



PROCEEDINGS OF CONSULTATION WORKSHOP ON

NATIONAL PROGRAMME ON FOREST FIRE MANAGEMENT

Imphal, Manipur

20th January 2023



NATIONAL DISASTER MANAGEMENT AUTHORITY
Government of India
NDMA Bhawan, A-1, Safdarjung Enclave,
New Delhi -110 029

Programme Schedule

09.00 AM – 09.30 AM	REGISTRATION		
INAUGURAL SESSION			
09.30 AM – 10.00 AM	09.30 -09.40 AM	Participant Introduction	
	09.40 -09.50 AM	Welcome Address – Smt Soreiphy Vashum, APCCF (APM), Forest Dept., Manipur	
	09.50 -10.00 AM	Opening Remarks - Sh. Shivanand S. Talwar AIG (Forests) MoEF & CC, Govt of India	
	10.00-10.10 AM	Presidential address – Sh. Kunal Satyarthi, JointSecretary, NDMA	
	10.10-10.20 AM	Inaugural address – Dr. Aditya Kumar Joshi, PCCF & HoFF, Govt. of Manipur	
	10.20-10.30 AM	Vote of Thanks – Smt. Roui Kullai, APCCF, Forest Department, Manipur	
10.30 AM – 10.45 AM		High Tea	
SESSION-I			
10.45 AM – 01.00 PM	Best Practices in Forest Fire Management: Innovation, Community Involvement and Livelihood <ul style="list-style-type: none"> Local level innovations carried out by states in forestfire management Major fires in the last five years and action taken to deal with them Kind of data collected from field and equipment currently in use Analysis of fire data is done; if any Problems faced by field staff in fire management Support provided by other nodal departments Inputs for improving existing fire management scenario Financial requirements for states to manage forest fire Scope of community participation in fire management and addressing livelihood issues. 		
	10.45 - 11.00 AM	Best Practices in Forest Fire Management – Sikkim (Online)	Shri Karma Legshey CF & Nodal Officer (Forest Fire), Sikkim
	1100- 11.15 AM	Best Practices in Forest Fire Management- Meghalaya (Online)	Shri B. Walang, CCF & Nodal Officer (Forest Fire), Meghalaya
	11.15- 11.30 AM	Best Practices in Forest Fire Management- Arunachal Pradesh (Online)	Shri S.S. Khandpal APCCF & Nodal Officer (Forest Fire), Arunachal Pradesh

	11.30 - 11.45 AM	Best Practices in ForestFire Management - Assam	Shri Vipin Bansal APCCF, Assam
	11.45 - 12.00 PM	Best Practices in ForestFire Management - Nagaland	Shri Raj Kumar IFS, Nagaland
	12.00 - 12.15 PM	Best Practices in ForestFire Management - Tripura	Shri Animesh Das DCF & Nodal Officer (Forest Fire), Tripura
	12.15 - 12.30 PM	Best Practices in ForestFire Management- Mizoram	Smt. Kamal Preet APCCF & Nodal Officer (Forest Fire), Mizoram
	12.30 - 12.45 PM	Best Practices in ForestFire Management- Manipur	Shri L. Joy Kumar Singh, CCF & Nodal Officer (Forest Fire), Manipur
	12.45 - 01.00 PM	Discussion, Q & A and Summing up of the Open House Discussion	Project Drafting Committee
01.00 PM – 02.00 PM		Lunch	
SESSION-II			
02.00 PM – 03.10 PM	Forest Fire Management: Early Warning, Response and Research& Training <ul style="list-style-type: none"> Proposals for incorporating in the project Role of institutions in forest fire management Early alert for forest fire Response limitations faced by NDRF & SDRF Training for NDRF & SDRF personnel regarding forest fire 		
	Presentations from stakeholders (10 minutes each)	<ul style="list-style-type: none"> FSI, Kolkata RFRI, Jorhat NDRF, Assam (case study – Dzukou Valley) Manipur SDRF Manipur SDMA/R&DM Fire Services, Manipur Tribal council representative 	
03.10 PM - 03.20 PM	High Tea		
03.20 PM – 03.45 PM	Discussion and Q&A		
03.45 PM – 04.00 PM	Concluding Session		Project Drafting Committee (NDMA) and Manipur ForestDepartment

**Proceedings of the Consultation Workshop on National Programme on
Forest Fire Management**

Venue: Classic Hotel, North AOC, Imphal, Manipur

As part of developing the National Programme on Forest Fire Management a consultation workshop was conducted to identify the key challenges faced by the North – Eastern states and to collect inputs and suggestions from them to be incorporated in the National Programme. The workshop was conducted in Manipur and was hosted by the Manipur state forest department. Representatives from all the 7 North-Eastern states and Sikkim were invited to the workshop alongside the research institutes and organizations such as RFRI, NDRF, SDRF, Fire Services and SDMA.

The inaugural session started by 9.30 AM. Smt Soreiphy Vashum, APCCF (APM), Forest Dept., Manipur delivered the welcome address. Shri Raghu Prasad, IG (Forests), MoEF& CC made the opening remarks while attending online. He remarked that forest fires in the country are mostly manmade and controlled burning is necessary as it is a management tool. He added that the best practices should be popularized and workshops like this are necessary for information and knowledge sharing.

Shri Kunal Satyarthi, Joint Secretary, NDMA, delivered the presidential address. He welcomed the participants on behalf of NDMA and explained the background of the workshop and explained about the need of the activities carried out so far in developing the national programme. He emphasized that the participation of all stakeholders in implementing the programme is very important and detailed about the NDRF teams formed exclusively on forest fire response and their training program scheduled to start at February 6th in CASFoS, Dehradun.

Dr. Aditya Kumar Joshi, PCCF & HoFF, Govt. of Manipur officially inaugurated the workshop. He opined that in the North-East, Forest fires are a major reason for land degradation. He added that the frequency and intensity in increasing every year and the rotation cycle of Jhum cultivation is reducing now due to population pressure. He pointed out the Dzukou valley fire which became a national issue. He congratulated NDMA for the initiative and said information and knowledge sharing will help in improvement in forest fire management.

Smt. Roui Kullai, APCCF, Forest Department, Manipur expressed the Vote of thanks.

The inaugural session ended by 10.30 AM and the participants went for a tea break.

The first session of the day started at 10.45 AM with the presentation of Shri Karma Legshey, CF & Nodal Officer (Forest Fire), Sikkim who joined online. He made a presentation on the best practices on Forest fire management in Sikkim. The important features of the presentation was the construction of water storage tanks, Financial Support system and convergence with other forces such as Army, ITBP and Fire services. He also explained how the ground level staff are alerted on forest fires using the FSI fire monitoring system.

Shri Kunal Satyarthi enquired about the management of crown fire situation in Sikkim. Mr. Legshey replied that helicopters were not useful as its blades were fanning the fire.

Dr. P K Mathur asked about the ownership status of the forests in Sikkim to which the presenter responded that the area under community forests is very limited in Sikkim.

Shri B. Walang, CCF & Nodal Officer (Forest Fire), Meghalaya who joined online talked about the situation of forest fire management in Meghalaya. In Meghalaya only 5% of the total forest area is under the ownership of the government which is a major hinderance in implementing management activities. He added that the hasn't been a major fire in the state for the past few years. Whatever fire occurring is mainly due to Jhum cultivation and grazing. He added that they have prepared a state action plan on forest fire and the preparedness activities such as fire lines and controlled burning are carried out regularly. Shortage of manpower and funds are the major constraints faced there.

Shri Kunal Satyarthi asked if the model of providing incentives to the community a solution in the state and Shri Walang responded positively to the suggestion.

Shri S.S. Khandpal APCCF & Nodal Officer (Forest Fire), Arunachal Pradesh talked next about the status of his state. He also claimed that there were no major fires in Arunachal for the past 4 years and whatever occurring are mainly Jhum fires. There small area under pine forests are the most fire prone area and whenever fire occurs Indian Army who are already positioned in the state will help in the response. He added that CAMPA funds are sufficient in managing forest fire now but manpower constraints need to be addressed.

Dr. P K Mathur enquired about the fire lines as majority are community owned forests to which Shri Khandpal replied that fire lines are maintained mainly in the *chir pine* forest areas. Regarding analysis of forest fire data, he replied that RFRI have analyzed the data and have identified the most vulnerable divisions in the state.

Shri Kunal Satyarthi asked about the possibility of formalizing the participation of armed forces in forest fire response to which Shri Khandpal replied that talks are being carried out in that regard and NDMA can use their mandate to make it possible. He also added that as Army is present everywhere in the hills of Arunachal it will be very helpful.

Shri Vipin Bansal, APCCF, Assam made a presentation on the status of forest fire and the best practices in his state. He said that 25% of the forests in Assam are vulnerable to moderate to high intensity forest fire. Here also Jhum cultivation is the major reason. In 1983-84 integrated Jhum cultivation program was introduced in the state through which Rubber, Tea etc. were introduced. Initially Jhum was a traditional practice related to food security but now it is a way of claiming ownership of the land. Forest fires are not only damaging the flora and fauna but the soil structure is also affected which in turn can pave way to other disasters like landslides. The major policy level interventions made in Assam to prevent forest fire were creation of people's nursery in Jhum areas, promotion of handicraft making using the fuel load and exemption of 75 tree species from the felling list to encourage people to grow them. Incentive schemes are also present for the communities.

He opined that FSI alerts and IMD data need to be clubbed to make it more accurate and effective. There should be SOPs for institutional convergence. Specialized vehicles with proper equipment need to be available. He also emphasized on the need of a Central Command Centre.

Shri Kunal Satyarthi asked about the burnt area assessment done if any to which Shri Bansal replied that it is not available and could be included in the programme.

Dr Aditya Kumar Joshi said that an MoU is about to be signed by Manipur Forest department and FSI to provide the burnt area assessment in the state.

Dr. P K Mathur enquired about the possibility of interstate cooperation in tackling forest fire. Mr Bansal replied that these states have severe issues of boundary conflicts yet to be settled which is a hindrance for interstate cooperation.

Shri Ajay Kumar, Scientist D, RFRI, Jorhat opined that if area mapping of year wise fallow zone of Jhum cultivation is done, fires can be prevented to a certain extent. He added that such maps are present but are not validated on ground.

Smt. Soreiphy Vashum replied to that suggestion. She said that since Jhum is not regulated it is hard to predict the fallow phase. Dr Aditya Kumar Joshi added that RFRI

proposal for the same is under consideration and Jhum regulation policy which is needed in every state is also under consideration.

The next presentation was made by Shri Raj Kumar IFS, DFO Kohima, Nagaland. 88% of the forests are owned by the community in Nagaland. Community participation is an integral part of forest fire management. Hence fire fighting equipment is given to the community through JFMCs. Rapid Response Teams has been formed in all divisions. He explained about the Dzukou valley fire in 2020-21. The fire lasted for 15 days. Participation form villagers and other stakeholders were key in dousing the fire. The major take aways of the Dzukou valley fire management were coordination between various departments, setting up of control rooms and relay station and media management.

Dr. Mathur asked about the incentives given to community to which Shri Raj Kumar replied that no incentives are given. Since the community own the land, it's their responsibility to manage the fire. He added that trainings are provided periodically to the community for the same.

Dr. D K Sharma demanded that the safety of such volunteers needs to be ensured.

Shri. Ajay Kumar asked about the reason for the Dzukou valley fire to which the speaker responded that it was a tourist induced fire. He added that the management plan has all the SOPs regarding the inter-departmental coordination.

The next presentation was done by Shri Mahesh Gujjar, Assistant Commandant, NDRF regarding the response operation during the Dzukou valley fire in 2020-21. He talked about the entire operation and the difficulties faced at that time. Accessibility and terrain were the major constraint. He lauded the inter-departmental coordination and volunteer involvement in dousing the fire.

Shri M.H. Khan, Additional Chief Secretary (Relief & DM) joined the workshop at this point and shared a few thoughts. He said that since volunteers and local community are the first respondents, Aapda mitra volunteers should also be trained for forest fire fighting. He added that the incident command system should be headed by the concerned DFO as his local knowledge is key in the operations.

The next presentation was done by Shri Animesh Das IFS, DCF & Nodal Officer (Forest Fire), Tripura. The key feature of his presentation was shifting cultivation as a menace. He highlighted the GIS cell functioning in the state forest department and its inputs helping

in forest fire management. There is a forest fire reporting program in place with which fire incidence location is shared with concerned officials with the help of a mobile application. He talked about the shortage of manpower.

Shri Kunal Satyarthi enquired about the *Van mithra* scheme in Tripura to which Shri Das replied that they are employed for 15 days a month and are active in forest protection. There is one *van mithra* each in a grama panchayat. They provide information regarding any illegal activities inside the forest and are provided income for the service.

Dr P K Mathur enquired about having any projects for eco restoration of forest fire affected lands in any of the states. He said that M-STRIPES can be used as a tool for forest fire management also.

The next presentation was done by Shri L. Joy Kumar Singh, CCF & Nodal Officer (Forest Fire), Manipur. He pointed out about the lack of adequate staff and lack of incentives to existing staff. Here also the challenges faced were more or less similar to other states such as Jhum cultivation and inaccessible terrain.

Shri Kunal Satyarthi asked about how the plans are prepared and executed in unclassified forest areas given the ownership lies with the community. He also enquired how fire lines are maintained in such areas. Shri L. Joy Kumar Singh responded that forest department has limited control in unclassified forests and forest conservation act is applicable for private forests also.

Second session (post lunch) started with a presentation from the State Disaster Response Force (SDRF). Shri H. Balram Singh presented about the role of SDRF in forest fire response. He said there is shortage of dedicated vehicles, lack of tools, equipment and safety accessories. Accessibility to the fire location was also pointed out as an issue. He also added that there is lack of clarity in who to report or whom to contact in times of a forest fire. This can be addressed with publicizing the toll-free number for reporting and developing an proper SOP for communication of officials.

Shri K.G. Daigong represented the Manipur State Disaster Management Authority. He made a brief presentation about the overall activity of SDMA. This was followed by a presentation by Shri Tapas Biswas, Technical Assistant, Forest Survey of India, Eastern Regional Centre. He described the fire monitoring system as well as early warning alert mechanisms carried out by FSI.

Shri Athihrii Pfozeh, Tribal Representative from Senapati district talked about their experiences in forest fire fighting. He assured that the community are keen to protect the forests and extended complete cooperation in the activities of the forest department.

The next presentation was done by Shri Ajay Kumar, Scientist D, RFRI, Jorhat. He put forward proposals for mapping of shifting fallow lands of different ages in order to identify the areas where fire may occur in a particular year. He also proposed a damage assessment project. He added that while selecting districts for the National Programme, burnt area should be made the criteria not the number of incidences.

Shri N. Ganesh IFS, DFO, Kangpokpi Forest Division said that further follow up workshops and trainings must be carried out. He added that Forest fire data can be a indicative factor for poppy cultivation in Manipur.

The closing remarks were made by the lead consultants Dr. P K Mathur and Dr. D K Sharma. They said that the workshop was extremely informative and to identify the challenges in the north- east is key in developing the National Programme on Forest fire. They extended sincere gratitude to all the participants who shared their knowledge and thereby making the workshop a grand success. The workshop ended by 5.30 PM.

List of Participants

Sl. No.	Name	Designation	Department/Organization
1	Dr. Aditya Kumar Joshi IFS	PCCF & HoFF	Forest Dept, Manipur
2	Shri Kunal Satyarthi IFS	Joint Secretary (PP Division)	NDMA, Govt of India
3	Shri N. Sonzalian IFS	Addl. PCCF (Working Plan)	Forest Dept, Manipur
4	Smt Soreiphy Vashum IFS	APCCF (APM)	Forest Dept, Manipur
5	Smt Roui Kullai IFS	APCCF, Manipur	Forest Dept, Manipur
6	Shri L. Joykumar Singh IFS	CCF/T-I & NO (Forest Fire)	Forest Dept, Manipur
7	Shri Themthing Ngasangva IPS	Director, Manipur Fire Services	Home Dept, Manipur
8	Dr. P. K. Mathur	Lead Consultant	UNDP-NDMA
9	Dr. D. K. Sharma	Lead Consultant	NDMA, Govt of India
10	Shri Shivanand S Talwar IFS	AIG (Forests)	MoEF&CC, Govt of India
11	Shri S.S. Khandpal IFS (online)	APCCF & NO (Forest Fire)	Forest Dept, Arunachal
12	Shri Vipin Bansal, IFS	APCCF	Forest Dept, Assam
13	Shri B. Walang (online)	CCF & NO (Forest Fire)	Forest Dept, Meghalaya
14	Shri Temjenyabang	CCF (HQ) & NO(Forest Fire)	Forest Dept, Nagaland
15	Shri Animesh Das IFS	DCF& NO (Forest Fire),	Forest Dept, Tripura
16	Shri Karma Legshsy (online)	CF & NO (Forest Fire)	Forest Dept, Sikkim
17	Shri Nikhil S	Consultant Gd-II (Forest Fire)	NDMA. New Delhi
18	Shri Ronald Debbarma	Consultant	MoEF & CC, Govt of India
19	Smt. Bhavna Sharma	Technical Assistant	MoEF & CC, Govt of India
20	Shri Mahesh Kochar	Asst. Commandant	1st BN NDRF, Assam
21	Shri. Ajay Kumar	Scientist D	RFRI, Jorhat
22	Shri Nada Tadi	Scientist B	RFRI, Jorhat
23	Shri Tapas Biswas	Senior Technical Associate	FSI, Regional office (Eastern), Kolkatta
24	Shri K.G. Daigong	Director	Relief & Disaster Management, Manipur
25	Shri P. Nupajao Singh	Dy. CO 12 th Battalion NDRF	12 th Battalion NDRF, Itanagar
26	Shri H. Balram Singh	CO, SDRF, Manipur	SDRF, Manipur
27	Dr Vivek K Vaishnav	Assistant Professor	Forest Env't Sc Dept, Manipur University
28	Smt Gaithoulu Thaimai IFS	CF/Wester Circle & Working Plan	Forest Dept, Manipur
29	Shri R.K. Amarjit Singh IFS	CF & DFO, Central Forest Divn	Forest Dept, Manipur

30	Shri Sanajaoba Khuraijam IFS	DCF/Park & Sanctuary	Forest Dept, Manipur
31	Km Esther Serto IFS	DFO/Churachandpur Division	Forest Dept, Manipur
32	Shri S. Shangam IFS	DFO/Ukhrul Forest Division	Forest Dept, Manipur
33	Shri N. Ganesh IFS	DFO/Kangpokpi Forest Division	Forest Dept, Manipur
34	Shri Rajesh Darade IFS	DFO/Jiribam Forest Division	Forest Dept, Manipur
35	Shri Vijay Kanthale IFS	DFO/Chandel Forest Division	Forest Dept, Manipur
36	Shri Amandeep IFS	DFO/Tamenglong Division	Forest Dept, Manipur
37	Smt Chingpilhing Kipgen MFS	ACF/Head Quarters	Forest Dept, Manipur
38	Shri Th. Lokendro Singh MFS	DFO/Thoubal Forest Division	Forest Dept, Manipur
38	Shri S.W. Suisa MFS	DFO/Kamjong Forest Division	Forest Dept, Manipur
40	Shri Napoleon Rongmei MFS	DFO/Noney Forest Division	Forest Dept, Manipur
41	Shri Th. Autumn Meitei MFS	DFO/Pherzawl Forest Division	Forest Dept, Manipur
42	Dr. Jeecelee Leishangthem MFS	DFO/Tengnoupal Forest Division	Forest Dept, Manipur
43	Dr. Rebika Soibam Chanu MFS	DFO/Bishnupur Forest Division	Forest Dept, Manipur
44	Shri D. John Sha MFS	DFO/Senapati Forest Division	Forest Dept, Manipur
45	Ms. Vahneichong Singson MFS	DFO/Wildlife Division	Forest Dept, Manipur
46	Shri N. Somorendro Singh	WPSO	Forest Dept, Manipur
47	Shri Athihrii Pfozeh	Tribal Representative	Senapati District
48	Shri Ngachanso	Secretary, Shirui Village	Ukhrul District