# FIRST SIX MONTHLY REPORT OF THE MONITORING COMMITTEE CONSTITUTED BY HON'BLE SUPREME COURT VOLUME-2 ANNEXURES



#### **VERY HEAVILY INFESTED LANTANA AREAS**



RELATING TO INTERLOCUTORY

APPLICATION NO 3840 OF 2014

IN WRIT PETITION (CIVIL) NO. 202 OF 1995

(UNDER ARTICLE 32 OF

THE CONSTITUTION OF INDIA)

15 AUGUST 2018

#### **ABOUT 10 ANNEXURES**

THESE ANNEXURES INCLUDE MOSTLY TABULAR FORMATS DEVELOPED BY COLLECTING AND COLLATING FACTUAL DATA AND INFORMATION IN RELATION TO RELEVANT STIPULATIONS IN HON'BLE SUPREME COURT ORDER DATED 18<sup>th</sup> FEBRUARY 2018, INCLUDING DATA AND STATISTICS AS VERIFIED BY THE MONITORING COMMITTEE DURING SITE INSPECTIONS OF FORESTS IN THREE SELECTED FOREST RANGES.

THESE ANNEXURES FORM SUPPORTIVE INFORMATION
TO THE MAIN REPORT IN VOLUME 1.

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#### ANNEXURE 1.1

## TERMS OF REFERENCE – HON'BLE SUPREME COURT ORDER OF 16 FEBRUARY 2018

#### IN THE SUPREME COURT OF INDIA

**CIVIL ORIGINAL JURISDICTION** 

**INTERLOCUTORY APPLICATION NO. 3840 OF 2014** 

IN

WRIT PETITION (CIVIL) NO. 202 OF 1995

#### **REPORTABLE**

## IN THE SUPREME COURT OF INDIA CIVIL ORIGINAL JURISDICTION

# INTERLOCUTORY APPLICATION NO. 3840 OF 2014 IN WRIT PETITION (CIVIL) NO. 202 OF 1995

IN RE:

T.N. GODAVARMAN THIRUMULKPAD .... PETITIONER(S)

**VERSUS** 

UNION OF INDIA AND ORS. ... RESPONDENT(S)

IN RE:

STATE OF HIMACHAL PRADESH .... APPLICANT (S)

**VERSUS** 

SECRETARY, MINISTRY OF ENVIRONMENT & FORESTS

... RESPONDENT(S)

#### ORDER

#### Deepak Gupta J.

1. By means of this application the State of Himachal Pradesh has prayed that it may be permitted to carry out silviculture felling including thinning and other cultural operations in

accordance with the Working Plan approved by the Government of India up to an elevation of 1500 metres above Mean Sea Level (MSL) in Chil Pine, Khair and broad-leaved forests only.

- 2. On 12.12.1996, this Court issued directions to a large number of States. The relevant directions with regard to the State of Himachal Pradesh read as follows:
  - "1. There will be no felling of trees permitted in any forest, public or private. This ban will not affect felling in any private plantation comprising of trees planted in any area which is not a forest; and which has not been converted from an earlier "forest". This ban will not apply to permits granted to the right holders for their bonafide personal use in Himachal Pradesh.
  - 2. In a 'forest', the State Government may either departmentally or through the State Forest Corporation remove fallen trees or fell and remove diseased or dry standing timber from areas other than those notified under Section 18 or 35 of the Wild Life Protection Act, 1972 or any other Act banning such felling or removal of trees.
  - 3. For this purpose, the State Government is to constitute an expert committee comprising a representative from MOEF, a representative of the State Government, two private experts of eminence and the MD of the State Forest Corporation (as Member Secretary), who will fix the qualitative and quantitative norms for the felling of fallen trees and diseased and standing timber. The State shall ensure that the trees so felled and removed are in accordance with these norms.
  - 4. Felling of trees in any forest or any clearance of forest land in execution of projects shall be in strict conformity with the Forest Conservation Act, 1980 and

any other laws applying thereto. Moreover, any trees so felled, and the disposal of such trees shall be done exclusively by the State Forest Corporation and no private agency is to be involved in any aspect thereof."

3. Despite such order having been passed, the amicus curiae 14.02.2000 submitted before this Court that there were reports in the press that the State of Himachal Pradesh had passed some orders lifting the ban on felling of trees. This Court, thereafter, issued notice to the State of Himachal Pradesh and also made it clear that if any such orders have been passed, the operation of the same were stayed and no felling of trees be done. In the affidavit filed by the State of Himachal Pradesh, in response to the order dated 14.02.2000, it was pointed out that the intention of the State was to resume silviculture operations consisting of regeneration, felling and thinning of the trees as per the Working Plan duly approved. The State of Himachal Pradesh also informed this Court that though the State had intended to do silivicultural felling but in actual fact this decision has not been given effect to. It was clearly mentioned that no felling of trees has taken place except of those allowed by this Court specifically. It is also pertinent to mention that the Government of India vide G.O. dated 11.10.2002 suspended the

Working Plan for various States including the State of Himachal Pradesh. The State then approached the Central Empowered Committee (for short 'the CEC"), which advised the State to approach this Court for modification or vacation of the earlier stay order. This led to the filing of the present application.

- 4. After this application was filed, this Court directed the CEC to file its report. The CEC, in its report dated 06.07.2017 has made the following recommendations:
  - "i) the permission for silvicultural fellings including thinning in the State of Himachal Pradesh be limited to only three working circles of Chil, Sal and Khair occurring below 1500 MSL to encourage regeneration of the forests aimed at achieving mixed species forests with multi layered canopy having more efficient carbon sequestration capability;
  - ii) no felling of broad leaved species be permitted in the compartments to be taken up for regeneration fellings of the above three working circles or in the miscellaneous/broad leaved working circle irrespective of the recommendations in the Working Plan;
  - iii) 764 ha. of Eucalyptus trees proposed for felling as per Working Plan prescriptions be permitted to be felled and the same area regenerated with native broad leaved species;
  - iv) rotation of Sal and Chil to be 120 years and are worked under irregular shelterwood system;
  - v) rotation age of Khair be kept at 30 years with minimum dia of 25 cms. at breast height;
  - vi) there will be total ban on burning of debris including after seeding or over wood felling in order to encourage natural regeneration of broad leaved species and reduce soil erosion;

- vii) no felling to be undertaken in Ban oak forests and other broad leaved forests other than Sal and Khair;
- viii) planting component in Assisted Natural Regeneration shall include more than 50% seedings of native broad leaved and multipurpose use species other than that of the principal species;
- ix) the removal of Lantana weed to be an integral component of regeneration felling and the removal of Lantana has to be completed before the felling operations commence, so that the regeneration of the felled area is taken up forthwith;
- x) in Khair working circle a minimum of 50 healthy trees per ha. are identified in advance, at least two years prior to the proposed felling in the compartment and labelled as mother trees or standards and these trees are not permitted to be lopped thereafter;
- xi) the size of the compartment to be taken up for regeneration felling in a given year shall not exceed 20 ha.. If any compartment is more than 20 ha. in area, it can be sub-divided into two or more units so as to avoid creation of large gaps in canopy of forests in a given location;
- xii) the felling operations in the adjoining forest area/compartment of the already felled area/compartment be taken up only after five years of regeneration felling in the given compartment and after ensuring that the regeneration is established in the already cleared forest area;
- xiii) adequate soil and moisture conservation measures are to be undertaken in regeneration area;
- xiv) no green fellings are to be carried out in steep slopes and along streams and nallas as per the standard prescription in the Working Plan code and in the forest areas falling under Protection cum Rehabilitation Working Circle;
- xv) State Government shall prepare three separate comprehensive management plans one each for Chil, Sal and Khair respectively covering the entire forest area falling below 1500 MSL incorporating revised set of prescriptions as detailed in this report as one time exercise and after obtaining approval of MoEF&CC, integrate the same with the Working Plans of

respective forest divisions for operational purposes; and

xvi) State Government shall submit an undertaking in the form of an Affidavit before the Hon'ble Supreme Court ensuring sufficient budgetary provisions for undertaking regeneration of the felled area in the financial year following the felling year."

5. The report filed by the CEC was considered by this Court on 12.09.2017 when learned counsel appearing for the State of Himachal Pradesh submitted that he would file an affidavit identifying three working circles in different areas of the State. After this affidavit was filed, we realised that circles covered a large area and the State was directed to file an affidavit giving the areas covered by each circle and also the area of each range/beat in the circle. On perusal of the affidavit it was found that each forest circle comprises of a very large area covering more than one district in the State, which would entail felling of large number of trees. Thereafter, on 04.12.2017, the State was directed to identify two or three ranges where the process of silviculture felling may be carried out, the area of each of those ranges, the number of beats in each range and the area of each beat.

- 6. Affidavit has been filed and in this affidavit it has been pointed out that for felling of Khair (Acacia Catechu) trees, Nurpur Forest Range of Nurpur Forest Division (Dharamshala Forest Circle) of District Kangra, Himachal Pradesh has been Khair wood is used commercially in making katha identified. and, therefore, the wood of this tree is in great demand. It has been proposed that 80% of trees of 25 cms. diameter and above would be felled and remaining 20% of trees of 25 cms. diameter and above would be retained to act as mother trees. It is also stated that no other broad-leaved tree shall be felled. have been given and it is proposed to carry out felling in the year 2018-2019 in an area of 903.14 ha. and an area of 706.30 ha. has been earmarked for silviculture felling for the year 2019-2020.
- 7. As far as Chil Pine (*Pinus Roxburghii*) trees are concerned, the State of Himachal Pradesh has proposed an area of 49.05 ha. for the year 2018-2019 and an area of 23.95 ha. for the year 2019-2020 for silviculture felling in the Bharari Forest Range of Bilaspur Forest Division (Bilaspur Forest Circle) of Bilaspur District of Himachal Pradesh. As far as Chil is concerned, it is

proposed that at least 20-25 mother trees per hectare shall be retained.

- 8. As far as Sal (*Shorea Robusta*) trees are concerned, the range identified is Paonta Forest Range of Paonta Sahib Forest Division (Nahan Forest Circle) of District Sirmour of Himachal Pradesh and an area of 176.01 ha. for the year 2018-2019 and an area of 120.12 ha. for the year 2019-2020 have been earmarked for silviculture felling.
- 9. This Court, with a view to protect the forests, had totally banned felling of trees. As per the affidavits filed by the State of Himachal Pradesh, some amount of silviculture felling is necessary, because if no felling is done then regeneration of trees is not as fast as it should be and once the mature trees die after reaching their maximum life span, there will be very few young trees to replace the old trees. Felling of trees in India has been banned for more than two decades. We are of the view that on an experimental basis we may permit silviculture felling of trees to a very limited extent and such felling should be monitored very carefully to see whether such silviculture felling actually helps in the regeneration of forests or not. We may also note that the

CEC, in its report, has also permitted felling of trees subject to certain conditions. We may further note that the CEC has recommended that the size of the compartment taken up for regeneration in a given area shall not exceed 20 hectares and we reiterate that the State shall be bound by all the conditions laid down by the CEC including the condition that no compartment of more than 20 hectares shall be felled at one go. In addition to the conditions laid down by the CEC, the following conditions shall be strictly complied with by the State of Himachal Pradesh:

- 1. The felling should be done directly by the Forest Department or by the Himachal Pradesh State Forest Corporation and the work of felling should not be handed over or given on contract to any private agency;
- 2. The Forest Department should ensure that videography of each beat where felling is to be done, is done separately at regular intervals to clearly indicate the condition and state of the forest before felling, during felling and after felling;

- 3. As far as Khair trees are concerned, the State shall ensure that at least 25% of mature Khair trees are retained as mother trees and these should be marked and numbered as trees not to be felled, which should be clearly reflected in the videography. The trees to be felled can be marked by a separate colour. The number, size and girth of the trees should be clearly spelt out;
- 4. As far as Chil Pine and Sal trees are concerned, the State shall ensure that at least 40 mature trees are retained per hectare and the other conditions will be the same as applicable to Khair trees;
- 5. In addition to the conditions laid down in the Working Plan and those laid down by the CEC, the State of Himachal Pradesh shall ensure that adequate funds are made available and re-afforestation is done either simultaneously or if it is not possible, immediately after felling is complete in each block of 20 hectares.
- 6. It should also be ensured that these forest areas are kept free from grazing and are protected;

- 7. The State should also ensure that sufficient number of healthy saplings are planted so that there is proper regeneration of the forest.
- 8. This entire programme of experimental silviculture felling shall be done under the supervision and guidance of a two-Member Committee headed by Shri V.P. Mohan, IFS (Retd.), former Principal Chief Conservator of Forests, Himachal Pradesh. The second member of this Committee shall be nominated by the Vice Chancellor, Dr. Y.S. Parmar University of Horticulture and Forestry, Nauni, Solan, Himachal Pradesh. The second Member shall be a Professor of Silviculture.
- 10. The Principal Chief Conservator shall be liable to ensure that felling is done strictly in accordance with the orders of this Court. To this limited extent, the orders dated 12.12.1996 and 14.02.2000 are modified as far as the State of Himachal Pradesh is concerned.
- 11. The Committee should submit its report to this Court every6 months. The State of Himachal Pradesh shall provide all

facilities to the committee including transport and boarding facilities. The remuneration to be paid to the members of the committee shall be determined when the committee submits its report.

- 12. Registrar Judicial to send the copy of this order to Shri V.P. Mohan, IFS (Retd.), former Principal Chief Conservator of Forests, Himachal Pradesh, Sunny Villa, Nigam Vihar, Shimla-171002 and Dr. Y.S. Parmar, University of Horticulture and Forestry, Nauni, Solan, Himachal Pradesh-173203.
- 13. Accordingly, I.A. is disposed of.

.....J. (Madan B. Lokur)

.....J. (Deepak Gupta)

New Delhi February 16, 2018

#### **ANNEXURE 1.2**

#### **CLARIFICATIONS FROM CEC DATED 8 MARCH 2018**

RECORD OF DISCUSSION/ MEETING HELD ON 8.3.2018
IN THE OFFICE OF CEC BETWEEN MEMBER SECRETARY,
CEC AND V. P. MOHAN, FORMER PCCF, HIMACHAL
PRADESH AND HEAD OF TWO MEMBER COMMITTEE
CONSTITUTED BY HON'BLE SUPREMEM COURTIN IA NO.
3840 OF 2014 IN WP(C) NO. 202 OF 1995

Record of discussion/meeting held on 8.3.3018 in the office of the CEC between Member Secretary, CEC and Shri V.P. Mohan, former PCCF, Himachal Pradesh and Head of two Member Committee constituted by the Hon'ble Supreme Court in IA No. 3840 of 2014 in WP (C) No. 202 of 1995

Shri V. P. Mohan, Head of the Two Member Committee appointed by the Hon'ble Supreme Court vide order dated 16.2.2018 in the above mentioned IA had raised doubts on certain recommendations in the Report dated 6.7.2017 of the CEC filed in IA No. 3840 of 2014 in the context of the order dated 16.2.2018 of the Hon'ble Supreme Court and desired to hold discussion with the Member Secretary, CEC. After detailed discussion following clarification on issues raised by Shri V.P. Mohan are communicated:

## 1. On the permissible extent of silvicultural felling approved by the Hon'ble Supreme Court

The Hon'ble Supreme Court vide its order dated 16.2.2018 had approved the proposal of the State of Himachal Pradesh for undertaking felling over an area of 903.4 hectares in Khair, 49.0 hectares in Chil and 176.01 hectares in Sal working circle which has to be executed following the conditions laid down by the CEC including the condition that no compartment of more 20 hectares shall be felled at one go. It is clarified that the unit size of area to be taken up for re-generation felling in a given compartment in a year shall not exceed 20 hectares. If the compartment is more than 20 hectares it can be divided into two or more sub-units so as to avoid creation of large gaps in the forest canopy in a given location. The condition also prescribes that the felling operations in the adjoining forest area/compartment of the already felled area/compartment be taken up only after five years of regeneration/felling in the given compartment and after ensuring that the re-generation is established in the already cleared forest area. During the discussion it has been clarified that the entire block hectares in Khair working circle cannot be taken up for silvicultural felling during 2018-19. The area has to be divided into regeneration blocks of not more than 20 hectares and silvicultural felling operations can be undertaken in one or more than one such block during 2018-19 after leaving the adjoining blocks unfelled. Therefore while preparing the Management Plan the Forest Department of Himachal Pradesh shall keep in mind recommendation Nos.(xi) and (xii) of CEC Report.

Angrith Stilling

#### 2. On the preparation of Management Plans

The Management Plan for the three species that is Khair, Chil and Sal be prepared for the entire Forest Division in which the felling has been approved by the Hon'ble Supreme Court. However the execution of the plan be limited to the forest areas that have been reported by the State Government vide their affidavit dated 13.12.2017 which proposal has been approved by the Hon'ble Supreme Court.

## 3. On the retention and advance marking of mother trees in Khair Working Circle

The number of mother trees to be retained in Khair overlapping working circle be limited to 25% of the mother trees of Khair enumerated in the compartment or 50 number of trees per hectare whichever is less. Also the condition of marking of mother trees two years in advance of silvicultural felling may be followed in respect of fellings that will come up in future years. However, during the first year (i.e. 2018-19) of silvicultural operation, keeping in view of the approval of the Hon'ble Supreme Court for commencement of silvi culture felling in the year 2018-19 itself, the provision of marking two years in advance of silvicultural felling may not be insisted upon. This condition of advance marking of mother trees was imposed by the CEC considering the large scale lopping of Khair trees observed during the field visit.

### 4. On the expiry of currency of Working Plans of Nahan and Paonta Sahib Forest Divisions

In the event of Working Plan for Nahan and Paonta Sahib Forest Division expiring on 31.3.2018, it is agreed that in pursuance of the directions of the Hon'ble Supreme Court pending revision of Working Plan, Management Plan for sal working circle be prepared and got approved from MoEF&CC and further action for silvicultural felling undertaken.

Member Secretary

Dated: 8th March, 2018

#### ANNEXURE 1.3

### STATUS OF ACTION TAKEN AND NEXT STEPS FOR COMPLIANCE OF HON'BLE SUPREME COURT ORDER OF 16th FEBRUARY 2018 INCLUDING CEC DIRECTIONS

#### Abbreviations used:

SC 2.2: Page 2, paragraph 2 of Hon'ble Supreme Court order of 16th February 2018 (TOR) ANNEXURE 1.1

CEC 4 ii): Central Empowered Committee Page 4, Recommendation ii) of Hon'ble Supreme Court order of 16th February 2018 (TOR) ANNEXURE 1.1

ORDERS OF HON'BLE SUPREME COURT AND DIRECTIONS OF CEC	ACTION TAKEN AND NEXT STEPS
1. CITED ORDERS OF HON'BLE SUPRE	ME COURT
SC 2.2 On 12.12.1996, this Court issued directions to a large	No felling of trees is being done in the
number of States.	State of Himachal Pradesh, except for
	those as permitted by Hon'ble
	Supreme Court vide its interim
	directions issued on 12-12-96 viz.
	removal of diseased or dry standing
	/fallen timber, as also trees granted to
	right holders for their bonafide
	personal use.
SC 3.3 In the affidavit filed by the State of Himachal Pradesh, in	An affidavit dated 1st March 2000 was

ORDERS OF HON'BLE SUPREME COURT AND DIRECTIONS OF CEC	ACTION TAKEN AND NEXT STEPS
response to the order dated 14.02.2000, it was pointed out that the	filed by the State of Himachal Pradesh
intention of the State was to resume silviculture operations	in response to order dated 14 <sup>th</sup>
consisting of regeneration, felling and thinning of the trees as per the	February 2000, reiterating earlier
Working Plan duly approved.	prayer of resumption of silvicultural
	operations in accordance with the
	Working Plans approved by Govt of
	India.
<b>SC 3.3</b> It is also pertinent to mention that the Government of India	Vide order dated 12.12.1996, the
vide G.O. dated <b>11.10.2002</b> suspended the Working Plan for various	Hon'ble Supreme Court suspended
States including the State of Himachal Pradesh	felling of trees in all forests except in
	accordance with the working plans of
	the State Government, as approved by
	the Central Government and thereafter
	vide its order dated 14.02.2000 stayed
	the implementation of the decision of

ORDERS OF HON'BLE SUPREME COURT AND DIRECTIONS OF CEC	ACTION TAKEN AND NEXT STEPS
	the State Government till further
	order. Effectively no silvicultural
	felling has been done after
	12.12.1996.
SC 11.10 The Principal Chief Conservator shall be liable to ensure	The entire programme of experimental
that felling is done strictly in accordance with the orders of this	silviculture felling is being got
Court. To this limited extent, the orders dated 12.12.1996 and	executed strictly as per orders dated
14.02.2000 are modified as far as the State of Himachal Pradesh is	16 February 2018 of Hon'ble Supreme
concerned	Court, in case relating to
	Interlocutory Application No 3840
	of 2014 (Application on behalf of State
	of Himachal Pradesh for carrying out
	Silviculture Felling of trees) in Writ
	Petition (Civil) No. 202 of 1995 (under
	Article 32 of the Constitution of India)

ORDERS OF HON'BLE SUPREME COURT AND DIRECTIONS OF CEC	ACTION TAKEN AND NEXT STEPS
	hereinafter called our Terms of
	Reference (TOR).
	Due to interim orders of the Hon'ble
	Supreme Court of India dated
	12.12.96 and 14.02.2000, no felling of
	green trees even as per the provisions
	of the approved Working Plans was
	carried out in the State.
2. BINDING REGULATORY PRE REQUISITES FOR EXPERIME	NTAL SILVICULTURAL FELLING
<b>SC 1.1</b> By means of this application the State of Himachal Pradesh	The Interlocutory Application NO 3840
has prayed that it may be permitted to carry out silviculture felling	of 2014 has been examined. The on-
including thinning and other cultural operations in accordance with	going programme of Experimental
the Working Plan approved by the Government of India up to an	Silvicultural Felling is being
elevation of 1500 metres above Mean Sea Level (MSL) in Chil Pine,	implemented strictly as per TOR.
Khair and broad-leaved forests only.	

ORDERS OF HON'BLE SUPREME COURT AND DIRECTIONS OF CEC	ACTION TAKEN AND NEXT STEPS
<b>CEC 4(i)</b> the permission for silvicultural fellings including thinning	The on-going programme of
in the State of Himachal Pradesh be limited to only three working	Experimental Silvicultural Felling is
circles of Chil, Sal and Khair occurring below 1500 MSL to	being implemented strictly as per TOR.
encourage regeneration of the forests aimed at achieving mixed	
species forests with multi layered canopy having more efficient	
carbon sequestration capability	
CEC 4 ii) no felling of broad leaved species be permitted in the	100 % enumerations of all broad
compartments to be taken up for regeneration fellings of the above	leaved species have been got done in
three working circles or in the miscellaneous/ broad leaved working	19 approved Regeneration plots for
circle irrespective of the recommendations in the Working Plan;	2018-19 and felling of broad leaved
CEC 5 vii) no felling to be undertaken in Ban oak forests and other	species is totally prohibited as laid
broad leaved forests other than Sal and Khair;	down by CEC twice in
	recommendations CEC 4 ii) and CEC
	5 vii) This stipulation will be complied
	with strictly and eventually monitored

ORDERS OF HON'BLE SUPREME COURT AND DIRECTIONS OF CEC	ACTION TAKEN AND NEXT STEPS
	through a Standard Operating
	Procedure.
CEC 5 xi) the size of the compartment to be taken up for	The Monitoring Committee has
regeneration felling in a given year shall not exceed 20 ha. If any	approved only those Regeneration
compartment is more than 20 ha. in area, it can be sub-divided into	plots which have been identified
two or more units so as to avoid creation of large gaps in canopy of	strictly in conformity with this pre
forests in a given location;	condition and (Annexure 2.2) forms
	an abstract of 31 Regeneration plots
	approved by us. (19 plots for working
	in 2018-19 and 12 plots with Lantana
	to be worked in 2019-20.
CEC 5 xii) the felling operations in the adjoining forest	This stipulation is not applicable as
area/compartment of the already felled area/ compartment be taken	fellings are being permitted for the
up only after five years of regeneration felling in the given	first time after the ban was imposed
compartment and after ensuring that the regeneration is established	on 12.12.1996. However, this

ORDERS OF HON'BLE SUPREME COURT AND DIRECTIONS OF CEC	ACTION TAKEN AND NEXT STEPS
in the already cleared forest area	stipulation will be complied in future.
CEC 5 xiv) no green fellings are to be carried out in steep slopes and	Our Guidelines for Markings
along streams and nallas as per the standard prescription in the	(Annexure 2.4) clearly prohibit such
Working Plan code and in the forest areas falling under Protection	green fellings and Committee will
cum Rehabilitation Working Circle;	verify the compliance of this
	requirement during post markings
	inspections of each Regeneration plot.
	None of the areas approved by us falls
	under Protection cum Rehabilitation
	Working Circle.
CEC 5 xv) State Government shall prepare three separate	HPFD has already completed the
comprehensive management plans one each for Chil, Sal and Khair	process of making 3 Management
respectively covering the entire forest area falling below 1500 MSL	Plans as initially stipulated in TOR
incorporating revised set of prescriptions as detailed in this report as	.After-obtaining approval of
one time	MOEF&CC, these plans will be

ORDERS OF HON'BLE SUPREME COURT AND DIRECTIONS OF CEC	ACTION TAKEN AND NEXT STEPS
exercise and after obtaining approval of MoEF&CC, integrate the	integrated with the Working Plans of
same with the Working Plans of respective forest divisions for	respective forest divisions for
operational purposes	operational purposes.
<b>SC 8.9</b> We are of the view that on an experimental basis we may	The Monitoring Committee has
permit silviculture felling of trees to a very limited extent and such	ensured that all safeguards are in
felling should be monitored very carefully to see whether such	place and will closely monitor its
silviculture felling actually helps in the regeneration of forests or not.	implementation. After fellings are over,
	we will assess status of regeneration of
	forests.
SC 8.9 We may also note that the CEC, in its report, has also	31 Regeneration plots have been
permitted felling of trees subject to certain conditions. We may	approved during 2018-19. In Nurpur
further note that the CEC has recommended that the size of the	Forest Range, the total area of
compartment taken up for regeneration in a given area shall not	Compartment C-1 Punder being 20.23
exceed 20 hectares and we reiterate that the State shall be bound by	ha., it was not advisable to restrict it
all the conditions laid down by the CEC including the condition that	to 20 ha. It is shown as Regeneration

ORDERS OF HON'BLE SUPREME COURT AND DIRECTIONS OF CEC	ACTION TAKEN AND NEXT STEPS
no compartment of more than 20 hectares shall be felled at one go.	plot no N/2 in (Annexure 2.2). All
In addition to the conditions laid down by the CEC, the following	other plots are less than 20 ha.
conditions shall be strictly complied with by the State of Himachal	
Pradesh:	
<b>SC 9.1</b> The felling should be done directly by the Forest Department	The work of felling operations will be
or by the Himachal Pradesh State Forest Corporation and the work	undertaken <b>only</b> by the H.P. State
of felling should not be handed over or given on contract to any	Forest Development Corporation Ltd.
private agency	
SC 9.2 The Forest Department should ensure that	Videography of each Regeneration plot
Videography of each beat where felling is to be done, is done	before felling has been done and being
separately at regular intervals to clearly indicate the condition and	included with our First Six Monthly
state of the forest before felling, during felling and after felling.	Report as follows:
	DVD 1: Inspections of Bharari and
	Paonta Forest Range
	DVD 2: Inspections of Nurpur Forest

ORDERS OF HON'BLE SUPREME COURT AND DIRECTIONS OF CEC	ACTION TAKEN AND NEXT STEPS
	Range
	Videography during felling and after
	felling has been planned already.
<b>SC 11.8</b> This entire programme of experimental silviculture felling	Dr D.R. Bhardwaj, Professor,
shall be done under the supervision and guidance of a two-Member	Department of Silviculture and Agro
Committee headed by Shri V.P. Mohan, IFS (Retd.), former Principal	forestry, was nominated as a second
Chief Conservator of Forests, Himachal Pradesh. The second	Member, on 24 February 2018 by Vice
member of this Committee shall be nominated by the Vice	Chancellor, Dr. Y.S. Parmar University
Chancellor, Dr. Y.S. Parmar University of Horticulture and Forestry,	of Horticulture and Forestry, Nauni,
Nauni, Solan, Himachal Pradesh. The second Member shall be a	Solan. We have supervised and
Professor of Silviculture	rendered guidance all through as per
	our mandate in close collaboration
	with HPFD.
SC 11.11 The Committee should submit its report to this Court	The Monitoring Committee has
every 6 months. The State of Himachal Pradesh shall provide all	submitted its First Six Monthly Report

ORDERS OF HON'BLE SUPREME COURT AND DIRECTIONS OF CEC	ACTION TAKEN AND NEXT STEPS	
facilities to the committee including transport and boarding facilities.	relating to our preparatory work from	
The remuneration to be paid to the members of the committee shall	16 <sup>th</sup> February to 15th August 2018.	
be determined when the committee submits its report.	The State of Himachal Pradesh and	
	HPFD have provided all facilities to the	
	Committee.	
SC 12.12 Registrar Judicial to send the copy of this order to Shri	Registrar Judicial had sent the copy of	
V.P.Mohan, IFS (Retd.), former Principal Chief Conservator of	the Order on 23rd February 2018 to	
Forests, Himachal Pradesh, Sunny Villa, Nigam Vihar, Shimla-	V.P. Mohan and likewise to Dr. Y.S.	
171002 and Dr. Y.S. Parmar, University of Horticulture and	Parmar, University of Horticulture and	
Forestry, Nauni, Solan, Himachal Pradesh-173203.	Forestry, Nauni, Solan, Himachal	
	Pradesh-173230.	
3. SPECIES SPECIFIC STIPULATIONS; KHAIR, CHIL, SAL AND EUCALYPTUS		
SC 7.6 Affidavit has been filed and in this affidavit it has been	HPFD in its Affidavit dated 13	
Amuavit has been med and in this amuavit it has been	III III III III AIIIUAVII UAIEU 13	
pointed out that for felling of Khair (Acacia catechu) trees, Nurpur	December 2017, proposed that at least	
Forest Range of Nurpur Forest Division (Dharamshala Forest Circle)	20% of trees of 25 cms. diameter and	

ORDERS OF HON'BLE SUPREME COURT AND DIRECTIONS OF CEC	ACTION TAKEN AND NEXT STEPS
of District Kangra, Himachal Pradesh has been identified. Khair	above will be retained as mother trees
wood is used commercially in making <i>katha</i> and, <u>therefore</u> , the wood	per hectare. However, Hon'ble
of this tree is in great demand. It has been proposed that 80% of	Supreme Court/ CEC have ordered
trees of 25 cms. diameter and above would be felled and remaining	that trees to be retained should be 25
<b>20%</b> of trees of 25 cms. diameter and above would be retained to act	% of the enumerated trees or 50 trees
as mother trees. It is also stated that no other broad-leaved tree shall	per hectare whichever less is. Our
be felled. Details have been given and it is proposed to carry out	Guidelines for Markings (Annexure
felling in the year 2018-2019 in an area of 903.14 ha. and an area of	2.4) specify very clearly that no broad-
706.30 ha. has been earmarked for silviculture felling for the year	leaved tree is to be marked for felling.
2019-2020.	
<b>CEC 4 v)</b> rotation age of Khair be kept at 30 years with minimum dia	Being complied and stipulated in
of 25 cms. at breast height;	Guidelines for Markings (Annexure
	<b>2.4)</b> under Paragraph 1.2.
CEC 5. x) in Khair working circle a minimum of 50 healthy trees per	CEC has already clarified in
ha. are identified in advance, at least two years prior to the proposed	(Annexure 1.2) that this stipulation is

ORDERS OF HON'BLE SUPREME COURT AND DIRECTIONS OF CEC	ACTION TAKEN AND NEXT STEPS
felling in the compartment and labeled as mother trees or standards	not applicable for 2018-19 markings
and these trees are not permitted to be lopped thereafter;	in Khair forests.
<b>SC 10.3</b> As far as Khair trees are concerned, the State shall ensure	Our Guidelines for Markings
that at least 25% of mature Khair trees are retained as mother trees	(Annexure 2.4) specify very clearly
and these should be marked and numbered as trees not to be felled,	that in Khair forests, number of
which should be clearly reflected in the videography. The trees to be	mother trees to be retained should be
felled can be marked by a separate colour. The number, size and	25 % of the enumerated trees or 50
girth of the trees should be clearly spelt out	trees per hectare whichever is less.
	Mother trees duly numbered will have
	white bands and during videography,
	it will be recorded clearly. The size and
	girth are given in the enumeration
	results.
3.2 SAL	
<b>SC 8.8</b> As far as Sal (Shorea robusta) trees are concerned, the range	Has been complied and four
identified is Paonta Forest Range of Paonta Sahib Forest Division	Regeneration plots P/1 2018-19 to

ORDERS OF HON'BLE SUPREME COURT AND DIRECTIONS OF CEC	ACTION TAKEN AND NEXT STEPS
(Nahan Forest Circle) of District Sirmour of Himachal Pradesh and	P/4 2018-19 have been approved as
an area of 176.01 ha. for the year 2018-2019 and an area of 120.12	shown in( <b>Annexure 2.2</b> from the
ha. for the year 2019-2020 have been earmarked for silviculture	Compartments approved for felling
felling.	under Experimental Silviculture
	Felling during 2018-19.
SC 10.4 As far as Chil Pine and Sal trees are concerned, the State	Our Guidelines for Markings
shall ensure that at least 40 mature trees are retained per hectare	(Annexure 2.4) specify very clearly for
and the other conditions will be the same as applicable to Khair	retention of 40 mature trees per
trees;	hectare and Committee will verify
	compliance of this stipulation while
	approving markings.
CEC 4 iv) rotation of Sal and Chil to be 120 years and are worked	Being complied and stipulated in
under irregular shelter wood system	Guidelines for Markings (Annexure
	<b>2.4)</b> under Paragraph 1.2
3.3 CHIL (CHIRPINE)	
<b>SC 7.7</b> As far as Chil Pine ( <i>Pinus roxburghii</i> ) trees are concerned, the	HPFD in its Affidavit dated 13 <sup>th</sup>

ORDERS OF HON'BLE SUPREME COURT AND DIRECTIONS OF CEC	ACTION TAKEN AND NEXT STEPS
State of Himachal Pradesh has proposed an area of 49.05 ha. for the	December 2017, proposed that at least
year 2018-2019 and an area of 23.95 ha. for the year 2019-2020 for	20-25 mother trees per hectare shall
silviculture felling in the Bharari Forest Range of Bilaspur Forest	be retained in Chil forests.
Division (Bilaspur Forest Circle) of Bilaspur District of Himachal	
Pradesh. As far as Chil is concerned, it is proposed that at least 20-	
25 mother trees per hectare shall be retained.	
SC 10.4 As far as Chil Pine and Sal trees are concerned, the State	Our Guidelines for Markings Annexure
shall ensure that at least 40 mature trees are retained per hectare	2.4 specify very clearly that 40 mature
and the other conditions will be the same as applicable to Khair	are retained per hectare in Chil Pine
trees;	and Sal forests. We will monitor
	compliance while approving markings
	in end August 2018
CEC 4 iv) rotation of Sal and Chil to be 120 years and are worked	Being complied.
under irregular shelter wood system	
3.4 EUCALYPTUS	
CEC 4 iii) 764 ha. of Eucalyptus trees proposed for felling as per	The Monitoring Committee in

ORDERS OF HON'BLE SUPREME COURT AND DIRECTIONS OF CEC	ACTION TAKEN AND NEXT STEPS
Working Plan prescriptions be permitted to be felled and the same	consultation with HPFD has now
area regenerated with native broadleaved species;	recommended that on Experimental
	basis, 50 ha. of Eucalyptus (10 ha. in
	Paonta Forest Division, and 40 ha. in
	Nahan Forest Division) may be
	approved for felling during 2018-
	19.Felling of the Eucalyptus is to be
	completed before 15th January 2019.
4 ADEQUATE BUDGETARY PROVISION FOR	REAFFORESTATION
CEC 5 xvi) State Government shall submit an undertaking in the	As per directions of Monitoring
form of an Affidavit before the Hon'ble Supreme Court ensuring	Committee, all field operations are
sufficient budgetary provisions for undertaking regeneration of the	being carried out like enumerations
felled area in the financial year following the felling year."	and markings in approved
<b>SC 10.5</b> In addition to the conditions laid down in the Working Plan	Regeneration plots. An assurance has
and those laid down by the CEC, the State of Himachal Pradesh	been given by HPFD that adequate
shall ensure that adequate funds are made available and re-	budgetary provisions will be made for

ORDERS OF HON'BLE SUPREME COURT AND DIRECTIONS OF CEC	ACTION TAKEN AND NEXT STEPS
afforestation is done either simultaneously or if it is not possible,	undertaking regeneration of felled
immediately after felling is complete in each block of 20 hectares	areas.
	It may also be pointed out that on our
	request, approval from AG (A & E)
	Himachal Pradesh has been conveyed
	to Additional Chief Secretary (
	Finance) on 16th July 2018 for
	opening of a new budget head as
	follows;
	2406- Forestry and Wild Life
	01- Forestry
	102- Social and Farm Forestry
	39-Experimental Silviculture
	Felling.
5. ENSURING ENABLING CONDITIONS FOR REGENERATION	
CEC 4 vi) there will be total ban on burning of debris including after	Instructions have already been given.

ORDERS OF HON'BLE SUPREME COURT AND DIRECTIONS OF CEC	ACTION TAKEN AND NEXT STEPS
seeding or over wood felling in order to encourage natural	Compliance will be monitored by
regeneration of broad leaved species and reduce soil erosion	Committee after felling operations are
	over.
CEC 5viii) planting component in Assisted Natural Regeneration	Compliance will be monitored during
shall include more than 50% seedlings of native broad leaved and	planting. The Monitoring Committee is
multipurpose use species other than that of the principal species;	monitoring nursery stocks to ensure
	compliance of this stipulation.
CEC 5 ix) the removal of Lantana weed to be an integral component	12 Regeneration Plots heavily infested
of regeneration felling and the removal of Lantana has to be	with Lantana are being cleared
completed before the felling operations commence, so that the	effectively before October 2018.
regeneration of the felled area is taken up forthwith	Compliance will be monitored by the
	Committee.
CEC 5xiii) adequate soil and moisture conservation measures are to	Effective interventions for in-situ
be undertaken in regeneration area	water conservation have been made
	compulsory.

ORDERS OF HON'BLE SUPREME COURT AND DIRECTIONS OF CEC	ACTION TAKEN AND NEXT STEPS
<b>SC 9.6</b> It should also be ensured that these forest areas are kept free	Effective closure of Regeneration plots
from grazing and are protected;	with 5 strand barbed wire and RCC
	pole fence has been made compulsory.
<b>SC 9.7</b> The State should also ensure that sufficient numbers of	The Committee is monitoring nursery
healthy saplings are planted so that there is proper regeneration of	stocks. It may be underlined that
the forest.	during monsoon planting season in
	2019, it is being ensured that only tall
	nursery plants of broad-leaved species
	raised in poly bags of 15x9 inches
	having minimum 4 feet height will be
	used for supplementing natural
	regeneration.

#### **ANNEXURE-1.4**

#### CHRONOLOGY OF PREPARATORY MEETINGS AND FIELD VISITS

DATE	ACTIVITY
FERRIIA	RY 2018 -PREPARATORY MEETINGS
I BBROA	RI 2010 -I REI MRITORI MEETINGO
19	Orders dated 16 February 2018 Of Hon'ble Supreme Court delivered. by
	PCCF HP
20	First meeting with Additional Chief Secretary (Forests).
MARCH	2018- MEETINGS AT SHIMLA/OUTSTATION AND FIELD VISIT
1	First Consultative Meeting with HPFD.
7	Journey: Shimla- New Delhi -By road
	AN: Meeting with Dr Nagin Nanda, Member Technical, NGT, New Delhi.
8	FN: Meeting with Shri Sidhanta Dass, I.F.S., Director General Forests,
	MOEF&CC, New Delhi.
	Meeting with Amarnatha Shetty, Member Secretary, CEC, New Delhi.
	A.N:
	Formal meeting with Shri Ram Kumar Choubey,Registrar, Hon'ble Supreme
	Court of India, New Delhi.
9	Journey: New Delhi –Shimla By road.

12	Second Consultative Meeting with HPFD to finalize Criteria for selection of
	Regeneration Plots for carrying out Experimental Silvicultural Fellings.
13	Meeting in Aryabhatta Geo-informatics and Space Application Centre, Shimla
	(AGiSAC).
15	Hon'ble Forest Minister, HP. briefed about the scope of work of Monitoring
	Committe and he directed the officers of HPFD to provide all possible
	assistance to the Committee.
21	Courtesy call on His Excellency, Governor HP, to apprise him about the work
	of Monitoring Committee.
22	Journey Shimla to Nurpur.
	Evaluated Data Sheets for 24 Regeneration Plots and finalized the plan for
	field visits.
23	Inspections of 3 Regeneration Plots and categorization of 24 Plots in three
	categories.
24	Journey Nurpur to Shimla.
30	Journey Shimla to Chandigarh. Met PCCF Punjab and PCCF Haryana to plan
	field visits to Khair forests of two States.
31	Journey Chandigarh to Shimla.
	APRIL 2018
3	Third Consultative Meeting with HPFD to share findings from the first field

	visit to Nurpur and how 24 Regeneration Plots have been categorized in
	Green and Red Categories.
6	Journey Shimla to Bilaspur Reviewed planning for inspection and proceeded
	to Berthin
7	F.N: Inspection of Forest Nursery at Jhandutta
	Ispection of 3 Regeneration Plots
	Night stay at Berthin
8	Berthin to Shimla
9	Meeting with Shri Vineet Chawdary, IAS, Chief Secretary HP to review
	progress of Experimental Silvicultural Felling in HP
15	Shimla-Pinjore-Inspected Lalgarh, a permanent nursery of Haryana Forest
	Department and plantation areas.
	A.N: Inspected Panjab Forest Department plantations and nursery.
	71.11. Hispected Fanjas Forest Department plantations and nursery.
	Night halt- Chandigarh.
16	Chandigarh-Nahan-Paonta-Rajban- Held briefing meeting in AN for planning
10	
	field inspections.Inspected two Regeneration plots and approved only one
	plot.
17	Field inspections of 3 Regeneration plots, and issued Guidelines for next
	steps.

18	Rajban to Shimla- Inspected nursery enroute at Tokion.
19	Applicability of drone mapping reviewed in a Presentation made by the firm already working for Shimla forests. It was decided that mapping through
	drone was not feasible for Nurpur forest areas.
21	Shimla to Nauni-Solan and back. Made Presentation on the Experimental
	Silvicultural Fellings in HP in Dr Y.S.Parmar University of Horticulture and
	Forestry, Nauni.
23	Shimla to Nurpur
	Evaluated Data Sheets for 24 Regeneration Plots and finalized the plan for
	field visits.
24	Inspections of Regeneration Plots and re categorization of 24 Plots in two
	categories
25	Inspections of Regeneration Plots
26	Journey Nurpur to Shimla.
28	Shimla to Chail and back. Reviewed course content of Forest Guards on
	enumerations and other field activities.
	MAY 2018
2	Met Hon'ble Chief Minister HP to apprise him about the Experimental
	Silvicultural Fellings in HP.
	Had second meeting with Chief Secretary to update him on findings of field

	inspections.
3	Fourth Consultative Meeting with HPFD to finalize Enumeration Guidelines to carry out 100 % Enumerations in approved Regeneration Plots for carrying out Experimental Silvicultural Fellings
10	Met Hon'ble Forest Minister HP to apprise him about the results of field inspections under Experimental Silvicultural Fellings in HP and the need to post DDR rangers in three Forest Ranges and post IFS officers in Nurpur and Paonta Divisions
17	Made a Power Point Presentation to Hon'ble Chief Minister HP on "PROCESS AND METHODOLOGY EVOLVED BY THE MONITORING COMMITTEE CONSTITUTED BY HON'BLE SUPREME COURT".
19	Had third meeting with Chief Secretary to reiterate the need to post DDR Rangers in three Forest Ranges and post IFS officers in Nurpur and Paonta Divisions.
21	Shimla to Chandigarh and back. Meeting with PCCF (HOFF) Haryana regarding Khair marking rules.
28	Shimla to Sundernagar. Made a Power Point Presentation in Forest Training Institute to Forest Ranger Trainees on "PROCESS AND METHODOLOGY EVOLVED BY THE MONITORING COMMITTEE CONSTITUTED BY HON'BLE SUPREME COURT".

	JUNE 2018
18	Consultative Interaction with HPFD to finalize Guidelines for Silvicultural
	Markings.
	JULY 2018
18	Journey Shimla to Chandigarh. Meeting with PCCF Punjab on the present
	status of silvicultural operations in Punjab.
19	Chandigarh to Shimla.
	AUGUST 2018
	Finalization of First Six Monthly Report and all Annexures,
	Printing, Binding and completion of all documents.
	Submission of Vol.1 and Vol. 2 of the Report along with DVD.

#### ANNEXURE-1.5

#### DOCUMENTS EXAMINED BY THE COMMITTEE

SR. NO	TITLE /PARTICULARS
	LEGAL MATTERS
1.	Interlocutory Application No 3840 of 2014 in Writ Petition (Civil) NO 202 of
	1995.
2.	Affidavit filed by the State of Himachal Pradesh on 1.03.2000, in response to
	the order dated 14.02.2000 of Hon'ble Supreme Court
3.	Orders issued by Hon'ble Supreme Court in WRIT PETITION (CIVIL) NO. 202 OF 1995
	on 12.12.1996 imposing ban on green fellings in a large number of States.
4.	Government of India orders dated 11.10.2002 suspending the Working Plan
	for various States including the State of Himachal Pradesh
	TECHNICAL MATTERS
5.	Study on Impact of Ban on Green Felling on Biophysical Status of Forest in
0.	Context to Production Prescribed in Working plans Vis-a-Vis Actual
	Production from Chir Forest of Uttarakhand"
	Production from Cini Porest of Ottaraknand
6.	Himachal Pradesh Forest Sector Review by International Institute of
	Environment and Development IIED (UK) in collaboration with HPFD -June
	2000
7.	Ecosystem Services Valuation and Accounting of Himachal Forests by Indian
	Institute of Forest Management Bhopal- September 2016,

8.	National Working Plan Code-2014 Ministry of Environment, Forests and
	Climate Change, Government of India
9.	HPFD-Instructions Manual for Monitoring and Evaluation of Plantations and
	Field Works-2018
10.	HPFD-Manual of Forest Fire Prevention and Control -2018
11.	Standard Operating Procedure( SOP) for Growing Tall Polybag Plants in
	Forest Nurseries
12.	Revised Working Plan for Nahan and Paonta Sahib Forest Divisions (1998-99
	to 2012-13) By Vineet Kumar IFS.
13.	Revised Working Plan for Nurpur Forest Division
	( 2012-2013 to 2021-2022) By J.C.Katoch, HPFS
14.	Working Plan for the forests of Bilaspur Forest Division
	(2012-13 to 2027-28) by D. R. Kaushal IFS.

#### **ANNEXURE-1.6**

## EXPERIMENTAL SILVICULTURAL FELLINGS IN HIMACHAL PRADESH PROCESS AND WORKPLAN- FEBRUARY TO AUGUST 2018

MONTH	FEB	MAI	RCH	AP	APRIL		MAY		JUNE		JULY		AUGUST	
WEEK No.	8-9	10-11	12-13	14-15	16-17	18-19	20-22	23-24	25-26	27-28	29-31	32-33	34-36	
	STA	GE 1 - S'	TART U	P / CON	NCEPTU	JALIZA'	TION O	F THE	ΓASK					
1.1SUPREME COURT														
ORDERS ISSUED														
1.2 MEETING WITH PCCF														
AND ACS FORESTS														
1.3 PROCESS														
CONCEPTUALIZATION														
1.4 FIRSTCONSULTATIVE														
MEETING TALLAND 1/1/18														
1.5 SYNTHESIS OF ISSUES														
FOR CLARIFICATION														
WITH CEC														

MONTH	FEB	MAI	ARCH APRI		RIL	MAY		JUNE		JULY		AUGUST	
WEEK No.	8-9	10-11	12-13	14-15	16-17	18-19	20-22	23-24	25-26	27-28	29-31	32-33	34-36
1.6 ISSUE COMPLIANCE													
ORDERS ON													
CLARIFICATIONS FROM													
CEC													
1.7 SECOND MONITORING													
COMMITTEE MEETING													
12/3/18													
1.8 COMPLETE													
INFORMATION GAPS OF													
ANALYTICAL FRAME													
WORK													
1.9 ISSUE DIRECTIONS TO													
STAFF FOR SITE													
SELECTION													
1.10 GIS INPUTS AFTER													
AGISAC CENTRE VISIT													

MONTH	FEB	MAI	RCH	APRIL		MA	AY	JU	NE	JULY		AUGUST	
WEEK No.	8-9	10-11	12-13	14-15	16-17	18-19	20-22	23-24	25-26	27-28	29-31	32-33	34-36
S	TAGE	TWO- F	LANNI	NG FOI	R SITE I	INSPEC	TION B	Y COM	MITTE	D			
2. COMMITTEE FIELD													
VISITS													
2.1 NURPUR DIVISION													
2.2 BILASPUR DIVISION													
2.3 PAONTA DIVISION													
2.4 COMPLETE THREE SPECIAL MANAGEMENT PLANS													
2.5 COMPLETE 100% ENUMERATIONS													
2.6 COMPLETION OF MARKINGS													
2.7 SUPPLY LIST OF NURSERIES													
FOR THREE AREAS													

MONTH	FEB	MAl	RCH	API	PRIL MAY		JU	NE	JΓ	JLY	AUG	AUGUST	
WEEK No.	8-9	10-11	12-13	14-15	16-17	18-19	20-22	23-24	25-26	27-28	29-31	32-33	34-36
2.8 ESTIMATING LANTANA													
ERADICATION COSTS													
STA	AGE TI	HREE - 1	POST M	IARKIN	GS SIT	E INSPE	ECTION	BY CO	MMITT	TEE			
3.1 NURPUR FOREST													
DIVISION													
3.2 BILASPUR FOREST													
DIVISION													
3.3 PAONTA FOREST													
DIVISION													
3.4 REVISE MARKINGS													
WHERE EVER ORDERED													
BY COMMITTEE													
DR M.R. BH		V.	P.MOH.	AN					13.3.20	)18			

## EXPERIMENTAL SILVICULTURAL FELLINGS IN HP CRITERIA FOR SELECTION OF REGENERATION PLOT OF 20 HA

1. DATE OF INSPECTION:	
2. SERIAL NO OF REGENERATION PLOT:	
3. AREA OF REGENERATION PLOT:	

NO	CRITERIA	DETAILS
	BASIC DATA /LOC	CALITY FACTORS
1	RANGE/BEAT/COMPARTMENT/	
	NAME OF FOREST	
2	DOCUMENTING EXISTING	
	STATUS OF CHF-PRESCRIBED	
	YEAR OF FELLING AS PER WP	
3	SILVICULTURE SYSTEM AND	
	WORKING CIRCLE	
4	AREA OF COMPARTMENT	
	5.1 TOPOGRAPHY-	
	ASPECT/EASE OF TERRAIN	
5	5.2 ROAD DISTANCE FROM FRH	
	LINK ROAD DISTANCE	
	DISTANCE ON FOOT	
6	RAINFALL	
7	FIRES VULNERABILITY	
8	CLOSENESS TO NURSERY	
9	INTENSITY OF LANTANA AND	
	INVASIVE SPP	
10	DEMARCATION ON THE	

NO	CRITERIA	DETAILS
	GROUND AND FENCING	
	STOCKING AND REGE	NERATION FACTORS
11	FLORISTIC COMPOSITION	
12	OCULAR ESTIMATE OF	
	STOCKING-DENSE/VERY DENSE	
13	SITE QUALITY AS PER WP	
14	PREPONDERANCE OF MATURE/	
	OVER MATURE TREES	
15	OVERALL REGENERATION	
	STATUS	
16	RECORDING GEO REFERENCES	
	WITH THE HELP OF GPS	
17	VISUAL GROWING STOCK	
	ASSESSMENT AND PROPOSED	
	REMOVALS FROM THE AREA.	
18	ANY OTHER SITE INFORMATION	
19	NAME/DESIGNATION OF	
	RECORDER	

#### **ANNEXURE-2.2**

#### ABSTRACT OF APPROVED REGENERATION PLOTS

#### **BY MONITORING COMMITTEE FOR 2018-19**

Sr. No.	CODE	FOREST NAME	COM. AREA (Ha)	REGEN. PLOT AREA (Ha)	LEFT OUT AREA	LAT./ LONG.	INSPE CTION DATE	APPROVAL STATUS				
1	2	3	4	5	6	7	8	9				
СН	CHIL-BHARARI RANGE, BILASPUR FOREST DIVISION (3 APPROVED UNDER IRREGULAR SHELTERWOOD SYSTEM)											
1	B/1- 2018-19	C-14(b) KALLAR	9.50	9.50	0	31° 27' 4.305" N 76° 39' 55.769" E 31° 27' 6.120" N 76° 39' 50.850" E 31° 27' 19.573" N 76° 39' 46.541" E 31° 27' 19.120" N 76° 39' 37.645" E	7.4.2018	<b>PBI</b> - APPROVED FOR SEEDING FELLING IN 2018-19				
2	B/2-2018-19	C-10 NIHARI	23.20	20.00	3.20	31° 28' 48.860" N 76° 40' 16.385" E 31° 29' 0.324" N 76° 40' 16.852" E 31° 29' 7.764" N 76° 40' 2.676" E 31° 28' 50.594" N 76° 39' 54.508" E	7.4.2018	<b>PB I</b> -APPROVED FOR SEEDING FELLING IN 2018-19				
3	B/3-2018-19	C-5(a) TIAMLOO	16.35	16.35	0	31° 29' 57.782" N 76° 38' 51.977" E 31° 29' 58.628" N 76° 39' 7.054" E 31° 30' 11.415" N 76° 39' 5.775" E 31° 30' 8.993" N 76° 38' 52.677" E	7.4.2018	PB III -APPROVED FOR THINNINGS VERY SELECTIVELY IN 2018-19				
Т	OTAL	B/1 TO B/3	49.05	45.85	3.20							

Sr. No.	CODE	FOREST NAME	COM. AREA (Ha)	REGEN. PLOT AREA (Ha)	LEFT OUT AREA	LAT./ LONG.	INSPE CTION DATE	APPROVAL STATUS				
1	2	3	4	5	6	7	8	9				
	AVERAGI	E AREA	16.35	16.28								
	SAL- PAONTA RANGE , PAONTA FOREST DIVISION (4 APPROVED UNDER SHELTERWOOD SYSTEM)											
4	P/1-2018-19	C-6 RF RAJBAN	30.96	20.00	10.96	30° 31' 41.585" N 77° 39' 37.318" E 30° 31' 52.792" N 77° 39' 45.648" E 30° 32' 6.108" N 77° 39' 33.606" E 30° 31' 59.498" N 77° 39' 26.284" E	16.4.18	<b>PB 1-</b> APPROVED FOR SILVICULTURAL WORKS IN 2018-19				
		C-7 RF RAJBAN	19.87	NA	19.87	NA	16.4.18	PB 1-REJECTED -NOT IN CONFORMITY WITH CEC GUIDELINES				
5	P/2-2018-19	C-14 KUKRON	45.00	20.00	25.00	30° 30' 6.339" N 77° 37' 15.889" E 30° 30' 14.713" N 77° 37' 14.149" E 30° 30' 12.550" N 77° 37' 41.426" E 30° 30' 23.176" N 77° 37' 31.217" E	17.4.18	<b>PB 1</b> -APPROVED FOR FELLING IN 2018-19				
6	P/3-2018-19	C-10 RF RAJBAN	30.18	8.57	21.61	30° 31' 10.856" N 77° 39' 21.306" E 30° 31' 12.203" N 77° 39' 13.361" E 30° 30' 55.157" N 77° 39' 11.520" E 30° 30' 53.932" N 77° 39' 14.947" E	17.4.18	PB 1-APPROVED FOR FELLING IN 2018-19				
7	P/4-2018-19	C-7 RF GORAKH PUR	50.00	20.00	30.00	30° 30' 43.816" N 77° 38' 41.190" E 30° 30' 30.521" N 77° 38' 48.754" E	17.4.18	<b>PB IV</b> -APPROVED FOR FINAL FELLING IN 2018-19				

			COM	REGEN.			INSPE	
Sr.	CODE	EODECTNAME	COM.		LEFT	LAT./		A DDD OVAT CEATUS
No.	CODE	FOREST NAME	AREA	PLOT AREA	OUT	LONG.	CTION	APPROVAL STATUS
			(Ha)	(Ha)	AREA		DATE	
1	2	3	4	5	6	7	8	9
						30° 30' 38.678" N		
						77° 39' 6.174" E 30° 30' 43.005" N		
						77° 39' 3.219'' E		
T	OTAL	P/1 TO P/4	176.01	68.57	107.44			
AVE	RAGE ARE	E <b>A</b>	35.20	17.14				
KHA	IR- NURPUI	R RANGE , NURP	UR FORE	ST DIVISION	(12 APPRO	VED FOR SEI	ECTION	FELLING UNDER KHAIR
	1111 110111 01					CLE IN 2018-19		
			OVERLA	ITING WORL	MING CIRC	32° 16' 43.663" N		DD W GUIL GUIL WED WOOD
						75° 57' 40.440" E		PB II- CHIL SHELTER WOOD
						32° 16' 50.189" N		WORKING CIRCLE
						75° 57' 49.662" E		
8	N/1-2018-19	C 3 C-TATTAL	59.08	20.00	39.08	32° 17' 0.647'' N 75° 57' 31.864'' E	23.3.18	
						32° 17' 4.873" N		
						75° 57' 39.085'' E		
						32° 14' 56.987'' N		PLANTATION WORKING
						76° 1' 4.406" E		CIRCLE
						32° 15' 5.079'' N 76° 1' 0.672'' E		CIRCLE
						32° 15' 8.672" N		
9	N/2-2018-19	C-1 PUNDER	20.23	20.23	0	76° 1' 19.360" E	23.3.18	
						32° 15' 3.154" N		
						76° 1' 27.793" E		
						32° 15' 11.601" N		PB I- CHIL SHELTER WOOD
						76° 1' 14.497" E		WORKING CIRCLE
						32° 15' 17.498" N		WORKING CIRCLE
						76° 1' 19.555" E 32° 15' 22.406" N		
10	N/3-2018-19	C-2 PUNDER	51.39	20.00	31.39	76° 0' 52.874" E	23.3.18	
						32° 15' 27.831" N		
						76° 1' 4.569'' E		
						32° 22' 17.004" N		DD III CHIII CHELTED WOOD
11	N/4-2018-19	C1 PANIARU	12.55	12.55	0	75° 57' 24.336" E	24.4.18	PB III- CHIL SHELTER WOOD
11	14,4-2010-17	CTTTMM	12.55	12.55	0	32° 22' 15.136" N	27.7.10	WORKING CIRCLE

Sr. No.	CODE	FOREST NAME	COM. AREA (Ha)	REGEN. PLOT AREA (Ha)	LEFT OUT AREA	LAT./ LONG.	INSPE CTION DATE	APPROVAL STATUS
1	2	3	4	5	6	7	8	9
						75° 57' 37.408" E 32° 22' 24.262" N 75° 57' 41.317" E 32° 22' 25.055" N 75° 57' 23.245" E		
12	N/5-2018-19	C2 PANIARU	14.16	14.16	0	32° 21' 52.204" N 75° 57' 26.827" E 32° 22' 3.544" N 75° 57' 42.980" E 32° 22' 7.007" N 75° 57' 23.429" E 32° 22' 9.457" N 75° 57' 30.054" E	24.4.18	PB IV- CHIL SHELTER WOOD WORKING CIRCLE
13	N/6-2018-19	C-10 PUNDER	23.88	20.00	3.88	32° 17' 56.962" N 75° 59' 25.555" E 32° 18' 4.763" N 75° 59' 35.380" E 32° 17' 46.972" N 75° 59' 59.899" E 32° 17' 42.901" N 75° 59' 57.057" E	24.4.18	PLANTATION WORKING CIRCLE
14	N/7-2018-19	C-11 PUNDER	50.58	20.00	30.58	32° 17' 9.695" N 76° 0' 10.615" E 32° 17' 11.627" N 76° 0' 15.199" E 32° 17' 30.223" N 75° 59' 58.252" E 32° 17' 31.726" N 76° 0' 9.709" E	24.4.18	PLANTATION WORKING CIRCLE
15	N/8-2018-19	C-12 PUNDER	29.54	9.54	20.00	32° 17' 0.610" N 76° 0' 17.712" E 32° 17' 2.574" N 76° 0' 27.574" E 32° 17' 12.269" N 76° 0' 29.789" E 32° 17' 12.635" N 76° 0' 19.735" E	24.4.18	PLANTATION WORKING CIRCLE

Sr. No.	CODE	FOREST NAME	COM. AREA (Ha)	REGEN. PLOT AREA (Ha)	LEFT OUT AREA	LAT./ LONG.	INSPE CTION DATE	APPROVAL STATUS
1	2	3	4	5	6	7	8	9
16	N/9-2018-19	C-14 PUNDER	38.85	20.00	18.85	32° 16' 21.854" N 76° 1' 7.252" E 32° 16' 32.273" N 76° 1' 18.201" E 32° 16' 42.606" N 76° 1' 8.792" E 32° 16' 38.305" N 76° 1' 11.276" E	25.4.18	PB(UNALLOTED)- CHIL SHELTER WOOD WORKING CIRCLE
17	N/10-2018- 19	C-15 PUNDER	64.74	20.00	44.74	32° 15' 52.236" N 32° 15' 53.671" N 76° 1' 22.131" E 32° 16' 13.354" N 76° 1' 2.262" E 32° 16' 13.131" N 76° 1' 12.715" E	25.4.18	PLANTATION WORKING CIRCLE
18	N/11-2018- 19	C-16 PUNDER	62.31	20.00	42.31	32° 16' 28.809" N 76° 1' 32.529" E 32° 16' 23.588" N 76° 1' 41.344" E 32° 16' 20.503" N 76° 1' 16.503" E 32° 16' 13.578" N 76° 1' 21.555" E	25.4.18	PLANTATION WORKING CIRCLE
19	N/12-2018- 19	C-9 PUNDER	46.93	20.00	26.93	32° 18' 47.00" N 75° 59' 59.00" E	19.5.18	PB(UNALLOTED)- CHIL SHELTER WOOD WORKING CIRCLE

Sr. No.	CODE	FOREST NAME	COM. AREA (Ha)	REGEN. PLOT AREA (Ha)	LEFT OUT AREA	LAT./ LONG.	INSPE CTION DATE	APPROVAL STATUS			
1	2	3	4	5	6	7	8	9			
TOTAL N/1 TO N/12		474.24	216.48	257.76							
	AVERAGI	E AREA	39.52	18.04							
KHA	KHAIR- NURPUR RANGE , NURPUR FOREST DIVISION (12 APPROVED FOR 2019-20 AFTER TOTAL LANTANA ERADICATION)										
20	N/13-2019- 20	C 1b TATTAL	39.66	20.00	19.66		25.4.18	<b>PB I-</b> CHIL SHELTER WOOD WORKING CIRCLE			
21	N/14-2019- 20	C1C TATTAL	40.86	20.00	20.86		25.4.18	<b>PB II-</b> CHIL SHELTER WOOD WORKING CIRCLE			
22	N/15-2019- 20	C2C TATTAL	80.52	20.00	60.52		INSPEC TION	<b>PB I-</b> CHIL SHELTER WOOD WORKING CIRCLE			
23	N/16-2019- 20	C3B TATTAL	60.70	20.00	40.70		POSSIB LE IN	<b>PB I</b> - CHIL SHELTER WOOD WORKING CIRCLE			
24	N/17-2019- 20	C-3 PUNDER	32.78	20.00	12.78		OCTOB ER 2018	PLANTATION WORKING CIRCLE			
25	N/18-2019- 20	C- 6 PUNDER	20.64	20.00	0.64		INSPEC	PLANTATION WORKING CIRCLE			
26	N/19-2019- 20	C-7 PUNDER	36.42	20.00	16.42		TION POSSIB LE IN	PLANTATION WORKING CIRCLE			
27	N/20-2019- 20	C-8 PUNDER	41.26	20.00	21.26		OCTOB ER 2018	<b>PB(UNALLOTED)</b> - CHIL SHELTER WOOD WORKING CIRCLE			

Sr. No.	CODE	FOREST NAME	COM. AREA (Ha)	REGEN. PLOT AREA (Ha)	LEFT OUT AREA	LAT./ LONG.	INSPE CTION DATE	APPROVAL STATUS
1	2	3	4	5	6	7	8	9
28	N/21-2019- 20	C-13 PUNDER	10.92	10.92	0			PB(UNALLOTED)- CHIL SHELTER WOOD WORKING CIRCLE
29	N/22-2019- 20	C-4 PUNDER	21.04	20.00	1.04		25.4.18	PLANTATION WORKING CIRCLE
30	N/23-2019- 20	C-5 PUNDER	17.40	17.40	0		25.4.18	PLANTATION WORKING CIRCLE
31	N/24-2019- 20	C-4 PANIARU	26.70	6.70	20.00		24.4.18	PB II- CHIL SHELTER WOOD WORKING CIRCLE
7	ГОТАL	N/13 TO N/24	428.90	215.02	213.88			
	AVERAGI	E AREA	35.74	17.91				
	NURPUR '	TOTAL	903.14	431.50	471.64			
Gl	GRAND TOTAL 3 RANGES		1128.20	545.92	582.28			
AV	ERAGE AR RANG	REA THREE GES	34.18	17.06				

# EXPERIMENTAL SILVICULTURAL FELLINGS IN HP GUIDELINES FOR CARRYING OUT 100%ENUMERATIONS OF GROWING STOCK IN EACH APPROVED REGENERATION PLOT

#### 5 MAY 2018

#### 1. CONTEXT AND PURPOSE OF CARRYING OUT 100 %ENUMERATIONS

Enumerations have to be carried out by ensuring the compliance of the following Binding Prerequisites as ordered by Hon'ble Supreme Court/CEC.

- 4(i) the permission for silvicultural fellings including thinning in the State of Himachal Pradesh be limited to only three working circles of Chil, Sal and Khair occurring below 1500 MSL to encourage regeneration of the forests aimed <u>at achieving mixed species forests with multi layered canopy having more efficient carbon sequestration capability</u>
- 4(ii) <u>no felling of broad leaved species be permitted in the compartments to be taken</u> <u>up</u> for regeneration fellings of the above three working circles or in the miscellaneous/ broad leaved working circle irrespective of the recommendations in the Working Plan;
- (xiv) <u>no green fellings are to be carried out in steep slopes and along streams and nallas</u>as per the standard prescription in the Working Plan code and in the forest areas falling under Protection cum Rehabilitation Working Circle;

#### 2. GENERAL GUIDELINES

**2.1**QUANTITATIVE WORKLOAD: 100 % Enumerations will be carried out <u>only</u> within the following approved Regeneration Plots in three Divisions over an area

of 310.85 ha. during 2018-19 as per details given in the table below. Enumerations will be done only after each Regeneration Plot boundaries have been physically marked on ground with a yellow coloured 3 cm paint band on boundary trees and GPS coordinates completed.

DETAILS OF 19 APPROVED REGENERATION PLOTS

FOR CARRYING OUT 100 % ENUMERATIONS

FOREST DIVISION	NURPUR	PAONTA	BILASPUR	
	DIVISION	DIVISION	DIVISION	
FOREST RANGE	NURPUR	PAONTA	BHARARI	TOTAL PLOTS/
	RANGE	RANGE	RANGE	AREA TO BE
APPROVAL PARA	KHAIR	SAL	CHIL	ENUMERATED
NUMBER	PARA 7.6	PARA 8.8	PARA 7.7	
REGENERATION	12	4	3	19
PLOTS	(196.25	(68.75 HA)	(45.85 HA)	
APPROVED FOR	HA			
2018-19				
FOREST AREA TO	196.25	68.75 HA	45.85 HA.	310.85 HA
BE ENUMERATED	HA.			
<u>IN 2018-19</u>				

#### 2.2. SPECIES TO BE ENUMERATED:

Apart from three main species namely Chil, Sal and Khair, all trees of 10 cm and above dbh (ob)(Diameter above breast height over bark) of species which can be identified will be enumerated and given names and all other species which are not identifiable will be put under other B/L species/ Kokath. Species can also be identified by local name.

Bamboos in terms of clump will be enumerated.

Only Target species will be given number (Chil in Bilaspur, Khair in Nurpur, and Sal in Paonta) and other species enumerated will be given a mark only.

The following standard diameter classes will be used for tabulating enumerations:

DIAMETER ABOVE	DBH CLASS
BARK(cm)	
10-20	V
20-30	IV
30-40	III
40-50	II A
50-60	II B
60 & ABOVE	I A &OVER

#### 2.3. PROCEDURAL REQUIREMENTS FOR CARRYING OUT ENUMERATIONS

- 1. Enumeration data foreach Regeneration Plot (serially numbered like B/1 to 3 for Bilaspur, P/1 to 4 for Paonta and N/1 to 12 for Nurpur Division) regardless of its sizewill be maintained separately. Separate Field Note Book form will be used for every Regeneration Plot.
- 2. Each enumerated tree will be given an identification mark(x) to avoid duplicity. Bark shaver would be handy to clean the bark of tree for marking enumeration mark. Enumeration markbe marked at a clearly visible spot at breast height.
- 3. Trees below 10 cm diameter at breast height over bark dbh (ob) and dead trees of having utility of less than 70 % are not to be enumerated.
- 4. The border line trees with >50% stem within the plot will be enumerated
- 5. In case of forking below breast height, diameter will be measured at breast height above forking and recorded as separate trees.

- 6. In case of flare at the breast height, diameterwill be measured immediately above or below the flare nearest to breast height.
- 7. For large sized or buttressed trees dia may be measured by tape taking girth and record it by converting it to dia by multiplying with 7/22 or a factor of 0.318.

#### 2.4 STAFF FOR ENUMERATIONS

- 1. Sufficient no. of Enumeration teams be constituted depending upon the workload and the need to complete this work **in May 2018.**
- 2. Each team will comprise of, at least, an enumerator who will carry out measurements (Forest guard) and will mark the enumerated tree, a recorder (Dy Ranger/ senior FG) to document the observations and team leader (RO) to guide, monitor and supervise. A semi-skilled helper can be added in the team, if needed, for misc. duties.
- 3. Each team should possess GPS, Vernier Calliper, marker pen /paint, bark shaver
- 4. Sufficient copies of enumeration forms will be provided to each team beforehand.
- 5. The observations will be recorded in a legible manner without overwriting/
- 6. Geo-references will be recorded at least at 4 points NW, NE, SW and SE corner of the plot

### 2.5 TABULATION OF ENUMERATION RESULTS / DATA (Example given below)

#### PROPOSED-ENUMERATION FORM

To record data of all the trees (with 10 cm and above dbh over bark) measured in the Regeneration Plot area approved for Experimental Silvicultural

Felling during 2018-19

#### (Date)

Regener	ation Plot	No	• • • • • • • • • • • • • • • • • • • •	•••••	• • • • • • • • • • • • • • • • • • • •	•••••	Area	of the
plot		• • • • • • • • • • • • • • • • • • • •	Workin	g circle.	• • • • • • • • • • • • • • • • • • • •	•••••	•••••	•••••
Name of	f forest	•••••	Comparti	ment No	• • • • • • • • • • • • • • • • • • • •	Na	ame of	nearest
village								
	• • • • • • • • • • • • • • • • • • • •	Beat		•••••	Block			Range
	BlockRangeDivisionLAT/LONG at the starting point							
	LAT/LONG	at the sta	rting point					
V 10-20 cms						70-	80-	and abov e ≤ 90
1	2	3	4	5	6	7	8	

**Total** 

Sign: Name of enumerator:

Sign: Name of recorder:

Sign: Name of team leader:

Please note carefully that after completion of 100% enumerations, the Committee has to supplied with a summary/abstract of total volume for <u>each approved</u> Regeneration Plot categorised into 4 categories viz. main specie(Chil,Khair,Sal), broad leaved with names, other species Kokath and no of Bamboo clumps, and per hectare volume figure has to be worked out clearly

The total volume so obtained will be compared with corresponding total volume per hectare as available in CHF of the approved Regeneration Plot.

#### 2.6 ADMINISTRATIVE CONTROL

DFO concerned has to personally ensure by explaining to field staff how 100% enumerations are to be carried out under the direct supervision of the FOREST RANGE OFFICER as per above Guidelines.

ACF will physically check and verify the correctness of the procedural details and tabulation of results.

## EXPERIMENTAL SILVICULTURAL FELLINGS IN HP GUIDELINES FOR CARRYING OUT SILVICULTURALMARKINGS IN APPROVED REGENERATION PLOTS

#### 20 JUNE 2018

#### 1. CONTEXT AND PURPOSE OF CARRYING OUTMARKINGS

- **1.1 BINDING PREREQUISITES BY HON'BLE SUPREME COURT:** Markings have to be carried out by ensuring the compliance of the following Binding Prerequisites as ordered by Hon'ble Supreme Court/CEC.
- **4(i)** the permission for silvicultural fellings including thinning in the State of Himachal Pradesh be limited to only three working circles of Chil, Sal and Khair occurring below 1500 MSL to encourage regeneration of the forests aimed at achieving mixed species forests with multi layered canopy having more efficient carbon sequestration capability
- **4(ii)** no felling of broad leaved species be permitted in the compartments to be taken up for regeneration fellings of the above three working circles or in the miscellaneous/ broad leaved working circle irrespective of the recommendations in the Working Plan;
- **5(vii)** no felling to be undertaken in Ban oak forests and other broad leaved forests other than Sal and Khair;
- **5(xiv)** no green fellings are to be carried out in steep slopes and along streams and nallasas per the standard prescription in the Working Plan code and in the forest areas falling under Protection cum Rehabilitation Working Circle;

**9.6.** vi) there will be total ban on burning of debris including after seeding or over wood felling in order to encourage natural regeneration of broad leaved species and reduce soil erosion. It should also be ensured that these forest areas are kept free from grazing and are protected

5(ix) the removal of Lantana weed to be an integral component of regeneration felling and the removal of Lantana has to be completed before the felling operations commence, so that the regeneration of the felled area is taken up forthwith

## 1.2 <u>SPECIES WISE DIRECTIONS/STIPULATIONSOF HON'BLE SUPREME</u> COURT/CEC AND WP PRESCRIPTIONS:

## KHAIR: Rotation age 30 years-Exploitable diameter=25cm (12 REGENERATION PLOTS)

#### SUPREME COURT DIRECTIVES

- **4.** (v)rotation age of Khair is kept at 30 years with minimum dia of 25 cms. at breast height;
- 10.9.3. As far as Khair trees are concerned, the State shall ensure that at least 25% of mature Khair trees or 50 trees per hectare(whichever is less) of 25 cms. diameter and above are retained as mother trees and these should be marked and numbered as trees not to be felled, which should be clearly reflected in the videography. The trees to be felled can be marked by a separate colour. The number, size and girth of the trees should be clearly spelt out.

#### **WORKING PLAN PRESCRIPTIONS:**

1. The marking will be carries out purely on Silvicultural consideration irrespective

of the consideration of yield. All dead, dry, uprooted and 80% of the Khair trees 25 cm dbh and over will be marked for felling.

- 2. No uprooting or chipping of stumps will be allowed and the stumps left should not be more than 15 cm above the ground level so as to ensure production of coppice shoots.
- 3. The stumps left should not be more than 15 cm above the ground.

## CHIL: Rotation age 120 years-Exploitable diameter=60cm (3 REGENERATION PLOTS)

#### SUPREME COURT DIRECTIVES

- **4.iv)**rotation of Chil to be 120 years and is worked under Irregular Shelter Wood System
- **10.9.4.** As far as Chil Pine and Sal trees are concerned, the State shall ensure that at least 40 mature trees are retained per hectare and the other conditions will be the same as applicable to Khair trees.

#### **WORKING PLAN PRESCRIPTION:**

- trees per ha of II A and above classes have been kept in this category. The area of such forests is 019.00 ha. The regeneration fellings over this area will be completed within the regeneration period i.e., 30yearsw.e.f. 1994-95... The sequence of fellings in this category has been so arranged that areas having poor density will be gone over during the early years of the plan.
- **2.15** Treatment of P.B. III Areas: The stocking in this P.B. on the whore is below the normal and generally no thinning would be necessary. However, in some

compartments which may require thinning, C grade thinning will be carried out along with improvement fellings.

## SAL: Rotation age 120 years-Exploitable diameter=40cm (3 REGENERATION PLOTS FOR FELLING)

#### SUPREME COURT DIRECTIVES

**4.iv)**rotation of Sal to be 120 years and is worked under Shelter Wood System

**10.9.4.**As far as Chil Pine and Sal trees are concerned, the State shall ensure that at least 40 mature trees are retained per hectare and the other conditions will be the same as applicable to Khair trees;

In case of inadequate regeneration in a locality, 60 seed trees per ha. can be retained instead of 40 nos. in case of Sal.

#### 2. GENERAL GUIDELINES

**2.1 QUANTITATIVE WORKLOAD:** Markings will be carried out <u>only within</u> the following approved Regeneration Plots in three Divisions over an area of 310.85 ha. during 2018-19 as per details given in the table below. Markings will be done only after each Regeneration Plot boundaries have to be marked with a yellow coloured 3 inches wide paint band on boundary trees and GPS coordinates completed.

#### **DETAILS OF 19 APPROVED REGENERATION PLOTS FOR MARKINGS**

FOREST	NURPUR	PAONTA	BILASPUR	
DIVISION	DIVISION	DIVISION	DIVISION	
FOREST RANGE	NURPUR	PAONTA	BHARARI	TOTAL PLOTS/
	RANGE	RANGE	RANGE	AREA TO BE
APPROVAL PARA	KHAIR	SAL	CHIL	ENUMERATED
NUMBER	PARA 7.6	PARA 8.8	PARA 7.7	
REGENERATION	12	4	3	19
PLOTS	(216.48 HA)	(68.57 HA	(45.85 HA)	
APPROVED FOR		Felling only		
2018-19		in three		
		plots)		

#### 2.2 CARRYING OUT MARKINGS AND CHECKING BY SENIOR OFFICERS

#### A) General Rule for three Species:

- **i.** Marking to be carried out as per silvicultural availability of trees.
- ii. No markings are carried out on steep slopes and along streams and nallas.
- **iii.** All dead, dried, uprooted and fallen trees should be marked.
- **iv.** Mature and over mature trees to be marked.
- **v.** Seed bearers should be kept at ridges and on open spaces where there is no regeneration, possibly at equidistant.
- vi. The marking on the tree will be done at 10 cm above GL on the uphill side
- vii. The colour coding for trees to be retained as mother trees will beWhite paint belt at breast height.
- **viii.** The numbering of the retained trees will also be done by shaving the bark.
  - ix. The tree to be marked for felling will have a patch of 6"x4" by shaving the bark, above the soil level on the uphill side. This patch will be

painted with black Japan. The marking number will be engraved on this painted patch with iron chisel and marking hammer will also be affixed on this patch. The marking hammer will also be affixed at the breast height on the uphill side of the tree to be marked.

**x.** The felling should be done in the direction opposite to the side on which marking/numbering has been done.

#### B) Markings will be done as follows:

TYPE OF MARKING	MARKING OFFICER	
PBI	DFO	
PB III	ACF	
PB IV	ACF	CHECKING WILL BE
THINNINGS	DFO/ACF	DONE AS PER TABLE 2
SELECTION FELLINGS	ACF	GIVEN BELOW
SALSALVAGE	ACF	

**C)** Senior IFS officers along with Territorial CCF/CF will check and certify these markings in August 2018.as indicated in table below. The exact programme of inspections by Senior Officers from Headquarter will be intimated later.

TABLE 2: PLAN OF INSPECTIONS OF SILVICULTURAL MARKINGS BY SENIOR IFS OFFICERS

SN	Species	PB-	PB-	PB-	PB-	PB-	Plantation	Total		PCCF	APCCF
		IV	1	II	III	UA			(HOFF)		
1	Chil	-	2	-	1	-	-	3	=	2	1
2	Sal	1	2	-	-	-	-	3	1	1	1
									(Final		
									Felling)		
3	Khair	1	1	1	1	2	6	12	_	4	8
ТО	TAL	2	6	1	2	2	6	19	1	7	10

#### 2.3 TABULATION OF MARKINGS RESULTS

The tabulation of marking results to be given to HPSFC will be done as per table already circulated in my mail of 2 June 2018.

#### 3. COMPLIANCE OF HON'BLE SUPREME COURT ORDERS

Please note carefully that Working Plan prescriptions are to be followed to the extent that Stipulations of Hon'ble Supreme Court/CEC are complied with.

#### 4. TIME FRAME FOR COMPLETION OF MARKINGS

- i. **BHARARI FOREST RANGE:** The marking has to be completed by 31<sup>st</sup> July in Chil WC. Efforts must be made to complete even earlier, there being three plots for Marking.
- **ii. PAONTA FOREST RANGE:** The marking has to be completed by 7<sup>th</sup> August in Sal WC, if not earlier as there are only 4 plots for Marking.
- iii. NURPUR FOREST RANGE: The marking has to be definitely completed by 31st August in Khair WC.