GUIDELINES ON FIRE ALERT

Introduction

Forests are assemblages of vegetation dominated by trees, woody vegetation and underbrush covering a large area that support a variety of other life forms including animals, mosses, fungi, micro-organisms etc. They are crucial for human survival since they provide important goods and services especially essential requirements such as oxygen, water, etc.

In India, legal status of the forest is taken into consideration and according to this 'forest area' is an area recorded in the government records and is commonly known as 'the recorded forest area'. In the State of Tamil Nadu, the recorded forest area includes Reserved Forests (RF), Reserved Lands (RL) and Unclassed Forest (UF).

Covering an area of 1, 30,060 sq. km., Tamil Nadu has 22,877 sq. km. of recorded forest area, which amounts to 17.59% of the geographical area of the State. As per the assessment of the Forest Survey of India (India State of Forest Report, 2017), the forest cover of the State is 26,281 sq. km. constituting 20.21% of the State's geographical area. Right from the time of State of Forest Report (SFR) 1993, Tamil Nadu is one of the two States which have shown positive trend till now.

Threats to Forests

Forests are vulnerable to a variety threats like insect/pest attack, disease, fire, cyclone, flood, drought etc. Natural threats are part forest ecosystem. Man-made forest fires, their time, intensity and frequency can affect health of forests, survival, productivity, biodiversity and thereby disrupt flow of goods and services from forests. Increasing temperature, rising atmospheric carbon dioxide levels as a result of forest fire accelerate the adverse effect of global climatic change.

Forests fires are as old as the forests themselves. Usually seasonal, forest fires have influenced the evolution, development and management of some forest ecosystems. Small and limited forest fires are an integral part of forest ecosystem and very essential to maintain health and hygiene of the forests. Though fire is a factor for forest degradation, it is often used as a tool to renew natural environment. Controlled burning has been used as a management tool. Prescribed burning is used as a way to put fire in a specific area of land. However, uncontrolled fires cause extensive damage to forests, wildlife, environment, soil fertility and quality and retrogrades forest regeneration.

Causes for fire

In India, about 99% of forest fires are human related, mostly caused by the people deliberately and have a close relationship to their socio-economic conditions (NRSA, 2006). The list of human motivations include land clearing and other agricultural activities, maintenance of grasslands for livestock management, easy extraction of non-wood forest produce, hunting, industrial development, attempt to encroach, resettlement, negligence and arson. Some other man-made causes are fire leftover by travellers, campers and picnickers, fire that escape from neighbouring agricultural lands while clearing agricultural residues, power lines that run through the forests and so on.

Impacts of forest fire

Forest fires cause wide ranging adverse local, regional and global/ social, economic and ecological impacts like loss of life, cattle and property, loss of biodiversity, natural regeneration and reduction in forest cover including wildlife habitat, degradation of water catchment areas resulting in loss of water, increase in greenhouse gases in the atmosphere, resulting rise in temperature, global warming/climate change due to depletion of carbon sinks and so on.

Fire behaviour

The components determining the severity and spread of a fire are:

- Fuel load - quantity/size/class of flammable material available
- Weather – temperature/wind/moisture; Droughts favour forest fires and winds aid in their spread.
- Topography – aspect/elevation/slope; slopes that face South are drier and more vulnerable to fire than north facing slope. High wind velocity at higher elevations and steepness of slopes encourage spread of fire especially upwards.

Fire Protection :

Forest fire and its management have a long history in Indian forestry. Fire prevention, detection and control activities are the responsibility of the State government. Fire protection measures revolve around the three stages of fire, namely

1) **Pre-fire season** (Preparedness)
2) **During fire** (Fire detection, spread and control planning) and
3) **Post fire** (Damage assessment and mitigation planning)

The incidence of forest fires in the country is high. Standing trees and other natural regeneration including fodder are destroyed on a large scale by such fires. Special precautions should be taken during the fire season. Improved and modern management practices should be adopted to deal with forest fires. The conventional method of fire protection (pre-fire season preparedness) involves clearing a network of fire lines, watchtowers, block lines and guide lines. During fire season fire watchers are engaged. As prevention is better than cure, a preventive program of zoning, vulnerability/danger rating, early warning and real time monitoring has to be designed and installed.

Forest fire risk/vulnerability zonation

Vulnerability assessment is a pre requisite for advance planning and preparation to combat fire. The vulnerability of forests to fire varies from

place to place depending upon the type of vegetation, topography and the climate. Understanding fire vulnerability and forest fire spread model could provide sufficient data for detailed fire control planning.

A study by the Geomatics centre of Tamil Nadu Forest Department shows that 56% of the notified forests are either highly or very highly vulnerable to fire and about 30% are moderately vulnerable to fire. It is further observed that 31% of fire incidents were recorded in Moderately Dense Forests, 29% in Open Forests and 30% in Scrub & Grass and only 10% of fire incidents in Very Dense Forests in TamilNadu revealing that Moderately Dense Forests, Open Forests and Scrub& Grass are equally susceptible to fire. When comparing vulnerability of forest types, it is further found that Tropical Dry Deciduous Forests are more prone to fire with 46.5% of fire incidents recorded followed by Grass Lands with 25.75% of fire incidents. As many as 106 beats showed high or very high sensitivity/vulnerability to forest fire (**Annexure I**) and therefore need more focussed approach in fire protection.

During fire–Conventional system involves use of fire watch towers at vantage points and fire watchers to detect fires and communication through wireless network to immediate superior officers to mobilise resources for fire fighting. Globally forest fires all over the world are under reported due to various factors. The Fire Information for Resource Management System (FIRMS) distributes Near Real-Time (NRT) active fire data within 3 hours of satellite overpass from both Moderate Resolution Imaging Spectro-radiometer (MODIS) and Visible Infrared Imaging Radiometer Suite (VIIRS).

MODIS/VIIRS provides geo-coordinates (latitude and longitude) of centre of pixel, date, time of overpass of satellite, satellite name etc., for the fire hotspots. Each hotspot/active fire detection from MODIS represents the centre of a 1 km. (approx) pixel flagged as containing one or more fires and from VIIRS 375m pixel. For near real time data received

from NASA, Geomatics Centre, Tamil Nadu Forest Department downloads these, overlaying with Forest Administrative maps to identify the Forest block/Beat/ Range/Division and then communicates it to the concerned District Forest Officer/Conservator of Forests/Chief Conservator of Forests for immediate action in the field. During 2012-2016, 45,499 fire incidents were detected by VIIRS within the geographical area of Tamil Nadu. Of this 11,356 fire incidents were recorded within the notified forests of the State.

Forest Survey of India (FSI) has initiated Near Real Time monitoring of forest fires in collaboration with National Remote Sensing Centre (NRSC). The process of acquisition, processing and dissemination of active forest fire locations generated in KML file format to State Forest Departments involves a time period of 2 hours. After collecting the geo coordinates of the fire spots, through GIS analysis, attributes upto beat level are added to each fire spot and sent between 1100 -1200 and 1400 - 1500 hrs to State Forest Departments and registered users through Email and SMS during fire season giving a summary of total number of forest fires detected in their chosen areas.

Post fire scenario–There is need for continuous updation of database from the field for numbers of fires, area burnt, damage caused to flora and fauna, effect of fire on land and soil, causes of forest fire, measures taken, extent and effect of prescribed fires, etc. Burn scar maps derived from remote sensing images also provide information on the spatial extent and distribution of the fire affected areas and the total area burnt which is useful for forest managers for mitigation planning.

[I] Pre-Forest Fire Season – Fire Control Preparedness Guidelines

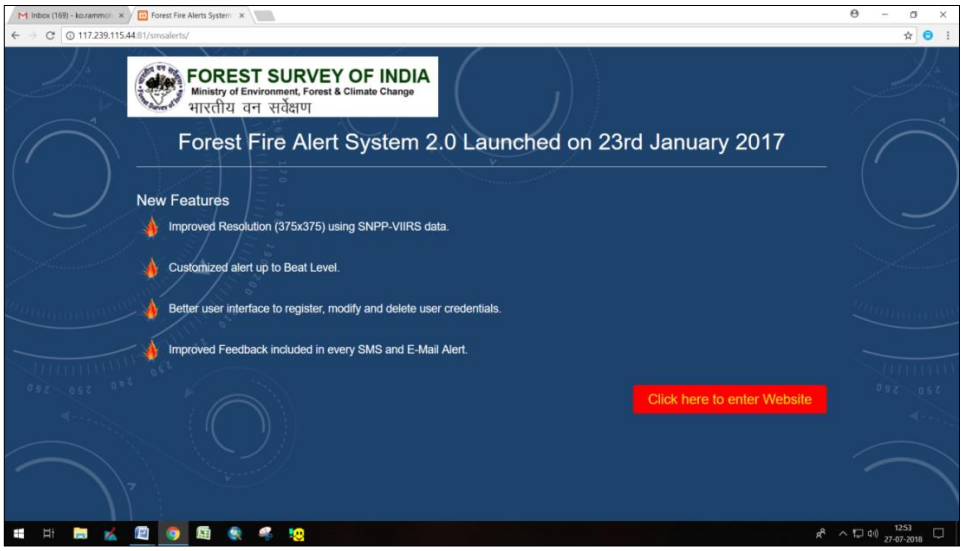
Forest Fire preparedness is the primary responsibility of the District/Divisional Forest Officers(DFOs). DFOs shall prepare an inventory of resources critical for forest fire prevention and management and make relevant information available to all in the forest divisions. Resources and

assets may include forest department resources such as watch towers, control rooms, checkposts, fire lines, patrolling paths, forest roads, water holes and other department resources such as location of fire stations, fire tenders, hospitals and their contact numbers, National and State Disaster Response Forces that could assist in preparedness and planning for response to forest fires.

As per Spatio-temporal analysis of 2012-2016 SNPP-VIIRS forest data of the State, January - June is the fire season, the longest dry spell of the State. The preparedness for forest fire season especially works meant for fire protection shall be completed prior to the month of January i.e. before the start of the fire season every year (pre fire season).

The following guidelines shall be enforced.

District Forest Officers/Wildlife Wardens/Deputy Directors shall encourage and ensure the registration of all frontline staff to register with FSI's forest fire alert system in the least possible time by visiting FSI website.



Action plan for smaller units of Range and beat will be prepared wherein strategies and techniques for prevention and control will be given in detail based on criteria given below:

1. Fire sensitivity / fire vulnerability
2. Previous year fire occurrences and present status
3. Fuel load position in entire beat
4. Fire exiting point in the beat taking current year position
5. Sources of water (to be recorded separately for drinking and other purpose) available during fire season in each beat
6. Inventory of equipments and other facilities such as hand tools, improved fire resistant clothing and fire tenders, first aid kits, etc. available within the department and in neighbouring government and non-government agencies, hospitals, etc.
7. Strength of labour force in surrounding villages and villagers to be covered for awareness.

The action plan should also chalk out details of preparatory works to be taken up such as extent and location of firelines to be traced, moisture retention work, etc. based on the above criteria.

Look out points should be selected on hill tops with a commanding view of the surrounding areas where temporary arrangements for stay is ensured. Necessary improvement and maintenance work to all watch towers and other fire detecting systems etc. including automated surveillance is to be ensured before the fire season to support the watchers.

Proper maintenance of walkie–talkies should be done and these should be carried with fire watcher and patrol teams so that when fire occurrence is noticed, it is informed to the base stations and passed on for quick response for fire control action. In remote forest areas where mobile network is not well established, wireless network being the mainstay of communication special care should be taken to ensure fully functional wireless communication which may be strengthened if required.

Depending on the fire return interval for each area controlled burning cycle should be fixed. The areas to be control burnt will be based on vulnerability of the area as per studies made by GIS Cell as well as field staff. These areas must be inspected and approved by the District Forest Officer/Wildlife Warden/Deputy Director, latest by 15th November and the controlled burning must be completed by the end of December. No area should be taken for controlled burning after 31st December.

Engaging local community, creating awareness in forest fringe villages, training to seasonal fire watchers, engaging JFMCs in fire management for improved ground based information on forest fire and such other activities will be taken up in each division.

Role of each personnel of Tamil Nadu forest Department in case of fire, agencies other than forest department available and to be involved, role of each such outside agency/government department involved in fire prevention and fire fighting should also be pre-determined and well defined. Mock drills will compulsorily be conducted especially in vulnerable areas.

Most importantly, budget required should be worked out, sought for with full justification and prioritized work taken up with available budget. As the fire season is spread over two financial years, adequate financial resources for the purpose of fire control shall be placed at the disposal of the concerned during both the last quarter of the current year and first quarter of the following year.

The beats showing high or very high sensitivity/vulnerability to forest fire need specific targeted protection approach. This should be reflected in each action plan which should also be annually updated based on new data.

The Chief Conservator of Forests in each circle shall ensure availability of adequate funds, allotment of seasonal fire watchers, timely completion of works/schemes which are aimed at forest fire preparedness. Seasonal fire watchers may be allotted to each division atleast at the rate of one fire watcher per beat for highly vulnerable divisions. Additional allotment for fuel shall be ensured. The CCF shall monitor every aspect of preparedness for fire control and ensure effective communication, enhanced management effectiveness, capacity building, training for field staff and stakeholders, community involvement, awareness generation and so on.

Regional Nodal Officer i.e. Additional Principal Chief Conservator of Forests (APCCF) shall monitor availability of financial resources, manpower, transport facilities and fire-fighting equipment prior to the fire season. He will also ensure that necessary timelines for action against forest fires is followed. The tentative calendar of activities shall be as follows:

Months	Activity
October	• Financial Resource allotment
November	• Procurement of fire fighting equipments • Fireline clearing and other works • Training/Mock drill • Registering with FSI for fire alert • Inventory preparation & resource mapping
December	• Fireline clearing and other works • Training/Mock drill • Registering with FSI for fire alert
January to March	• Engaging seasonal fire watchers • Regular patrolling • Awareness creation
April	• Finanacial Resource allotment • Engaging seasonal fire watchers • Regular patrolling
May & June	• Engaging seasonal fire watchers • Regular patrolling

[II] During fire - Forest Fire Alert & Fire Control Guidelines

Detection of forest fire is one of the most important factors for early control since it is very difficult to control forest fires from spreading unless detection and fire fighting starts early. Conventional methods of detection involve construction of watch towers at vantage points, communication through network of wireless sets, engaging fire watchers. Sometimes, due to the remoteness of the tract, forest fires, may remain undetected for a day or two during which time they spread to an uncontrollable extent. Thus adequate measures have to be taken for the early detection of outbreak of forest fire. Past experience also reveals that due to lack of coordination, availability of man power, communication system and quick response, large areas get affected by fire. This issue should be methodically addressed.

Crisis Management & Infrastructure

The Incident Response System (IRS) organization functions through Incident Response Team (IRTs) in the field of disaster management. In Indian administrative structure and DM Act, 2005, the Responsible Officers (ROs) have been designated at State and District level. The role of RO is to activate IRTs on receipt of any early warning of the disasters. In case a disaster occurs without any warning, the local IRT will respond and contact RO for further support, if needed. The function of Nodal Officer (NO) is to maintain proper coordination between the District, State and National levels in activating air support for response. In similar manner, roles are assigned within the Tamil Nadu forest department and outside the department for dealing with fire/other disaster.

State Level Central Control Room

Tamil Nadu Forest Department shall establish a Control Room for fast flow of information and coordination of activities during the crisis of fire.

i) Location: Office of the Principal Chief Conservator of Forests, (HoFF), Chennai Telefax:044-24323783

ii) Toll free number shall be installed for the Tamil Nadu Forest Department at the control room in the office of PCCF(HOFF)

Deputy Conservator of Forests (GIS) shall be the Nodal Officer as far as satellite based NRT fire alert is concerned i.e. Responsible officer who will alert Control Rooms/IRTs and in case of requirement will coordinate with all concerned to deal with the crisis of forest fires in the State of Tamil Nadu.

Fire alerts are of three kinds. (i) Pre-warning Alert system developed by FSI is generated based on short term weather variables, is valid for 1 week and communicated to the Nodal officer on Fridays. On receipt of such information, it will be communicated to Regional, Circle and District Forest Fire Control rooms which in turn will ensure intensification of patrolling and monitoring for potential fire in areas indicated by the pre-alert for the week. (ii) Fire alert is issued once the same is detected during satellite overpass and this is communicated to Nodal Officer as well as those registered with FSI for the purpose. On receipt of fire alert from FSI or Nodal Officer the District Forest Fire Control room will immediately alert the Range nodal officer and team, coordinate with all concerned, mobilise transport, equipment and personnel for fire fighting, keep sending feedback to State Level Central Control Room and ensure necessary assistance to fire fighting teams. (iii) Field detection – When fire watcher/patrol teams or other informers detect forest fires and inform the local staff, they should immediately alert both the fire fighting teams and district forest fire control room.

State Nodal Officer

During the crisis of forest fire disaster, the State Level Central control room shall function as Incident Command Centre. In case of fire in the proportion of a disaster the present State Disaster Management Cell

headed by Additional Principal Chief Conservator of Forests(FCA) as State Nodal Officer will take over operations from head office or as directed by the Principal Chief Conservator of Forests (HoFF) and assisted by APCCF(WL) in case of fire in Protected Areas. The State Nodal Officer shall coordinate with other government agencies at District, State and National levels for activating their support in mobilizing resources and manpower.

Regional and circle jurisdiction

Tamil Nadu Forest Department is divided into 12 Territorial Forest Circles and 5 Wildlife Circles for administration. Sanctuaries, Birds sanctuaries and National Parks, other than those included in tiger Reserves, are included in the respective territorial circles.

A] **Territorial Forest Circles in each region**

Northern Region, Vellore

1. Chennai Circle, Chennai
2. Vellore Circle, Vellore
3. Dharmapuri Circle, Dharmapuri
4. Villupuram Circle, Villupuram

Central Region, Salem

5. Salem Circle, Salem
6. Coimbatore Circle, Coimbatore
7. Tiruchirappalli Circle, Tiruchirappalli
8. Thanjavur Circle, Thanjavur

Southern Region, Madurai

9. Madurai Circle, Madurai
10. Dindigul Circle, Dindigul
11. Virudhunagar Circle, Virudhunagar
12. Tirunelveli Circle, Tirunelveli

B] Wildlife Circles:

1. Anamalai Tiger Reserve, Pollachi, Coimbatore
2. Kalakkadu-Mundunthurai Tiger Reserve, Tirunelveli
3. Mudumalai Tiger Reserve, The Nilgiris

4. Sathyamangalam Tiger Reserve, Erode
5. Arignar Anna Zoological Park, Chennai

Social Forestry/functional divisions are included in the respective Territorial Circles for administration. Tiger Reserves, Research divisions, etc. shall take assistance from the respective geographical Circles/Region in the event of any fire crisis/disaster.

Regional Control Room

A control room shall be established at each regional headquarter to coordinate with neighbouring circles to mobilise resources during crisis. The regional Additional Principal chief Conservator of Forests shall be the Nodal Officer for the respective region who shall correspond with higher officials, neighbouring region and other government departments for assistance and resource to deal with disaster like situation. Field Directors of tiger reserves shall coordinate with the respective Regional Additional Principal chief Conservator of Forests and State Nodal Officer to deal with fires and similar disaster like situation.

Incident Response Team

An Incident Response Team (IRT) shall be formed for each Division who will respond to all information pertaining to fire and galvanise into action for fire control without delay.

In case of a major fire with a propensity towards disaster the Rapid Response teams and Circle disaster management centres in each Circle/Tiger Reserve under the chairmanship of the Chief Conservator of Forests of the Circle/Tiger Reserve (comprising the District/Divisional Forest Officers, Assistant Conservator of Forests as members), which will monitor the preparedness in pre-fire season, will take leadership role at circle level in ensuring better communication and early response to the crisis.

District Forest Fire Control Room

District Forest Fire Control Room shall be established in each of the District Headquarters in the office of the District Forest Officer. The District Forest Officer shall be the District Nodal Officer for the respective district to deal with the crisis of forest fires in the district and shall coordinate with IRTs, district administration and other government agencies to mobilize resources and manpower in the event of outbreak of forest fire. They will also inform the Circle level Rapid Response teams and Circle disaster management centres and call for assistance of Forest Elite Force once these are established. Fire and Rescue Services, Police, Medical, Animal Husbandry and Revenue departments shall be called upon to work in tandem with forest department when so required.

Checklist of Duties assigned to Control rooms:

- To collect and disseminate information regarding fire promptly
- To guide regarding the fire fighting location
- To mobilize and transport equipments and necessary provisions especially food and water without wasting time
- To mobilize labourers and convey to desired destinations
- To coordinate between IRTs/Range Officers
- To keep Nodal Officers updated about the fire and action being taken
- To provide first aid facility at the fire fighting spot
- To alert & coordinate with the neighboring Ranges, Divisions and States

III] Post fire Guidelines

There is need for continuous updation of database from the field such as extent and distribution of the fire affected areas, the total area burnt, type of damage, etc. which is useful for forest managers for mitigation planning. Fire mapping with fire reports compilation is thus an important activity after fire. DFOs will therefore furnish detailed report to Head Office as per proforma in Annexure III.

ANNEXURE – I

Beats showing high or very high sensitivity/vulnerability to forest fire

Sl No	DIVISION	RANGE	BEAT	No OF FIRES	SENSITIVITY
1	DINDIGUL	BATHALAGUNDU	BATHALAGUNDU	59	VERY HIGH
2	DINDIGUL	BATHALAGUNDU	THANDIGUDI	40	HIGH
3	DINDIGUL	KANNIVADY	KANNIVADY	39	HIGH
4	DINDIGUL	KANNIVADY	SITHAYANKOTTAI	50	HIGH
5	ERODE	ANDHIYUR	KONGADAI	81	VERY HIGH
6	HOSUR	ANCHETTY	ANCHETTY	32	HIGH
7	HOSUR	ANCHETTY	KUNDUKOTTAI	31	HIGH
8	HOSUR	ANCHETTY	NATRAMPALAYAM	31	HIGH
9	HOSUR	DENKANIKOTTAI	KODAGARAI(HOS)	34	HIGH
10	HOSUR	JAWALAGIRI	JAWALAGIRI NORTH	39	HIGH
11	HOSUR	JAWALAGIRI	PANAI WEST	55	VERY HIGH
12	HOSUR	JAWALAGIRI	ULIBANDA NORTH	33	HIGH
13	HOSUR	JAWALAGIRI	ULIBANDA SOUTH	38	HIGH
14	HOSUR	URIGAM	MALLAHALLI	36	HIGH
15	HOSUR	URIGAM	MANJUKONDAPALLI	32	HIGH
16	HOSUR	URIGAM	THANDIYAM	43	HIGH
17	KALLAKURICHI	GOMUKHI	ELUTHUR	100	VERY HIGH
18	KALLAKURICHI	VELLIMALAI	ERUKKAMPATTU	41	HIGH
19	KANYAKUMARI	AZHAGIAPANDIPURAM	ASAMBU	54	VERY HIGH
20	KANYAKUMARI	AZHAGIAPANDIPURAM	THADIKARANKONAM SOUTH	95	VERY HIGH
21	KANYAKUMARI	KALIYAL	KALIYAL	37	HIGH
22	KANYAKUMARI	VELIMALAI	VELIMALAI NORTH	31	HIGH
23	KODAIKANAL	KODAIKANAL	MACHUR	57	VERY HIGH
24	KODAIKANAL	KODAIKANAL	PERUMALMALAI(K)	47	HIGH
25	KODAIKANAL	PALANI	BALASAMUDRAM EAST	69	VERY HIGH
26	KODAIKANAL	PALANI	KUDIRAYAR EAST	40	HIGH
27	KODAIKANAL	PALANI	KUDIRAYAR WEST	44	HIGH
28	KODAIKANAL	PERUMPALLAM	KAMANUR (P)	51	VERY HIGH
29	KODAIKANAL	PERUMPALLAM	MELPALLAM	79	VERY HIGH
30	KODAIKANAL	PERUMPALLAM	OOTHU	36	HIGH
31	KODAIKANAL	PERUMPALLAM	PANNAIKADU	122	VERY HIGH
32	KODAIKANAL	PERUMPALLAM	PERUMPALLAM	87	VERY HIGH
33	KODAIKANAL	PERUMPALLAM	VADAKAVUNJI	43	HIGH
34	NILGIRIS NORTH	SINGARA	BOKKAPURAM	52	VERY HIGH
35	NILGIRIS NORTH	SINGARA	SEGUR SOUTH	41	HIGH
36	PUDUKKOTTAI	PUDUKKOTTAI	NORTHAMALAI	54	VERY HIGH

Sl No	DIVISION	RANGE	BEAT	No OF FIRES	SENSITIVITY
37	SALEM	DANISHPET	ATTUR GHAT	32	HIGH
38	SIVAGANGAI	TIRUPATTUR(S)	ERIYUR	78	VERY HIGH
39	THENI	BODI	ARUNGULAM EAST	44	HIGH
40	THENI	BODI	ARUNGULAM WEST	52	VERY HIGH
41	THENI	BODI	KURANGANI SOUTH	53	VERY HIGH
42	THENI	BODI	PERIYATHUKOMBAI	37	HIGH
43	THENI	BODI	PITCHANGARAI	35	HIGH
44	THENI	BODI	ULAKKARUTTIAR	31	HIGH
45	THENI	THENI	ANAIKARAIPATTY	31	HIGH
46	THENI	THENI	TAMBIRANKANAL	54	VERY HIGH
47	THENI	THENI	VARATTAR	39	HIGH
48	THENI	UTHAMAPALAYAM	KOMBAI	45	HIGH
49	TIRUPPATTUR	ALANGAYAM	NAICKANUR SOUTH	43	HIGH
50	TIRUPPATTUR	ALANGAYAM	VELLAKUTTAI	43	HIGH
51	TIRUPPATTUR	AMBUR	PONNAPALLAI NORTH	33	HIGH
52	TIRUPPATTUR	AMBUR	THOTTALAM NORTH	36	HIGH
53	TIRUPPATTUR	SINGARAPETTAI	NADUKUPPAM	38	HIGH
54	TIRUPPATTUR	SINGARAPETTAI	SINGARAPETTAI EAST	39	HIGH
55	TIRUPPATTUR	SINGARAPETTAI	THAGARAKUPPAM	37	HIGH
56	TIRUPPATTUR	TIRUPPATTUR	MADAKADAPPA	35	HIGH
57	TIRUPPATTUR	TIRUPPATTUR	SWAMIMALAI(VLR)	33	HIGH
58	TIRUVALLUR	PALLIPATTU	NOCHILI	38	HIGH
59	TIRUVALLUR	PALLIPATTU	PULLUR EAST	31	HIGH
60	TIRUVALLUR	PALLIPATTU	SANTANAVENUGOPALAPURAM	40	HIGH
61	TIRUVALLUR	THIRUTTANI	MADDUR	97	VERY HIGH
62	TIRUVANNAMALAI(N)	ARANI	POOSIMALAIKUPPAM	33	HIGH
63	TIRUVANNAMALAI(N)	POLUR	KARNATAGIRI	31	HIGH
64	TIRUVANNAMALAI(N)	POLUR	PERIAMALAI NORTH	46	HIGH
65	TIRUVANNAMALAI(S)	CHENGAM	CHEYYAR	46	HIGH
66	VELLORE	ARCOT	AMMUR	60	VERY HIGH
67	VELLORE	ARCOT	MAHIMANDALAM	36	HIGH
68	VELLORE	ARCOT	PUNGANUR NORTH	70	VERY HIGH
69	VELLORE	ARCOT	PUNGANUR SOUTH	84	VERY HIGH
70	VELLORE	GUDIYATHAM	CHARAGALLU	42	HIGH
71	VELLORE	GUDIYATHAM	NAICKENERI(VLR)	49	HIGH
72	VELLORE	GUDIYATHAM	RANGAMPETTAI	43	HIGH
73	VELLORE	GUDIYATHAM	SATHGUR	37	HIGH
74	VELLORE	ODUGATHUR	AGARAM	55	VERY HIGH
75	VELLORE	ODUGATHUR	ARASAMPETTAI	37	HIGH

Sl No	DIVISION	RANGE	BEAT	No OF FIRES	SENSITIVITY
76	VELLORE	ODUGATHUR	ASANAMPETTAI	31	HIGH
77	VELLORE	ODUGATHUR	ERIYUR NORTH	31	HIGH
78	VELLORE	ODUGATHUR	PALLIKONDA	38	HIGH
79	VELLORE	ODUGATHUR	PARAVAMALAI	37	HIGH
80	VELLORE	VELLORE	KANIYAMBADI	33	HIGH
81	VELLORE	VELLORE	PALAMADI	79	VERY HIGH
82	WL ATR POLLACHI	VALPARAI	AYYARPADI	32	HIGH
83	WL ATR TIRUPPUR	AMARAVATHI	KEELANAVAYAL	95	VERY HIGH
84	WL ATR TIRUPPUR	AMARAVATHI	MANJAMPATTI NORTH	57	VERY HIGH
85	WL ATR TIRUPPUR	AMARAVATHI	MOONGILPALLAM	69	VERY HIGH
86	WL ATR TIRUPPUR	UDUMALAIPETTAI	KOKKANAMALAI	56	VERY HIGH
87	WL ATR TIRUPPUR	UDUMALAIPETTAI	KOMBU WEST	43	HIGH
88	WL ATR TIRUPPUR	UDUMALAIPETTAI	KOTTAIYARU	34	HIGH
89	WL ATR TIRUPPUR	UDUMALAIPETTAI	KULIPATTI	42	HIGH
90	WL ATR TIRUPPUR	UDUMALAIPETTAI	KURUMALAI	42	HIGH
91	WL ATR TIRUPPUR	UDUMALAIPETTAI	MAVADAPU	77	VERY HIGH
92	WL ATR TIRUPPUR	UDUMALAIPETTAI	THIRUMOORTHIMALAI	62	VERY HIGH
93	WL, KMTR	THIRUKURUNGUDI	NAMBIKOIL	48	HIGH
94	WL, MEGAMALAI	CUMBAM EAST	SURULIPATTY SOUTH (M)	32	HIGH
95	WL, MEGAMALAI	CUMBAM EAST	VENNIAR EAST	37	HIGH
96	WL, MEGAMALAI	CUMBAM EAST	VENNIAR WEST	40	HIGH
97	WL, MEGAMALAI	GUDALUR(WL,M)	VANNATHIPARAI EAST	47	HIGH
98	WL, MTR	MUDUMALAI	JALDARAI	37	HIGH
99	WL, MTR	MUDUMALAI	MUDUMALAI	45	HIGH
100	WL, MTR	MUDUMALAI	NARATHY	31	HIGH
101	WL, MTR	MUDUMALAI	TRIJUNCTION	33	HIGH
102	WL, MTR	THEPPAKADU	KAKKANALLAH	31	HIGH
103	WL, SRIVILLIPUTHUR	SRIVILLIPUTTUR	ATHITHONDU	36	HIGH
104	WL, STR HASSANUR	HASSANUR	GEDDESAL	40	HIGH
105	WL, STR SATHY	T N PALAYAM	GUNDRI	77	VERY HIGH
106	WL, STR SATHY	TALAMALAI	BEJJALATTI	33	HIGH

ANNEXURE – II

CONTACT DETAILS OF DISTRICT NODAL OFFICERS

Sl No	District	District Nodal Officers Tvl	Contact Details		
			Mobile	**Landline**	
1	Ariyalur	A S Mohanram DFO, Ariyalur	9840794251	04329	221972
2	Chennai	C H Padma, IFS WLW, Chennai	9486911529	044	22351471
3	Coimbatore	D Venkatesh, IFS DFO, Coimbatore	9442527373	0422	2456911
4	Cuddalore	E Rajendran, IFS DFO, cuddalore	9442161248	04142	291149
5	Dharmapuri	K Rajkumar, IFS DFO, Dharmapuri	9994339765	04342	230003
6	Dindigul	C Vidya, IFS DFO, Dindigul	9488790637	0451	2460470
7	Erode	Vismiju Viswanathan, IFS DFO, Erode	8903690730	0424	2291722
8	Kancheepuram	B Sachin Tukaram, IFS DFO, Kancheepuram	9456102746	044	27236500
9	Kanyakumari	S Anand, IFS DFO, Kanyakumari	9442186292	04652	276205
10	Karur	A Anbu DFO, Karur	9445468606	04324	222229
11	Krishnagiri	S M Preetha, IFS DFO, Hosur	9444777115	04344	262259
12	Madurai	J R Samartha, IFS DFO, Madurai	9445468202	0452	2536279
13	Nagapattinam	N Sathish Gidijala, IFS WLW, Nagapattinam	7579400158	04365	253092
14	Namakkal	R Kanchana, IFS DFO, Namakkal	9442358205	04286	229369
15	Perambalur	K Asokan DFO, Perambalur	9381018070	04328	224422
16	Pudukkottai	A Anandkumar DFO, Pudukkottai	7639660929	04322	231995
17	Ramanathapuram	T K Ashok Kumar, IFS WLW, Ramanathapuram	9486490064	04567	230461
18	Salem	A Periyasamy, IFS DFO, Salem	8984196760	0427	2415097
19	Sivagangai	D Rameshwaran DFO, Sivagangai	9941409606	05475	240438
20	Thanjavur	S Gurusamy IFS DFO, Thanjavur	9443143388	0431	2414265
21	The Nilgiris	Sumesh Soman, IFS DFO, The Nilgiris	8903589585	0423	2443968

Sl No	District	District Nodal Officers Tvl	Contact Details		
			Mobile	**Landline**	
22	Theni	S Gowtham, IFS DFO, Theni	9003425777	04546	252552
23	Tiruvallur	G Kiran, IFS DFO, Tiruvallur	9886622239	044	27660487
24	Tiruvannamalai	R Kirubashankar, IFS DFO, Tiruvannamalai	9042042153	04175	254018
25	Thiruvarur	K Arivoli DFO, Thiruvarur	9444223174	04366	243765
26	Tirunelveli	K Thirumal, IFS DFO, Tirunelveli	9626212412	0462	2553005
27	Tiruppur	A S Marimuthu, IFS DD & DFO Tiruppur	9488363794	04259	235385
28	Tiruchirappalli	D Sujatha, IFS DFO, Tiruchirappalli	9486070525	0431	2414265
29	Thoothukudi	D Sampath, IFS DFO, Thoothukudi	9443916971	0461	2346600
30	Vellore	R Murugan, IFS DFO, Vellore (i/c)	9445160708	0416	2253329
31	Viluppuram	Abhisekh Tomar, IFS DFO, Viluppuram	8839327945	04146	223743
32	Virudhunagar	P Mohd Shabab IFS WLW, Srivilliputhur	7598285593	04563	260565

ANNEXURE III

FIRE INCIDENT FINAL REPORT

1	Date of fire occurrence	:	
2	Name of the forest land (RF/RL / Plantation area (in respect of non forest area)	:	
3	Name of the Range		
4	Name of the section	:	
5	Name of the beat details	:	
6	Name of the Area	:	
7	Time of fire occurrence	:	
8	Time of the departure of Forest officials and Villagers assisting in fire fighting	:	
9	Time of the arrival of Forest staff and Villagers at the site of the fire.	:	
10	(a)Time of the extinguishing fire	:	
	(b)Time of return to headquarters		
11	Fire affected area (in hectares)	:	
12	Day of inspection by the Forester	:	
13	Cause of fire	:	
14	Action taken by the Forest Officials to extinguish fire	:	
15	Government loss	:	
	(a) Physical (kind of vegetation, property etc. damaged)		
	(b) Financial in Rupees		
16	Date of inspection by Forest Range Officer	:	
17	whether enclosures attached as follows:		
	(a) Location sketch		Yes/No
	(b) Survey sketch of Fire burnt area with GPS readings.		Yes/No
	(c) Photographs (if any)	:	Yes/No

Fire report No: dt.

Signature of District Forest Officer