

COURSE REPORT

Two Week Offline Training on

"Forest Fire Prevention and Mitigation Strategies" for

National Disaster Response Force (NDRF) 1st Battalion 12th to 22nd June, 2023





Central Academy for State Forest Service, Dehradun Ministry of Environment, Forest & Climate Change Government of India

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EXECUTIVE SUMMARY

Fires are integral to forests since ancient times as they have shaped their structure, composition, and functions. More than 95% of Forest fires in India are man-made and pose enormous threats with colossal negative consequences on the survival of natural flora and fauna and subsequently human beings themselves.

Prevention and control of forest fire assumes an important aspect in management of forests. Forest fires are traditionally managed by State Forest Departments by involving the forest personnel, seasonal fire watchers and local communities. With increasing frequency and duration of forest fires, it becomes imperative to develop a comprehensive forest fire strategy to transform forest fire management of our Country's diverse forests - more resilient to the threats and impact of forest fires in the future.

As a part of this strategy, the National Disaster Management Authority (NDMA), Ministry of Home Affairs, Govt. of India, in collaboration with the Ministry of Environment, Forest & Climate Change (MoEF&CC), Govt. of India devised a specialized training programme to train the National Disaster Response Force (NDRF) Battalions of the Country in Forest Fire Prevention and Mitigation Strategies and engage them for Forest Fire control measures in future. The Central Academy for State Forest Service (CASFOS), Dehradun under the aegis of the MoEF&CC has been assigned the responsibility of conducting a specialized two-weeks training to NDRF 1st Battalion, Dehradun to this effect from 12th – 22nd June 2023.

This training program was customized over consultations with the NDRF to best suit the training needs of the battalion in terms of imparting basic understanding the science of forest fire, techniques, use of tools, operational strategies, and management of forest fires, together with hands-on practice and field demonstrations and rounds of mock-drills (both day and night mock drills). During the first week, classroom-based lecture sessions coupled with field visits and demonstration sessions were conducted in Dehradun and Mussoorie Forest Divisions followed by a weeklong mock field drill at Mussoorie Forest division and Narendra Nagar Forest division.

The training program was inaugurated online through a common inaugural session organized at CASFOS, Dehradun on hybrid mode in which Director -IGNFA, Director General-NDRF, Director-Directorate of Forest Education, PCCF- Uttarakhand, Principal-CASFOS Coimbatore and Dehradun and all the faculty members of both the CASFoS etc attended.

Fifty NDRF personnel from their 15th battalion, Dehradun attended the training Program. The participants who participated in this training programme included Officers from various Ranks such as Two Assistant Commandants, four Inspectors, Four Sub-Inspectors, Twelve Head Constables and twenty-eight Constables.

The topics covered during the first week of the training program i.e from 12-22 Jun, 2023 were Organization Structure in Forest Department, Forest types of Uttarakhand, Forest Fire Scenario (India & Uttarakhand), Types of Forest Fire, Types of fuels (Chir pine, Sal, Grasses, scrubland), Information network (Terrain, road network, local geography, Fire weather, Fire behaviour, Forest Fire Traditional Management (Direct attack, Indirect attack, Mop-up operations), Introduction of firefighting tools and equipments, Demonstration of various modern firefighting tools & equipments, Map reading, GPS navigation, FSI Forest Fire Alert System, People participation in various forestry activities, Role of local communities in Forest Fire Management (Case study Uttarakhand & Maharashtra) Fire hazard and safety measures, First aid measures during firefighting and Best practices in fire management across world (Fire retardants, drones, Thermal scanners, Fire balls, thermal blankets, fire shelters). The first week also included various practical and hands on session in and around FRI at various places of Dehradun and Mussoorie Forest Divisions like Demonstration of firefighting equipments, Forest Fire Traditional Management (Direct remedial methods, Indirect remedial methods, Mop-up operations), Practicals on Forest Fire Alert System, Field visit to Barkot Range to witness fire lines, Practicals on first aid/fire safety measures, Visit to Master Fire control room, etc

The week-long field exercises from 13.2.23 to 18.2.23 included field visit to two forest divisions namely Mussoorie Forest Division and Narendra Nagar Forest Division. Forest Fire Fighting mock drill exercises (both day and night drills) in the pine forest, utility of Firelines in fire control, the direct attack & counter fire burning operations in restricting the spread of Forest Fire were imparted during the field exercises.

The valedictory program was conducted on 18.2.23 at Dehradun in which the Course director conducted the programme and the participants of the training programme shared their valuable feedback about the training programme. Valuable remarks were shared by Mr Bharat Jyoti IFS, Director IGNFA, Director DFE Mr Anurag Bharadwaj, IG NDRF Mr Bundela, and CCF Fire cell Mr Nishant Verma. The participants were awarded certificates of participation on their successful completion of the two weeks training programme.

The trainees were also provided with a user-friendly "Field manual on Forest Fire Prevention and Mitigation Strategies" which was prepared based on the inputs provided during the training along with the Copies of presentation made by the experts during the two weeks training Programme.

Course Report

| Mol | EF&CC /DFE's letter number and date | 4-191/प्रशि. 1 / वि.शि.नि.—2022 / 4254 दिनांक 01 फरवरी 2023 |
|-------|---|--|
| Insti | tute's reference number | File No. 4-132/TRG.II/NDRF-I/CASFOS/2022- |
| 1. | Name and complete address of the Institute (including phone, fax, and e-mail) | 23/7071, Dt. 30.01.2023 Central Academy for State Forest Service, Dehradun Ph: 01352-2754575/2754648 Email-casfos.dd-mef@gov.in |
| 2. | Title of the course | Forest Fire Prevention and Mitigation Strategies |
| 3. | Duration & period of the Course | Two-weeks 12 th to 22 nd June, 2023 |
| 4. | Name & designation of the Course Director | Pradeepchandra Wahule, IFS |
| 5. | Number of officers participated | 50 (Details at Annexure-IV) |
| | (a)Did the institute get in touch in advance with the participants of the course? | Yes |
| | b) If yes, when (mention the date of communication to the officers)? | 11.10.2022 |
| | (c) Details of nomination received from States prior to the Course | 50 |
| 6.1 | (d) How many officers received the intimation? | All |
| | (e) How many officers responded? | 50 |
| 6.2 | (a)Were the course expectations of the participants ascertained by the institution? | Yes |
| | (b) If yes, how, and when (dates)? | By direct interaction and in form of feedback on prescribed proforma collected during the course |
| | a) Was the course conducted at the institution's campus? If no, where? | Yes |
| 7.1 | (b) Whether the course was "residential" or non-residential. If residential, whether the residential facilities were provided in the institution's own hostel or in a hotel etc.? | Residential, but the residential accommodation was provided by the NDRF at their own base camp. |
| | (a) Total no. of working days in the course | 14 days |
| | (b)Total no. of sessions planned/covered in the course | 21 Session (including inaugural and valediction sessions) |
| | (c) No. of sessions, which could not be conducted as planned with reasons | NIL |
| 7.2 | (d) Internal faculty hours | - |
| | (e) Guest faculty hours | 45 mts |
| | (f) No. of days / hours spent on field visit(s) if any | 03 days |
| Enc | losure (2 conies each): | |

Enclosure (2 copies each):

- Final course timetable
- List of faculties (both in-house and guest faculty)
- Final list of participants
 The background material supplied to the participants

| | (a) Had the same or similar course been | |
|-----|---|---|
| | conducted earlier under the sponsorship of | |
| | the MOEF&CC/Department of Personnel | No |
| | and Training (Government of India)? | |
| 8 | (b) What changes based on the feedback | |
| | received in the previous course were made in | - |
| | the current course? | |
| 9 | refer to question number in Part C or Part E of | rse participants in terms of: (*1.1, 2.1, shown below the Evaluation Report.) |
| 9.1 | Course Content and Structure (CCS) | The course contents and the structure were reported to be very relevant and highly appreciated by the participants with the rating of 96.75 %. The course has met the expectations of the participants as per their feedback. |
| 9.2 | Training Faculty (TF) | The participants have rated the training faculty at more than 93.86% Training faculty and their lectures were highly appreciated by the participants. |
| 9.3 | Usefulness of the course (UOC) | The participants have given feedback that the training course will be highly useful immediately and in future for their job with combined rating as 98.75% |
| 9.4 | Overall impression about the Course (OIC) | The participants have given feedback about overall impression of the course was very good with rating 94.90% |
| 9.5 | Participants' views about the strengths and weaknesses as well as other aspects pertaining to the course | Overall, the participants have appreciated the course. The suggestions made by them along with Academy's comments are attached. (Annexure-1) |
| 9.6 | Logistics (including Residential accommodation, Food quality, Classroom facilities, Computer facilities and Recreation facilities and Time management etc.) | The internet connectivity was very good throughout the training program and was rated as (98.67%) |
| 9.7 | Weighted Average of the course | The weighted average of the course has been rated as 96.35% which is found to be very satisfactory |
| 10 | General remarks of the Course Director on the nature and extent of participant's involvement in the course including attendance punctuality and interest evinced | The participants showed keen interest and attended the sessions with due punctuality. |
| 11 | Suggestion highlighting the areas of improvement in the Course for future by Course Director | The training received a very positive response in all aspects such as Course contents, Topics, Choice of speakers, and Components of Field visits, Field demonstrations & Mock drills. The Two weeks training for NDRF battalion was first of its kind and was designed and executed at a shorter notice. For future training programs of similar nature, the Course can still be customized to ten days with |
| 12 | Comments of the Institution on how the | eight-day schedule for field visits and field mock drill exercise components. Sufficient sets of Forest Fire equipments may be procured and kept ready for future training programs. The Training was a learning reference for the |
| 12 | feedback is proposed to be recycled into future programmes in terms of course content, methodology, etc. | Academy and faculty also to Co-ordinate with Forest Department and other departments. The NDRF Personnel received the training with good |

| | attention and the feedback received was very |
|--|--|
| | positive. We could customize the module for |
| | different Stake holders. |

(Pradeepchandra Wahule, IFS) Course Director

Counter sign Principal

Course Director's comments on Participants' views about the strengths and weakness pertaining to the course

| S. No. | Participants' views | No. of participants who have expressed the view | Course Director's Comments |
|-----------|---|---|-------------------------------|
| 1 | इस कोर्स में अच्छी जानकारी मिला और बहुत कुछ सीखा जो भी जंगल की आग बुझाने में काम आयेगा लेकिन NDRF टीम को जब ज्यादा आग लग जाये तब बुलाया जायेगा। वह जंगल अन्जान रहेगा इसलिए पेड़ पौधे की जानकारी मिलना चाहिए जिससे कोई नुकसान न हो। | | |
| 2 | इस कोर्स की अवधि को 4 हफते किया जाना चाहिए। Ground में Physcial Pratice ज्यादा होनी चाहिए। | | |
| 3 | इस सत्र का समय होना चाहिए 40 मीनट या 1 घंटा 01 सत्र के बाद 05 मीनट का ब्ररेक होना चाहिए नही तो कक्षा में बैठे बैठे नींद आने लगता है। | | |
| 4 | `Forest Fire का जो Course है वह बारिश के समय नहीं कराया जाएँ इससे प्रशिक्षण में समस्याँ होती है। | | |
| 6 | ेयह कोर्स कम से कम 1 महीने का होना चाहिए और साल मे एक बार रिफेसर होना चाहिए। | | |
| 7 | `CASFOS में वन एचं वनाग्नि के बारे में जो जानकारी दि गई तथा उससे निपटने के बारे में जानकारी दि गई। जिससे प्रथम वाहिनी राष्ट्रीय आपदा मोचन बल के सभी बचावकर्ता लाभावित हुये। धन्यावाद | | |
| 8 | `CASFOS में वन एचं वनाग्नि के बारे में रोक थाम, और शमन रणनीतियों के बारे में बताया गया जिसमें प्रथम वाहिनी राष्ट्रीय आपदा मोचन बल गुवाहाटी असम प्रशिक्षण प्राप्त हुआ पुरे 1st BN NDRF की तरफ से आप का धन्यावाद | | |
| 9 | यहाँ पर कोर्स के दौरान जा भी सिखलाई मिली है जंगल के बारे में तथ जंगलों में आग लग जाने के दौरान आग पर कैसे काबू पाया जाय यह सिखलाई मिली है जिससे हम भविष्य में आग से निपट सकते है। तथा प्रथम वाहिनी राष्ट्रीय आपदा मोचन बल के सभी कामिक प्रभावित और लाभान्वित हुए है। धन्यावाद | | |
| 10 | NDRF Team should be attached with forest dept for a brief 10 to 15 days in various forest where they can accomatised themsdues with forest enviorment . It should be done once a year or regular basis . These will help us in understanding our logisitices & other aspect for effective UPS. It will also provide manpower to forest. | | |
| 11 | One whole day 24 hrs camping in forest area including in course Visit of real forest fire range to be allowed to visit Navigation part of course required to added | | |
| 12 | 1. Being a trainee from Assam, my request is that can we make plantation for elephant food in the empty hills area in Assam is there any option to ereat a forest for elephant food through CASFOS or Govt. of India or by the Govt of Assam. 2. CASFOS is excellent I wish all the best | | |

Numerical value of feedback and Weighted Average

For calculation of numerical value of feedback, each factor is valued as percentage value to the top grade given to the factor. If no answer is provided, it is excluded from calculation. (Cf; where number of grade is 4, percentage value be 100, 75, 50, 25)

Average of numerical value of factors consisting of the element is a numerical value of the element.

- 1. Course Content and Structure (CCS) = 96.75
 - 1.1 Course aims met (97.50)
 - 1.2 Increase of knowledge (97.00)
 - 1.3 Relevance of content (96.00)
 - 1.4 Reading Material (96.50)
- 2. Training Faculty (TF) = 93.86
 - 2.1 Assessment of the Course contents/topics = 95.38

Contents (96.43)

Presentation (95.70)

Quality of Discussion/Interaction (94.60)

Meeting for Objectives (94.80)

2.2 Assessment of the Field Visit = 92.34

Contents (92.93)

Meet for Objectives (91.76)

- 3. Usefulness of the Course (UOC) = 98.75
 - 3.1 How useful to you immediately (99.50)
 - 3.2 How useful to be for the future jobs (98.00)
- 4. Overall Impression about the Course (OIC) = 94.90
- 5. Logistic = 98.67
 - 5.1 Food quality (99.00)
 - 5.2 Classroom facility (99.00)
 - 5.3 Time management (98.00)

Weighted Average for the Course

For calculation of Weighted Average (WA), following formula is used.

$$WA = (CCS (100\%) + TF (100\%) + UOC (75\%) + OIC (100\%) + L (75\%) * 100/450$$

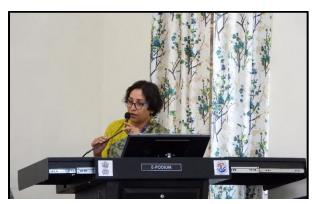
$$WA = (96.75 + 93.86 + 74.06 + 94.90 + 74.00) *100/450$$

= 96.35%



Inaugural Address by

the Chief Guest Dehradun



Opening Remarks by Smt. Meenakshi Joshi, IFS, Principal, CASFOS, Dehradun



Brief description about the course by Dr. T. Beula Ezhil Mathi, IFS, Course Director



Lecture session by Sh. Bharat Singh, ACF (Retd.), Uttarakhand



Lecturer session by Sh Nishant Verma (IFS), CCF, UKFD



Lecturer session by Ms. Vijaya Ratre (IFS), FRI, Dehradun



Lecturer session by Dr. V.K. Dhawan, Scientist (Retd.), Dehradun



Lecturer session by Sh Vikas Gusain, Sr. Tech. Asst., FSI, Dehradun



Lecturer session by Sh Rajkumar, DFO, Nagaland



Lecturer session by Dr. Sivabala S. (IFS), Assoc. Prof., IGNFA



Address by Sh Kunal Satyarthi (IFS), Jt. Secretary, NDMA



Practical Session on Fire hazard, Safety & First Aid measures during firefighting



Practical visited Dehradun, Chakrata & Mussoorie Forest Ranges.

Field Visit (Mock Drills for mitigation of forest fire): Kalsi Forest Division, Jhajra & Interaction with villagers, Rampur Mandi













Details of Topics & Resource Persons

| Sl. No. | Topic | Name | Contact No. | E-mail | |
|------------|---|--|--------------------------|--|--|
| 1. 2. | Forest Fire Types & Fuels Forest Fire Behavior & Mitigation | Shri Bharat Singh, ACF (Retd.), Dehradun | 9412053091 | bhacha2000@gmail.com | |
| 3. | Organizational Structure of Forest Department | Shri. Nishant Verma, IFS, CCF, Uttarakhand | 8826390808 | nodalforestfire.uk@gmail.com | |
| 4. | Forest Fire Scenario in India | | | | |
| 5. | Forest Fire Behavior & Mitigation | Shri Bharat Singh, ACF (Retd.), Dehradun | 9412053091 | bhacha2000@gmail.com | |
| 6. | Modern approach to use of Forest Fire tools | Ms. Vijaya Ratre, IFS, DFO, FRI, Dehradun | 7697602322 | - | |
| 7. | Field demonstration of Forest Fire, tools & techniques | Shri V.K. Dhawan, Scientist (Retd.), ICFRE, Dehradun | 9412052007 | dhawanvk@rediffmail.com | |
| 8. | Forest Fire Alert System & Use of Remote Sensing (2 Session) | Team FSI & Mr. Ankit Gupta, Scientist-C, CASFOS, | 9717488313 | ankit.gupta18@gov.in | |
| 9. | Forest Fire Alert System & Use of Remote Sensing (2 Session) | Dehradun | 7717100313 | | |
| 10. | Case Study - Maharashtra | Dr. Sivabala S, , IFS, Associate Professor, IGNFA, Dehradun | 7579008479 | vetbala@gmail.com | |
| 11. | Forest fire fighting- Global approach Case Study- Uttarakhand | Mr. Vaibhav Singh, DFO, Tarai Central Rudrapur, UKFD 9412839179 | | - | |
| 13. | Simulation Exercise | Mr. Amlendu Pathak, IFS, CASFOS, Dehradun | 8805568238 | amlendupathak86@gmail.com | |
| 14. | Fire hazards safety measures | , | | | |
| 15. | First aid measures during fire fighting/Medical assistance during fire fighting | Mr. R.S. Khati, Chief Fire Officer, Fire Service, Dehradun | 7906793364 | cfoddn.ukfs@gmail.com | |
| 16. | Practical fire safety measures | | | | |
| 17. | Medical First Aid | Dr. Atul Alok, New Forest Hospital, FRI, Dehradun | - | - | |
| 18. | Field Visit-Kalsi Forest Division | Shri Ankit Gupta, Scientist-C, CASFOS, Dehradun & Mr. Bharat Singh, ACF (Retd.), Dehradun | 9717488313 9412053091 | ankit.gupta18@gov.in bhacha2000@gmail.com | |
| 19. | Field Exercise – Jhajra | Mr. Pradeep Wahule, IFS, CASFOS, Dehradun, Mr. Bharat Singh, ACF (Retd.), Dehradun and Shri V.K. Dhawan, Scientist (Retd.), ICFRE, Dehradun | - | - | |

| 20. | Field Exercise- Interaction | Mr. Pradeep Wahule, IFS, | | |
|-----|-----------------------------|-------------------------------|---|---|
| | with Villagers, Rampur | CASFOS, Dehradun, Mr. | | |
| | Mandi & Case Study- | Bharat Singh, ACF (Retd.), | | |
| | Assam | Dehradun & Shri Sidramappa | - | - |
| | | M. Chalkapure, IFS, Director, | | |
| | | New Delhi | | |
| | | | | |
| 21. | Field Exercise Mussoorie | Mr. Amlendu Pathak, IFS, | | |
| | | CASFOS, Dehradun, Mr. | | |
| | | Bharat Singh, ACF (Retd.), | | |
| | | Dehradun and Shri V.K. | - | - |
| | | Dhawan, Scientist (Retd.), | | |
| | | ICFRE, Dehradun | | |

Annexure- IV

Details of Participants

| S. No. | Name of Participants | Rank | Email Id | Mobile no | |
|--------|-----------------------------|-------------|--------------------------------------|------------|--|
| 1. | Shri Mahesh Chand Gurjar | AC (Comn) | maheshchandelpatel@gmail.com 9405367 | | |
| 2. | Naresh Kumar | ASI /RO | lambanaresh1122@gmail.com | 7597250353 | |
| 3. | Horshjit Saikia | ASI/ PH | saikiahorshajit@gmail.com | 6000067848 | |
| 4. | Heni Thohrii | INSP | henitmao@gmail.com | 9914063772 | |
| 5. | Pintu Kumar Seal | INSP | pintukumarseal03@gmail.com | 9101108686 | |
| 6. | Ganpat Singh Purohit | SI/ GD | rgsingh1947@gmail.com | 9113829234 | |
| 7. | Surendra Kr Meena | SI/ GD | sanvisurendra1901@gmail.com | 8290199175 | |
| 8. | Mukesh Kumar | SI/ GD | mkd11040@gamil.com | 7751982354 | |
| 9. | Babu Lal Saini | SI/JE Elect | blsaini722@gmail.com | 9462062220 | |
| 10. | Anurag Kumar Singh | SI/ GD | anurag.singhzz1008@gmail.com | 9044867069 | |
| 11. | Mrityunjay Kumar | HC / RO | mritunjaysi987@gmail.com | 7908002011 | |
| 12. | Rampal Singh | HC/ GD | rampalsingh9407@gmail.com | 9407277243 | |
| 13. | Chandan Kumar | HC/ GD | Chandansharma2854@gmail.com | 7099678742 | |
| 14. | Rajneesh Kr Pandey | HC/ GD | pandey918gmail.com | 9469344383 | |
| 15. | Surjat Ali | HC/ GD | surjatali57@gmail.com | 7099418979 | |
| 16. | Vivek Omkant Patil | HC/TEC | vipatil1313@gmail.com | 9834631006 | |
| 17. | Ganesh Panday | Ct / GD | ganeshbsf85@gmail.com | 7363085829 | |
| 18. | Ravit Kumar | Ct/ Dvr | ravitkumar9412@gmail.com | 9412228698 | |
| 19. | L Ramesh Singh | Ct/ GD | lrameshsingh036@gmai.com | 9862031234 | |
| 20. | Hammir Singh | Ct/ GD | hammirsingh683@gmail.com | 7412963655 | |
| 21. | Amit Kumar | Ct/ GD | amitbsfbgp4@gmail.com | 8987075814 | |
| 22. | Kailash Teran | Ct/ Dvr | teronkailash01@gmail.com | 6002354518 | |
| 23. | Satyadev Kr Singh | Ct/ GD | satyadavsingh287@gmai.com | 6394691322 | |
| 24. | Suruj Nath | Ct/ GD | Surujnathbabububu72@gmail.com | 9682362990 | |
| 25. | Mohit Kumar | Ct/ GD | Mohitkumar59729@gmail.com | 7657924585 | |
| 26. | Himmat Singh Kushan | Ct/ GD | himmatsingh048@gmail.com | 8273702198 | |

| 27. | Ravish Kr | Ct/ GD | 19raviyadav93@gmail.com | 7895235612 |
|-----|-------------------------|----------|-----------------------------------|------------|
| 28. | Yadav Somen Roy | Ct/ GD | Somenroy1218@gmail.com | 8638765014 |
| 29. | Virendra Chahar | Ct/ GD | vc924967@gmail.com | 9478068985 |
| 30. | Sinod Kumar Yadav | Ct/ GD | sinodyadav1245@gmai.com | 7355642381 |
| 31. | Nitendra Singh Yadav | Ct/ GD | Nitendrasinghyadav8@gmail.com | 7006674157 |
| 32. | Jaganaryan Singh | Ct/ GD | nagakumar507@gmail.com | 6005070462 |
| 33. | Pawan Prasad | Ct/ GD | pawannavtiyal9456566224@gmail.com | 9456566224 |
| 34. | Amit Kr Pandey | Ct/ GD | amitpandey@gmail.com | 9229685649 |
| 35. | Rakesh Pant | Ct/ GD | pntrakesh04@gmail.com | 8427259465 |
| 36. | Pramod Kumar | Ct/ GD | pkumar05314@gmail.com | 9193989497 |
| 37. | Ashish Kr Yadav | Ct/ GD | yadavashishkumar5199@gmail.com | 6005254221 |
| 38. | Rupesh Kumar | Ct/ GD | rishantsapna23@gmail.com | 7003401919 |
| 39. | Virendra Kr Pandey | Ct/ GD | vkpkdp005@gmail.com | 9455456436 |
| 40. | Ram Chandra Saini | Ct/ GD | rcsaini417@gmail.com | 7742169220 |
| 41. | Biswajit Roy | Ct/ GD | biswajitroy231109@gmail.com | 9106206394 |
| 42. | Ajeet Kr. Singh | Ct/ GD | singhajeet9288@gmail.com | 6393218189 |
| 43. | Krishnanand Yadav | Ct/ GD | krishnanadyadav4762@gmai.com | 8076078106 |
| 44. | Bipin Prasun | Ct/ GD | bipinprasun2646@gmai.com | 7780938276 |
| 45. | Sanjay Kumar | Ct/ GD | kumarsanjay06634@gmail.com | 9931206673 |
| 46. | Shishir Kumar | Ct/ GD | shishir3689@gmail.com | 8789561810 |
| 47. | Narendera Singh | Ct/NA | Narender.rathore26@gmail.com | 8764108858 |
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| 49. | Shri Kuldeep Sharma | DC | kuldeeptac@gmail.com | 9413341854 |
| 50. | Raju Singh | Ct / Dvr | Rajukishashi2006@gmail.com | 6200135451 |

Annexure-V

02 weeks Training plan for Training NDRF Battalion on Forest Fire Prevention and Mitigation Strategies

| Week 1 | Session 1 0945 - 1115 | | Session 2 1130-1300 | | Session 3 1400-1530 | | Session 4 1545-1715 | 1715-1730 |
|-------------------------------|--|------------|---|---|---|-----------|--|---|
| Day 1 12.06.2023 (Mon) | Inaugural Session (MJ, PW, BS, VKD, MP, GC) | | Forest Fire Types & Fuels (BS) | | Forest Fire Behavior & Mitigation (BS) | | Organizational Structure of Forest Department (NV) | Group formation & Feedback (MJ/PW) |
| Day 2 13.06.2023 (Tue) | Forest Fire Scenario in India (NV) | k | Forest Fire Behavior & Mitigation (BS) | eak | Modern approach to use of Forest Fire tools (VR) | ak | Field demonstration of Forest Fire, tools & techniques (VKD) | Feedback (MJ/PW) |
| Day 3 14.06.2023 (Wed) | Forest Fire Alert System & Use of Remote Sensing (VG) | Tea Break | Forest Fire Alert System & Use of Remote Sensing (VG) | Lunch Break | Case Study-Nagaland (RKM) | Tea Break | Night fire demonstration & Use of drones in Forest Fire Management (MP, MFD) | Presentation on Dzikou Valley |
| Day 4 15.06.2023 (Thu) | Case Study - Maharashtra (SS) | | Forest fire fighting- Global approach (VS) | L | Case Study- Uttarakhand (VS) | | Simulation Exercise (PW, AP, VKD) | Feedback (MJ/PW) |
| Day 5 16.06.2023 (Fri) | Address by Sh. Kunal Satyarthi, JS, NDMA, New Delhi | | First aid measures during fire fighting/Medical assistance during fire fighting (RSK) | | Practical fire safety measures (RSK) | | Medical First Aid (RG) | Feedback (MJ/PW) |
| Day 6 17.06.2023 (Sat) | Field Visit-Kalsi Forest Division (AG, BS) | | | | | | | |
| Day 7 18.06.2023 (Sun) | Sunday Off | | | | | | | |
| Day 8 19.06.2023 (Mon) | Field Exercise – Jhajra (PW, BS, VKD) | | | | | | | |
| Day 9 20.06.2023 (Tue) | Case Study-North East India (SMC | S) | Field Exercise- Interaction with villagers, Rampur Mandi (PW, BS) | | | | | |
| Day 10 21.06.2023 (Wed) | Interaction Session (AP, BS, VKD) | | | | | | | |
| Day 11 22.06.2023 (Thu) | Botanization (SB) (08:00 am-09:00 am) Case Study-Go (09:45 am -1 am) | | | Valedictory Session & Feedback (BJ, MJ, PW, AP, AG) | | | | |

Abbreviation:

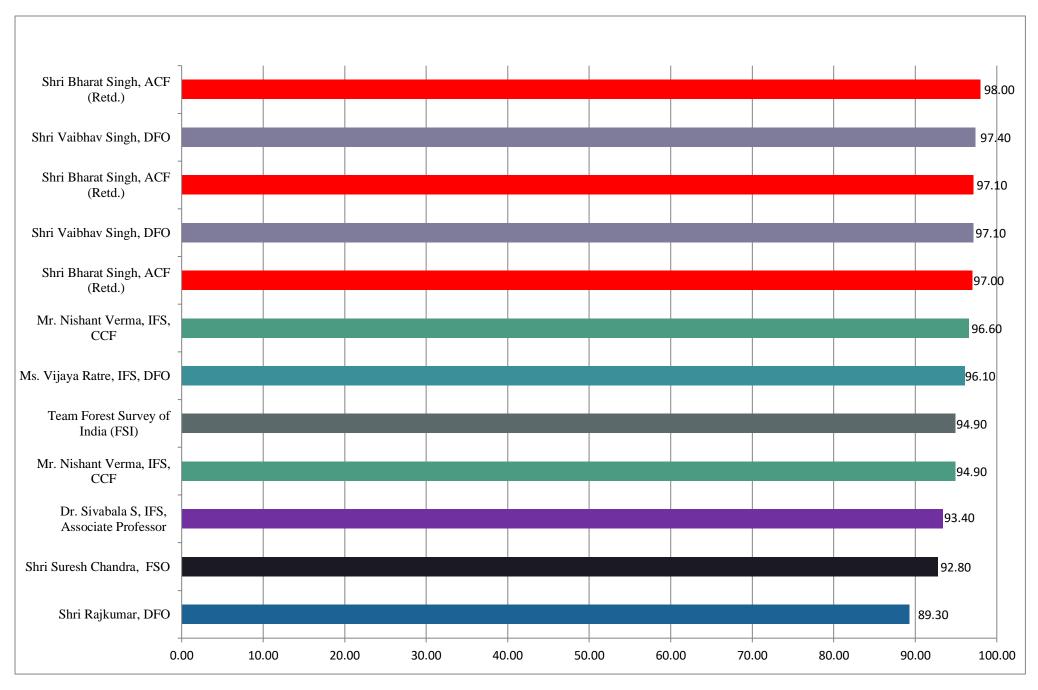
| 110010110110 | |
|--|--|
| NV: Shri. Nishant Verma, IFS, CCF, Uttarakhand- 8826390808 | SS: Dr. Sivabala S, , IFS, Associate Professor, IGNFA, Dehradun |
| MJ: Smt. Meenakshi Joshi, IFS, Principal, CASFOS, Dehradun | VS: Shri Vaibhav Singh, DFO, Tarai Central Rudrapur, UKFD-9412839179 |
| BS: Shri Bharat Singh, ACF (Retd.), Dehradun | RSK: Shri R. S. Khati, Chief Fire Officer, Dehradun |
| PW: Shri Pradeep Wahule, IFS, Lecturer, CASFOS, Dehradun | RG: Dr. Riment Gupta, New Forest Hospital, FRI, Dehradun |
| VR: Ms. Vijaya Ratre, IFS, DFO, FRI, Dehradun | SMC: Shri Sidramappa M. Chalkapure, IFS, Director, Dept. of Animal Husbandry & Dairying, New Delhi |
| VKD: Shri V.K. Dhawan, Scientist (Retd.), ICFRE, Dehradun - 9412052007 | AP: Shri Amlendu Pathak, IFS, Lecturer, CASFOS, Dehradun |
| AG: Shri Ankit Gupta, Scientist-C, CASFOS, Dehradun | AG: Shri Ankit Gupta, Scientist-C, CASFOS, Dehradun |

| MP: Shri Manoj Painuli, 2IC, BIAAT, Dehradun | RK: Shri Rajkumar M., DFO, Kohima, Nagaland |
|--|---|
| GC: Shri Gambhir Chauhan, DIG(NZ), NDRF, New Delhi | VG: Shri Vikas Gusain, Forest Survey of India, Dehradun |
| SK: Shri Saurabh Kumar, IFS, CCF, Goa | BJ: Shri Bharat Jyoti, IFS, Director, IGNFA, Dehradun |
| SB: Dr. Sas Biswas, Scientist (Retd.) | MFD: Mussoorie Forest Division |





Valedictory Session



Overall Feedback of Resource Persons on all Parameters















CENTRAL ACADEMY FOR STATE FOREST SERVICE, DEHRADUN

Two-week Training on "Forest Fire Prevention & Mitigation Strategies"
For "National Disaster Response Force (NDRF) 01st Battalion" during 12th-22nd June 2023



Sitting Row

: Sh. Ankit Gupta (Scientist-C), Sh. Praveen Kumar Ojha (AC), Sh. Mahesh Chand Gurjar, AC (Comn), Sh. Kuldeep Sharma (DC), Sh. Gambhir Chauhan, DIG (NZ), Smt. Meenakshi Joshi, IFS (Principal),
Sh. Manoj Painuli, 2IC (BIAAT), Sh. Pradeep Wahule, IFS (Lecturer & Course Director), Sh. V. K. Dhawan, Scientist (Retd.), ICFRE, Sh. Bharat Singh, ACF (Retd.), Sh. Parmanand Suyal (Sports Officer), Sh. J.M.S Bisht (Superintendent)

Standing Row

: Sh. Ganesh Pandey (CT), Sh. Vivek Omkant Patil (HC), Sh. Heni Thohrii (INSP), Sh. Surjat Ali (HC), Sh. Mukesh Kumar (SI), Sh. Pintu Kumar Seal (INSP), Sh. Babu Lal Saini (SI), Sh. Ravish Kr Yadav (CT), Sh. Virendra Kr Pandey (CT), Sh. Pawan Prasad (CT), Sh. Ganpat Singh (SI), Sh. Mohit Kumar (CT), Sh. Amit Kumar (CT), Sh. Surendra Kr Meena (SI), Sh. Hammir Singh (CT)

Standing Row

Sh. Raju Singh (CT), Sh. Rakesh Pant (CT), Sh. Himmat Singh Kushan (CT), Sh. Shishir Kumar (CT), Sh. Anurag Kumar Singh (SI), Sh. Somen Roy (CT), Sh. Ashish Kr Yadav (CT), Sh. Naresh Kumar (ASI), Sh. Amit Kr Pandey (CT),

(L-R)

Sh. Harindra Kumar (CT), Sh. Rajneesh Kr Pandey (HC), Sh. Ajeet Singh (CT)

(L-R)

Sh. Rampal Singh (HC), Sh. Rupesh Kumar Singh (CT), Sh. Virendra Chahar (CT), Sh. Sinod Kumar Yadav (CT), Sh. Kailash Teron (CT), Sh. Biswajit Roy (CT), Sh. Nitendra Singh Yadav (CT), Sh. Suruj Nath (CT), Sh. Pramod Kumar (CT) Sh. Mritunjay Kumar (HC), Sh. Sanjay Kumar (CT), Sh. Ram Chandra Saini (CT)

Standing Row 4 :

Sh. Horshjit Saikia (ASI), Sh. Narendra Singh Rathore (CT), Sh. Krishnanand Yadav (CT), Sh. Satyadev Kr Singh (CT), Sh. L. Romesh Singh (CT), Sh. Jagnarayan Singh (CT), Sh. Bipin Prasun (CT), Sh. Chandan Kumar (HC), Sh. Ravit Kumar (CT)

Group Photograph