

क्रमांक : संकीर्ण-०१/२००६/प्र.क्र.३९/फ-६
महसूल व वन विभाग
मंत्रालय, मुंबई - ४०० ०३२.
दिनांक : १०/०७/२००६

प्रति,
मुख्य वनसंरक्षक (संरक्षण)
महाराष्ट्र राज्य, नागपूर

विषय :- आगीपासून वनांचे संरक्षण
वनवणवा प्रतिबंध समितीची स्थापना

संदर्भ :- पत्र क्र. कक्ष-१८/दक्षता/प्र.क्र.२७(०५-०६)/
२२२/०६-०७, दिनांक १९/०५/२००६

उपरोक्त विषयाबाबतचे आपले संदर्भाधीन दिनांक १९/०५/२००६ चे पत्र कृपया पहावे.

२. आपल्या संदर्भाधीन पत्रास अनुलक्षून आपणांस कळविण्यात येते की, उपरोक्त विषयावर गठीत करण्यात आलेल्या विदर्भातील वनक्षेत्राकरिता व पश्चिम महाराष्ट्रातील वनक्षेत्राकरिता गठीत केलेल्या दोन्ही समितीच्या शिफारशींना शासनाने मान्यता दिलेली आहे. त्या अंमलात आणव्यात. त्यानुसार आवश्यक ते आदेश निर्गमित करण्यात यावेत.

स्वा/-
(दि. सा. सोनवणे)
कक्ष अधिकारी
महसूल व वनविभाग

विदर्भाकरिता श्री. ज्वालाप्रसाद, तत्कालीन अप्पर प्रधान मुख्य वनसंरक्षक (मानव संसाधन व्यवस्थापन व प्रशासन) यांचे अध्यक्षतेखाली गठीत समितीच्या शिफारसी

5. Recommendations of the Committee.

Considering the factors mentioned above the following recommendations are proposed by the Committee for consideration.

5.1 Provision of adequate funds in time:

It is strongly felt by the committee that the funds for fire protection available upto now are meager considering the large tracts of forests that need to be protected. It is, therefore, recommended that provisions required for fire protection need to be augmented substantially and moreover these funds should be made available well in time i.e. by the end of September each year so that proper planning is done to carry out the fire line cutting and burning operations and it is also possible to monitor the works in time so that improvement can be made wherever necessary. A proper allocation can also then be made for number of vehicles and people to be deployed as fire watchers. The rates presently in force for fire tracing also need to be re-examined and the Chief Conservator of Forests / Conservator of Forests concerned should classify the rates accordingly to the extent of undergrowth and terrain after taking up work studies. Funds under EGS should be used for fire line cutting / burning wherever possible.

5.2 Monitoring of the present practices of fire line tracing:

It is also felt that proper checks at all levels are carried out to see that the fire line cutting, burning or fire tracing is executed properly so as to increase its efficacy. Timely availability of funds will ensure that proper checks are exercised.

5.3 Increasing people participation:

The goodwill of the people is always essential for success in any attempt to prevent forest fires. It is always easy to start a fire in a forest in the dry season without much fear of detection, and if neighbouring villagers for any reason wish to burn a forest no preventive measure, however costly and elaborate, is likely to save the forests from fire. The co-operation of the people in carrying out operations may be obtained in various ways:-

5.3 (i) by earmarking forest areas to Forest Protection/Joint Forest Management Committee for fire protection. Wherever, the FPCs/JFMs agree to protect the forest from fires, suitable forest areas can be earmarked to them for the protection. In such areas the FPCs/JFMs will undertake fire protection works and develop their own system for fire protection. In lieu of this they will be entitled to the money available for this activity for the area protected by them. In case no fires occur during the entire fire season or the extent of fire is very low (extent to be fixed by the respective CF/CCF based on past history of the area, terrain etc) in the forest area adjoining the village the wages earmarked for protection of fires shall be given to village Forest Protection Committee / Joint Forest Management Committee.

5.3 (ii) by the wide publication of annual notices explaining to the villagers exactly what acts, in connection with fire, are prohibited or permitted in forest and in the area adjoining to it. Information should also be given in each village adjoining forests by beat of drum/using public address system etc.

5.3 (iii) by paying due attention to the local people's wants, specially as regards the timely supply of forest produce, whether on payment or free, ensuring continuous employment for the local villagers - the most important measure specially during the agricultural slack season, and in any other way in which it may be possible for the Forest Department to assist.

5.4 Reduction in the notified yield of tendu units:

This needs to be done specially in units adjoining National Parks and Sanctuaries and also in areas which are repeatedly subjected to fire for increasing the yield of tendu leaves.

5.5 Revival / Creation and maintaining network of permanent fire lines:-

One of the effective measures of controlling forest fires is to have network of permanent fire lines in the forest. The forests in Vidarbha in general being dry deciduous, the fire lines must be wide enough to minimise the accumulation of continuously falling dry leaves and to prevent any fire crossing over from the other side. The lines must be entirely cleared of all tree and shrubby growth, and meticulously maintained every year to keep them free from all after growth, for, if so treated, the grass and herbaceous growth on them shall dry up earlier than the adjoining stocked forest and thus permitting of their being fire traced with the help

of guide lines with safety at a time when the forest undergrowth is still green. These lines must be burnt every year before there is danger of fire taking place in the forest and kept free from any inflammable matter through out the fire season. On these clear felled permanent fire lines, quantity of falling dry inflammable material shall be greatly reduced. Whatever comes by wind action can easily be swept manually involving less expenditure, or blown away into the adjoining stocked forest with the help of blowers with more efficiency. The object of these fire lines is to isolate adjoining blocks of forests and to localize any fire which may happen to arise. Once the fire is isolated, the task of extinguishing the fire also becomes easy as these permanent fire lines are made use of for counter firing. On the fire lines so created the upcoming grasses in the rainy season provide attractive pasture to the herbivorous wild animals due to the edge effect. This may reduce crop raiding by them in the adjoining cultivation fields; thereby reducing man-animal conflict to some extent.

The fire lines to be revived / created would be of two types:

5.5 (i) *Permanent external fire lines to prevent fire from entering the forest from outside:-* Permanent external fire-lines, where necessary, must be maintained and should follow as nearly as is convenient, the boundary of the forests and be wide enough to prevent any outside fire from crossing into it. While creating permanent fire lines along the boundaries of forest adjoining cultivation fields, it must be ensured that the cultivator does not extend his area under cultivation and encroach upon the vacant forest land of the fire line. Instances noticed must firmly be dealt with according to law.

5.5 (ii) *Permanent internal fire lines to control and localize any fire that may occur within the forest:-* Permanent internal fire-lines are subsidiary lines cleared from suitable points on the boundary fire-lines stated above, and carried across the forest so as to divide it into convenient blocks. No fixed size for such blocks is prescribed. It will be fixed by the concerned circle in charge taking into consideration the type and quality of forests, terrain, intensity of fires and other local factors. The object of these lines is to localize any fire which may happen to arise. These fire lines must always follow the natural lines available as under:-

- (a) roads with fire trace on one or both sides;
- (b) cart tracks;
- (c) foot paths;

- (d) compartment lines, transmission lines etc.

It is also recommended that this practice of fire lines may be taken up in good quality tree forests which are extensive and not in small scattered blocks of forests.

5.5 (iii) *Width and extent of permanent fire lines:-* As already stated, the main object of creating a network of permanent fire lines is primarily to divide the entire forest into convenient blocks firstly in order to localize any fire, which may happen to arise and secondly to take advantage of their presence, wherever possible, for counter firing at the time of fire fighting. The width of the fire lines depend on the nature of the ground the height, average crown width of the trees, density and inflammability of the grass, as well as the nature, size and abundance of fallen leaves, upon the direction and velocity of the prevailing winds and upon the value of the forest and character of the stocking. It is found, therefore, to vary in width from 3 meters in respect of grass/pasture lands to 30 meters along railway tracts and fully stocked valuable forests. Taking all relevant factors into account and on the basis of experience, it is proposed to create and maintain an average width of 12 meters in respect of both external and internal permanent fire-lines. Though crude, the important underlying principle for estimating average width of fire line as stated above is that the width must be at least double of the average crown width of trees in the forest. Besides Site Quality, etc. crown width also depends upon the species (and age as well in case of ever aged forests). If the width of the fire line is equal to or less than the average crown width of trees, the canopy shall remain unbroken and the fall of dry leaves shall cover the entire width of the line. In order that the fire line serves the purpose for which it is being created, at least half of its width in the middle must remain open to sky where no dry leaf falls except by the action of wind. Average height of a 50 years old freely growing teak tree in All India Teak Site Quality III area is about 21 meters with an average crown width of 6 meters. Assuming 3 meters width on both sides of the fire line goes under the crown of the trees standing on the edge, the required width of the fire line would be 12 meters such that its 6-meter width in the middle remains open to sky. No clear felling on the common compartment boundaries, which run along roads, is proposed, except to the extent the total clear width falls short of 12 meters. Similarly, no clear felling may be done on boundaries of forests

adjoining cultivation fields to create external permanent fire-line of 12 meters width unless and until possibility of any encroachment is ruled out.

5.5 (iv) *Fire-tracing technique of fire-lines:-* Fire-traces may be cleared by cutting all the inflammable material on the trace and placing it in the centre of the cleared space and burning the same when sufficiently dry. This technique is to be adopted when the grass is not too tall or the width of fire-line does not exceed 6 meters. But when the grass is too tall or the width of the fire-line is more than 6 meters, fire-tracing is to be done by cutting all grass and vegetative growth to a certain width (called guide-lines having width of about $1/3^{\text{rd}}$ of the width of the fire-line) on both sides of the fire trace and placing it in the remaining $1/3^{\text{rd}}$ uncut width (the fire-trace) in the middle of the fire-line to be burnt when sufficiently dry. The following is a very useful method of fire tracing:-

(a) *Preparation of guidelines:-* In case of a fire-line of 12 meters average width, a guide-line of 4 meters width on either side according to surrounding growth, is to be thoroughly cleared of all grass, bush, and other impediment throughout the entire length of the proposed trace and cross-check lines at every 100 meters of 12 meters breadth are then to be made (see figure).

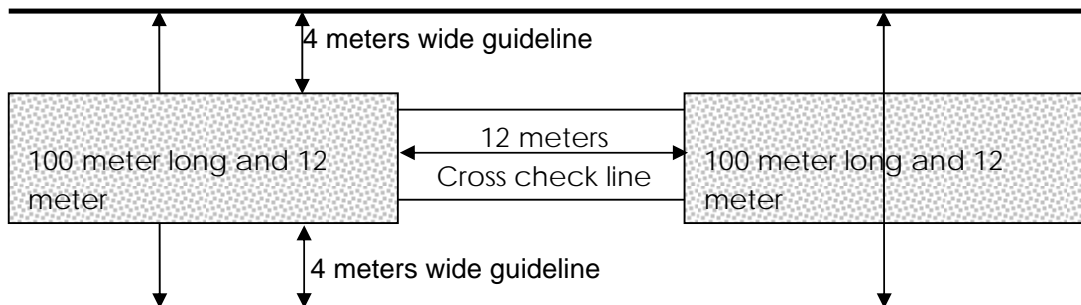


Diagram showing 12 meters wide fire-line, 4 meters wide guidelines ($1/3^{\text{rd}}$ of the width of the fire-line) on both sides and 12 meters wide and of equal breadth cross-check line at every 100 meters interval. The grasses etc. on the guidelines and the cross-check line are to be carefully cut and deposited in the shaded 4 meters width (the fire-trace) in the middle of the fire-line for burning.

These guide and cross-check lines are to be carefully cut and swept, no fire is to be used in their preparation. As soon as they are completed, the Beat Guard in charge of the operations should report the fact to the Round Officer and the latter should inspect the same and certify on the diary of the Beat Guard that the guide lines and cross check lines are made properly. At the time of burning the Round Officer must remain present. Fire may then be put to the trace. The

only precaution that has to be taken after the trace is burnt that the Round Officer or the Forest Guard in charge should not leave the trace until every smoldering piece of wood, etc. left on it is extinguished. The workmen should be supplied with brooms, *powras* and cutting instruments.

(b) *Time of burning the fire trace:-* Fire traces should be burnt as soon as the grass on them is sufficiently dry to burn more or less continuously. If the grass, etc., is not sufficiently burnt the first time a second burning should be resorted to by the fire watchers themselves. The portions of the trace where dangers from fire are great should be burnt first. The work of burning of all fire-traces must generally be completed before 15th February every year.

- (i) Traces should be burnt at night:-
 - (aa) when there is no dew;
 - (bb) when the grass is tall and dry;
 - (cc) when it is impossible to approach the fire during the day.
- (ii) Traces should be burnt during the day:-
 - (aa) when the dew is so heavy that the grass will not burn at night;
 - (bb) when there is no high velocity wind;
 - (cc) when the grass burns with difficulty.
- (iii) The time of the night favourable to burning would be 4 p.m. to as far into the night as possible.
- (iv) Length of the traces to be burnt shall depend upon;
 - (aa) the strength of the firing party (but sections over 100 meters are not advisable);
 - (bb) the force and direction of the wind;
 - (cc) the nature and condition of the grass.

- (v) Burning must always be supervised by a reliable subordinate and must not be entrusted to fire watchers alone.

(c) *Firing party*:- The strength of the firing party depends upon the nature of the line to be fire traced. If the line contains high quantity of grass the party may consist of:-

- (i) two fire-carriers to fire the trace;
- (ii) two side cleaners, whose duty is to go ahead of the fire-carriers and see that the guide and cross lines previously made are effective;
- (iii) Two fire conductors to conduct the fire along the guide lines and prevent it from leaving the fire trace;
- (iv) Two fire-extinguishers to extinguish patches of grass or dead stumps which remain alight;
- (v) One water carrier to carry drinking water.

(d) *General*:- Once the fire lines have been prepared, it rests with the subordinates to see that they are constantly improved. Notice in the prescribed form must be posted at prominent points especially where cart-roads and footpaths enter a fire protected area. Copies of this notice should also be distributed to villagers and Police stations in the vicinity of the forest.

5.6 Appointment of Fire-watchers:-

Patrolling of the fire lines is indispensable to successful protection from fire, and therefore fire-watchers are appointed. The duty of the fire-watchers is to constantly patrol the lines and sweep them clean, to prevent carrying or setting fire within or in the vicinity of the forest, to be on the look out for fires and to proceed instantly to the scene of any fire that may arise within or near the forest. Each watcher can patrol about 5 to 8 Kms. on a fire-line, and it is convenient to arrange that he meets his patrol neighbours once a day. When fire occurs the first duty of the watcher is to report and then collect any assistance available and endeavour to overcome the fire and arrest the offender, if possible. When the fire has been extinguished the boundary of the areas burnt should be inspected to see that there is nothing still smouldering / burning, and that all burning logs, etc. have been extinguished. These fire watchers shall be appointed between 15th

February - 15th June every year. In case of early rains the firewatchers may be terminated earlier.

5.7 Special fire-breaks/fire traces to be prepared for the forest areas needing additional protection:-

In order to provide extra protection from fire to the following types of forest areas, a network of special fire-breaks/fire traces shall be prepared which may start from and/or terminate at a point on a permanent fire-lines in the area. These fire-breaks/fire traces shall be in addition to the permanent external and internal fire-lines and shall be prepared every year for a period as may be necessary and prescribed in the Working Plan.

- (a) All coupes under working and those recently worked,
- (b) Areas under regeneration whether natural or artificial,
- (c) Timber, firewood and bamboo depots in the forest and elsewhere as may be prescribed,
- (d) Areas having gregarious bamboo flowering,
- (e) Grass *kurans*, *ramanas*, etc. and
- (f) Any other area that may be prescribed.

While preparing fire-breaks/fire-traces no guidelines and cross lines shall be cut. All that is required to be done after identifying the alignment of the fire-breaks is to cut grasses, shrubs, etc. over about 3 to 6 meters width (3 meters generally in case of plantations, *kurans*, coupes worked/under working and that over 6 meters width in case of timber, firewood and bamboo depots in the forest, areas of gregarious bamboo flowering, etc.) and burn after they dry up. These breaks shall be kept free from all inflammable matter by constantly sweeping them. As the location of the areas to be given extra protection as above are likely change as the execution of the Working Plan progress this work shall be temporary in nature. Therefore, no felling of trees shall be done while preparing these fire-breaks/fire-traces.

5.8 Establishment of Fire Stations:-

For the purpose of prompt detection of any fire taking place in the forest, it is essential to establish Fire watchtowers. The main object of fire watchtowers is to convey information of the forest fire at the earliest and to warn the adjoining villagers, local forest officers and the fire fighting crew normally placed at the Forest Range Head-Quarters to proceed to the location of the fire without delay. Considering this the locations, of fire watchtowers are to be identified and the number in each of the Forest Divisions should be determined. At least one fire watchtower in each Forest Territorial Round or as may be determined by the respective Chief Conservator of forests / Conservator of Forests may be established on prominent and convenient hills by erecting steel or wooden towers of suitable height (may be on a tall tree) such that a large area of forest can be watched from them. It is proposed that three labours would man a fire station round clock for about 120 days during the fire season each doing 8 hour duty. In addition, according to circumstances, one Forest Guard equipped with a walkie-talkie (or local network mobile phone) should also be given duty in respect of a fire watchtower to ensure quickest possible transmission of messages related to the occurrence of fire to the control stations and to the senior level forest officers who should reach the spot without loss of time and take part as well as supervise the fire fighting works. Every fire watch tower shall be provided with a wireless hand set (or local network mobile phone), one binocular, one magnetic compass, one drum, two flags (one red and one black) and a location map. The binocular shall help the watcher in watching and locating the fire, and by using wireless hand set (or local network mobile phone), he shall be able to inform the fire fighting crew stationed normally at Range Head-Quarters for proceeding to the site of fire. The red flag shall, throughout the fire season, remain hoisted on the fire watchtower and the black flag shall be hoisted whenever a fire occurs. Each station is also proposed to be supplied with a drum. When a fire occurs the drum if beaten, and any forest officer or watcher, on hearing it, shall immediately hasten to the place of fire, help to extinguish it and try to catch the offender. The black flag shall remain flying till the fire is extinguished. At the same time, the watcher shall beat the drum till the fire is extinguished.

5.9 Constitution of Fire Fighting Units:-

After receipt of information as mentioned in para 5.6 above at the Range Head-Quarters or at any other place as may be fixed by the Deputy Conservator of Forests, the fire fighting crew of the fire fighting unit shall immediately proceed

for extinguishing the fire. To start with, it is proposed to constitute Fire Fighting Units on an average one unit per territorial Range. However depending upon the requirement, the Chief Conservator of Forests/Conservator of Forests or the Deputy Conservator of Forests may employ more than one Fire Fighting Unit in any Range. The details of implements, machinery and vehicles in a Fire Fighting Unit are given in Appendix-II. The Fire fighting crew shall consist of not less than 8 labours accompanied by at least one forest guard. It is also proposed to provide every beat head-quarter with an additional set of fire fighting implements given in sub-para 1(b) of the Appendix-II, so that the Beat Guard, without waiting for the fire fighting crew to come, can proceed to the place of fire with the villagers at once.

5.10 Methodology of extinguishing the fire:-

(a) A forest fire usually of small nature can be extinguished with the help of various equipments and techniques together with beating it out with leafy branches of trees or with a fire beater. For this purpose, it is essential to determine the exact location of fire in the forest as fast as possible before any real damage is done so that a fire fighting party is dispatched to the site to extinguish the fire.

(b) Extensive fire specially in highly inflammable forests, can be extinguished by counter-firing. For this purpose advantage must be taken of any existing fire-line / fire-break, road, river, *nala* in the direction towards which the fire is approaching and failing one of the above, a fire-break/fire-trace must be quickly prepared at right angles to the direction of the approaching fire. The forest is then fired on the side of the line etc., facing towards the existing fire, and the two fires advancing towards one another eventually meet and burn out. The labourers in the fire fighting crew shall be in fire proof uniform and would be provided with water, Pulaski tool, bush hook, double bit axe, fire shovel, fire beater, etc. as mentioned in sub-para 1(b) of Appendix-II. Wherever possible an air blower which may be operated with the help of fire engine also, shall be used to blow away the inflammable dry leaves while creating a line for counter firing. One or two men in the crew may be left behind to watch the fire and to extinguish any fire that may remain smouldering in dry logs, either standing or fallen.

5.11 Fire Maps:-

Two maps are necessary which should be prepared by every Range Forest Officer.

(i) A map is needed showing permanent fire lines and the positions of the fire watchtowers, coupes under working, areas under regeneration, camping grounds, if any (area which is well cleared and burnt fixed by the DFO for halting of carts and travelers during fire season). Any detailed information regarding type of fire watchtowers, number of watchers and width of fire lines, Sources of water supply, road network (old coupe roads), etc., are also entered in a note in the corner of the map.

(ii) A second map would show the area burnt annually, and this is done by shading the burnt portions differently for different years. The object of this map is to show the fire prone forests at a glance in order that special measures may be taken to protect these areas.

5.12 Fire Reports:-

For the purpose of monitoring the incidences of forest-fires, Fire Reports are prepared. While submitting the Fire Reports, in addition to the information regarding extent of area burnt and direct financial loss caused to the Government in the shape of burnt timber, small wood or bamboos etc., it is to be clearly stated whether the fire:-

- (i) originated owing to carelessness in the use of fire by Beat Guards or fire-watchers,
- (ii) crossed from outside,
- (iii) started in the forest area through carelessness,
- (iv) started through incendiarism, or
- (v) started through causes unknown.

In addition, the following points are to be specially reported -

- (i) Date and hour when discovered and by whom,
- (ii) Date and hour on which the Beat Guard reached the spot,

- (iii) Date and hour when the Round Officer reached the spot with a detailed time table of his movements,
- (iv) By whom and at what time the fire was extinguished and the number of villagers from each village that assisted.

5.13 Monitoring of fires:-

Since periodic data is now available through the satellite, every Circle should procure imageries atleast twice during every fire season to monitor & verify the data received from the field level. This will curb the tendency to under report the incidences of fire and will be a good monitoring tool over the years.

Monitoring of fires from 15th February - 15th June should be done on a daily basis at the Range and Division level where a register should be maintained and all fires which take place on the previous day are noted down. This will be signed by the RFO/DCF whenever they are at headquarters. The concerned CCF/CF will prescribe returns for monitoring cutting and burning of fire lines. It is recommended that RFO's would inspect all the fire lines cut and burnt and ACF's would inspect at least 50% of the fire line cut and burnt.



APPENDIX - I**List showing equipments etc. to be kept on each
Watch-tower**

Sr.No.	Equipment/Article	Number
1	Wireless hand set (or local network mobile phone)	1
2	Binocular	1
3	Magnetic compass	1
4	Drum	1
5	Flags (One red and one black)	2
6	Location map	1

APPENDIX - II

COMPOSITION OF ONE FIRE FIGHTING UNIT

I) *Details of implements, machinery and vehicles in a fire fighting unit.*

(a) One mobile Van - Capacity of 12 persons.

(b) One set of following implements -

<u>S.No.</u>	<u>Description of implement</u>	<u>No.of implements</u>
i)	Pulaski tool	One
ii)	Bush hook	One
iii)	Double bit axe	One
iv)	Forest fire shovel	One
v)	Mcleod tool	One
vi)	Fire Rake	One
vii)	Fire beater	Six
(c)	Blower	One with accessories
(d)	Fire proof uniform	Ten sets
(e)	Mobile wireless set	One

II) *Details of crew members in fire fighting unit.*

(a) 1 driver to be employed - one driver for mobile van.

(b) Not less than 8 labours to be accompanied by at least one forest-officer

III) *Set of implementation to be kept at Beat Head-Quarter:*

Implements mentioned at sub-para 1(b) of Appendix-II above shall be kept with each Beat Head Quarter in addition.

**उर्वरित महाराष्ट्राकरिता श्री. भांगरे, तत्कालीन अप्पर प्रधान मुख्य वनसंरक्षक
(उत्पादन व व्यवस्थापन) यांचे अध्यक्षतेखाली गठीत समितीच्या शिफारशी**

पश्चिम महाराष्ट्रातील वणवे नियंत्रणाच्या दृष्टीने समितीच्या शिफारशी

संपूर्ण अभ्यासांतील व सांगोपांग चर्चा करून वणवा नियंत्रण व प्रतिबंधाच्या दृष्टीने समिती खालीलप्रमाणे शिफारशी करित आहे.

- I. वणवे मुळीच लागू नये म्हणून सूचविलेल्या उपाययोजना
- II. प्रतिबंधात्मक उपाययोजना
- III. आग लागल्यास/लागण्याची शक्यता असलेल्या वनक्षेत्रासाठी सुचविलेल्या उपाययोजना
- IV. आगीमुळे होणाऱ्या नुकसानीचे व जळालेल्या वनक्षेत्रांचे मुल्यमापन, मुल्यांकन व आगी नियंत्रणात ठेवण्याचे दृष्टीने केलेल्या सर्वोत्कृष्ट कामगिरीबाबत वनाधिकाऱ्यांच्या/संयुक्त वन व्यवस्थापन समित्यांचा व्यक्तींच्या गौरव व मानसन्मान

I) वणवे मुळीच लागू नये म्हणून सूचविलेल्या उपाययोजना

- (१) चराई बंदी असलेल्या वनक्षेत्रावर मोठ्याप्रमाणावर गवत वाढलेले आढळते व हेच गवत वणव्यास कारणीभूत ठरते. म्हणून, हे सर्व गवत सप्टेंबर व ऑक्टोबरपूर्वी कापून घेणे व ते त्वरीत बाहेर आणून गवत कापताच सदर क्षेत्रात सप्टेंबर-ऑक्टोबरमध्ये जागोजागी जाळून (mosaic type early burning) घेवून वणव्याची तिव्रता कमी करणे.
- (२) रोपवन क्षेत्रातील सर्व गवत सप्टेंबर, ऑक्टोबरपूर्वीच कापले जाईल ह्याची खात्री करणे, तसे होत नसल्यास रो.ह.यो. खाली अंदाजपत्रक बनवून निधीची तरतूद करून गवत कापून विकणे किंवा कंपोस्ट होण्यासाठी वनक्षेत्रातच गाडणे, म्हणून रो.ह.यो. खाली अशी कामे घेण्यास उचित शासन निर्णय त्वरीत जारी करावेत.
- (३) ज्या वनक्षेत्रात (दाट जंगलात) जमिनीवर हिवाळ्यात फक्त पाल्यापाचोळ्याचा खच पडतो व तो आगीचे मुख्य कारण ठरतो, अशा वनक्षेत्रांत जागोजागी पाल्यापाचोळा

गोळा करून अंदाजे ५ मी. X ५ मी. अंतरावर नैसर्गिक खड्ड्यात किंवा १ मी. X १ मी. वर ३० से.मी. खोल खड्ड्यात पालापाचोळा व खोदलेल्या मातीचा थरावर थर देऊन गाडावा. हे काम डिसेंबर ते मे पर्यंत रो.ह.यो. खाली करता येऊ शकते. पुढील पावसाळ्यात हा पालापाचोळा कुजून त्याचे खत होईल. त्या ढिगाऱ्यावर स्थानिक वनातील जंगली फळझाडांच्या बिया किंवा दुर्मिळ वनौषधीच्या बिया पेरणे त्यामुळे नैसर्गिक पुनरुत्पादनास मदत होईल. हे काम केल्यास जंगलाचे आगीपासून होणारे नुकसान तर वाचेल परंतु बेरोजगार व ग्रामीण मजूरांना काम व शाळकरी मुलांना सुट्ट्यांच्या दिवसात उत्पादक रोजगार मिळेल व जंगलातील वनोपजाचे उत्पादन कमी श्रमात वाढण्यास मोठी मदत होईल. रो.ह.यो. खाली हे उत्पादक काम घेण्यास शासन स्तरावर त्वरीत विचार होऊन उचित शासन आदेश पारित करावेत.

II) प्रतिबंधात्मक उपाययोजना

- (४) वन परिक्षेत्र आणि विभागीय स्तरावर दरवर्षी माहे जून मध्ये (वनवणव्याचा हंगाम संपताच) पुढील वर्षाची 'वणवा संरक्षण योजना' (Forest Fire Protection Plan) तयार करण्यात यावी. ती तयार करतांना मागील ५ वर्षात झालेल्या वणव्याचा अभ्यास व विश्लेषण करावे व या योजनेची अंमलबजावणीसाठी आवश्यक निधीची तरतूद अग्रीम अर्थसंकल्पात (जुलै-ऑगस्ट मध्ये) करावी. त्याप्रमाणे पुढील आगीच्या हंगामासाठी आवश्यक ते अनुदान वेळीच (सप्टेंबर-ऑक्टोबर मध्ये) उपलब्ध करून घ्यावे.
- (५) गेल्या ५ वर्षांच्या वणवे गुन्हे कामाच्या आधारे नियमित आगी लागणाऱ्या गावांची यादी व नकाशे करून ती यादी वनरक्षक ते वनवृत्तांचे मुख्य वनसंरक्षक/वनसंरक्षक यांचेकडे ठेवावी. वनाधिकारी आणि वनकर्मचाऱ्यांनी अशा निवडक गावांच्या वनक्षेत्रात वणवा हंगामात वारंवार दौरे करावेत व वरिष्ठांनी त्याचे आठवड्याने परिक्षण करावे. (monitering & review) लोकांशी चर्चा करून सहभाग वाढवावा. आगीची कारणे जाणून घेऊन त्यावर उपाययोजना करावी. लोकांना स्थानिक स्तरावर (पंचायत समिती स्तरापर्यंत) एकत्र आणून त्यांचे प्रबोधन करावे.

- (६) सतत वणवा लागणाऱ्या गावांत संयुक्त वन व्यवस्थापन समित्या स्थापन झाल्या नसतील तर त्या प्राधान्याने व त्वरेने स्थापन कराव्यात व त्यांचा सक्रिय सहभाग वणवा नियंत्रण करण्यासाठी घेण्यात यावा.
- (७) पश्चिम महाराष्ट्रात देवरायांची संख्या विदर्भापेक्षा बरीच जास्त आहे. धार्मिक भावनांमुळे गेली हजारो वर्षे अशा देवरायांचे चोरटीतोड व आगीपासून स्थानिक गांवकऱ्यांनी संरक्षण केले आहे. पश्चिम महाराष्ट्रात अशा देवरायांची संख्या अंदाजे ३००० च्या आसपास आहे. ज्या गावांच्या भौगोलिक क्षेत्रात वनक्षेत्र आहे, परंतु देवराई नाही, अशा गावांच्या हद्दीतील वनक्षेत्रापैकी तुलनात्मकदृष्ट्या जैव विविधतेने संपन्न १० ते १५ हेक्टरपर्यंतचे वनक्षेत्र हे देवराई म्हणून घोषित करावे व त्या क्षेत्रास सर्वाना मान्य असलेल्या स्थानिक ग्रामदेवतेचे नांव देऊन नामकरणे करावे. अशा वनक्षेत्रात दुर्मिळ व मौल्यवान वनौषधींची लागवड करावी. असे केल्यास सदर वनक्षेत्रास ग्रामस्थांचे स्वयंपूर्ण सहकार्य मिळून सदर क्षेत्र वणवे व इतर वनगुन्हांपासून वाचू शकेल व त्यातील जैवविविधता टिकविण्यास बहुमोल मदत होईल.
- (८) डोंगरमाथा ते पायथा ह्या क्रमाने अंदाजे ५० ते १०० मीटर कंटूर इंटरव्हलवर १ मी. 'खालीचे व रूंदीचे' सलग समपातळीतील चर खोदून खोदलेल्या उंचवटयावर ३ ते ४ ओळीत १ मी. अंतरावर घायपात लागवड करावी. त्यामुळे मृद व जल संधारणास मदत तर होईलच तसेच हे चर जाळरेषास पर्याय ठरतील. असे केल्याने वणवा हंगामात अति उतारावर, दुर्गम व डोंगराळ भागातील आगी विझविण्याचे अवघड काम करण्याची आवश्यकता भासणार नाही. ही कार्यपध्दती पश्चिम घाटात अवलंबिल्या वणव्यामुळे होणारे जैव विविधतेचे किमान नुकसान होण्यास बहुमोल मदत होईल.
- (९) झाडोरा नसलेल्या जाळरेषांच्या पट्टयात सर्वत्र १ मी. X १ मी. अंतरावर घायपात लागवड करणे किंवा जाळरेषांच्या दोन्ही बाजूस १ ते २ रांगांमध्ये घायपाताची १ मी. X १ मी. अंतरावर लागवड करणे (झाडोरा असलेल्या जाळपट्टयांच्या क्षेत्रात) व आतील भाग जाळून घेणे, ह्यामुळे जाळरेषांवरील खर्च कमी होईल तसेच अपघाताने इतर वनक्षेत्रात आग पसरणार नाही.

- (१०) गेल्या ५ वर्षात आगी लावणाऱ्या तसेच संशयीत इसमांची यादी तयार करून त्यांना एकत्रित करून साम, दाम व दंड या नितीने त्यांच्यावर कार्यवाही करणे.
- (११) आग लावणाऱ्या व्यक्तींची पुराव्यानिशी (फोटोग्राफ व व्हीडीओ. इ.) माहिती देणाऱ्या इसमांची गांववार गोपनीय यादी तयार करणे व अशा व्यक्तींना शासकीय मदतनीस म्हणून गोपनीय मान्यता व आर्थिक मोबदला देण्याची तरतूद करणे.
- (१२) गेल्या ५ वर्षांच्या आगीच्या नोंदीनुसार वणवा प्रवण गांवे वनाधिकारी, शाळा-कॉलेज, स्वयंसेवी संघटना, लोकप्रतिनिधी इतर शासकीय अधिकाऱ्यांनी दत्तक घेऊन त्यांच्या द्वारे वणवे प्रतिबंधाच्या दृष्टीने जनजागरण करून लोकसहभाग प्राप्त करणे.
- (१३) जत्रांमध्ये येणाऱ्या तमाशा/लोकनाट्यांच्या मालकांना भेटून त्यांच्याद्वारे वणवे व इतर वनगुन्ह्यात होणाऱ्या हानीचे व पर्यावरणाच्या न्हासासंदर्भात त्यांच्या कलेचा उपयोग करून जन जागरण करावे.
- (१४) सातारा वन विभागात गेल्या २-३ वर्षात राबविलेली संकल्पना महाराष्ट्रात राबविणे, आग नियंत्रणाच्या दृष्टीने वनपाल, तलाठी, ग्रामसेवक ह्यांची ग्राम स्तरावर, तहसीलदार, बीडीओ, वनक्षेत्रपाल ह्यांची तालुका स्तरावर व विभागीय वन अधिकारी, जिल्हा पोलीस अधिक्षक व जिल्हाधिकारी ह्यांची जिल्हा स्तरावर वणवा नियंत्रण समितीची स्थापना करून सदर समितीत वणव्यावर नियंत्रण ठेवण्याच्या दृष्टीने कार्यवाही करणे. हयाबाबत शासन स्तरावर उचित आदेश पारित केले जावेत.
- (१५) दरवर्षी लागणारे किंवा लावले जात असलेले वणवे हे राज्यावरील संकट मानून हयाबाबत मंत्री मंडळात यथायोग्य निर्णय घेऊन उपाययोजना करणे.
- (१६) पश्चिम महाराष्ट्रात चराईसाठी गवत निर्माण व्हावे इ. कारणास्तव जवळपासचे शेतकरी हेतुपुरस्सर आगी लावतात. अर्थात ही त्यांची गैरसमजूत आहे, हे त्यांना पटवून देण्यासाठी गेली १०-२० वर्षे आगी न लावता गवत निर्माण करणाऱ्या शेतकऱ्यांच्या मुलाखतीवर आधारित डॉक्युमेंटरी तयार करून गावोगावी दाखवून लोकसहभाग प्राप्त करणे.

(१७) वर्षभर चराई केल्यास १ हेक्टर जर १ टन चारा (गवत) झाडोरा विरहित क्षेत्रावर जनावरांच्या पोटात जाणार असेल तर चराई न करता सदर क्षेत्रात उगवलेले गवत कापून जनावरास खाऊ घातल्यास त्या क्षेत्रापासून मिळणाऱ्या चान्याचे प्रमाणे ८ ते १० टन असते, हे संशोधनावर आधारित सत्य डॉक्युमेंटरीद्वारे गावोगावी दाखवून लोकसहभाग प्राप्त करणे.

(१८) वणव्यापासून होणाऱ्या नुकसानीबाबत सायंकाळी/फावल्या वेळात गावोगावी जावून लोकांना एकत्रित करून वणव्यासंदर्भात प्रात्यक्षिकाद्वारे लोकांचे प्रबोधन करावे. आगीपासून वने तसेच वन्यजीव संरक्षणाबाबत चलचित्र दाखवावीत व लोकांना प्रबोधन करून त्यांचा सक्रिय सहभाग प्राप्त करावा.

(१९) कार्य आयोजना तयार करतांना आगीपासून संरक्षणाकरिता विशिष्ट तरतुदी कराव्यात. (उदा. संचार व्यवस्था, मनोरे बांधणे इ.) म्हणजे त्याआधारे निधी उपलब्ध होवू शकेल.

(२०) वणवा हंगामात क्षेत्रीय कर्मचाऱ्यांनी सुट्ट्यांच्या दिवसातही मुख्यालयी राहणे व संवेदनशिल क्षेत्रात फिरती करणे, अनिवार्य करणे.

(२१) वणवा नियंत्रण आराखडा तयार करतांना गेल्या ५ वर्षांच्या वणवा गुन्हे काम नोंदीच्या आधारे प्रत्येक वनक्षेत्रातील महसूल गावांच्या भौगोलिक क्षेत्रास खालीलप्रमाणे रंगसंगती देण्यात येऊन नकाशे तयार करावेत.

अ.क्र.	गावाचा प्रकार	संवेदनशिलता	नकाशावरील रंग
१	वनक्षेत्र नसलेली गांवे	--	पांढरा (व्हाईट)
२	वनक्षेत्र असलेली गांवे (गेल्या ५ वर्षात एकदाही आग नोंदविण्यात न आलेली गांवे)	वणवा विरहित गांवे	हिरवा (ग्रीन)
३	वनक्षेत्र असलेली गांवे (गेल्या ५ वर्षात एकदा व दोनदाच आग नोंदविण्यात आलेली गांवे)	संवेदनशिल	नारंगी (ऑरेंज)
४	वनक्षेत्र असलेली गांवे (गेल्या ५ वर्षात ३,४ व पाचही वर्षात आग नोंदविण्यात आलेली गांवे)	अतिसंवेदनशिल	लाल (रेड)

संपूर्ण नकाशे हिरव्या रंगाचे दिसतील हे अंतिम उद्दिष्ट असावे.

वरील रंगसंगतीप्रमाणे संबंधितांनी नियमक्षेत्र, परिमंडळ, वनपरिक्षेत्र स्तरावर नकाशे तयार करून साक्षांकित करावेत. याप्रमाणे तयार करण्यात आलेले नकाशे नियतक्षेत्र, परिमंडळ, वनपरिक्षेत्र स्तरावर जपून ठेवण्यात यावेत व बदलीच्या वेळी सदर नकाशे हे कार्यभार हस्तांतरणाचा अविभाज्य भाग असावा. पाच वर्षावरील असे नकाशे उपवनसंरक्षक / उपविभागीय स्तरावर स्थायी दस्तऐवज म्हणून जपून ठेवण्यात यावा. अशाप्रकारे पुणे वनवृत्तातील पुणे वनविभागातील पौड वनपरिक्षेत्रासाठी बनविलेला नकाशा सहपत्र - ८ म्हणून सोबत जोडला आहे.

(२२) वनातील व वनक्षेत्राभोवतील गावांतील जनावरांना Stall feeding बंधनकारक करण्यासाठी शासन पातळीवर त्वरीत विचार व्हावा.

(२३) मध गोळा करणाऱ्या कामगारांची गांववार यादी करून त्यांना, आग न लावता, मधमाशाचा जळून नाश न होता मध काढण्याच्या शास्त्रीय पध्दतीचे प्रशिक्षण देऊन त्यांना आवश्यक तो साहित्य पुरवठा करणे.

(२४) मंजूर आग प्रतिबंध आराखड्यानुसार करावयाच्या उपाययोजनेवरील खर्चासाठी प्रायोजकांकडून (sponserors) निधी प्राप्त करून घेण्यासाठी उचित शासन निर्णय त्वरीत पारित करणे.

III) आग लागल्यास/लागण्याची शक्यता असललेल्या वनक्षेत्रासाठी सुचविलेल्या उपाययोजना

(२५) संयुक्त वन व्यवस्थापन समित्या स्थापन झालेल्या गावांमध्ये वणवा निदर्शनास येताच भोंगा वाजविणे किंवा मंदिरातील घंटा वाजविणे किंवा तत्सम उपाययोजना करून लोकांना आग विझविण्यासाठी एकत्र करावे.

(२६) वणवा विझवितांना सहभागी होणाऱ्या इच्छुक, विश्वासू व तरुण ग्रामस्थांचा स्वयंसेवी आगी प्रतिबंधक गट तयार करावा व त्यांचे आग विझविण्यासाठी प्राधान्याने सहकार्य घ्यावे.

(२७) ग्रामपंचायत कार्यालयात/मंदिरात/चावडीत/गावातील प्रमुख ठिकाणी वनरक्षकापासून वनसंरक्षक/मुख्य वनसंरक्षक यांचे दूरध्वनी क्रमांकाची माहिती प्रदर्शित करावी व वणव्याबाबत वनरक्षक स्तरावरून वरिष्ठ स्तरापर्यंत अचूक माहिती दूरध्वनीद्वारे तात्काळ देण्याची तजवीज करावी.

- (२८) वनपरिक्षेत्र व वन विभागीय कार्यालयात वणवा हंगामात दूरध्वनीवर वन कर्मचारी २४ तास कार्यरत राहिल याची खातरजमा करणे.
- (२९) जंगलातून जाणाऱ्या हमरस्त्यावर जेथे गाड्या थांबतात तेथे व मोक्याच्या जागी वणवा लागल्यास त्वरेने संपर्क साधण्याच्या दृष्टीने संपर्क दूरध्वनी क्रमांक ठळकपणे प्रदर्शित करावे.
- (३०) दूरभाष विभागाकडून वनविभागाला अत्यावश्यक सेवेच्या आधारे स्वतंत्र क्रमांक देण्यात यावा (जसा पोलीस विभागास संपर्कासाठी भारतात १०० हा दूरध्वनी क्रमांक दिला आहे तसा). वन विभागास १ (one - वन) हा दूरध्वनी क्रमांक दिलाच जावा ह्यासाठी वन विभागाने राज्य व राष्ट्रीय स्तरावर पुढाकार घेऊन १ (one - वन) हा दूरध्वनी क्रमांक मिळवून द्यावा. त्यामुळे वणवे व इतर वनगुन्ह्यांसंदर्भात नागरिकांना त्वरीत संपर्क साधणे सोपे होईल.
- (३१) फायर वॉचरच्या नेमणूका करणे व फायर वॉचर लावण्याचे प्रमाण वाढविणे.
- (३२) फायर वॉचर व क्षेत्रीय कर्मचाऱ्यांना आगीच्या हंगामात मोबाईल फोनचा पुरवठा करणे.
- (३३) १० अतिसंवेदनशिल गट गावासाठी एक किंवा १५ संवेदनशिल गट गावांसाठी एक वाहन व आग प्रतिबंधक पथक मोबाईल फोनसह रात्रंदिवस कार्यरत ठेवणे.
- (३४) आग विझवितांना, जाळरेषा घेतांना अग्नि प्रतिबंधक पथकास आवश्यक त्या साहित्य सामुग्रीचा (ब्लोअर, अग्निप्रतिबंधक कपडे, बुट, पिण्याच्या पाण्यासाठी बॉटल, ई.) पुरवठा केला जावा.

IV) आगीमुळे होणाऱ्या नुकसानीचे व जळालेल्या वनक्षेत्रांचे मुल्यमापन, मुल्यांकन व आगी नियंत्रणात ठेवण्याचे दृष्टीने केलेल्या सर्वोत्कृष्ट कामगिरीबाबत वनाधिकाऱ्यांच्या/संयुक्त वन व्यवस्थापन समित्यांचा व्यक्तींच्या गौरव व मानसन्मान:

- (३५) वणव्यात झालेले नुकसान दर्शविण्यासाठी सहपत्र - ७ मधील शास्त्रीय अभ्यासाअंती स्पष्ट झालेल्या परिमाणांचा उपयोग केला जावा व त्यासाठी मुख्य वनसंरक्षक (संरक्षण) ह्यांनी महाराष्ट्रातील निरनिराळ्या वनांसाठी आगीमुळे होणाऱ्या नुकसानीची किंमत लावण्यासाठी सुधारित परिमाणे निश्चित करून द्यावीत.

- (३६) ज्या गावातील वनक्षेत्रात गेल्या ३ ते ५ वर्षात आगीच्या घटना नोंदविल्या आहेत, अशा गावातील वनक्षेत्रास आग न लागल्यास संयुक्त वन व्यवस्थापन समितीच्या सदस्यांना/क्षेत्रीय कर्मचाऱ्यांना उचित सन्मानित करणे.
- (३७) वणव्या संदर्भात वस्तुनिष्ठ रिपोर्टिंग केल्यास कोणतीही शिस्तभंगाची कारवाई केली जाणार नाही याची वरिष्ठ अधिकाऱ्यांनी खात्री देणे.
- (३८) दरवर्षी संबंधित वनवृत्ताचे वनसंरक्षक (कार्य आयोजना) यांचेमार्फत उपग्रहाद्वारे प्राप्त वणव्याची छायाचित्रे (सॅटेलाईट इमेजरी) प्राप्त करून गुन्हेकामांत नोंदविलेल्या जळीत क्षेत्राचे व उपग्रहाद्वारे प्राप्त माहितीची खातरजमा करून प्रत्यक्षात किती वनक्षेत्रावर वणव्यामुळे नुकसान झालेले आहे, ह्याची माहिती गांव व कम्पार्टमेंट निहाय उपलब्ध करून देणे व त्या आधारे वस्तुनिष्ठ माहिती वनखात्यातील स्वतंत्र अधिकाऱ्यामार्फत जागेवर भेटी देऊन जीपीएस च्या सहाय्याने तपासून घेऊन वनविभाग, वनवृत्त व राज्यपातळीवर संकलित करणे.
- (३९) वणवा हंगामात जळीत क्षेत्र/झालेले नुकसान अत्यल्प आढळल्यास ५ जून ह्या 'जागतिक पर्यावरण दिनी' सदर गावांच्या नावांना शासन स्तरावर तात्काळ ठळक प्रसिध्दी देणे, संबंधित गावांचे संयुक्त वन व्यवस्थापन समितीच्या सदस्यांना/क्षेत्रीय कर्मचाऱ्यांना सन्मानित करणे.
- (४०) गेल्या ५ वर्षांच्या वणव्याच्या नोंदी लक्षात घेता चालू वणवा हंगामात आग प्रतिबंधक व नियंत्रणासंदर्भातील सर्वोत्कृष्ट कामगिरीच्या आधारे महाराष्ट्रात १ वनपरिक्षेत्र, १ वन विभाग व १ वनवृत्तास, तसेच १ अभयारण्य व १ राष्ट्रीय उद्यानाची निवड करून त्यांना १५ ऑगस्ट या स्वातंत्र्यदिनी राज्यपालांच्या हस्त सन्मानित करणे.

वरील शिफारशीवर वनवृत्त, प्रधान मुख्य वनसंरक्षक स्तरावर तसेच शासन स्तरावर अवलोकन होऊन त्यास शिघ्र-अतिशिघ्र मान्यता देण्याविषयी शासनास ही समिती विनंती करीत आहे.

