carbon Inventory for Preparation of Working Plan	10.12.2018 to 14.12.2018	21	WPO/ACF/RFO
Application of RS/GIS in Preparation of Working Plan	21.01.2019 to 25.01.2019	29	WPO/ACF/RFO
Carbon Estimation	30.01.2019 to 01.02.2019	30	Madhya Pradesh Forest Dept.
Application of DGPS, Drone/UAV in Forestry	04.02.2019 to 06.02.2019	33	DCF/ACF/RFO
Forest Fire Monitoring and Damage Assessment	25.02.2019 to 26.02.2019	13	IFS Officers
Forest Resource Assessment (FRA) Remote Sensing Survey-India Workshop	11.03.2019 to 16.03.2019	27	FAO Expert Members
	Total	171	

#### VISITORS TO FSI

FSI also organized professionals visit to provide information on on-going Geomatics activities in the organization, viz. FCM, FTM, Forest Fire Monitoring, Forest Inventory and TOF assessment to professionals representing from different states. Scientists, academicians, researchers and students of forestry were among the regular visitors and these visits have always been appreciated. A list of groups who visited FSI during this period is given below:

S.No.	Name of organization	No. of participants	Dates
1.	Tamil Nadu Forest Academy Coimbatore, Tamil Nadu	32	10.09.2018
2.	Forest Training Institute (HP)	49	14.09.2018
3.	Uttarakhand Forestry Training Academy, Haldwani	30	18.09.2018
4.	Central Academy for State Forest Service, Assam	32	25.09.2018
5.	CASFOS, Burnihat, Assam	32	11.10.2018
6.	Indian Council of Forestry Research & Education, Dehradun	43	12.10.2018
7.	Indian Institute of Remote Sensing	4	31.10.2018
8.	College of Forestry, Karnataka State University of Agriculture and Sciences	56	01.11.2018
9.	Forest College & Research Institute, Tamil Nadu Agricultural University	46	27.11.2018
10.	Kundal Academy of Development, Administration (Forest) Kundal Dist	32	28.11.2019
11.	Himachal Pradesh Council for Science, Tech & Environment, Shimla	15	02.01.2019
12.	Forest Training Institute, (H.P)	47	16.01.2019
13.	IIRS, Dehradun	11	16.01.2019
14.	Faculty of Forestry Birsa Agricultural University Ranchi, Jharkhand	14	07.02.2019
15.	CASFOS Dehrdaun	45	08.02.2019
16.	CASFOS Coimbatore	38	14.02.2019
17.	Gujarat Forest Rangers College, Rajpipla Gujarat	35	22.02.2019
18.	Kashmir Forest Training Institute J&K (Bandipora)	23	27.02.2019
19.	College of Forestry SHUATS, Darya Ganj (UP)	44	28.02.2019





#### PROMOTION OF HINDI

संस्थान में राजभाषा हिंदी का प्रचार-प्रसार एवं कार्यान्वयन उत्तरोतर रूप से हो रहा है। भारतीय वन सर्वेक्षण, मुख्यालय, देहरादून में महानिदेशक महोदय की अध्यक्षता में राजभाषा कार्यान्वयन समिति गठित की गई है। 31 दिसम्बर, 2018 को समाप्त तिमाही में हिंदी के प्रगामी प्रयोग से संबंधित तिमाही प्रगति रिपोर्ट की समीक्षा करने हेतु राजभाषा कार्यान्वयन समिति की बैठक दिनांक 29 नवम्बर, 2018 को आयोजित की गई। बैठक में मुख्यालय सहित चारों आंचिलक कार्यालयों से प्राप्त तिमाही प्रगति रिपोर्ट की समीक्षा की गई। 31 दिसम्बर, 2018 को समाप्त तिमाही में दौरान 'क','ख' एवं 'ग' क्षेत्रों को मूल रूप से हिंदी में किए गए पत्राचार का प्रतिशत क्रमश: 92.49%, 91.73% एवं 82.36% रहा। 06 दिसम्बर,

2018 को राजभाषा कार्यशाला का आयोजन किया गया जिसमें समस्त लिपिक वर्गीय कर्मचारियों ने भाग लिया। साथ ही 31 मार्च, 2019 को समाप्त तिमाही में, 08 मार्च, 2019 को राजभाषा कार्यान्वयन समिति की बैठक आयोजित की गई तथा 26 मार्च, 2019 को राजभाषा कार्यशाला का आयोजन किया गया।

संस्थान में कार्यरत समस्त अधिकारी एवं कर्मचारी अपना अधिकांश शासकीय कार्य हिंदी में कर रहे हैं। सेवा पंजिकाओं में प्रविष्टियां अधिकतम हिंदी में की जा रही है। सभी नामपट्ट एवं मोहरें द्विवभाषिक हैं। पुस्तकालय में पर्याप्त मात्रा में हिंदी साहित्य उपलब्ध है।

#### **NEWS FROM ZONES**

#### Central Zone, Nagpur

#### FOREST COVER MAPPING

A total number of 87 satellite images covering the states of Madhya Pradesh, Maharashtra, Gujarat and Goa and UTs of Dadra & Nagar Haveli and Daman & Diu are allotted to this zone for forest cover mapping for 16<sup>th</sup> cycle of ISFR.

After getting trained in new methodology of classification of satellite data at FGD, Dehradun, FCM work up to classification stage in Maharashtra, Madhya Pradesh and Goa has been completed whereas this work is in progress in respect of Gujarat and UTs of Dadra & Nagar Haveli and Daman & Diu. Ground truthing of real change patches in Maharashtra & Goa is scheduled w.e.f 25.3.2019.

#### **VISITORS**

- Sh. Siddhantha Das, Director General of Forests & Special Secretary, MoEF&CC, GOI, New Delhi visited the office on 11<sup>th</sup> March, 2019
- Sh. Saibal Dasgupta, ADG (FC), MoEF&CC, New Delhivisited FSI, CZ, Nagpur from 20<sup>th</sup> -24<sup>th</sup> February, 2019.
- Dr. Subhash Ashutosh, Director General, FSI, Dehradun visited FSI, CZ, Nagpur on 17<sup>th</sup> October, 2018.

#### WORKSHOPS/TRAININGS/LECTURES

 A training programme for Data entry Module of Forest Fringe Villages as conducted at FSI, CZ, Nagpur from 7<sup>th</sup>-8<sup>th</sup> February, 2019. Data Entry

- Operators from FSI, EZ, Kolkata and SZ, Bengaluru also participated in this 2 day training programme.
- Ms. Rohini Ganorkar & Aparajita Yadav, JTAs of this office delivered a lecture on 'Role of FSI in Assessment & Evaluation of trees Outside Forests (TOF)'at CFRHRD, Chhindwara on 21st February, 2019.
- Shri Anil Biala, Ex. AD & Consultant of this office imparted training to 50 forest officials of Dadra & Nagar Haveli Forest Department at Silvassa on 12<sup>th</sup> & 13<sup>th</sup> March, 2019
- Shri B.H. Naik, AD (I/c) and Shri Kumar Kalbande, JTA of this office attended a 5 days Workshop on 'Forest Resources Assessment Remote Sensing Survey at FSI, Headquarters, Dehradun from 11<sup>th</sup> to 15<sup>th</sup> March, 2019.

#### **AWARDS**

- Shri Ashutosh Singh and Shri F.D. Bhallaivi, Deputy Rangers of this office were awarded the Best Employee Award on 26<sup>th</sup> January, 2019 at the hands of Dr. Subhash Ashutosh, DG, FSI at Dehradun.
- Shri Ashutosh Singh, Deputy Ranger of this office was on 8<sup>th</sup> March, 2019, awarded the 1<sup>st</sup> Prize in 'Tatkalik Hindi Nibandh' Competition organized by the Nagar Rajbhasha Karyanvayan Samiti, Nagpur under the aegis of Ministry of Home Affairs, GOI, New Delh

#### Southern Zone, Bengaluru

#### **WORKSHOP**

One day workshop was organized on "Establishing Network of Permanent Observational Plot (POP) in India by FSI" at IWST conference hall, Malleswaram, Bengaluru on 7<sup>th</sup> December, 2018.

Dr. Subhash Ashutosh (IFS), Director General, FSI, Dehradun, Dr. Klaus Gadow, an International expert on POP, FAO, Sri. V. P. Tiwari (IFS), Director, HFRI, Dr. M. H. Swaminathan (IFS) Retd, Dr. K. S. Shashidhar (IFS) Retd,





Smt. Ritu Kakkar (IFS), DG, EMPRI have participated in the discussion and shared their valuable opinions on establishing POP in India. Also many officers and staffs from all the zones and HQ of Forest Survey of India (FSI), Institute of Wood Science & Technology (IWST) and Environmental Management Policy and Research Institute (EMPRI) have participated in the workshop.

#### **FOREIGN VISITS**

- Sh. Ashutosh, IFS., Regional Director, Forest Survey of India, SZ, Bangalore was on Deputation to Overseas Study Tour for Professional Skill up gradation Course (PSUC) from 10<sup>th</sup> to16<sup>th</sup> March, 2019 at Indonesia.
- Sh. S.S. Kumbhare, AD I/C of this zone had attended a training on "Wildlife Management" at Malaysia from 10<sup>th</sup> December, 2018 to 22<sup>nd</sup> December, 2018 followed by One week Domestic module at Delhi under the scheme "Foreign Training of Forestry Personnel (FTFP)".
- Sh. Nagaraja S.V., Senior Technical Assistant of this zone had attended two week training on "Biodiversity Conservation" from 28<sup>th</sup> January to 8<sup>th</sup> February, 2019 at Brazil, for two weeks followed by 1 week domestic module at Delhi under the scheme "Foreign Training of Forestry Personnel (FTFP)".

#### **TRAININGS**

 Sh. S. Elamurugannan, IFS., Deputy Director, Forest Survey of India, SZ, Bangalore was on official tour during the period from 03/02/2019 to 09/02/2019 to attend refresher training course for Indian Forest Service Officers on "Management of Coastal and Marine Biodiversity in India: Challenges and Prospects, at Port Blair.

#### PROMOTION OF HINDI

- Official language working committee meeting was held on 12<sup>th</sup> December 2018 & 11<sup>th</sup> March, 2019.
- Hindi workshop was held in this office on 21<sup>st</sup>
   December 2018 & 11<sup>th</sup> March, 2019.
- Sri. S. Elamurugannan, IFS, Deputy Director and Sri. S. Sampath, Assistant Director(I/C) of this office have attended one day TOLIC meeting which was held on17<sup>th</sup> December 2018 at ISRO campus, Bengaluru.
- Ms. Aarti, JTA of this zone attended one day TOLIC seminar which was held on 14.03.2019 at IIS, Bengaluru.
- Shri Vinod M. Lambodari, UDC and Shri. Vinod Meena, LDC of this office have attended one day Hindi computer training programme at U.R. Rao Satellite Centre, HAL, Airport Road, Bengaluru on 10.01.2019 on the eve of Vishwa Hindi Divas

#### **AWARD**

Shri G.S. Thiagaraj, Junior Draftsman of this zone had received the best employee award during the Republic Day celebration held at FSI, Dehradun on 26<sup>th</sup> January 2019.

#### **EXHIBITION**

Brief activities of Forest Survey of India have been exhibited in the exhibition stalls displayed during 14<sup>th</sup> National Silviculture Conference which was held at J. N. Tata Auditorium, IISC Campus, Bengaluru from 3<sup>rd</sup> to 5<sup>th</sup> December, 2018.



#### Northern Zone, Shimla

#### FOREST & TOF INVENTORY

The Forest Inventory Data collection pertaining to year 2017-18 has been done in Himachal Pradesh, Rajasthan and Haryana states. The Forest Inventory Data collection pertaining to year 2018-19 has been done in Rajasthan and Haryana states.

During the period under report, Data entry pertaining to year 2017-18 of Uttarakhand, Punjab, Himachal Pradesh, Chandigarh and Delhi has been completed and Data entry pertaining to year 2017-18 of Jammu & Kashmir, Haryana & Uttar Pradesh is under progress.

Inspection of ongoing Forest Inventory work in Rajasthan and Haryana states (Photograph) has been carried out by Sh. Ashwani Kumar, STA and Sh. Ajay Kumar, STA.

#### FOREST FRINGE VILLAGES

During the period under report, data collection of Forest Fringe Villages in Uttarakhand, Punjab, Himachal Pradesh and Rajasthan has been carried out by Field Officials.

#### **FOREIGN VISIT**

Sh. Ajay Kumar, STA visited United States of America to participate exchange visit on Forest Inventory from 29<sup>th</sup> October 2018 to 2<sup>nd</sup> November 2018.

#### KUMBH EXHIBITION 2019

Sh. Ajay Kumar, Sr. TA, Sh. Raghuveer Singh, Jr. TA, Sh. Kamaljeet Singh, Jr. TA and Sh. Chhavi Shyam, DR participated in MOEF & CC's exhibition established in Prayagraj.



#### PERMANENT OBSERVATIONAL PLOTS TRAINING AT BENGALURU

Sh. Ashwani Kumar, Sr.TA and Sh. Rajesh Kumar, Jr.TA attended workshop on permanent observational plots at FSI, South Zone.

#### FOREST INVENTORY TRAINING

Sh. Aaditya Kumar Sain Jr.TA has imparted Forest Inventory training at RFRI, Jorhat.

#### **DATA INTERPRETATION PROCESS**

Marking of Inventory grids of Uttrakhand, Uttar Pradesh and Haryana has been completed.

Marking of Forest Fringe villages of Uttrakhand, Uttar Pradesh and Punjab has been digitally marked on GIS Portal.

FCM work of HP and Punjab is under progress.

10 sheets of HP and Punjab states regarding real change and interpretation change has been completed under FCM work and the rest in under progress.

#### REPUBLIC DAY CELEBRATION

Sh. Joginder Kumar, Sr. Draftsman, FSI, NZ, Shimla was awarded with cash prize and certificate by the Director General, FSI, Dehradun for his exemplary work.

#### राजभाषा संबंधी गतिविधियां

- राजभाषा विभाग द्वारा राजभाशा संबंधी निरीक्षण: गृहमंत्रालय, राजभाषा विभाग, नई दिल्ली से सहायक निदेशक, राजभाषा कार्यान्वयन दिनांक 27-12-18 को इस कार्यालय का राजभाषा संबंधी निरीक्षण / विचार विमर्श करने हेतु दौरे पर आए। निरीक्षण रिपोर्ट में कार्यालय द्वारा किए जा रहे कार्य की प्रशंसा की गई।
- नराकास, शिमला द्वारा आयोजित वार्षिक राजभाषा समारोहः 13 फरवरी, 2019 को नराकास, शिमला द्वारा आयोजित समारोह में इस कार्यालय को वर्ष 2018-19 के लिए राजभाषा नीति के प्रभावी कार्यान्वयन में सराहनीय कार्य के लिए शील्ड के साथ सम्मानित किया गया। वर्ष 2016 में नगर स्तर पर आयोजित हिंदी की विभिन्न प्रतियोगिताओं में से एक स्मरण शक्ति प्रतियोगिता में इस कार्यालय के श्री अजय कुमार, विर. तकनीकी सहायक को प्रोत्साहन पुरस्कार प्रदान किया गया। इस के साथ ही अगस्त-सितम्बर, 2018 के दौरान आयोजित स्मरण शक्ति प्रतियोगिता में इस कार्यालय के श्री कौशल कुमार, क्षेत्रिक को प्रथम, श्री प्रदीप कुमार, किन. तकनीकी सहायक को द्वितीय तथा श्री प्रिंस जांगिड़, किन. तकनीकी सहायक को प्रोत्साहन पुरस्कार से सम्मानित किया गया। निबंध प्रतियोगिता में सुश्री ज्योति, उपरेंजर को प्रोत्साहन पुरस्कार से सम्मानित किया गया।



#### REPATRIATION / RETIREMENT / JOINING

- 1. Shri Vivek Bhardwaj joined as MTS on 12th October, 2018 in FSI, NZ, Shimla.
- 2. Km. Prachi Gupta joined as LDC on 30th October, 2018 in FSI, NZ, Shimla.
- Shri Subham Kumar, joined as Lower Division Clerk, Forest Survey of India, Hqrs. Dehradun on 5<sup>th</sup> November, 2018.
- Shri. Avinash karra joined Forest Survey of India, SZ, Bangalore as Junior Technical Assistant on 19<sup>th</sup> November, 2018
- Shri. Abhishek Tiwari joined Forest Survey of India, SZ, Bangalore as Junior Technical Assistant on 22<sup>nd</sup> November, 2018
- Shri Arun Kumar Sharma, Lower Division Clerk has been transferred from FSI, CZ, Nagpur to Headquarters, Dehradun and joined on 10<sup>th</sup> December, 2018
- Sh. S. Elamurugannan, IFS., has joined as Deputy Director, Forest Survey of India, Southern Zone, Bangalore, on 10<sup>th</sup> December, 2018.
- Shri. Perumal. M, Fieldman of Forest Survey of India, SZ, Bangalore was relieved from the post of Fieldman w.e.f 10<sup>th</sup> December, 2018 for taking up the new assignment in the Lok Sabha Secretariat.
- Shri Pradeep Kumar, JTA, FSI, NZ, Shimla resigned on 24<sup>th</sup> December, 2018 due to his appointment in other department.
- Shri Krishan Kumar Agarwal, MTS, FSI Headquarters, Dehradun retired from service on attaining superannuation on 31st December, 2018.

- Ms. Aarti Das has joined Forest Survey of India, Southern Zone, Bengaluru for the post of Junior Technical Assistant on 7th January, 2019
- 12. Shri Yashwant Singh Parihar joined as JTA on 25th January, 2019 in FSI, NZ, Shimla
- Shri Vangala Sekhar has joined Forest Survey of India, Southern Zone, Bengaluru for the post of fieldman on 30<sup>th</sup> January, 2019
- Shri Uttam Chand, STA, FSI Headquarters, Dehradun retired from service on attaining superannuation on 31st January, 2019
- 15. Shri Mukesh Prasad, Deputy Ranger resigned on 4th February, 2019 from FSI, NZ, Shimla.
- Shri Mahesh Baburao Sutar, JTA, FSI, CZ, Nagpur was relieved on 13<sup>th</sup> February, 2019 on submission of his resignation from the post of JTA
- Km. Preeti Mehta, joined as Lower Division Clerk, Forest Survey of India, Hqrs. Dehradun on 1st March. 2019.
- 18. Shri Sanjay Kumar Banty, Lower Division Clerk has resigned on 15th March, 2019 due to his selection in other department.
- Shri Chandra Mohan, Deputy Ranger joined FSI, CZ, Nagpur on 15th March, 2019 on transfer from FSI, NZ, Shimla.

Very impressed by the way FSI is using geospatial technology and remote sensing data for preservation of forest as well as monitoring reforestation efforts. Good to see a committed team working to meet the required goal.

Dr. Santanu Chowdhury Director, NRSC, Hyderabad

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