

**SECOND SIX MONTHLY REPORT OF THE
MONITORING COMMITTEE CONSTITUTED
BY HON'BLE SUPREME COURT
VOLUME-1 MAIN REPORT**



**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 FEBRUARY 2019

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ACRONYMS

ACF	Assistant Conservator of Forests
A.N.	Afternoon
APCCF	Additional Principal Chief Conservator of Forests
CEC	Central Empowered Committee
CF	Conservator of Forests
C&I	Criteria and Indicators for Sustainable Forest Management
cm	Centimeter
Comptt.	Forest Compartment
dbh	Diameter at breast height
DG	Director General of Forests, GOI, MOEF&CC, New Delhi.
DFO	Divisional Forest Officer
DRDO	Defence Research & Development Organisation
FAO	Food and Agriculture Organization of the United Nations, Rome.
FCA	The Forest (Conservation) Act, 1980
F.N.	Forenoon
FRA	The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006
FSI	Forest Survey of India

ha	Hectare
GHNP	Great Himalayan National Park
GPS	Geographical Positioning System
GIS	Geographical Information System
GEOMATICS	Remote Sensing, GIS and GPS
HPFD	Himachal Pradesh Forest Department
HPFS	Himachal Pradesh Forest Service
HPSFDC	Himachal Pradesh State Forest Development Corporation
HoFF	Head of Forest Force
ICFRE	Indian Council for Forest Research and Education, Dehra Dun
IGNFA	Indira Gandhi National Forest Academy, Dehra Dun
Kokath	Miscellaneous broad leaved species
m	Metre
MDF	Moderately dense forest-crop density > 40%
MIS	Management Information System
MOEF&CC	Ministry of Environment, Forests and Climate Change, Government of India
MSL	Mean Sea Level
NGT	National Green Tribunal.
OB	Over bark
OF	Open forest-crop density 10 to 40%

PB	Periodic Block
PCCF	Principal Chief Conservator of Forests
PWPR	Preliminary Working Plan Report
RCC	Reinforced cement concrete
SC	Supreme Court
SOI	Survey of India
SSO	Subsidiary Silvicultural Operations
TERI	The Energy and Resources Institute , New Delhi.
TOR	Terms of Reference
VDF	Very dense forest-crop density of 70 % and above
WC	Working Circle in a Working Plan
WP	Working Plan

ACKNOWLEDGEMENTS

The Monitoring Committee has finalized the Second Six Monthly Report through complete collaboration with Himachal Pradesh Forest Department (HPFD) for carrying forward this challenging professional work.

The Committee would like to thank Shri Siddhanta Dass, IFS, DG Forests, MOEF & CC, New Delhi for having facilitated a Presentation by V.P. Mohan on 19th November 2018 at IGNFA, Dehradun, attended by PCCF from different States, wherein the Process and Methodology developed by the Monitoring Committee was shared and very useful feedback was received.

The Committee would like to thank functionaries of HPFD at all levels lead by Shri Ajay Sharma IFS, PCCF, Head of Forest Force, (HoFF), for complete support to us all through. In order to enrich the ongoing Consultative Process being followed by the Monitoring Committee for Experimental Silviculture Felling in HP, we considered essential to strike a balance and blend valuable views of experienced Senior Forest Officers with innovative insights and feedback from young budding energetic field/ and Planning officers, who have a long professional inning ahead of them and certainly have a long term stake in the working of the Department. Therefore, we have now in place a Support Team, an in-house Think Tank. We owe our gratitude to the following individuals for their excellent professional support; DFO Projects, DFO Publicity, DFO Shimla, ACF Shimla Forest Division, ACF(HQ).

DFO Hamirpur, DFO Rajgarh, DM Hamirpur

We wish to place on record our deep appreciation and gratitude to our vibrant team lead by Shri Om Prakash Chandel, HPFS, assisted by Shri Rakesh Kumar Shurta, Senior System Analyst, Information Technology, Shri Rajneesh Kumar, Senior Scientific Professional, GIS Lab and Shri Vishnu Sharma Videographer for their wholehearted support all through our field work and for finalization of our Second Six Monthly Report.



V. P. Mohan, Chairman.



Dr. D.R. BHARDWAJ, Member.

15th February 2019

EXECUTIVE SUMMARY AND RECOMMENDATIONS FOR APPROVAL

RECOMMENDATIONS FOR APPROVAL	PARA
PART ONE BACKGROUND	1
The Second Six Monthly Report addresses all the directions stipulated in orders dated 16 th February, 7 th September and 30 th October 2018 of Hon'ble Supreme 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) hereinafter called our Terms of Reference (TOR) (Annexure 1.1)	1.1
It needs to be stressed that timely execution of sequential field operations is a must to ensure best results of this challenging task of Experimental Silviculture Felling. Accordingly, our Second Six Monthly Report now includes an <i>Executive Summary and Recommendations for Approval</i> to facilitate easy perusal of all issues in one go for <u>expeditious approvals</u> as next steps in the field have to be undertaken in a timely manner, but this is possible only after formal acceptance of our technical <i>Recommendations</i> by Hon'ble Supreme Court.	1.4
It is recommended that hard copies of our Report should be circulated to the State Government and concerned HPFD offices (HoFF, concerned Conservators, DFOs and Forest Range Officers)	1.4

RECOMMENDATIONS FOR APPROVAL

PARA

for follow up action and compliance, only after appropriate formal approval and orders of Hon'ble Supreme Court on our *Recommendations for Approval*.

PART TWO TECHNICAL ISSUES REQUIRING ELABORATION

2

A.CHIR PINE FORESTS

2.1.1 A

ORDER OF 16.2.2018, PAGE 4, CEC CONDITION iv)

Silvicultural markings in Chirpine forests should be done strictly under the Indian Irregular Shelter wood System, also known as Punjab Shelter wood System, being followed mostly for Chirpine forests throughout the State of Himachal Pradesh.

Therefore, it is recommended that the Silviculture markings of Seeding fellings in case of Chir pine may be approved with retention of only 25 seed bearers/ mother trees per hectare instead of 40 mother trees as laid down in Hon'ble Supreme Court order of 16th February 2018.

(page 4 Recommendation iv CEC)

B. SAL FOREST ISSUES

2.1.1 B

(ORDER OF 16th February 2018, PAGE 4, CEC CONDITION iv)

B.1 Being managed under Regular Shelter Wood System and 40 - 55 mother trees per hectare retained as per site conditions and WP prescriptions and not restricted to 40 trees as initially stipulated.

B.2 The total area of 30.96 ha. of P/1 2018-19 Compartment no C-6 Rajban in Paonta Forest Range has been taken up as a unit of

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management for Silvicultural interventions only, as growing stock of Sal was found very low after 100% enumerations. After marking of dead/dying/fallen/malformed trees (hygienic fellings) and fire lines trees, (less than 4% of total standing volume) , area will be taken up for restocking. Restriction of 20 ha. in this case was not advisable at all as per site inspections.

C. KHAIR FOREST ISSUES**2.1.1 C****(ORDER OF 16th February 2018 PAGE 10 PARAGRAPH 3)**

As per approved Working Plan of Nurpur Forest Division, Khair is being worked under Khair Overlapping Working Circle. Khair is an overlapping crop in two major Working Circles i.e. Chil Shelter Wood Working Circle and Plantation Working Circle. After 100 % enumerations we found that in four Regeneration plots, STANDING VOLUME OF Chirpine was as follows:

Regeneration plot number	%Volume % of Khair	Volume % of Chirpine	Volume of other BL	Total
N/3 2018-19	6	59	35	100
N/4 2018-19	1	62	37	100
N/5 2018-19	1	95	4	100
N/9 2018-19	0	81	19	100

There were hardly any Khair trees but these were basically Chirpine forests and accordingly Chirpine hygienic markings have been done

RECOMMENDATIONS FOR APPROVAL**PARA**

as warranted in each forest strictly as per crop requirement and the need to create fire lines.

2.1.3 The Monitoring Committee recommends that for all forests under Experimental Silviculture Felling Programme already gone over partly in 2018-19, left over areas of 2018-19 and areas planned for treatment during 2019-20, totaling 2054 ha in selected Forest Ranges of Bharari, Nurpur, and Paonta Sahib including (Bhagani and Jamta Forest Ranges-Eucalyptus forests), boundary pillars must be erected at site before 15th August 2019. The concerned DFO has to submit a certificate duly signed by the territorial Conservator reading as follows before 15th August 2019, when our Third Six Monthly Report has to be submitted:

I ----- hereby certify that all types of forests in ----- Forest Division approved under Experimental Silviculture Felling Programme by Hon'ble Supreme Court during 2018-19 and 2019-20, have all now BOUNDARY PILLARS in position and in Revenue Records, the legal status of forests has been authenticated by mutation. All forests will be kept free from grazing and are protected"

DFO
Forests

Conservator of

DATE-----

RECOMMENDATIONS FOR APPROVAL	PARA
<p>Immediate action is required to get Three Management Plans approved from MoEF & CC.</p>	2.1.4
<p>The Monitoring Committee was disappointed to note that till the orders of Hon'ble Supreme Court of 16th February 2018, all successive Conservators of Nahar Forest Circle had failed to prepare a Preliminary Working Plan Report which is always undertaken two years prior to expiry of a Working Plan. Ideally, Sal Forests should not have been proposed for Experimental Silviculture Fellings under these circumstances. The Preliminary Working Plan Report has been submitted belatedly by the Conservator, Nahar Forest Circle in May, 2018 which has been approved by HoFF on 24th May 2018.</p>	2.1.13.4
<p>The Monitoring Committee recommends that all incumbents who have worked as Territorial Conservators in Nahar Forest Circle from 2013-14 onwards should be held accountable for not preparing the Preliminary Working Plan Report on time.</p>	2.1.13.5
<p>The Experimental Silviculture Felling is being carried out after elaborate field inspections at repeated intervals and the experience so gained should be factored into the preparation of a New Working Plan.</p>	
<p>As a matter of principle, the existing practice of seeking extensions periods after the expiry of the Working Plan operative for 10-15 years should be totally discontinued and a Revised Working Plan</p>	2.1.13.6

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should be got prepared well in time so that on the expiry of the Original Working Plan, the forest working is regulated according to the Revised Working Plan.

Mid Term Revision of WP: As provided in paragraph 31 of National working Plan Code 2014, midterm revision of each approved WP has to be carried out in order to avoid mismatch of allotment to Working Circles with actual floristic composition and Periodic Block allotments. **2.1.13.7**

Conclusion: The Monitoring Committee recommends that **2.1.13** Subsidiary Silviculture Operations should be allowed only in Forest Divisions having an approved Working Plan. However, the much neglected but most important operation of erection of Boundary Pillars should be initiated on war footing across all Forest Divisions from 2019-20 onwards.

The overall position of the work load for the two years is as under:- **2.2**

2018-19- Only 432 ha area taken in 21 compartments comprising just **21%** of the total workload.

2019-20- The estimated workload for 2019-20 is rather very heavy because of backlog of 2018-19 and works out to 1622 ha spread over 42 compartments and forms **79%** of the total workload.

Therefore, the Monitoring Committee has planned that in order to ensure that all areas of 2019-20 spread across three Forest Ranges

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initially approved including Bhagani and Jamta Forest Ranges (Eucalyptus) are first inspected by Senior forest officers to certify effective completion of all interventions well in time as approved by the Monitoring Committee in the month of March, 2019 after HPSFDC Ltd. has completed extraction activities. Thereafter in the later part of March, 2019 spanning over first fortnight of April, 2019, the Monitoring Committee will finally approve these areas for working during 2019-20 season.

In view of spatial spread of the workload in 2019-20, the Monitoring Committee has planned that all areas of 2019-20 spread across three Forest Ranges initially approved including Bhagani and Jamta Forest Ranges (Eucalyptus) are first inspected by Senior forest officers in the first fortnight of March, 2019 after HPSFDC Ltd. has completed extraction activities to certify effective completion of all interventions well in time as approved by the Monitoring Committee. Thereafter in the second fortnight of March 2019, the Monitoring Committee will finally approve these areas for working during 2019-20 seasons and videography post fellings will be done. **2.2.2**

An effort has been made in **Annexure 2.8** to clearly summarize the latest status of compliance of only key issues as on 15th February 2019, in the following two groupings: **2.2.3**

- Issues relating to action to be taken by the State

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Government/HPFD for compliance of Hon'ble Supreme Court Orders. (Red shading)

Issues relating to action being taken by the Monitoring Committee and highlighted for approval by Hon'ble Supreme Court (Green shading)

PART THREE-OVERARCHING RECOMMENDATIONS FOR APPROVAL BY HON'BLE SUPREME COURT

3

Seven Overarching Recommendations have been made for ensuring that Scientific Forest Management is actually put in place as assured by the State Government in IA No 3840 of 2014 filed on 15th January 2015 followed by subsequent three Affidavits.

FIRST RECOMMENDATION: NEED FOR IMMEDIATE COMPLIANCE OF ASSURANCES GIVEN IN INTERLOCUTORY APPLICATION NO 3840 OF 2014 AND THREE AFFIDAVITS

3.1

In principle, we are fully convinced that for Scientific Forest Management, it is essential to carry out prescribed Silvicultural Fellings (Green fellings), thinnings and Subsidiary Silvicultural Operations (SSO) strictly in accordance with approved Working Plans, and continuation of the **ban imposed from 12th December 1996 is not advisable.**

Therefore, we recommend that subject to the execution of prioritized core activities for achieving Scientific Forest Management

3.1

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in actual practice as per our Overarching Recommendations in a much needed preparatory period of one year of 2019-20 with adequate staff at all levels and financial resources, ban on green fellings should be relaxed **from 2020-21 onwards.**

The State Government has to initiate action to comply with all assurances given in IA No 3840 of 2014 filed on 15th January 2015 followed by subsequent three Affidavits.

In view of the aforementioned facts, and to avoid this anomalous situation, it is recommended that hereafter any Affidavit to be filed in Hon'ble Supreme Court should be submitted, inter alia, by including the following undertaking:

"I, _____ S/o _____ aged _____ years, residing at _____ and presently posted as Principal Chief Conservator of Forests (HoFF), Himachal Pradesh, do hereby solemnly affirm and declare on oath as under:-

BOX 3.1

That I have been authorized by the Petitioner State of Himachal Pradesh in the writ petition and I have personally inspected forests prescribed in the Approved Working Plan for silviculture fellings, including thinning and other subsidiary operations. Accordingly, myself being well conversant with the field realities, I am competent to swear the present affidavit.

SECOND RECOMMENDATION: URGENCY TO REVIVE SCIENTIFIC FOREST MANAGEMENT FOR SAVING PRECIOUS

3.2

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GREEN COVER IN HIMACHAL PRADESH

The first and foremost requirement for Scientific Forest Management, should is that within one year i.e. 2019-20, all Reserve 1896 (Km²) and Demarcated Protected Forests 11386 (Km²), including new Demarcated Protected Forests within the administrative control of Himachal Pradesh Forest Department must have boundary pillars in position. **Nonexistence of boundary pillars leads to a very anomalous situation and a great hindrance in protection of forest wealth from encroachments and illicit fellings.**

It is recommended that at the soonest the process of authentication of legal status of forests in Revenue Records by mutation should be got done by the State Government.

Undoubtedly, the State Government has to ensure completion of the present backlog of Working Plans in the shortest possible time and complete all pending Working Plans in 2019-20 by strengthening Working Plans Wing.

The Monitoring Committee while approving Silviculture markings in three selected Forest Ranges of Nurpur, Paonta and Bharari noticed that physical location of boundary pillars is not known to the field staff.

Immediate action is called for to expedite all formalities for the

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selection and training of directly recruited Forest Rangers.

The Monitoring Committee would like to stress that at the soonest **3.2.5**
9 IFS Officers presently working in **Non-cadre posts** should be
posted to man **Cadre posts** of DFOS for ensuring the required level
of technical control at the cutting edge level and to enable them to
carry out their professional duties as given in the Mandate for IFS.

THIRD RECOMMENDATION: IMPORTANCE OF MAINTAINING GREEN COVER IN HIMACHAL PRADESH

3.3

The forests of Himachal Pradesh, so rich in biodiversity play a
vital role in preserving the fragile Himalayan ecosystems and are an
important renewable natural resource of Himachal Pradesh. Most of
precious coniferous forests are of such nature that these cannot be
truly regenerated by human beings if these are cut once.

As enunciated in the Government of Himachal Pradesh Forest **3.3**
Sector Policy and Strategy 2005, the State will aim at bringing **35.5**
percent of the total geographical area of the State under forest and
tree cover and the balance legally classified land will continue to be
managed for other purposes such as alpine pastures and glaciers.

In view of the above facts, it is abundantly clear that to prevent an
ecological disaster, under no circumstances, the State can afford to
permit indiscriminate diversions of forests of **VERY DENSE**
Category, which is abysmally low at present being just 6% of the

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total geographical area of the State (mostly Reserve and Demarcated Protected Forests allotted to Protection Working Circles in Working Plans). **It needs to be recognized that in a hilly State having fragile geological formations, the agenda of “Development” has to be planned without recklessly destroying green cover of Himachal Pradesh. We need to save our natural resources, at all costs for our next generations.**

FOURTH RECOMMENDATION: PROPOSED STRATEGIC ACTION PLAN FOR MITIGATION OF LOSS OF FOREST COVER DUE TO DIVERSIONS OF FORESTS UNDER FCA, 1980 AND FRA, 2006 IN HIMACHAL PRADESH.

3.4

Despite very clear and precise stipulations of Hon’ble Supreme Court allowing felling of trees only in 4 cases, the State is also permitting felling of trees under “The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006”.

3.4.1

The Monitoring Committee has to report that the on-going pace of diversions of valuable forests of the State for non-forestry activities has assumed such an alarming situation that it warrants a holistic assessment to understand how it is virtually contradicting all assurances given to Hon’ble Supreme Court in IA No 3840 of 2014 filed on 15th January 2015 by the State Government for Scientific Forest Management.

3.4.2

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PARA

The following two amendments need to be made immediately for **3.4.2.A** maintaining realistic record of diversions:

At present data base for diversions under FCA 1980 and FRA 2006 has been maintained just by number of cases and area approved for diversion. Therefore, it is recommended that to keep proper track of diversions of forests, HPFD should improve the existing data base by showing exact extent of area as per legal classification and allotment of each forest to a Working Circle, so that at a glance it is possible to assess how much forest area from Working Plans stands diverted. **BOX 3.5**

Amendments must be made in the existing procedure, where the legal status of a forest diverted for non-forestry purpose is shown as not changed, although the forest area is lost permanently for roads, hydroelectric projects, and other infrastructure projects etc., as this practice leads to depiction of exaggerated figures of “area under forests” in the Statistics of the HPFD **BOX 3.6**

It is recommended an enquiry should be conducted in Nachan Forest Division to investigate how and under what compulsions; approvals have been given under FRA 2006 by violating all professional stipulations. **BOX 3.7**

REGULATORY PROVISIONS OF FRA, 2006

3.4.2

The DFO concerned will only submit a quarterly report of the approvals accorded for diversion of forest land under Section

RECOMMENDATIONS FOR APPROVAL**PARA**

3(2) of the Act to the Nodal Officer of the State who, in turn, will furnish the consolidated information quarterly to the Secretary, Tribal Welfare Department.

But, none of the senior officers, at Circle or State level including the Nodal officer and Principal Chief Conservator of Forests (HoFF), who is the Chief Technical Advisor to the State Government does not have any role to regulate these large scale diversions, on merits, except to monitor the progress of diversions on quarterly basis. The Nodal Officer will also simply monitor the progress.

Even if a DFO is not convinced with the proposed diversion in a particular case, on valid environmental reasons such as fragmentation of forests and wildlife habitat, the Act provides that the concerned Deputy Commissioner can overrule and approve the diversion under Rule 6 Chapter IV and “The decision of the District Level Committee on the record of forest rights shall be final and binding.” Thus conclusively the highly trained Forest officers at any level do not have a decisive role to play in any particular diversion, except to record his observations, which can easily be over ruled by officers who do not have any knowledge of Professional Forestry and Environment, thus leading to constant degradation of forests.

In order to address this grim scenario of rampant diversions of forests in this hilly State and foreseeable upward spurt in 3.4.5.A

RECOMMENDATIONS FOR APPROVAL**PARA**

future, it is recommended that Hon'ble Supreme Court may approve our proposal of getting technical issues examined relating to adverse impact of diversions and fragmentation of forest habitats, by the following three Experts:

1. Dr. Devendra Pandey, Ex DG FSI

3.4.5.1

2. Dr. Ruchi Badola, Scientist G and Head, Department of Eco development and Participatory Management, Wildlife Institute of India, Chandrabani, Dehradun

3.4.5.2

3. Dr. J. V. Sharma, Director, Forest and Biodiversity, The Energy and Resource Institute, New Delhi

3.4.5.3

OUR CONCLUSIONS AND RECOMMENDATIONS**3.4.6**

Undoubtedly, in view of various interpretations given by the Ministry Of Tribal Affairs, GOI, on the applicability of the stipulations of FRA, implementation of the Act in HP has been going on.

However, the Monitoring Committee has to unambiguously bring to the notice of Hon'ble Supreme Court that reckless and indiscriminate large scale diversions of forests under of FRA 2006 will definitely cause irreversible damage to forests of this hilly State, through fragmentation of habitats and tragic loss of biodiversity, and certainly these fragmented forests cannot be brought under Scientific Forest Management notwithstanding assurances given by the State Government to Hon'ble Supreme Court.

3.4.6

RECOMMENDATIONS FOR APPROVAL**PARA****RECOMMENDATIONS:****3.4.6.1****OUR CONCERNS REGARDING APPLICABILITY OF FRA, 2006 IN HIMACHAL PRADESH**

As mentioned in the Preamble, this act is applicable only to “forest dwelling Scheduled Tribes and other traditional forest dwellers who have been residing in such forests for generations but whose rights could not be recorded”. **BOX 3.7**

Therefore, the Monitoring Committee would like to point out that ,it is a matter of interpretation whether the rural population in HP, where the rights of the people inclusive of all categories have already been settled, can be included in the definition of “forest dwelling Scheduled Tribes (as defined under definition (c) and other traditional forest dwellers (as defined under definition (o), who have been residing in such forests for generations but whose rights could not be recorded”,

Furthermore, the Act may probably require an interpretation or reading down by the Hon'ble Apex Court whether the said provisions would apply to valuable slow growing coniferous forests like Fir, Spruce, Deodar, Kail and Chirpine as against the majority of tribal areas of India, where the forests involved are fast growing and hence replaceable.

Consequently, in order to address this matter without any further loss of time, we would like to make the following two Recommendations for approval by Hon'ble Supreme Court:

RECOMMENDATIONS FOR APPROVAL**PARA****A. IMMEDIATE ACTION PROPOSED:****3.4.6.A**

1. **With immediate effect**, all cases of diversions where approvals have been given by DFOS, but felling of trees has not commenced should be deemed as cancelled and no fellings be allowed.
2. **Diversion of any forest** allotted to a Protection Working Circle in any Working Plan should be totally banned hereafter, under FRA and FCA.
3. **We are convinced** that DFOS are exercising unbridled powers under pressure to appease local residents and are blatantly facilitating a virtual plunder and destruction of valuable precious forests of Himachal Pradesh. Therefore, till further orders, the power of a DFO under Sec 3(2) of FRA 2006 should be deemed withdrawn.
4. **Hereafter** all cases of diversion of forest for non-forestry purpose should be processed only under FCA regulations.

B. STRATEGIC ACTION PLAN FOR MITIGATION OF PERMANENT**LOSS OF FOREST COVER IN HIMACHAL: Let the Experts**

submit their findings by December end 2019. Based on their findings, it will be possible for the Monitoring Committee to submit a STRATEGIC ACTION PLAN FOR MITIGATION OF PERMANENT

RECOMMENDATIONS FOR APPROVAL

PARA

LOSS OF FOREST COVER IN HIMACHAL PRADESH in our Fourth Six Monthly Report due on 15 February 2020, for approval by Hon'ble Supreme Court.

FIFTH RECOMMENDATION: PROPOSED NEXT STEPS TO CONCLUDE EXPERIMENTAL SILVICULTURE FELLING PROGRAMME

3.5

It needs to be clarified that the assessment of regeneration at ground level is only practically possible when in the entire Compartment, felling operations have been completed by HPSFDC and forests handed over back to HPFD

In view of the above practicalities and the minimum time period required to complete all field activities, we recommend that the Monitoring Committee may be allowed to conclude this challenging professional work by 15th February 2021 by completion of FINAL SIX MONTHLY REPORT.

3.5

SIXTH RECOMMENDATION: APPROVAL FOR AVAILING TECHNICAL EXPERTISE OF DR. DEVENDRA PANDEY BY MONITORING COMMITTEE

3.6

Hon'ble Supreme Court may approve hiring of short term services and inputs as and when needed by us, of DR. DEVENDRA PANDEY, IFS Ex DG, FSI, on the following terms:

After superannuation, he continues drawing his pension from GOI.

3.6

Only his travel costs from Noida to Himachal Pradesh and back to

RECOMMENDATIONS FOR APPROVAL

PARA

be defrayed by the State Government apart from admissible daily allowance etc. for the period he travels in HP, in connection with on-going work of Experimental Silviculture Felling in HP.

SEVENTH RECOMMENDATION: APPROVAL FOR UPLOADING HON'BLE SUPREME COURT MONITORED EXPERIMENTAL SILVICULTURE PROGRAMME ON A DEDICATED WEBSITE

3.7

The Monitoring Committee feels that it will be very useful to upload all these sequential details of the on-going Experimental Silviculture Felling Programme process and methodology on a dedicated website to make this process transparent for the interested professionals, researchers and media subject to the approval of Hon'ble Supreme Court.

ORDERS OF HON'BLE SUPREME COURT OF 7th SEPTEMBER 2018 2018

ANNEXURE
2.8

Pursuant to the order of Hon'ble Supreme Court, the matter stands referred to Addl. Chief Secretary (Forests.) to the GoHP on 4th October 2018. The Administrative Department has accorded approval for payment of Honorarium to the Chairman of the Committee. The payment will be made through Treasury soon

ORDERS OF HON'BLE SUPREME COURT OF 30th OCTOBER 2018

The proposal for the creation of a separate Budget Head titled "Subsidiary Silvicultural Operations" (SSO) has been sent by HoFF

RECOMMENDATIONS FOR APPROVAL**PARA**

to Addl. Chief Secretary Forests on 4th December 2018. **Necessary action is being taken by the Finance Department for creation of the budget sub-head.**

The Monitoring Committee has started planning revival of Subsidiary Silviculture Operations after a gap of 24 years and the first step was to look at the latest status of approve Working Plan. It was noticed by the Monitoring Committee that out of 37 Forest Divisions, approved Working Plans are available for 20 Forest Divisions and for remaining Forest Divisions, 16 Working Plans are not approved. **It was decided in principle that SSO will be allowed only in 20 Forest Divisions having approved Working Plans.**

It has not been possible for HPFD to post qualified Range Officers in selected Forest Ranges of Nurpur, Bharari and Paonta, so far.

PART ONE – BACKGROUND

1.1 TERMS OF REFERENCE

The Second Six Monthly Report addresses all the directions stipulated in orders dated 16th February, 7th September and 30th October 2018 of Hon'ble Supreme 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) hereinafter called our Terms of Reference (TOR) (**Annexure 1.1**)

The Second Six Monthly Report summarizes key takeaways of our analytical work based on repeated field inspections over the last one year from 16th February 2018 to 15th February 2019. Clearly, there is a need to realistically assess, how best in the shortest possible time span after a dormancy of 24 years due to ban on green fellings “**Scientific Management of Forests as per the prescriptions of Working Plan**” is actually put in place, although Hon'ble Supreme Court was being assured of this essential requirement in all submissions made right from the time IA **No 3840 of 2014 was filed on 15th January 2015**, followed by three Affidavits. Therefore, our objectives have been to bring about revival of technical forestry in forests and not just with computers and digitization alone in offices by demonstrating following interventions:

- **Why** we have considered absolutely essential to carry out 100 % enumerations of all species in approved forests of 2018-19 and

what lessons have been learnt after ascertaining exact floristic composition of each area so as to decide how best we can move forward to implement the following stipulation of CEC on page 5 of Hon'ble Supreme Court order of 16th February 2018:

BOX 1.1 Safeguards for Supplementing Natural Regeneration

Page 5-CEC condition viii *“Planting component in Assisted Natural Regeneration shall include more than 50% seedlings of native broad leaved and multipurpose use species other than that of the principal species;*

- **How** we are going to analyze and recommend whether more reliance has to be placed on natural regeneration after fellings or it needs to be supplements by artificial planting in the ensuing rainy season of 2019?
- **How** we have put in place a tailor made methodology to carry out silviculture markings in forests, certainly bearing in mind all laid down stipulations by Hon'ble Supreme Court, Working Plan prescriptions but most importantly the actual present floristic composition of each forest after more than two decades of ban on green fellings. To that extent the Monitoring Committee, in close consultation with field staff decided not to follow all stipulations across three species mechanically, but recommend treatment of each forest on its site-specific requirements. Consequently, out of

professional technical compulsions, we had to deviate from laid down parameters to achieve the key objective **to see whether Silviculture felling actually helps in the regeneration of forests or not).**

1.2 PROCESS AND METHODOLOGY

Apart from frequent field inspections, Consultative Meetings with HPFD at Shimla, sharing of the process with Forest Departments of adjoining States of Punjab, Haryana and Union Territory of Chandigarh on 18th October 2018, the process and methodology was shared on 19th November 2018 in IGNFA, Dehra Dun.

The completion of a work of this nature undoubtedly had the challenge of more intensive examination of related documentation of codes and standing orders of HPFD and drawing together the vast and scattered range of information in various approvals and other related documents as given in **Annexure 1.3.**

The Monitoring Committee has followed a time bound work plan as given in **Annexure 1.4.** The details of key inter related activities gone through is as follows:

1.2 Establishing Clarity of our Task: During the course of preparation of this report, we have been able to establish clarity after more field inspections to evaluate micro level field realities for eventual finalization of our *Recommendations*.

1.2.2 Finalization of Format for Collating Factual Information: The

Committee has standardized formats for tabulating results of enumeration and silviculture markings in **Annexures 2.3, 2.4 and 2.5**.

1.3 APPROACH ADOPTED FOR REPORTING

After establishing a broad framework to go through the process of Experimental Silviculture Felling in our First Six Monthly Report, the Monitoring Committee has now synthesized in this Second Six Monthly Report all technical issues more conclusively to move forward.

1.4 STRUCTURE OF THE REPORT

It needs to be stressed that timely execution of sequential field operations is a must to ensure best results of this challenging task of Experimental Silviculture Felling. Accordingly, our Second Six Monthly Report now includes an *Executive Summary and Recommendations for Approval* to facilitate easy perusal of all issues in one go for expeditious approvals as next steps in the field have to be undertaken in a timely manner, but this is possible only after formal acceptance of our technical *Recommendations* by Hon'ble Supreme Court.

The Report is structured as follows:

- **Volume 1** comprises the main text of the report and contains mainly synthesis of findings, ***Executive Summary and Recommendations for Approval***. The text is arranged in three parts:
 - **Part One** contains background information.

- **Part Two** contains the main report on the orders of Hon'ble Supreme Court dated 16th February, 7th September and 30th October 2018.
- **Part Three** contains our **Overarching Seven Recommendations** for approval.
- **Volume II** contains all Annexure(s) and tabular formats forming the basis of our conclusions.

In addition to **eight hard copies** being sent through an official in two Volumes to Hon'ble Supreme Court, a soft copy of the Report is being emailed to Registrar, Hon'ble Supreme Court. Our official will assist the Registry to open data and video recordings on the Pen drive and Compact Disc being sent with each set of the Report.

Video recordings of all Consultative Meetings and site inspections of forests including felling operations by HP State Forest Development Corporation (**Annexure 1.5**) are being submitted along with the Second Six Monthly Report, arranged in the following manner:

Pen drive/Compact Disc:

1. Seventh Consultative Meeting on 7th November 2018 to share order of Hon'ble Supreme Court dated 30th October 2018 and formally hand over our Report to HPFD.
2. Inspection and approval of two Eucalyptus Forests on 14th and 15th November 2018.
3. Videos of forests approved for 2018-19 during felling operations by

HPSFDC.

4. KML files of 2 Eucalyptus Forests and Maps

It is recommended that hard copies of our Report should be circulated to the State Government and concerned HPFD offices (HoFF, concerned Conservators, DFOs and Forest Range Officers) for follow up action and compliance, only after appropriate **formal approval and orders of Hon'ble Supreme Court on our *Recommendations for Approval*.**

PART TWO - REPORT ON ORDERS OF HON'BLE SUPREME COURT DATED 16TH FEBRUARY 2018, 7TH SEPTEMBER 2018 AND 30TH OCTOBER 2018.

2.1 TECHNICAL ISSUES REQUIRING ELABORATION

2.1.1 ISSUES PROPOSED FOR APPROVAL AFTER SUBMISSION OF FIRST SIX MONTHLY REPORT - POST MARKINGS INSPECTION BEFORE HANDING OVER LOTS OF 2018-19 TO HPSFDC

The Monitoring Committee had planned at the very initial stage a Three Stage Process of supervision and monitoring (First Six Monthly Report- Para 2.1.1 page 21). Accordingly **Stage Three: Post Markings Inspection before Handing over Lots to HPSFDC** was undertaken as follows:

TABLE 2.1 Chronology of Inspections for Approving Silviculture Markings

NAME OF FOREST RANGE	PERIOD OF INSPECTIONS
Bharari Forest Range	20-22 August 2018
Paonta Forest Range	28-29 August 2018
Nurpur Forest Range	5-8 September 2018

The Monitoring Committee has approved Silvicultural Markings based on the following parameters:

A. CHIRPINE FOREST ISSUES (BHARARI FOREST RANGE) (ORDER OF 16.2.2018, PAGE 4, CEC Recommendations iv)

Revised Working Plan of Bilaspur Forest Division by D.R Kaushal, IFS.

Operative from 2012-13 to 2027-28.

A.1. Correct name is CHIRPINE and not CHIL as is being used in Working Plan.

A.2. Initial Approval: At page 7, paragraph 7, the proposal of HOFF HP in respect of Chirpine forests has been approved as follows:

“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 are retained.”

A. 3. Latest Stipulation: Subsequently at page 10, paragraph 4, the order specifies as follows:

“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”;

A.4. Prescriptions of Approved Working Plan for Bilaspur Forest Division: As per the approved Working Plan for Bilaspur Forest Division relating to Chil Working Circle, the relevant paragraph reads as under:

“2.21 Method of Executing Fellings in P.B-I Areas: -The following principals based on the guidelines contained in **Punjab Leaflet No.2** are laid down for the guidance of marking officer. There will be two kinds of fellings viz. seeding and final. The markings of these fellings will be done

by the Divisional Forest Officer himself or his Gazetted Assistant in accordance with the following rules:-

i) Seeding Felling

a) **About 20 healthy, vigorously growing, clean and straight boled, with well-developed crown Chil trees will be retained as seed bearers per hectare on cooler aspects. However, the number of seed bearers will be increased up to 25 on warmer aspects. Trees with twisted fibre will be discarded.**

b) The seed bearers will be uniformly spaced over the areas as far as possible. Middle-aged trees of 40 cm to 60 cm class should be preferred over mature and over mature trees.

c) Compact group of vigorously growing regeneration up to 30 cm dbh covering at least 0.25 ha area with 0.7 crown density shall be retained as advance growth. Scattered young poles and saplings which can merge into general canopy of crop will not be removed.

d) Selection cum improvement markings will be carried out in the width of about 30 metres on either side of road and perennial Nallas

A.5. Punjab Forest Leaflet No. 2 was published from Lahore in 1932 on NATURAL REGENERATION OF CONIFERS. Professor Troup in his monograph on Chirpine clearly recommends “*that in ordinary favourable circumstances 5 to 8 good seed-bearers per acre are ample for effecting regeneration; and that a greater number are not only unnecessary, but may even be detrimental to the establishment of a healthy young crop*”. It

clearly recommends that not less than 8 mother trees per acre are to be retained (meaning 20 trees per hectare). It needs to be pointed out that these instructions were like a bible for forest service for ensuring natural regeneration of Conifers in North Western Himalayas.

A.6. Seed Bearers Prescribed for Retention in Various Working Plans:

In **Annexure 2.1**, details of seed bearers prescribed for retention in various Working Plans across HP and even Garhwal Forest Division of Uttarakhand clearly reveal that by and large the maximum number of mother trees recommended for retention is 25 per hectare.

A.7. Theory and Practice of Indian Silvicultural Systems: “The number of seed bearers per hectare retained for Chirpine are 12 to 18 on cooler aspects (about 24 to 30 metre spacing) and 20 to 25 on the warmer aspects (about 20 to 22 metre spacing) as per the book ‘**Theory and Practices of Silvicultural Systems**’ by Ram Prakash and L.S Khanna both Retired IFS Officers.

The Chirpine forests are mostly deemed to be climax communities on shallow, coarse and dry soils on hot southern exposures, regeneration appears in abundance in very open, heavily grazed and periodically burnt areas near a seed source as soon as protection is afforded from burning and grazing (page 256 of **General Silviculture For India written by Sir H.G Champion and S.K Seth**).

A.8. This matter was also referred to FRI Dehra Dun and their reply is as follows:

“With reference to your mail it is informed that this Institute has conducted the ***Study on Impact of Ban on Green Felling on Biophysical Status of Forest in context to production prescribed in the Working Plans vis-à-vis Actual production from Chir Forests of Uttarakhand and*** as per the Report it is informed that:

Excerpts from page 11 of the report

"Para 1.7 Management of Chirpine Forests

Seeding Fellings: These fellings aim at retaining 10-15 seed bearers per ha, together with available healthy advanced growth, and clear felling the rest of the crop to obtain more or less uniform regeneration. On Southern aspects, poor soils and steep slopes, a large number of trees per ha i.e. 20 to 25 may be necessary."

Regards

Smt. Arti Chaudhary, IFS

Head Silviculture & FM Division

Forest Research Institute

A.9 Approval of Silvicultural Markings by Monitoring Committee:

The Monitoring Committee had insisted on 100 % enumerations of all species in approved Regeneration plots of 2018-19 in order to have an exact assessment of the volume of growing stock of the main species i.e. Chirpine, Sal and Khair as also other miscellaneous broad leaved species in order to know the floristic composition of each forest, as no broad

leaved species are being felled except the three above mentioned main species.

Silvicultural Markings have been carried out after the submission of the First Six Monthly Report on 15th August 2018 and were got inspected and checked by senior Forest Officers at the first stage.

The Monitoring Committee had to finally approve these markings before 15th September 2018 and thereafter these forests were to be handed over to Himachal Pradesh State Forest Development Corporation (HPSFDC) for carrying out fellings and extraction operations.

Accordingly, I had personally gone to inspect markings in three forests of Chirpine in Bharari Forest Range from 20 -22nd August 2018. My colleague, Dr D.R. Bhardwaj, Second Member, being bed-ridden after an accident could not accompany me. However, we had discussed this professional issue at length. In order to ensure an overall success of this Experimental Silvicultural Felling work for two years, we are fully convinced that technical and professional tenets and principles must be adhered to particularly keeping in view our main objective (**To see whether Silviculture felling actually helps in the regeneration of forests or not/?**)

A.10. Recommendations

In view of the aforementioned circumstances, we have to make the following **Recommendations:**

- Silvicultural markings in Chirpine forests should be done strictly under the Indian Irregular Shelter wood System, also known as Punjab Shelter wood System, being followed mostly for Chirpine forests throughout the State of Himachal Pradesh.
- In view of the specific prescriptions of the approved Working Plan of Bilaspur Forest Division and contents of Para A.6 above (general pattern of retention of seed bearers), the maximum number of seed bearers/ mother trees to be retained in Seeding Felling in PB 1 forests should be 25 giving a spacing of 20-22 metres.
- Certainly, by retention of 40 mother trees per hectare (as stipulated in paragraph A.3 above), we will reduce the spacing between mother trees to about 15 metres and this stipulation will be an **inhibiting** factor for encouraging natural regeneration, as Chirpine **is a strong light demander**.
- In addition to 25 seed bearers/mother trees of Chirpine as proposed now, we are retaining all other trees of broad-leaved species as well. Therefore, in order to maintain a normal floristic composition of a Chirpine forest, it becomes necessary that adequate openings of canopy are created at the time of Seeding felling to ensure that natural regeneration of the main species i.e. Chirpine is encouraged.
- **In conclusion, we recommend that the markings of Seeding fellings with retention of only 25 seed bearers/ mother trees**

per hectare may be approved as contained in paragraph A.2 above.

B. SAL FOREST ISSUES

(ORDER OF 16.2.2018, PAGE 4 , CEC RECOMMENDATION iv)

Revised Working Plan for the Forests of Nahan and Paonta Sahib Divisions by Vineet Kumar, IFS.

Operative from 1998 -99 to 2012-13.

B.1 Being managed under Regular Shelter Wood System and 40-55 mother trees per hectare retained as per site conditions and WP prescriptions and not restricted to 40 trees as initially stipulated.

B. 2 The total area of 30.96 ha of P/1 2018-19 Compartment no C-6 Rajban in Paonta Forest Range has been taken up as a unit of management for Silvicultural interventions only, as growing stock of Sal was very low after 100% enumerations. After marking of dead/dying/fallen/malformed trees (hygienic fellings) and fire lines trees, (constituting less than 4% of total standing volume) area will be taken up for restocking. Restriction of 20 ha in this case was not advisable at all as per site inspections.

C. KHAIR FOREST ISSUES

(ORDER OF 16.2.2018, PAGE 10, PARAGRAPH 3)

Revised Working Plan Nurpur Forest Division by J.C.Katoch, HPFS.

Operative from 2012-13 to 2021-12.

As per approved Working Plan of Nurpur Forest Division, Khair is being worked under Khair Overlapping Working Circle. Khair is an overlapping crop in two major Working Circles i.e. Chil Shelter Wood Working Circle and Plantation Working Circle. After 100 % enumerations (**Annexure 2.4**) we found that in four Regeneration plots, floristic composition of various species was as follows:

Table 2.2 Khair Forests of Nurpur Forest Range having Mainly Chirpine

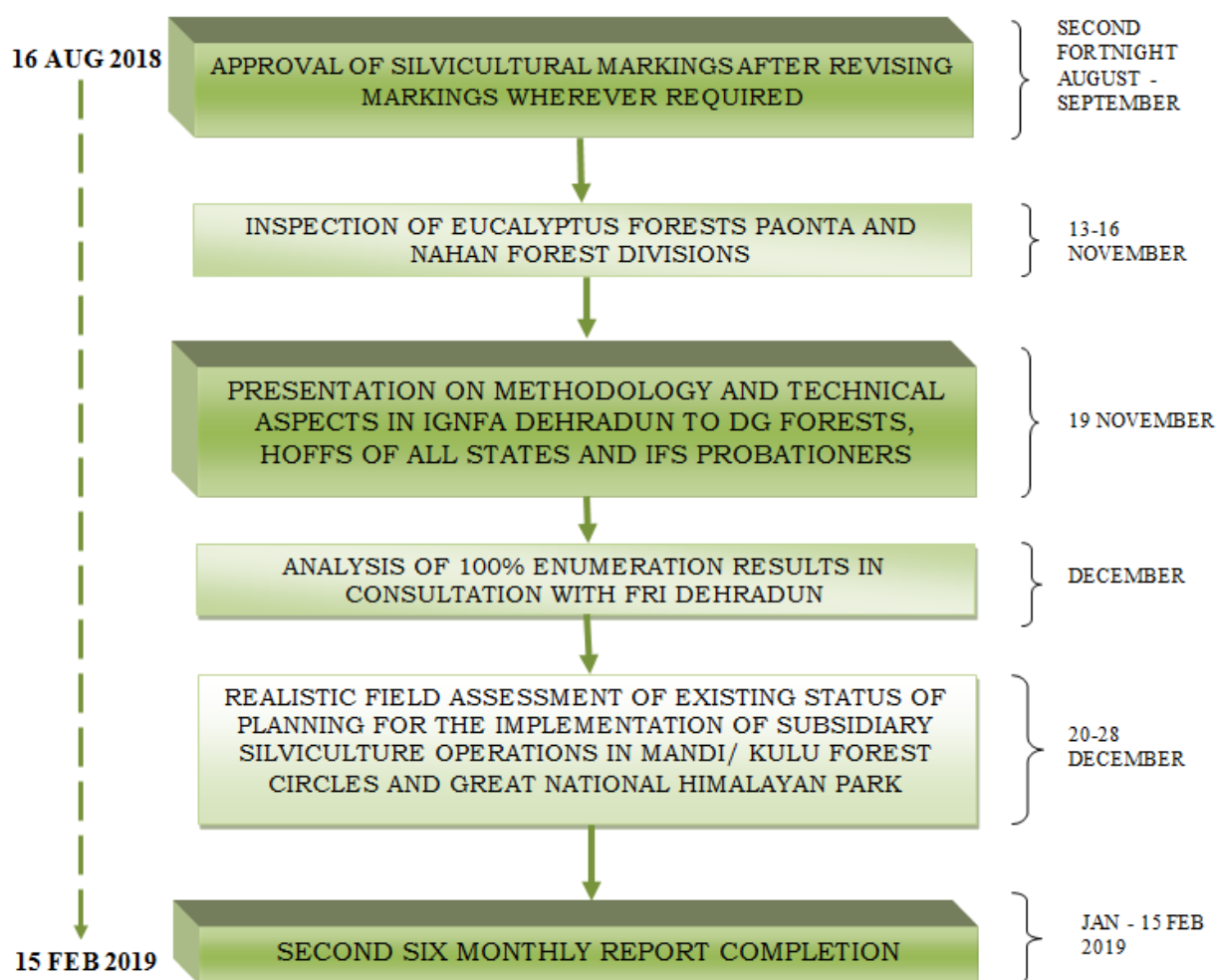
Regeneration Plot Number	Volume % of Khair	Volume % of Chirpine	Volume % of other BL	Total
N/3 2018-19	6	59	35	100
N/4 2018-19	1	62	37	100
N/5 2018-19	1	95	4	100
N/9 2018-19	0	81	19	100

There were hardly any Khair trees but these were basically Chirpine forests and accordingly Chirpine hygienic markings have been done as warranted in each forest strictly as per crop requirement and the need to create fire lines.

2.1.2 Key Activities Completed from 16th August 2018 to 15th February 2019.

The work plan from 16th August 2018 to 15 February 2019 is given in **Annexure 1.4**. Figure 2.1 given below gives at a glance the time frame followed for the completion of key activities as under:-

Fig 2.1: Flowchart of Key Activities completed under Experimental Silvicultural Felling Programme from 16th August 2018 to 15th February 2019.



2.1.3 Methodology Adopted for Identification of Boundaries of Forests During inspections of forests by the Monitoring Committee, it came as a big shock to us that majority of the forests taken up under Experimental Silviculture Felling Programme, were having neither

boundary delineated nor boundary pillars were found to be in position, whereas the Survey of India Sheets on 1:15000 scale, have the boundary pillars marked on topo sheet along the forest boundary and some boundary pillars have even the number depicted on these maps. The following method is used to extract & delineate the forest and locate the boundary pillars in field conditions from Geo referenced digitized maps prepared in the Laboratory.

The Department has digitized, and delineated its forest boundaries upto compartment level, based on the Geo-referenced, scanned topo-sheets on 1:15,000 scale. The Forest boundary pillars location is also digitized on topo sheet with the software ARC GIS (10.4 versions). Point shape file is used to digitize the boundary pillars in topo-sheets. After digitizing the boundary pillar on topo sheet, the coordinate values (Longitude and Latitude) of each boundary pillar is generated using the software. The Coordinate values of boundary pillars so generated is provided to the DFOs concerned to identify and locate the boundary pillars on the ground with the help of GPS device. Thus the forests are transferred from Map to field conditions.

The Monitoring Committee recommends that for all forests under Experimental Silviculture Felling Programme already gone over partly in 2018-19, left over areas of 2018-19 and areas planned for treatment during 2019-20, totaling 2055 ha in selected Forest Ranges of Bharari, Nurpur, and Paonta Sahib including (Bhagani and

Jamta Forest Ranges-Eucalyptus forests), boundary pillars must be erected at site before 15 August 2019. The concerned DFO has to submit a certificate duly signed by the territorial Conservator reading as follows before 15th August 2019, when our Third Six Monthly Report has to be submitted:

I -----hereby certify that all types of forests in ----- Forest Division approved under Experimental Silviculture Felling Programme by Hon'ble Supreme Court during 2018-19 and 2019-20 now have all BOUNDARY PILLARS in position and in Revenue Records, the legal status of forests has been authenticated by mutation.

"All forests will be kept free from grazing and are protected"

DFO

**Conservator of
Forests**

DATE-----

2.1.4 Status of Approval of Three Management Plans

Three separate comprehensive Management Plan one each for Chirpine, Sal and Khair relating to experimental silviculture felling have been prepared and steps are being taken for getting these approved from MoEF&CC. **Immediate action is required to get these Plans approved from MoEF & CC.**

2.1.5 Revised Site Selection Criteria for Approval of a Compartment

Annexure 2.2.

Based on the experience gained during the course of repeated inspections of forests by the Monitoring Committee, it was felt necessary that the site selection criteria or data sheet should be improved so as to include information on more relevant requirement like demarcation of each forest by boundary pillar and ascertaining whether legal status is updated in revenue records with a proper notification. Similarly ocular estimate of canopy density as per classification followed by FSI has been insisted upon. It has been now decided that for all forests gone over in 2018-19 and planned for treatment during 2019-20, information on the amended **Annexure 2.1** will be furnished to make sure that all forests to be approved by the Monitoring Committee have boundary pillars in position and the legal status of each forest and its area as maintained in Compartment History file is entered in Revenue records.

Keeping in view the spatial spread of all the forests required to be gone over in two years under the experimental silviculture felling to be monitored by the Monitoring Committee, it has been decided that Senior Forest Officers will be assigned the duty of physical inspection of forests in the first fortnight of March 2019 prior to the final round of inspections by the Monitoring Committee in the second fortnight of March 2019. In order to maintain uniformity of inspection standard of various teams, it has been considered expedient to design a check list (**Annexure 2.2 A**) with 9 specific items which need to be checked by each team.

2.1.6 Analysis of Results of 100% Enumerations in Standard Diameter Classes. The Monitoring Committee felt it advisable to rely only on 100 % enumerations in approved Regeneration plots as given in **Annexure 2.3**

in order to have an overall actual assessment of growing stock in standard diameter classes but more importantly **floristic composition** of each forest. **2.1.7 Abstract of Enumeration Results and Floristic Composition of Forests.**

In accordance with the guidelines formulated for carrying out 100% enumerations in all forests gone over in 2018-19, the data so obtained has been tabulated in **Annexure 2.4**. Key findings are:

- In case of three forests of Bharari Forest Range, the percentage of standing volume of Chirpine is 87, 96 and 99, thereby indicating that these forests have to be managed as Chirpine forests primarily.
- In case of four forests of Paonta Forest Range, the percentage of standing volume of Sal is 94, 94, 99 and 98, thereby indicating that these forests have to be managed as Sal forests primarily.
- In case of 11 forests of Nurpur Forest Range, the percentage of standing volume of Khair is rather very low generally. In case of 4 forests N/3, N/4, N/5 and N/9, the standing volume of Chirpine is varying from 59 to 95 %.

Clearly, the total number of trees enumerated class wise and species

wise and standing volume now obtained per hectare would be the main basis to plan next steps for regeneration of each forest based on its actual floristic composition. Similar data of earlier enumerations though tabulated for each forest cannot be relied upon.

2.1.8 Results of Silvicultural Markings during 2018-19 as per Site Conditions.

Results of silvicultural markings for each forest taken up in 2018-19, have been tabulated in **Annexure 2.5**.

The volumes removed as a result of silvicultural markings have been cross checked with standard data as read from yield table with the help of UHF, Nauni. Removals as approved in all forests of Chirpine, Sal and Khair have been found to be within prescribed limits. In fact the Monitoring Committee has been over cautious all through that removals are allowed in a scientific way after actual site inspections and creating required opening in the canopy so that natural regeneration comes profusely.

2.1.9 Abstract of 2018-19 Forest Areas (Treated and Left over) and Approved Forest Areas of 2019-20

Because of the initial condition of restricting the area of each forest to 20 ha which has now been relaxed after the orders of Hon'ble Supreme Court on 30th October 2018, the Monitoring Committee has made an effort to tabulate in Annexure 2.6 three types of forest areas in the following colour codes:

2018-19 TREATED AREAS: GREEN SHADE
2018-19: LANTANA AREAS BEING TREATED IN 2019-20: RED SHADE
2019-20 PLANNED NEW AREAS: YELLOW SHADE

2.1.10 Legal Classification of Forests approved for 2018-19 and 2019-20

The Monitoring Committee has estimated that about Rs. 1.25 lac per ha is likely to be spent on all forests under Experimental Silvicultural Felling programme meaning an investment of about Rs. 26 crores on 2054 ha of area for enumerations, markings, other interventions, fencing etc. Unless such forests have secure legal tenure and boundary pillars in position for demarcation, all investments will go waste. Therefore, an effort has been made to collate forest wise information on the legal classification of forests being monitored by us and is presented in Annexure 2.7. An abstract of legal classification of all forests is as follows:

Table 2.3 ABSTRACT OF FOREST AREAS (HA) AS PER LEGAL CLASSIFICATION

Legal Classification	Bharari Forest Range	Paonta Forest Range	Nurpur Forest Range	Total
RF: RESERVE FOREST	0	372	591	963
DPF: DEMARCATED PROTECTED FOREST	73	0	72	145
UPF: UNDEMARCATED PROTECTED FOREST	0	0	931	931
CFS: CO-OPERATIVE FOREST SOCIETY	0	0	15	15
TOTAL	73	372	1609	2054

2.1.11 Areas Gone Over in 2018-19 Completely and Approved for Fencing

It can be seen that only 7 forests comprising an area of 121 ha only have been approved for fencing to be completed before rainy season of 2019 (**Annexure 2.7 A**).

2.1.12 Inspection and approval of 2 Forests of Eucalyptus

Hon'ble Supreme Court of India, approved our Second Recommendation of the First Six Monthly Report vide order dated on 30th October, 2018 , as follows: ***“The Monitoring Committee recommends that on an experimental basis, 50 hectare of Eucalyptus (10 hectare in Paonta Forest Division and 40 hectare in Nahan Forest Division) may be approved for felling during 2018-19. Felling of the Eucalyptus is to be completed before 15th January 2019.”***

Accordingly, we had inspected two forests in November 2018 and have approved next steps as follows:

- **R-10 Giri, Compartment 2, of Bhagani Forest Range, Paonta Forest Division, inspected on 14th November 2018.**

1. The Monitoring Committee noticed that even RESERVE FORESTS till date do not have Boundary Pillars and such forests were proposed for approval of Hon'ble Supreme Court. **Therefore, the process of location of temporary points where boundary pillars are to be erected was initiated at site, (videography being sent to Hon'ble Supreme Court).** DFO was instructed that

all Boundary Pillars should be got completed by 15th December 2018 positively and by now all Boundary Pillars have been erected already.

2. Holistic forest management of Compartment 2 is to be put in place after markings of all Eucalyptus trees having 20 cm and above dbh, leaving 15 to 18 standards per hectare as per WP prescriptions.
 3. No broad-leaved tree is to be marked at all for felling.
 4. Post fellings, after completion of fencing the entire Compartment, total area (25.15 ha) will be taken up for ENRICHMENT PLANTING in July 2019, with tall plants of SHISHAM, KHAIR and two more locally suitable species of economic value, after CF and DFO jointly inspect this area and take a spot decision.
- **Reserve Forest R-135 Talon, Compartment 4, of Jamta Forest Range, Nahan Forest Division, inspected on 15th November 2018**
1. Here too, there are no Boundary Pillars in position and based on red flags already fixed all around the boundary, DFO Nahan to ensure that all Boundary Pillars must be erected afresh to be completed before 15th December 2018.
 2. Eucalyptus was planted in 1960 and in 1980, Khair and Kachnar were planted. This forest requires absolutely no fellings of

Eucalyptus except hygienic markings, if at all required, as also markings for fire lines. There is no role of HPSFDC in this forest.

3. This beautiful forest patch so rich in biodiversity, very close to Nahan town and being located on the Highway to Shimla is an ideally suitable place to be developed as a **VAN VIHAR/ URBAN PICNIC RESORT.**
4. No broad leaved tree is to be marked at all for felling except climber cutting.
5. Post fellings, after completion of fencing the entire Compartment, total area (62.40 ha) will be taken up for ENRICHMENT PLANTING in July 2019, with tall plants of Jamun, Behara, Arjun, Amla and Amaltas in addition to ornamental trees and shrubs, after CF and DFO jointly inspect this area and take a spot decision.
6. No haphazard planting but planned ZONATION planting to be ensured.
7. Water retention structures, well laid out walking trails, sitting places etc need very careful planning after preparing a detailed map on a larger scale.
8. CF NAHAN to ensure excellent planning to develop this area imaginatively.
9. Completion of 100% Enumerations of Eucalyptus to be ensured to assess floristic composition.

2.1.13 Planning for the Implementation of Subsidiary Silviculture

Operations in Himachal Pradesh

Hon'ble Supreme Court has approved our Third Recommendation on 30th October 2018 allowing revival of Subsidiary Silviculture Operations (SSO) in Himachal Pradesh **in accordance with the approved Working Plans**. These much needed prescribed interventions will get revived after more than two decades of dormancy. Therefore, the following enabling conditions have to be put in place by HPFD as a preparatory work to move forward.

A. Issues Relating to Working Plans

BOX 2.1 Context and Importance of a Working Plan:

Forest Working Plan has been defined as written document of forest management “aiming at continuity of policy and action, and both prescribing and controlling basic operation in a forest estate over a period of time. Working Plan is the principal document at forest level to ensure sustainable forest management.”

The National Forest Policy 1988 clearly states in Paragraph 4.3.2 “No forest should be permitted to be worked without an approved Working Plan by the competent authority”

1. Status of Expired Working Plans:

Accordingly, the Monitoring Committee while giving the highest priority to this most important technical work has taken stock of the latest status of approved Working Plans as on 30th November 2018, given in **Annexure-2.10**. As of now out of total 37 Working Plans, there are only 20 Forest Divisions having approved Working Plans. In the remaining Forest Divisions, the process of revision of the working plans is under way. At present the position of expired Working Plans is summarized as follows:

Table 2.4 Year of Expiry of Working Plans

YEAR OF EXPIRY OF WP	NAME OF FOREST DIVISION	NOS
1985-86	SHIMLA MUNICIPAL FORESTS	1
2006-07	LAHAUL	1
2007-08	CHURAH	1
2008-09	ROHRU	1
2011-12	ANI	1
2012-13	CHAMBA, NAHAN, PAONTA	3
2013-14	MANDI, JOGINDERNAGAR, RENUKAJI,)	3
2014-15	KINNAUR	1
2016-17	SOLAN	1
2017-18	SUKET, CHOPAL	2
TOTAL		15

- **Nachan Forest Division** Draft Working Plan submitted to MoEF & CC, observations raised are to be attended by WPO.
- **UNA (KUTHLEHAR)** Draft Working Plan submitted to MoEF & CC.
- **Parvati Forest Division** Draft Working Plan submitted to MoEF & CC, observations raised are to be attended by WPO.

2. Need for Strict Compliance of National Working Plan Code 2014:

National working Plan Code 2014, issued by the Ministry of Environment, Forests and CC, GOI, has to be complied with strictly by all States in all matters pertaining to Working Plans, particularly the following stipulations:

- **Preliminary Working Plan Report:** Preliminary Working Plan Reports (PWPR), wherever due, have to be completed two years prior to the expiry of the valid WP as laid down in National working Plan Code 2014, as follows:

“Paragraph 55: The draft PWPR is deliberated upon in the standing consultative committee meeting chaired by the PCCF (HoFF), which then finalizes the report with changes as deemed necessary.

Paragraph 56: The approval of PWPR by PCCF (HoFF) should be granted at least two years prior to the expiry of the current working plan, so that the preparation of working plan by the WPO, approval by the designated authority and delivery of approved working plan to the DFO territorial concerned for implementation can be completed prior to expiry of the current plan.”

3. Revised Working Plan for the Forests of Nahan and Paonta Sahib Divisions - By Vineet Kumar, IFS. Operative from 1998 -99 to 2012-13

Despite very clear aforementioned stipulations, the Monitoring Committee was left aghast to note the chaotic position relating to the status of the above Working Plan Revision as follows:

- Hon’ble Supreme Court has approved an area of 176.01 ha for the year 2018-19 and an area of 120.12 ha for the year 2019-20 of Sal

Forests of Paonta Forest Range, as recommended in affidavit submitted by HoFF on 13th December 2017. The Monitoring Committee noticed that the Working Plan of Nahan & Paonta Sahib Forest Divisions by Vineet Kumar, IFS was operative from 1998-99 to 2012-13. The aforesaid Working Plan was extended upto **2017-18**.

- In a meeting held with Central Empowered Committee (CEC) on 8th March, 2018 at New Delhi, it was decided as follows:

“In the event of Working Plan for Nahan and Paonta Sahib Divisions 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.”

4. The Monitoring Committee was disappointed to note that till the orders of Hon’ble Supreme Court of 16th February 2018, all successive Conservators of Nahan Forest Circle had failed to prepare a Preliminary Working Plan Report which is always undertaken two years prior to expiry of a Working Plan. Ideally Sal Forests should not have been proposed for Experimental Silviculture Fellings under these circumstances. The Preliminary Working Plan Report has been submitted belatedly by the Conservator, Nahan Forest Circle in May, 2018 which has been approved by HoFF on 24th May 2018.

5. The Monitoring Committee recommends that all incumbents who have worked as Territorial Conservators in Nahan Forest Circle from 2013-14 onwards should be held accountable for not preparing the Preliminary Working Plan Report on time.

The Experimental Silviculture Felling is being carried out after elaborate field inspections at repeated intervals and the experience so gained should be factored into the preparation of a New Working Plan.

6. As a matter of principle the existing practice of seeking extensions periods after the expiry of the Working Plan operative for 10-15 years should be totally discontinued and a Revised Working Plan should be got prepared well in time so that on the expiry of the Original Working Plan, the forest working is regulated according to the Revised Working Plan.

7. Mid Term Revision of WP: As provided in paragraph 31 of National working Plan Code 2014, midterm revision of each approved WP has to be carried out in order to avoid mismatch of allotment to Working Circles with actual floristic composition and Periodic Block allotments. The Monitoring Committee has experienced during the approval of Silviculture Markings in Paonta Forest Range and Nurpur Forest Range that the prescriptions of the approved Working Plans were not matching with the field conditions. In fact, the prescriptions laid

down in the Working Plans were never followed because of the ban on green fellings.

Conclusion:

In view of the aforementioned circumstances, the Monitoring Committee recommends that Subsidiary Silviculture Operations (SSO) should be allowed in Forest Divisions having an approved Working Plan. However, the much neglected but most important operation of erection of Boundary Pillars should be initiated on war footing across all Forest Divisions from 2019-20 onwards.

B. Issues Relating to Prioritization and Execution of Key Subsidiary Silvicultural Operations (SSO)

The Monitoring Committee, after extensive consultations with field officers has finalized a priority wise time table for the execution of SSO, so that financial investments are usefully made to carry forward these interventions in all planned manner.

Table 2.5 Prioritization and Time Table for Execution of SSO in High and Lower Hill Forests from 2019-20 onwards

OPERATION/ ACTIVITY	HIGH HILLS	LOWER HILLS
1. Construction and Maintenance of Boundary Pillars	October - February	October - December
2 (a). Creation and maintenance of fire lines	October - November	December - January
2 (b). Control burning	October - November	December - January
1. Removals of Invasive Species	October - November	October - December
2. Climber cutting	December - January	December - January
3. Subsidiary Silvicultural Operations including Cleaning & Thinning	October - December	November - January

2.2 ANSWERS TO THE TERMS OF REFERENCE

2.2.1 Quantitative Assessment of Workload of Experimental

Silviculture Felling during 2018-19 and 2019-20.

An overall assessment of quantitative workload for two years as per the approval of Hon'ble Supreme Court order dated 16th February 2018 is as under:-

Table 2.6 Workload of Experimental Silviculture Felling during 2018-19 and 2019-20 as per approved forests in Hon'ble Supreme Court Order of 16th February 2018

FOREST RANGE	NURPUR	PAONTA	BHARARI	TOTAL THREE FOREST RANGES
SPECIES	KHAIR	SAL	CHIL	
PARA OF APPROVAL (TOR)	PARA 7.6	PARA 8.8	PARA 7.7	
2018-19 APPROVED AREAS BY HON'BLE SUPREME COURT	903	176	49	1128
2019-20 APPROVED AREAS BY HON'BLE SUPREME COURT	706	120	24	850
TOTAL AREA	1609	296	73	1978

However, because of the initial condition of restricting the area of each forest to 20 ha, which has now been relaxed after the orders of Hon'ble Supreme Court on 30th October, 2018, the workload of 2019-20 has very much increased as would be evident from the table given below:-

Table 2.7 ABSTRACT OF LEFT OUT FORESTS OF 2018-19 AND NEW FORESTS OF 2019-20

FOREST RANGE	NURP UR	PAON TA	BHARA RI	BHAGA NI	JAMTA	TOTAL AREA
SPECIES	KHAI R PARA 7.6	SAL PARA 8.8	CHIL PARA 7.7	EUCALY PTUS	EUCAL YPTUS	
YEAR WISE	AREA IN HECTARES					
1.2018-19 APPROVED AREAS BY HON’BLE SUPREME COURT	903	176	49			1128
2.FORESTS ACTUALLY AVAILABLE FOR APPROVAL	903	135*	49	25	62	1174
3. APPROVED FORESTS BY MONITORING COMMITTEE	12	4	3	1	1	21
4. TOTAL AREA TREATED 2018-19 21 FORESTS	216	80	49	25	62	432
5.LANTANA INFESTED FORESTS OF 2018-19 APPROVED FOR WORKING IN 2019-20	429	0	0	0	0	429
6.LEFT OUT FORESTS OF 2018-19	258	55	0	0	0	313
7.TOTAL BACKLOG OF 2018-19 TOTAL ROW 5 AND 6	687	55	0	0	0	742

8.APPROVED FORESTS OF 2019-20	706	150	24	0	0	1309
9 TOTAL WORKLOAD OF 2019-20	1393	205	24	0	0	1622
TOTAL WORKLOAD OF 2018-19 AND 2019-20	1609	285	73	25	62	2054

An abstract of areas gone over in 2018-19 and areas now planned for 2019-20 is given below:

Table 2.8 Abstract of areas gone over in 2018-19 and areas planned for 2019-20

YEAR OF WORKING	TOTAL AREA(HA)	NO OF COMPARTMENT	% AREA
NURPUR FOREST RANGE (KHAIR & CHIRPINE)			
2018-19	216	12	13
2019-20	1393	38	87
CUMULATIVE TOTAL	1609	50	
BHARARI FOREST RANGE (CHIRPINE)			
2018-19	49	3	67
2019-20	24	1	33
CUMULATIVE TOTAL	73	4	
PAONTA FOREST RANGE (SAL & EUCALYPTUS)			
2018-19	167	6 INCLUDES 2 COMPT. OF EUCALYPTUS FORESTS	45
2019-20	205	3	55
CUMULATIVE TOTAL	372	9	
GRAND TOTAL THREE FOREST RANGES			
2018-19	432	21	21
2019-20	1622	42	79
GRAND TOTAL	2054	63	100%

2.2.2 Final Time Table for Inspections and Approval of Forests for Experimental Silvicultural Fellings during 2019-20

Table 2.9 Final Time Table for Inspections and Approval of Forests for Experimental Silvicultural Fellings during 2018-19 and 2019-20

SN	ITEM/ACTIVITY	LATEST DATE OF COMPLIANCE
1	COMPLETION OF PRESCRIBED ANNEXURE 2.1 VERSION 29.11.2018 (REVISED DATA SHEET WITH 21 ROWS) FOR APPROVAL OF ALL COMPARTMENTS OF 2018-19 AND NEW COMPARTMENTS OF 2019-20 AFTER PHYSICAL INSPECTION OF EACH FOREST AND MATCHING WITH WP FELLING PROGRAMME TABLE	JANUARY END 2019 63 COMPARTMENTS TOTAL AREA 2067 HA 19 FOREST BEATS
2	COMPLETION OF EXTRACTION WORKS BY HIMACHAL PRADESH STATE FOREST DEVELOPMENT CORPORATION	FEBRUARY END 2019
3	FIELD INSPECTION OF ALL FORESTS OF 2018-19 AND 2019-20 BY HPFD TEAMS OF SENIOR OFFICERS BY FILLING PRESCRIBED FORMAT OF MONITORING BEFORE MONITORING COMMITTEE INSPECTIONS	1-15 MARCH 2019
4	COMPLETION OF SITE INSPECTIONS/VIDEOGRAPHY OF ALL FORESTS OF 2018-19 AND 2019-20 BY MONITORING COMMITTEE ACCOMPANIED BY PCCF/APCCF MANAGEMENT/CCF MANAGEMENT	16-31 MARCH 2019
5	GIS PROCEDURAL FORMALITIES COMPLETION	15 APRIL 2019
6	COMPLETION OF 100% ENUMERATIONS OF ALL COMPARTMENTS /ANALYSIS OF FLORISTIC COMPOSITION	31 MAY 2019 POSITIVELY EARLIER PREFERRED
7	COMPLETION OF SILVICULTURAL MARKINGS	31 JULY 2019 EARLIER PREFERRED
8	INSPECTION OF MARKINGS BY SENIOR OFFICERS OF HPFD	15 AUGUST 2019
9	APPROVAL OF MARKINGS BY MONITORING COMMITTEE	31 AUGUST 2019
10	HANDING OVER LOTS TO HPSFC	15 SEPTEMBER 2019

Details of the areas to be gone over in 2019-20 are given in **Annexure-2.6**. The overall position of the workload for the two years is summarized as under:-

2018-19- Only **432** ha area has been gone over in 21 Compartments comprising just **21%** of the total workload.

2019-20- The estimated workload for 2019-20 is rather very heavy because of backlog of 2018-19 and works out to **1622** ha spread over 42 Compartments and forms **79%** of the total workload. A more realistic assessment of spatial spread of forests to be gone over in 5 Forest Ranges particularly Nurpur Forest Range can be seen from maps being given in the Report as follows:

NURPUR FOREST RANGE: 1609 HA, 10 BEATS, 54 COMPARTMENTS (Page-71)

BHARARI FOREST RANGE: 73 HA, 3 BEATS, 4 COMPARTMENTS (Page-72)

PAONTA FOREST RANGE: 285 HA, 3 BEATS, 4 COMPARTMENTS (Page-73)

BHAGANI FOREST RANGE: 25 HA, 1 BEAT, 1 COMPARTMENT (Page-74)

JAMTA FOREST RANGE: 62 HA, 1 BEAT, 1 COMPARTMENT (Page-74)

In view of spatial spread of the workload in 2019-20, the Monitoring Committee has planned that all areas of 2019-20 spread across three Forest Ranges initially approved including Bhagani and Jamta Forest Ranges (Eucalyptus) are first inspected by Senior forest officers in the first fortnight of March, 2019 after HPSFDC Ltd. has completed extraction activities to certify effective completion of all interventions well in time as approved by the Monitoring

Committee. Thereafter in the second fortnight of March 2019, the Monitoring Committee will finally approve these areas for working during 2019-20 season and videography post felling will be done.

After detailed discussions with HPFD and MD HPSFDC, the Monitoring Committee has approved a timetable for inspection and approval of 2019-20 areas as given in **Annexure 2.9**

Table 2.10 PLANNING OF FIELD INSPECTIONS BY SENIOR OFFICERS OF HPFD - LEFT OVER FOREST AREAS OF 2018-19 AND APPROVED FOREST AREAS FOR 2019-20

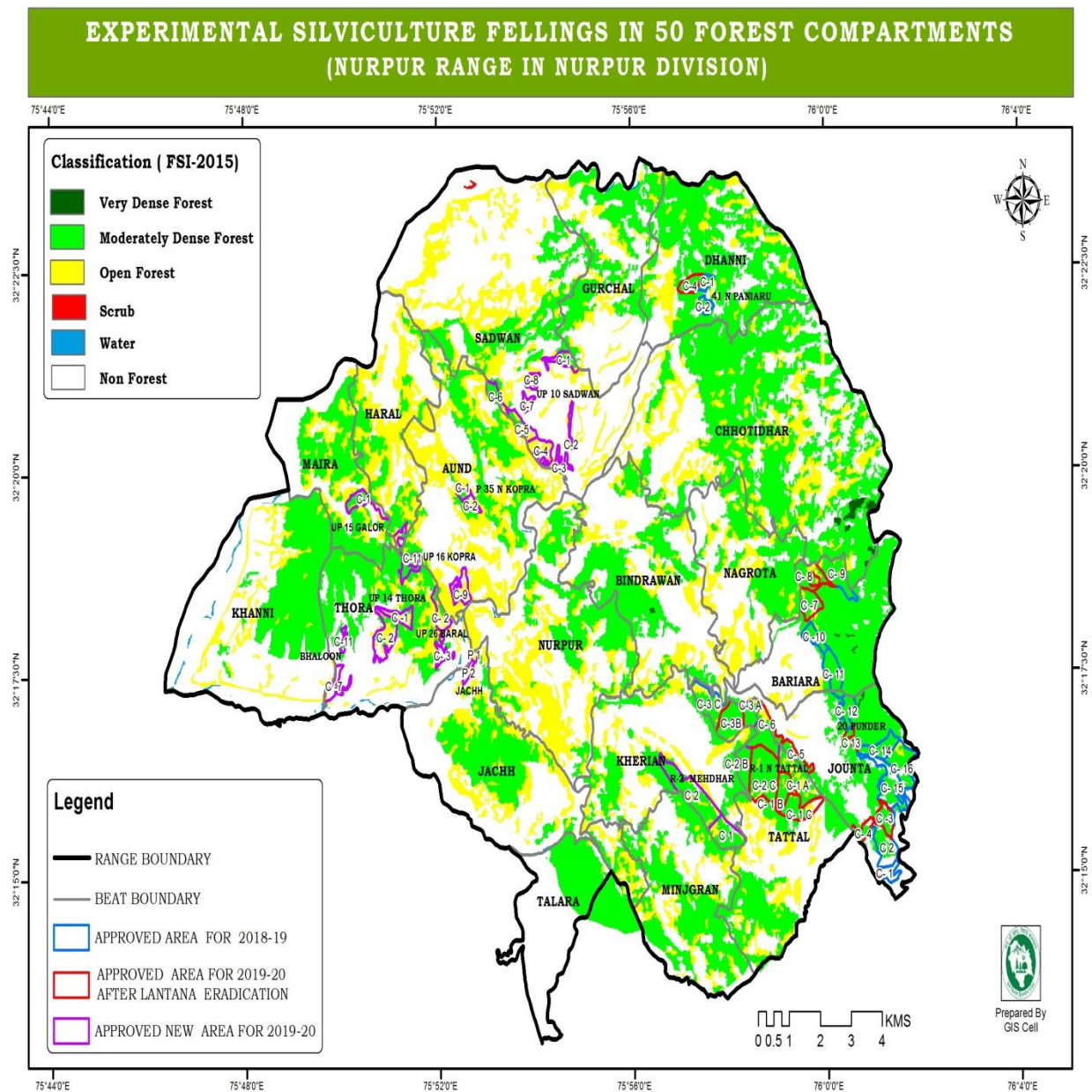
FOREST RANGE	TOTAL AREA (HA)	NAME OF BEAT/S	NO OF COMPARTT	IINSPECTION TEAM
NURPUR FOREST RANGE				
NURPUR	442	TATTAL	8	TEAM NURPUR ONE
	370	JAUNTA	11	TEAM NURPUR
	214	BARIARA JACHH	7	TEAM NURPUR THREE
	583	KHERIAN DANNI THORA MAIRA AUND SDAWAN	24	TEAM NURPUR FOUR
TOTAL	1609	10	50	
BHARARI FOREST RANGE				
BHARARI	73	3	4	TEAM BHARARI FIVE
PAONTA, BHAGANI, JAMTA FOREST RANGES				
PAONTA, BHAGANI, JAMTA	372	6	9	TEAM PAONTA SIX
GRAND TOTAL	2054	19	63	

2.2.3 Status of Key Issues for Compliance of Orders of Hon'ble Supreme Court

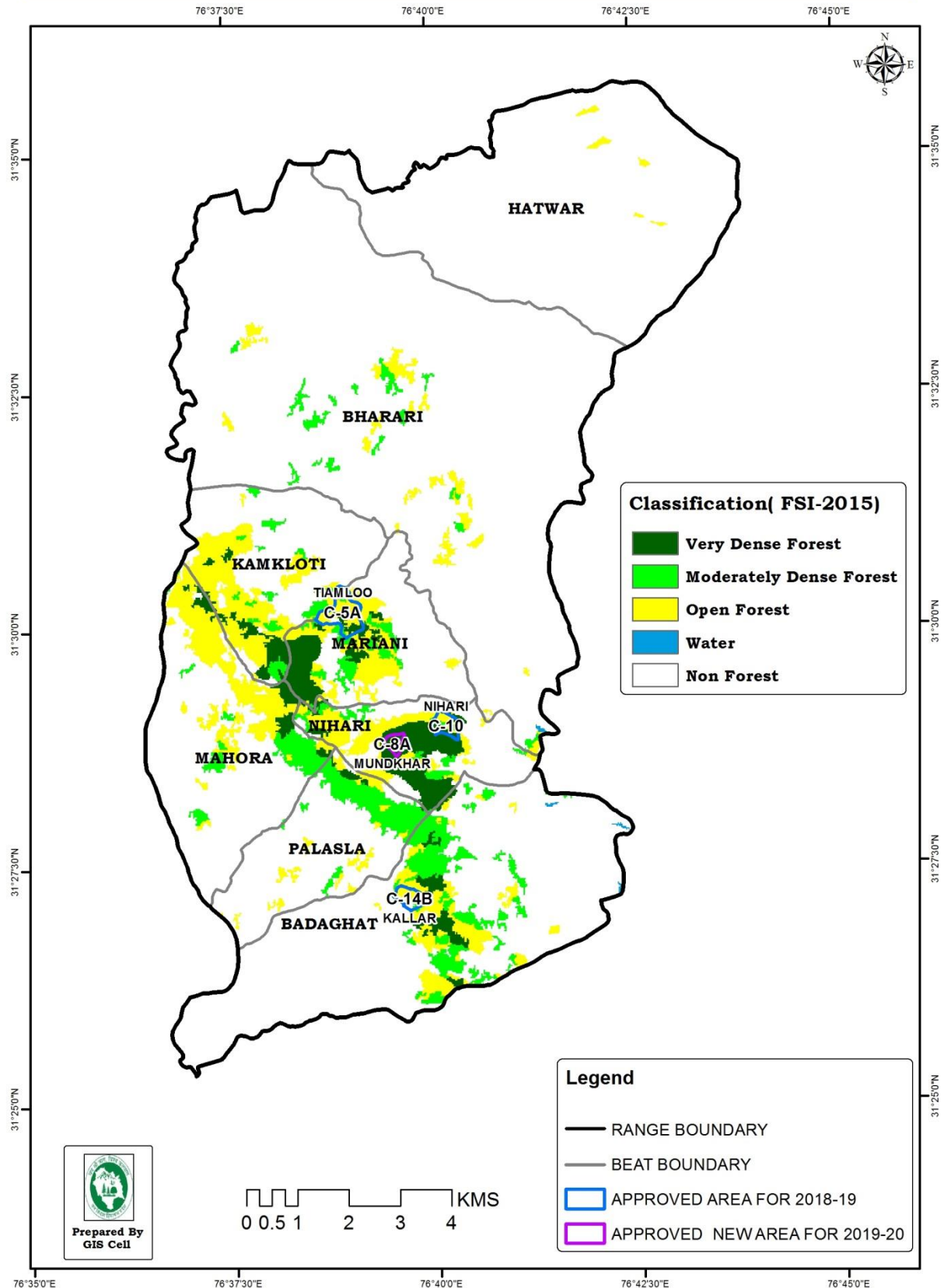
An effort has been made in **Annexure 2.8** to clearly summarize the latest status of compliance of only key issues as on 15th February 2019, in the following two groupings:

- **Issues relating to action to be taken by the State Government/HPFD for compliance of Hon'ble Supreme Court Orders (Red shading).**
- **Issues relating to action being taken by the Monitoring Committee and highlighted for approval by Hon'ble Supreme Court (Green shading).**

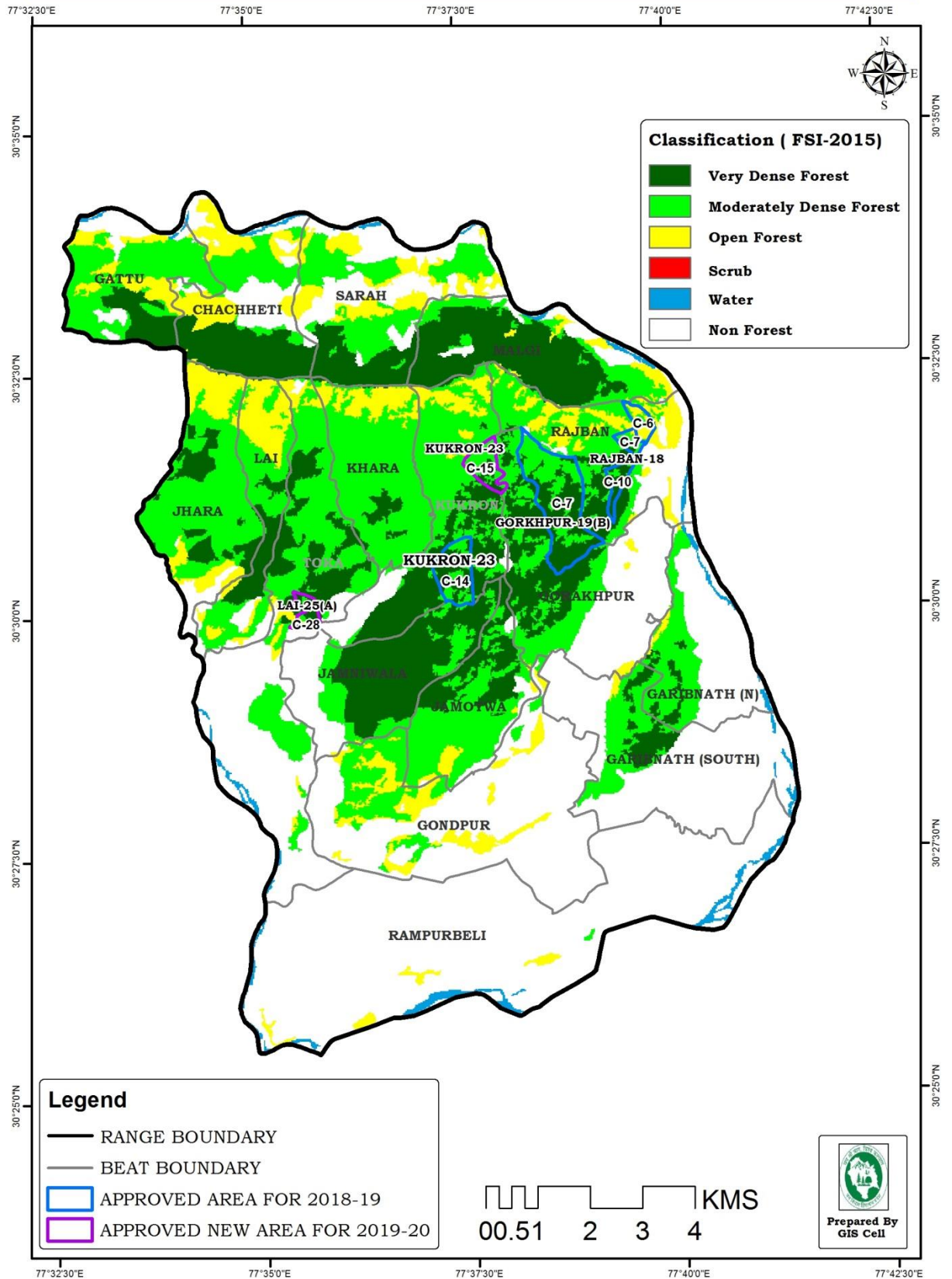
MAPS TO BE CHECKED



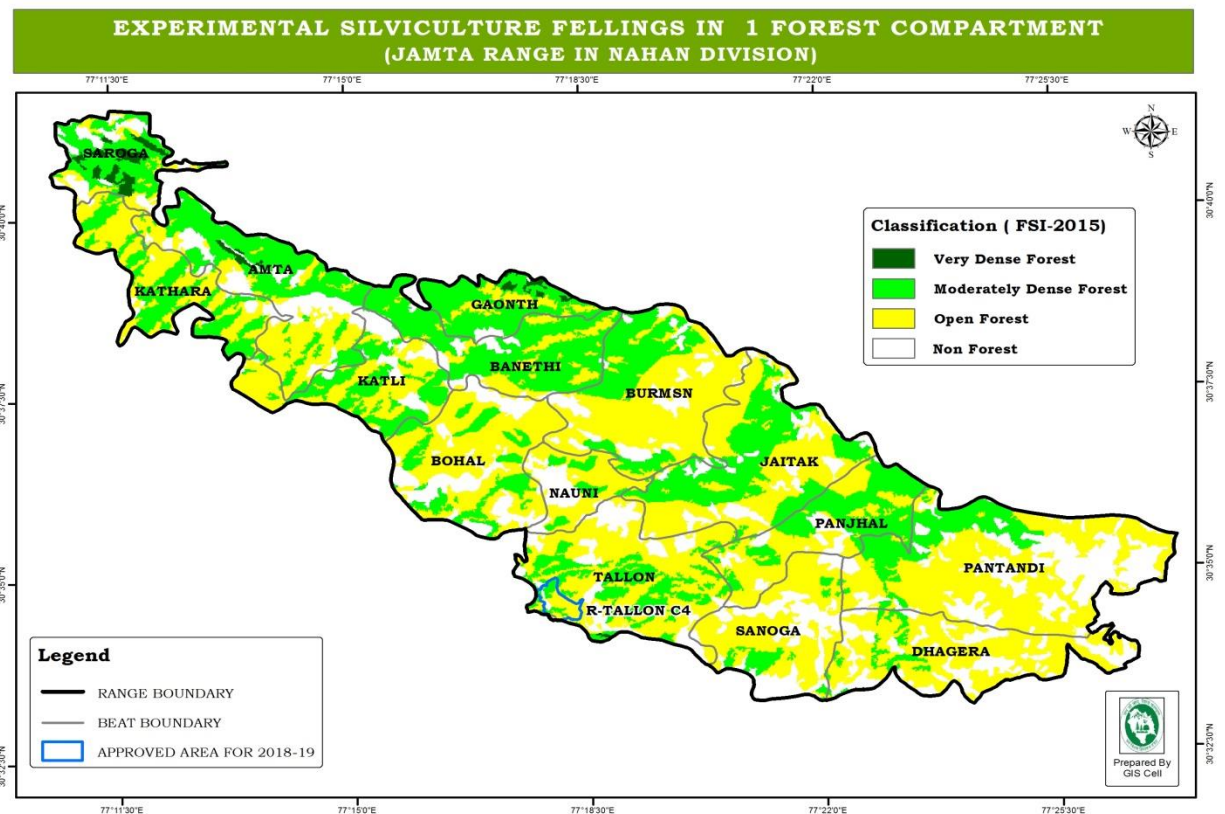
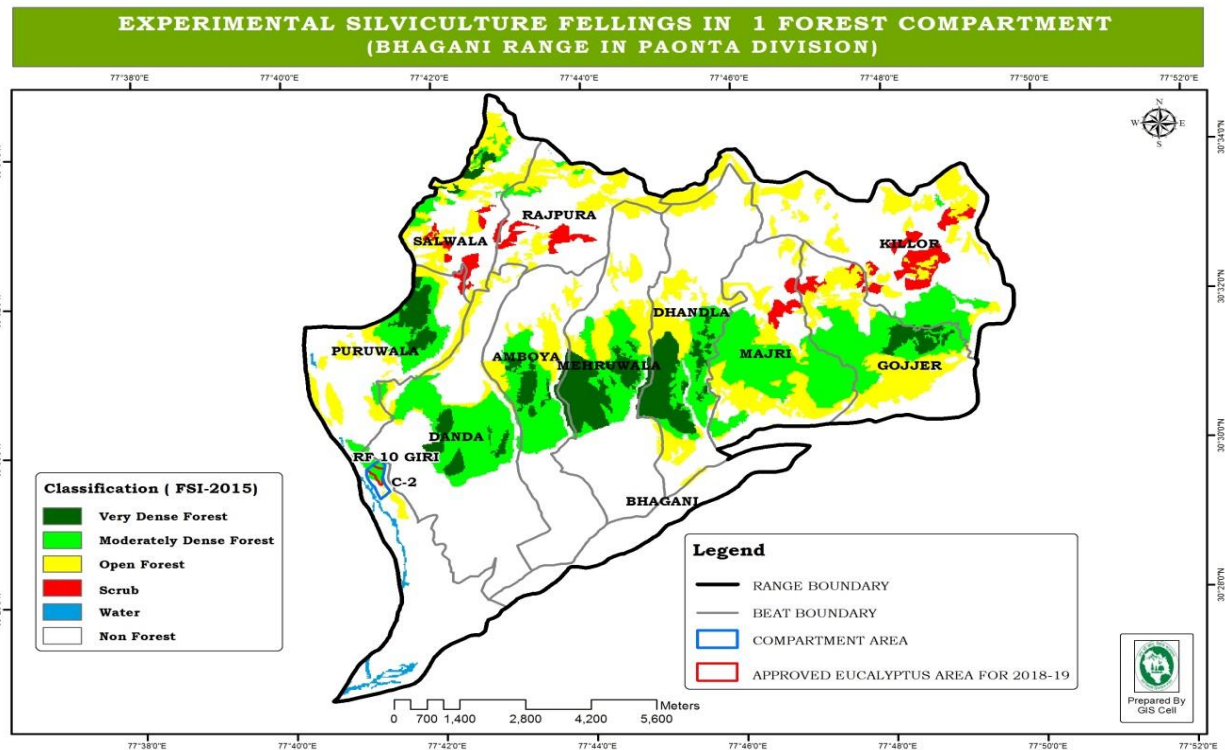
EXPERIMENTAL SILVICULTURE FELLINGS IN 4 FOREST COMPARTMENTS (BHARARI RANGE IN BILASPUR DIVISION)



EXPERIMENTAL SILVICULTURE FELLINGS IN 7 FOREST COMPARTMENTS (PAONTA RANGE IN PAONTA DIVISION)



INTERLOCUTORY APPLICATION NO 3840 OF 2014 IN WRIT PETITION
(CIVIL) NO 202 OF 1995-SECOND SIX MONTHLY REPORT - 15 FEBRUARY 2019



PART THREE- OVERARCHING RECOMMENDATIONS FOR APPROVAL BY HON'BLE SUPREME COURT

3.1 FIRST RECOMMENDATION: NEED FOR IMMEDIATE COMPLIANCE OF ASSURANCES GIVEN IN INTERLOCUTORY APPLICATION NO 3840 OF 2014 AND THREE AFFIDAVITS

CONTEXT

The Monitoring Committee, while supervising this programme through repeated field inspections (kindly see details in **Annexure 2.11**) and consultations across all levels of hierarchy for providing guidance, has deemed it appropriate to make the following **Overarching Recommendations** for ensuring that **Scientific Forest Management is actually put in place (as assured by the State Government in IA No 3840 of 2014 filed on 15th January 2015 followed by subsequent three Affidavits)**. Keeping in view the kind of momentum generated to reinstitute normal forestry practices after 25 years of ban on green fellings, with huge financial resources and recognizing the enthusiasm shown by the field staff at all levels to carry out Experimental Silviculture Programme with tremendous zeal, the Monitoring Committee feels that this momentum should be carried forward by the State Government.

In principle, we are fully convinced that for Scientific Forest Management, it is essential to carry out prescribed Silvicultural Fellings (Green fellings), thinnings and Subsidiary Silvicultural Operations (SSO) strictly in accordance with approved Working

Plans, and continuation of the ban imposed from 12th December 1996 is not advisable.

Therefore, we recommend that subject to the execution of prioritized core activities for achieving Scientific Forest Management in actual practice as per our Overarching Recommendation 3.2, in a much needed preparatory period of one year of 2019-20 with adequate staff at all levels and financial resources, ban on green felling should be relaxed from 2020-21 onwards.

Hon'ble Supreme Court, while accepting assurances and submissions made in **IA No 3840 of 2014 filed on 15th January 2015** by the State Government has permitted on an Experimental basis Silviculture felling including thinning and other cultural operations for two years i.e. **2018-19 and 2019-20**, under the guidance and supervision of a two Member Monitoring Committee. A gist of compliance status of these assurances and submissions made is tabulated as follows:

Table: 3.1 Status of Compliance of Assurances Given in INTERLOCUTORY APPLICATION NO. 3840 OF 2014 IN WRIT PETITION (CIVIL) NO. 202 OF 1995 and three Affidavits.

Assurances given and Submissions made before Hon'ble Supreme Court	Compliance Status
PARA 13- Scientific management of forests as per the prescription of Working Plan is essential to maintain	At present out of 37 Forest Divisions, only 20 Forest Divisions have approved

Assurances given and Submissions made before Hon'ble Supreme Court	Compliance Status
<p>the quality and hygiene of forests and their sustainable management.</p>	<p>Working Plans, 3 Working Plans are sent for approval and for the remaining 14 Forest Divisions, the process of revision of the Working Plans is reportedly under way as tabulated in Annexure- 2.10</p>
<p>PRAYER-PARA 15 A- Permit the state govt. to carry out silviculture fellings including thinning and other cultural operations, in accordance with the working plans approved by the Govt. of India upto an elevation of 1500 m above MSL in Chir pine, Khair and broad-leaved forests only.</p>	<p>Assurance given has not been complied with and action should be taken to comply with our Recommendation 2.1.13 Para 5 about failure to prepare Preliminary Working Plan Report two years in advance.</p>
<p>15 B Direct the central government to consider the Working Plans submitted by the State Govt. for scientific exploitation of the forest wealth of the State, in accordance with accepted principles of forest conservation which may be submitted to the central Govt. by the State Govt in future.</p>	<p>Our Second Recommendation clearly stipulates a suggested procedure of making Working Plans to be followed in order to ensure that prescriptions of the Working Plans are made based on field inspections, actual growing stock and floristic composition of forest.</p>
<p>First Affidavit by HoFF dated 3.9.2017 submitted to Hon'ble Supreme Court pursuant to its order on 12.09.2017 after going through the Report of CEC dated 06.07.2017. Clarified that three Working Circle of Chil, Sal and Khair occurring above 1500 MSL are recommended for permitting silviculture fellings.</p>	<p>The forests proposed for silviculture felling of three selected Forest Ranges are quite different from the data of the forests approved by CEC from 3rd - 6th June 2017, as given in Annexure 3.1.</p>
<p>Second Affidavit by HoFF dated 30.11.2017. Again request was made to Hon'ble Supreme Court to permit to</p>	<p>Here again all submissions in the Affidavit were made just by copying figures from the</p>

Assurances given and Submissions made before Hon'ble Supreme Court	Compliance Status
<p>carry out silviculture felling as per condition laid down by Central Empowered Committee (CEC)</p>	<p>Working Plans without any physical inspection of forests.</p>
<p>Third Affidavit by HoFF dated 13.12.2017 was submitted to Hon'ble Supreme Court pursuant to its order on 04.12.17 when the case was heard by Hon'ble Supreme Court on directing the State for identifying the 2-3 Ranges where the process of silviculture may be carried out. It was emphatically mentioned in the affidavit that scientific management of forests follows the prescriptions given in detailed forest management documents known as 'Working Plans. Working Plans are revised and updated at a periodicity of 15 years.</p>	<p>The forests proposed for silviculture felling of three Forest Ranges are quite different from the forests approved by CEC from 3rd - 6th June 2017. Forests proposed for silviculture felling were just taken from Working Plans and no forest officer had ever physically inspected these forests especially heavily Lantana infested forests of Nurpur Forest Range, till the Monitoring Committee started inspections of these forests from March 2018 onwards. The status of pending Working Plans was not given in this affidavit.</p>

It will be seen from the above comparison that the State Government has to initiate immediate action to comply with all assurances given to the Hon'ble Supreme Court.

Furthermore, in view of the afore mentioned facts, and to avoid this anomalous situation, it is recommended that hereafter any Affidavit to be filed in Hon'ble Supreme Court should be submitted, inter alia, by including the following undertaking:

BOX: 3.1 Format of an Affidavit

“I, -----, S/o -----aged --- years, residing at -----and presently posted as Principal Chief Conservator of Forests (HoFF), Himachal Pradesh, do hereby solemnly affirm and declare on oath as under:-

1 That I have been authorized by the Petitioner State of Himachal Pradesh in the writ petition and I have personally inspected forests prescribed in the Approved Working Plan for silviculture fellings, including thinning and other subsidiary operations. Accordingly, myself being well conversant with the field realities, I am competent to swear the present affidavit.”

3.2 SECOND RECOMMENDATION: URGENCY TO REVIVE SCIENTIFIC FOREST MANAGEMENT FOR SAVING PRECIOUS GREEN COVER IN HIMACHAL PRADESH

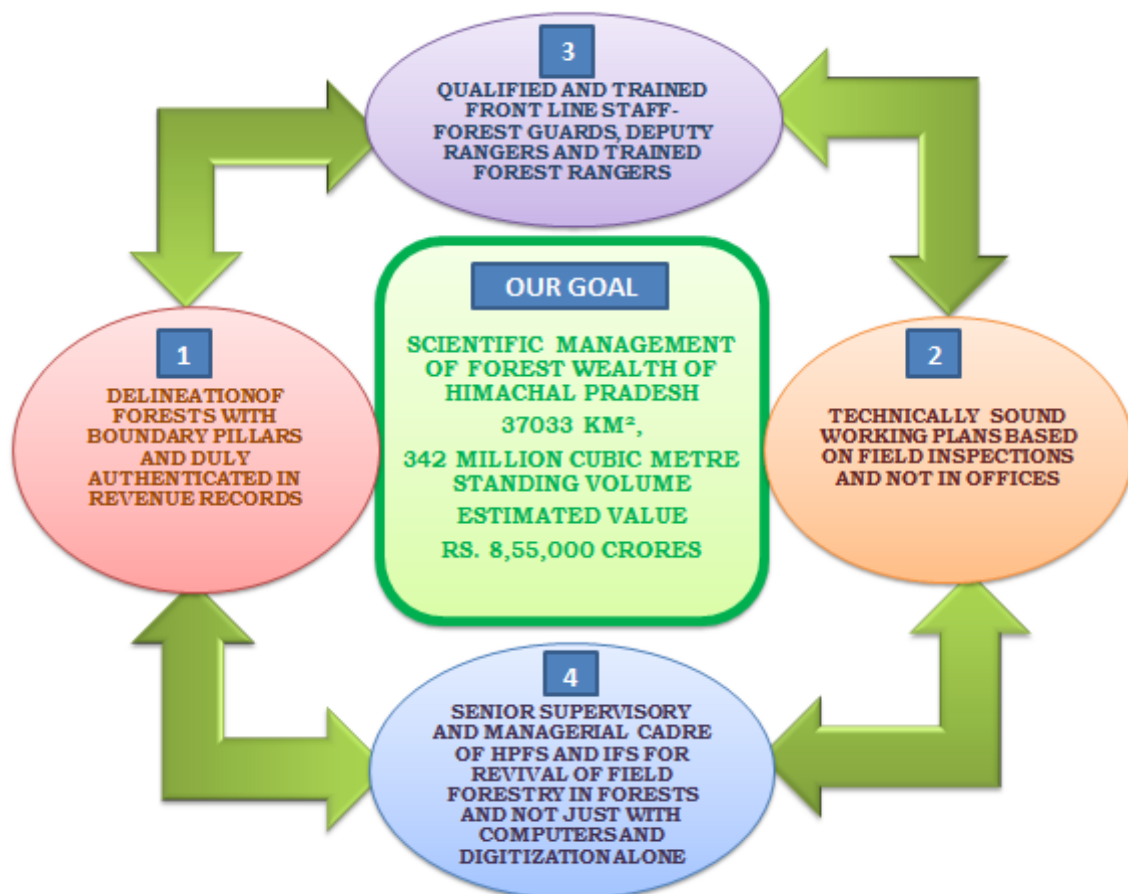
Scientific Forest Management in technical parlance implies Sustainable Forest Management, which is defined in FAO Forest Resources Assessment 2000 definition as follows:

BOX: 3.2 Definition of Sustainable Forest Management

Sustainable forest management: It is the stewardship and use of forests and forest lands in a way, and at a rate, that maintains their biological diversity, productivity, regeneration capacity, vitality and their potential to fulfill, now and in the future, relevant ecological, economic and social functions, at local, national and global levels, and that does not cause damage on other ecosystems.

The Monitoring Committee has concluded that the only practical way to revive much talked **Scientific Forest Management** at the ground level is possible only by the compliance of the following inter related PILLARS /INDICATORS, broadly based on both internationally accepted sets of Criteria and Indicators (C & I) for SFM, and India's own 'Bhopal-India process' for C & I. **It needs to be stressed that action on all four prioritized core activities has to be taken in tandem.** In view of the urgency of these interventions, a presentation on this subject has also been made to Hon'ble Chief Minister on 31st December 2018.

Figure 3.1 FOUR PILLARS FOR ACHIEVING SCIENTIFIC FOREST MANAGEMENT



3.2.1 Our Goal

Our goal is scientific management of forest wealth of Himachal Pradesh for productive and environmental functions (soil and water conservation, carbon sequestration) of 37,033 km² of legally classified forests, having an estimated standing volume of 342 million cubic metres and value of timber stock of around Rs. 8,55,000 crores.

According to the official website of HPFD, section titled “Our Forests” updated up to 11th Dec. 2018, the total area of forests as per legal classification is **37,033 Km²**, (**Annexure 3.2**) for which **Scientific Forest Management** has to be put in place at the earliest by HPFD, being custodians of this biggest land use in HP. More importantly, forest cover in HP of different categories viz. Very Dense Forests, Moderately Dense Forest and Open Forests totaling **15,100 sq.km** must be **protected effectively without approving diversions**. According to the latest study titled “Ecosystem Services Valuation and Accounting of Himachal Forests” published by IIFM Bhopal in collaboration with HPFD, the estimated value of these forests is Rs. 8,55,000 Crores. It is estimated that the Economic value of flow benefits from these forests per Square Kilometer is around Rs. 1 Crore, 44 Lakhs annually.

3.2.2 PILLAR 1- INCREASE IN THE EXTENT OF FOREST AND TREE COVER-FOREST TENURE AND OWNERSHIP

- **Status of Encroachment cases in HP:** The latest status of encroachment cases being monitored by Hon’ble High Court, HP is as follows:

Table 3.2 Status of Encroachments on Forests as on 30th October 2018

	Encroachment Cases		Cases Evicted		Balance to be evicted	
	No.	Area (Ha)	No.	Area (Ha)	No.	Area (Ha)
More than 10 Bigha	2514	2496	134 9	1265	116 5	1231
Less than 10 Bigha	11110	2175	734 7	1530	376 3	644
Revenue Court	4323	648	114 0	166.2	318 3	481
Total	17947	5318	983 6	2962	811 1	2357

12.5 Bigha = 1 ha

- **Demarcation and delineation of boundaries on ground.**

Demarcation and maintenance of boundaries of forests are of paramount importance to enforce protection for ensuring conservation of forests. The overall effective management of forests, in actual practice is only possible after all forests most of which, are interspersed with private holdings of agriculture land and orchards, leading to encroachments as mentioned above, are clearly demarcated and delineated on ground with boundary pillars. The Monitoring Committee has noticed that even in case of Reserve Forests of Paonta Forest Range, though recommended for silviculture fellings, there were are no boundary pillars in position, which have been got erected now after our instructions.

Therefore, the first and foremost requirement for Scientific Forest Management is that within one year i.e. 2019-20, all Reserve 1896 (Km²) and Demarcated Protected Forests 11,386 (

Km²) including new Demarcated Protected Forests within the administrative control of Himachal Pradesh Forest Department must have boundary pillars in position.

- **Authentication of Legal Status of Forests by Mutation in Revenue Records:** Himachal Pradesh Forest Department on behalf of the State Government is legally custodian of all types of Forests as given in the **Table 3.2** and details of these forests are maintained in forest records in form of Compartment History Files etc. However, till to date the corresponding record maintained by the Revenue Department is at variance, rendering these Government forests legally outside its purview. **This leads to a very anomalous situation and a great hindrance in protection of forest wealth from encroachments and illicit fellings.** For any dispute with regard to the legal status of land, the Court of Law plays more reliance on the revenue record than the record maintained by Forest Department who are custodian of these Govt. lands/Forests on behalf of Himachal Pradesh Government.

It is recommended that at the soonest the process of authentication of legal status of forests in Revenue Records by mutation should be got done by the State Government.

3.2.3 PILLAR 2-MAINTENANCE AND ENHANCEMENT OF FOREST RESOURCE PRODUCTIVITY

A. ISSUES RELATING TO PREPARATION OF WORKING PLANS

Undoubtedly, the State Government has to ensure completion of the present backlog of Working Plans in the shortest possible time

and complete all pending Working Plans in 2019-20 (Annexure 2.10) by strengthening Working Plans Wing as follows:-

1. The existing set up of Working Plan Wing located at Mandi under the overall control of an Addl. PCCF being grossly under staffed needs to be strengthened with adequate technical personnel at all levels.
2. To tide over this emergent situation, the existing territorial Conservators at Solan and Hamirpur having just 2-3 three territorial Forest Divisions under their control should be immediately redesignated as Conservators Working Plans and the control of territorial Forest Divisions be reverted to the parent Forest Circles of Dharamshala, Bilaspur and Nahan.
3. As already emphasized in Part Two, a mid-term review of all the existing approved Working Plans may be got done through the Territorial Conservators and Conservator Solan and Hamirpur should be exclusively assigned the duty of completing pending Working Plans.
4. Working Plans preparation should be undertaken only after inspection of each forest and location of boundary pillars should be shown on the map with latitude /longitude (GPS location). **The Monitoring Committee while approving Silviculture markings in three selected Forest Ranges of Nurpur, Paonta and Bharari noticed that physical location of boundary pillars is not known to the field staff.**

3.2.4 PILLAR 3-ADEQUACY OF POLICY, LEGAL AND INSTITUTIONAL FRAMEWORK - STRENGTHENING FRONT LINE STAFF

- It is very essential that in the shortest possible time , all freshly recruited Forest Guards get trained through a very rigorous system of deputing incumbents to utilize full capacity of two training Institutes at Chail and Sundernagar .
- The syllabus for the training of front line should be revised to include more practicalities of the process being followed for Experimental Silviculture Felling as included for a specialized training course already successfully conducted at Sundernagar in January 2019.
- As regards the cadre of 801 Deputy Rangers, presently being manned by through 100% promotion quota, there is a need to reintroduce direct recruitment pattern to infuse young talent.
- **A very unusual cadre management system has resulted in the present availability of only 24 trained Forest Rangers in a cadre strength of 296 Forest Rangers, which obviously has diluted the much-required professional ability to manage a Forest Range competently. Immediate action is called for to expedite all formalities for the selection and training of directly recruited Forest Rangers.**
- To intensify effective patrolling and prevent encroachments, it will be advisable to create smaller forest Beats in Chamba, Shimla,

Kullu and Mandi forest Circles including GHNP core areas for better control and patrolling.

3.2.5 PILLAR 4- ADEQUACY OF POLICY, LEGAL AND INSTITUTIONAL FRAMEWORK -MANDATE OF INDIAN FOREST SERVICE OFFICERS

The Monitoring Committee would like to stress that at the soonest 9 IFS Officers presently working in Non-cadre posts must be posted to man Cadre posts of DFOS for ensuring the required level of technical control at the cutting edge level and to enable them to carry out their professional duties as given in the Mandate for IFS.

Box 3.3 Mandate of the Indian Forest Service

Indian Forest Service (IFS) (भारतीय वन सेवा) is one of the three All India Services of the Government of India. The other two All India Services being the Indian Administrative Service (IAS) and the Indian Police Service (IPS). It was constituted in the year 1966 under the All India Services Act, 1951 by the Government of India.

1. The main mandate of the service is the implementation of the National Forest Policy in order to ensure the ecological stability of the country through the protection and participatory sustainable management of natural resources. An IFS officer is wholly independent of the district administration and exercises administrative, judicial and financial powers in his own domain. Positions in state forest department, such as Divisional Forest Officer (DFO), Conservator of Forests (CF) and Principal Chief Conservator of Forests (PCCF) etc., are held only by IFS officers. The highest ranking IFS official in each state is the Head of Forest Forces (HoFF).

2. Earlier, the British Government in India had constituted the Imperial Forest Service in 1867 which functioned under the Federal Government until 'Forestry' was transferred to the Provincial List by the Government of India Act, 1935, and subsequent recruitment to the Imperial Forest Service was discontinued.

3. Ministry of Environment, Forest and Climate Change, (MoEF&CC) under the Government of India, is the Cadre Controlling Authority of the Indian Forest Service.

3.3 THIRD RECOMMENDATION: IMPORTANCE OF MAINTAINING GREEN COVER IN HIMACHAL PRADESH

CONTEXT

Himachal Pradesh is primarily a mountainous State and is bestowed with varied physiographic and climatic conditions which have given rise to diverse natural ecosystems such as forests, grasslands and pastures, rivers, lakes, wetlands and glaciers. Himachal Pradesh has the privilege of snow fed perennial rivers and rivulets flowing in almost all parts of the State. River Yamuna, with its important tributaries of Tons, Pabbar and Giri in the east and Sutlej, Beas, Ravi and Chenab in the west, flow through various parts of the State as would be seen in Drainage and River Basin Map (page - 117). **The forests of Himachal Pradesh, so rich in biodiversity play a vital role in preserving the fragile Himalayan ecosystems and are an important renewable natural resource of Himachal Pradesh. Most of precious coniferous forests are of such nature that these cannot be truly regenerated by human beings if these are cut once.**

The National Green Tribunal, in its recent judgment, relating to (ORIGINAL APPLICATION NO. 121 OF 2014 CWP NO. 1370 OF 2005) pronounced 16th November 2017, has held as follows in Paragraph 1.

Box 3.4 HP is Vulnerable to Severe Landslide Hazard Risk

“As per the report of the Government of India on Spatial Distribution and Concentration of Landslides released in 2003, nearly 97.42% of the total geographical area of Himachal Pradesh is prone to landslides. Shimla, among the other districts in the State of Himachal Pradesh, falls in the severe landslide hazard risk category. Development involving reckless and excessive constructions and indiscriminate felling of trees is the root cause of a spurt in landslides, taking heavy toll on human lives and destroying property. Undisputedly, these are ecologically fragile areas as these are part of the youngest mountain ranges and fall in seismic zone IV and V. The slope landslides are mostly man-made.”

- **Environment and Constitution of India:** Himachal being primarily a mountainous terrain, there is an urgent need to respect the intent of the following dictates of our Constitution:
- **Article 48- in Part IV (Directive Principles)** of the Constitution of India, 1950 brought by the constitution (42nd Amendment) Act, 1976, enjoins that "State shall endeavour to protect and improve

the environment and to safeguard the forests and wild life of the country",

- **Article 51-A (g) imposes** a fundamental duty" on every citizen of India to protect and improve the natural" environment" including forests, lakes, rivers and wild life and to have compassion for living creatures.
- **It is, therefore, not only the duty of the State** but also the duty of every citizen to preserve natural resources, biodiversity, wilderness, wildlife and its habitat.
- **National Forest Policy 1988-Para 4.1 Area under Forests:** The national goal should be to have a minimum of **one-third** of the total land area of the country under forest or tree cover. In the hills and in mountainous regions, the aim should be to maintain **two-third** of the area under such cover in order to prevent erosion and land degradation and to ensure the stability of the fragile ecosystem.

Government of Himachal Pradesh Forest Sector Policy and Strategy 2005:

- Of the total geographical area of HP (55,673 km²), 37,033 km², or 66 per cent of the State, is legally defined as forest land.
- More than twenty thousand square km of State's land (36%) is uncultivable comprising barren lands, nallas, riverbeds, water bodies, alpine pastures, snow covered peaks and area above tree

line that cannot sustain forests (trees), although such areas fall within the legally classified forest area of **37,033 km²**.

- Thus, only about seventeen thousand square km within the legally classified area can support tree crop, equivalent to **30.5%** of the total area of State. In addition, about 5 percent area of the State is under tree cover as horticulture and farm forestry.
- **In view of the above facts, the State will aim at bringing 35.5 percent of the total geographical area of the State under forest and tree cover and the balance legally classified land will continue to be managed for other purposes such as alpine pastures and glaciers.**

As per the latest India State of Forest Report (ISFI) 2017, brought by Forest Survey of India, MOEF & CC, Dehradun, forest cover in HP of different categories is as follows:

Table 3.3 Forest Cover in Himachal Pradesh as per ISFI Report 2017

Canopy class category	Area (Sq. km)	% of Geographical area
Very dense forest-crop density of 70 % and above	3,110	6%
Moderately dense forest-crop density > 40%	6,705	12%
Open forest-crop density 10 to 40%	5,285	9%
Total	15,100	27.12%

Latest figures depict that compared to 2015 Report:

- **A decrease of 115 sq. km of very dense forests (canopy density - 70% and above)**
- An increase of 318 sq. km of medium density forests and 190 sq. km of open forests.
- From 14,707 sq. km in 2015 Report, it has gone up to 15,100 –an increase of 393 sq. km (0.71 % increase)

In view of the above facts, it is abundantly clear that to prevent an ecological disaster, under no circumstances, the State can afford to permit indiscriminate diversions of forests of VERY DENSE Category, which is abysmally low at present being just 6% of the total geographical area of the State (mostly Reserve and Demarcated Protected Forests allotted to Protection Working Circles in Working Plans). It needs to be recognized that in a hilly State having fragile geological formations, the agenda of “Development” has to be planned without recklessly destroying green cover of Himachal Pradesh. We need to save our natural resources, at all costs for our next generations.

3.4 FOURTH RECOMMENDATION: PROPOSED STRATEGIC ACTION PLAN FOR MITIGATION OF LOSS OF FOREST COVER DUE TO DIVERSIONS OF FORESTS UNDER FCA, 1980 AND FRA, 2006 IN HIMACHAL PRADESH.

As already elaborated in our First Recommendation, the Monitoring Committee is analysing all safeguards necessary to ensure fulfilment of commitment of the State Government before Hon’ble Supreme Court that

for Scientific Forest Management, silviculture fellings as per Working Plans are essential. ***In this context we have to apprise Hon'ble Supreme Court about the following ground realities likely to adversely impact Scientific Forest Management.***

3.4.1 DIRECTIONS TO HIMACHAL PRADESH BY HON'BLE SUPREME COURT ORDERS DATED 16TH FEBRUARY 2018

Para 2 on page 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 forestland in execution of projects shall be in strict conformity with the **Forest Conservation Act (FCA), 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.”

Para 10 on page 11

“**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.”

Despite very clear and precise stipulations of Hon’ble Supreme Court allowing fellings of trees only in 4 afore mentioned cases, the State is also permitting felling of trees under “The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 (FRA)”.

3.4.2. MAGNITUDE OF FCA/ FRA CASES AND APPLICABILITY AND JURISDICTION OF FRA 2006 IN HIMACHAL PRADESH

The Monitoring Committee has to report that the on-going pace of diversions of valuable forests of the State for non-forestry activities has assumed such an alarming situation that it warrants a holistic

assessment to understand how it is virtually contradicting all assurances given to Hon'ble Supreme Court in IA No 3840 of 2014 filed on 15th January 2015 by the State Government for Scientific Forest Management.

A. MAGNITUDE: The following two amendments need to be made immediately for maintaining realistic record of diversions:

BOX: 3.5 Need for updating data base by HPFD

At present database for diversions under FCA 1980 and FRA 2006 has been maintained just by number of cases and area approved for diversion. However to keep proper track of diversions of forests , HPFD has been advised to improve the existing data base by showing exact extent of area as per legal classification and allotment of each forest to a Working Circle, so that at a glance it is possible to assess how much forest area from Working Plans stands diverted.

BOX: 3.6 Data base must not give Exaggerated figures of forests

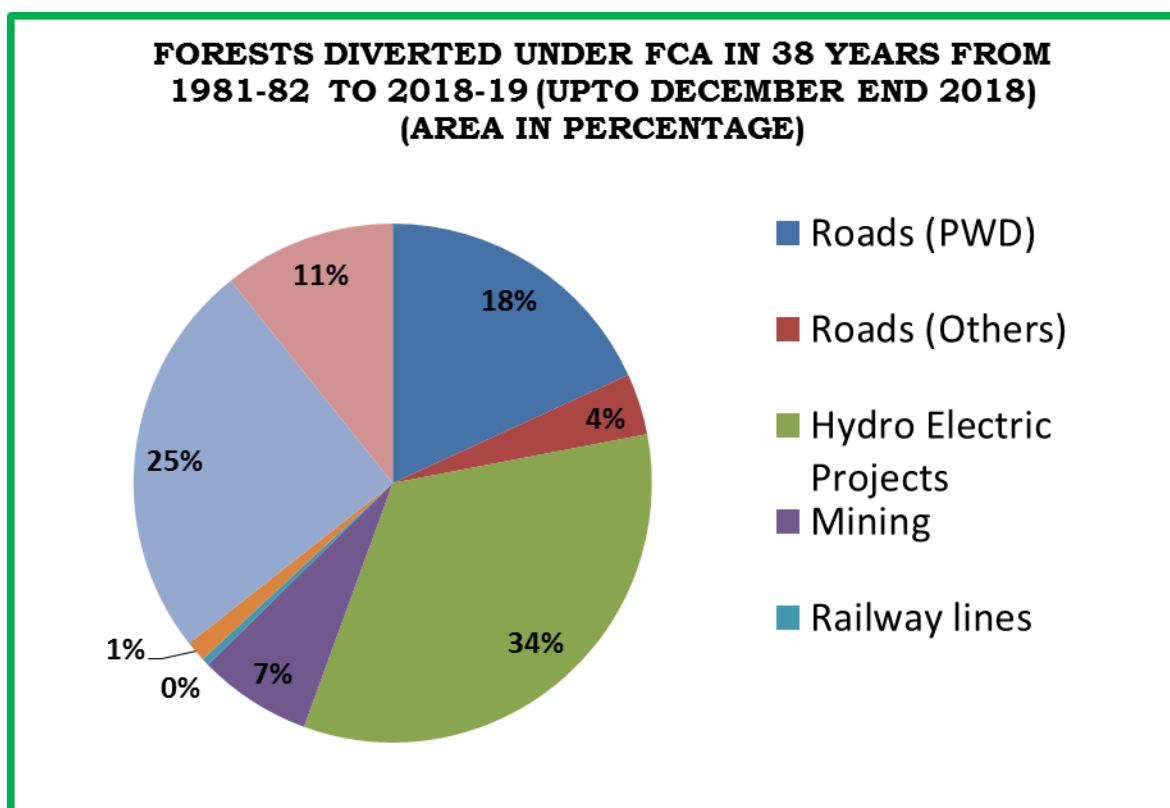
Amendments must be made in the existing procedure, where the legal status of a forest diverted for non-forestry purpose is shown as not changed, although the forest area is lost permanently for roads, hydroelectric projects, and other infrastructure projects etc., as this practice leads to depiction of exaggerated figures of “area under forests” in the Statistics of the HPFD.

The latest position of diversions as per existing figures is summed up as follows:

A.1 DIVERSIONS UNDER FCA 1980

It needs to be highlighted that till end of December 2018, approval has been given for 1,984 cases involving total diversion of 13,157 ha of forests.

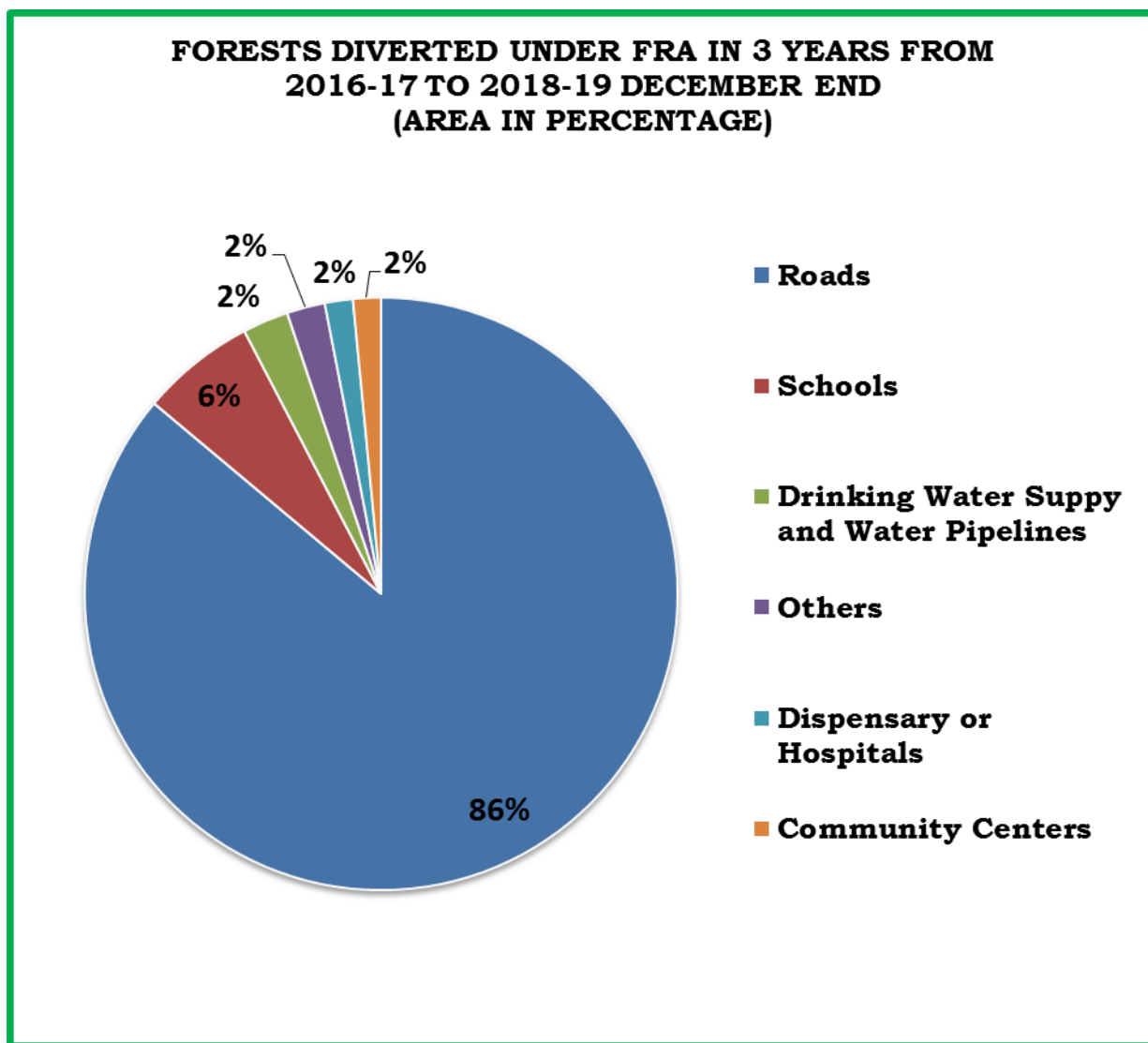
Figure: 3.2 Abstract of forests diverted under FCA up to 31st December 2018



A.2 DIVERSIONS UNDER FRA 2006

As of now approval for 1,561 cases across Himachal Pradesh for diverting 720 ha of Government forests involving felling of 13,877 trees have been sanctioned by DFOS, mostly in last three years, and felling work is being done through Himachal Pradesh State Forest Development Corporation.

Figure: 3.3 Abstract of forests diverted under FRA up to 31st December 2018



A.2.1 MAGNITUDE OF DIVERSIONS APPROVED UNDER FRA 2006 IN NACHAN FOREST DIVISION IN LAST THREE YEARS

To illustrate the ground realities, the magnitude of FRA diversions in a sample case of Nachan Forest Division needs to be highlighted, where two cases of approvals were inspected by me on 3rd January 2019. From 2016-17 onwards, in three years, **136** cases involving approval of 80 ha of forests, with 1,194 standing trees have been approved by DFO. (In one

Forest Division alone approvals given for **9% of total FRA cases, 11% of total forests area approved under FRA in HP**). The breakup of approvals for diversions is as follows:

Table 3.4 Status of Diversions of Forests in Nachan Forest Division

AS PER LEGAL CLASSIFICATION		WORKING CIRCLE WISE AS PER WORKING PLAN	
CLASS	AREA HA.	WORKING CIRCLE(WC)	AREA HA.
DEMARCATED PROTECTED FORESTS	46	PROTECTION WC	19
UNDEMARCATED PROTECTED FORESTS	1	FIR & SPRUCE WC	5
CHARAGAH DRAKHTAN	22	DEODAR & KAIL WC	12
CHARAGAH BILA DRAKHTAN	9	CHIL WC	8
OTHERS	2	PLANTATION WC	2
		OTHERS	34
TOTAL	80		80

In blatant violation of all professional ethics, permission for felling of trees has been given even in case of forests allotted to **Protection Working Circle**, as would be seen from Table 3.4 above, **where no felling is allowed under any Working Plan (Annexure 3.4)**.

BOX: 3.6A Enquiry in Nachan Forest Division

In view of the above glaring serious situation, it is recommended that a enquiry should be conducted in Nachan Forest Division to investigate how and under what compulsions, approvals have been given under FRA 2006 by violating all professional stipulations.

3.4.2 COMPARISON OF REGULATORY PROVISIONS OF FCA, 1980 AND FRA, 2006

A comparison of the provisions of FCA, 1980 and FRA, 2006 is given in

Annexure 3.4. Clearly, following glaring glitches need to be highlighted:

1. FCA, 1980 has all provisions to ensure a holistic system of checks and balances at all levels along with deterrents for preventing the indiscriminate de reservation of forests or forest land for non-forestry purposes
2. FRA, 2006 is being used as a **substitute tool or back door method** for getting the forest land diverted for non-forestry purposes in small patches to meet the immediate requirements of development, for 13 activities namely: Schools, Dispensaries/Hospitals, Anganwadis, Fair Price Shops, Electric and Telecommunication lines, Tanks and other Minor Water bodies, Drinking water supply & Water pipelines, Water or Rain water Harvesting Structures, Minor irrigation canals, Non-conventional sources of energy, Skill up gradation centres, Roads, Community Centres
3. Net Present Value of forest land is to be deposited by the user agency in case of FCA cases whereas no such NPV amount is to be deposited by the user agency under FRA cases.
4. Cost of Compensatory Afforestation on double the area for diversion is to be deposited by UA for compensatory afforestation,

whereas no compensatory afforestation prescribed under FRA except for 2 trees to be planted by UA for every one tree to be felled

5. Under Sec 3(2) of FRA, a DFO is competent to approve the diversion of forest in less than 1 ha in each case with not more than 75 trees/ha.
6. Willful bifurcation of cases to bring the cases under the purview of FRA e.g. a 5 km road is broken into 5 cases of 1 km each and is entertained under FRA obviating the application of FCA, 1980 and are got approved at the level of DFO.
7. **The DFO concerned will only submit a quarterly report of the approvals accorded for diversion of forest land under Section 3(2) of the Act to the Nodal Officer of the State who, in turn, will furnish the consolidated information quarterly to the Secretary, Tribal Welfare Department who will, in turn send the consolidated report to the Ministries of Tribal Affairs and Environment & Forests.**
8. **But, none of the senior officers, at Circle or State level including the Nodal officer and Principal Chief Conservator of Forests (HoFF), who is the Chief Technical Advisor to the State Government does not have any role to regulate these large scale diversions, on merits, except to monitor the progress of diversions on quarterly basis. The Nodal Officer will also simply monitor the progress.**

9. Even if a DFO is not convinced with the proposed diversion in a particular case, on valid environmental reasons such as fragmentation of forests and wildlife habitat, the Act provides that the concerned Deputy Commissioner can overrule and approve the diversion under Rule 6 Chapter IV and “The decision of the District Level Committee on the record of forest rights shall be final and binding.” Thus conclusively the highly trained Forest officers at any level do not have a decisive role to play in any particular diversion, except to record his observations, which can easily be over ruled by officers who do not have any knowledge of Professional Forestry and Environment, thus leading to rampant *degradation of forests.*

3.4.4 APPLICABILITY OF FRA IN HP

- The Scheduled Tribes and Other Traditional Forest Dwellers Act, 2006, is a key piece of forest legislation passed in India on 18th December 2006. It has also been called the Forest Rights Act, the Tribal Rights Act, the Tribal Bill, and the Tribal Land Act. The law concerns the rights of forest-dwelling communities to land and other resources, denied to them over decades as a result of the continuance of colonial forest laws in India.
- **Preamble** “An Act to recognize and vest the forest rights and occupation in forest land in **forest dwelling Scheduled Tribes** (as

defined under Section 2(c)) and **other traditional forest dwellers** (as defined under definition 2(o)) to provide for a framework for recording the forest rights so vested and the nature of evidence required for such recognition and vesting in respect of forest land.”

"Other traditional forest dwellers" mean any member or community who has for at least three generations prior to the 13th day of December 2005 primarily resided in and who depend on the forest or forests land for *bona fide* livelihood needs.

Explanation – For the purpose of this clause, "generation" means a period comprising of twenty-five years.”

As mentioned in the Preamble, this act is applicable only to **“forest dwelling Scheduled Tribes and other traditional forest dwellers who have been residing in such forests for generations but whose rights could not be recorded.”**

- According to the 1971-Census report of Himachal Pradesh, on the basis of numerical strength **seven tribes** had been qualified to be major scheduled tribes. Of the total population, 1,41,610 persons had been reported as Scheduled tribes, **which constituted 4.09 per cent** of the total population of the state.

Lahaul and Spiti district, Pangi and Bharmour tehsils of Chamba district and Hangrang, Morang and Sangla tehsils of Kinnaur district had the main concentration of scheduled tribe population.

Amongst all the major tribes **Gaddi (50,061)** had the highest numerical strength. This tribe is mainly concentrated in Chaurah, Chamba, Bhatiyat and Bharmour tehsils of Chamba district.

Kannaura (35,546) is the second major scheduled tribe in the state.

Gujjars have been mainly reported from Chaurah, Chamba, Jogindernagar, Mandi, Bilaspur, Solan and Nahan tehsils.

Jad, Lamba, Khampa, Bhot or Bodh have their concentration in Lahaul and Spiti district and Pangi tehsil of Chamba district.

Pangwal and Swangia are mainly concentrated in Pangi and Lahaul tehsils respectively.

Thus, the concentration of major Scheduled tribes and Scheduled areas is in Chamba, Kinnaur and Lahaul and Spiti districts

- In the context of the above scope of this Act, remaining residents of Himachal Pradesh are not “**other traditional forest dwellers**” (as defined under definition (o) who had been residing in such forests for generations.
- In Himachal Pradesh rights have been recorded through Forest Settlements done primarily during the British regime and “FOREST SETTLEMENTS IN HIMACHAL PRADESH BY LATE H.C SHARMA” printed in 1996, has an elaborate compilation of all such Settlements for Kangra, Kullu, Bushahr, Chamba, Simla District, Simla Hill States, Mandi, Suket, Bilaspur, Nahan, Nalagarh, Patiala and Post-Independence Regulations.,

- **It is really a matter of interpretation to decide whether the provisions of FRA are really applicable to rural population of the State within the definition of “other traditional forest dwellers” (as defined under definition (o)).**
- In HP, per capita income is Rs 1, 50,285 now Rs 1, 58,462 **(Annexure 3.4) and the State is ranking in first 13 States having highest per capita income.**
- It needs to be pointed out that BOMBAY NATURAL HISTORY SOCIETY. & ORS. Petitioner(s) VERSUS UNION OF INDIA & ORS. Respondent(s) had filed a Writ Petition in Hon’ble Supreme Court on 15th February 2008 challenging the provisions of FRA, 2006. However, BOMBAY NATURAL HISTORY SOCIETY opted to withdraw the petition in 2011 and made the application for withdrawal.

3.4.5 PROPOSED STRATEGIC ACTION PLAN FOR MITIGATION OF PERMANENT LOSS OF FOREST COVER IN HIMACHAL PRADESH

It needs to be stressed that in actual practice no forest area diverted under FCA can be reverted back to its original status at any cost.

Thus the diversions should be limited to bare minimum under most unavoidable circumstances and not a matter of routine. But, now the forests owned by the Government have become the first target for diversion, as the FCA is a regulatory act and not a prohibitory act. Usually when a forest area is diverted for non-forestry purpose, it is

bound to adversely impact habitat of the surrounding forests as well. Though Compensatory Afforestation is carried out at a different place spatially far away from the site of diversion, double the degraded forest or equivalent to the private forest, but there are very rare incidences of their establishing successfully and compensating for the area degraded and is unlikely to restore the micro climate of the area disturbed. Thus there is an urgent need to make stipulation that the forests degraded/loss caused to adjoining forest due to diversion of forest land should be completely restored by the user agency irrespective of time or cost involved as there is always damage caused to forests at least up to 50 m on either side in the case of construction or widening of roads. Undoubtedly, microclimate of the diverted area suffers heavily.

3.4.5.A In order to address this grim scenario of rampant diversions of forests in this hilly State and foreseeable upward spurt in future, it is recommended that Hon'ble Supreme Court may approve our proposal of getting under mentioned technical issues examined by the following Experts:

3.4.5.1 Technical Issues to be examined by Dr. Devendra Pandey, Ex DG FSI

1. In the context of initial orders of Hon'ble Supreme Court of **28th March 2008** ***"We accept the recommendations and we make it clear that the NPV rate now fixed would hold good for a period of three years and subject to variation after three years).*** The Expert should

look at the existing rates of 6 Ecological Classes and suggest percentage increase in relation to the present price inflation index.

2. To suggest a much needed Methodology of Impact Assessment to be carried out by a Committee before the diversion is actually approved under FCA 1080 ,of four lane roads involving large scale felling of trees, diversion of forest areas and resultant upheaval of the landscape.

3. To suggest quantum and norms of a special **Environmental Damage Mitigation Cess** in addition to NPV and cost of standing trees to be paid, on the well accepted principle of “**Polluter Pays**”, by Road Construction Agency, Hydro Electric Projects etc., creating a virtual havoc to environmentally fragile Himalayan mountain ranges.

The first phase of the four-laning of the NH-22, which is part of the historical Hindustan-Tibet Road, is a living example of an environmental disaster and the extent of diversions is as follows:-

Total land diverted 65.50 ha.

Total distance from Parwanoo to Kaithlighat 62km,

Total trees allowed for felling 21581,

Total trees damaged 283,

Muck dumping sites up to Solan, 9

Area diverted for muck dumping sites 15.1526 ha. where 3115 trees and 660 bamboo clumps are involved.

In addition, the Expert should assess likely loss of forest cover in the following major projects of Roads in the offing:

1. Manali to Sarchu (222.000 Km.)
2. Samdhu to Gramphoo (209.500 Km.)
3. Purana Matour to Macleodgang (22.500 Km.)

4. Katori Banglow to Bharmour (133.00 Km.)

5. Amb to Mubarakpur (45.000Km).

Single Lane (in Km.) 795.573 Km.

Intermediate lane (in Km) 295.125 Km.

Double lane (in Km). 911.992 Km.

4. To suggest a robust framework of more effective and transparent system of Monitoring Compensatory Afforestation plantations carried out in the past well in time and linking it to future approvals of diversion.

5. To suggest whether PWD should be allowed to fell trees without charging any rates, for trees required to be felled diversions under FCA 1980 and FRA 2006 if not, suggest rates to be charged for the trees felled for the construction of roads by PWD, particularly roads passing through high forests on either side.

3.4.5.2 Technical Issues to be examined by Dr. Ruchi Badola, Scientist-G and Head, Department of Eco development and Participatory Management, Wildlife Institute of India, Chandrabani, Dehradun

1. To assess the magnitude/ ground realities of diversions , more importantly adverse impacts of on-going diversion of forests under FCA 1980(1984 cases involving 13157 ha. forests) and FRA 2006 (1561 cases involving 720 ha. forests), on Scientific Forest Management of Forests being worked under Working Plans, particularly from forests allotted to

Protection Working Circles, Sanctuaries and National Parks

2. To assess the adverse impact of diversions and fragmentation of forest habitats on flow of benefits like watershed functions, carbon storage, biodiversity and eco-tourism services (estimated monetary value of Rs

53,434 Crores) and the provisioning services flowing to the local people, apart from the current estimated value of Rs.8, 55,000 Crores of the growing stock of forests, as worked out in the latest study by IIFM, Bhopal published in collaboration with HPFD in September 2016 titled as “Ecosystem Services Valuation and Accounting of Himachal Forests”

3.4.5.3 Technical Issues to be examined by Dr. J. V. Sharma, Director, Forest and Biodiversity, The Energy and Resource Institute, New Delhi

1. To examine and recommend correct interpretation; whether the rural population in HP, where the rights of the people inclusive of all categories have already been settled, can be included in the definition of **“forest dwelling Scheduled Tribes (as defined under definition (c) and other traditional forest dwellers (as defined under definition (o), who have been residing in such forests for generations but whose rights could not be recorded”**,

2. To estimate the loss of carbon stock and future carbon sequestration potential of these forests after fragmentation and consequent loss of habitat.

3. To look at the necessity of an amendment to ensure that permission for forestland diversion under FRA 2006 may be accorded after placing the necessary records on an online platform created for this purpose. This will ensure that permission for diversion is accorded only when all the documents required for it are in place. Submission and storage of

documents on web platform will discourage FRA sanctioning in cases where documents attached are incomplete.

3.4.6 OUR CONCLUSIONS AND RECOMMENDATIONS

Undoubtedly, in view of various interpretations given by the Ministry Of Tribal Affairs, GOI, on the applicability of the stipulations of FRA, implementation of the Act in HP has been going on.

However, the Monitoring Committee has to unambiguously bring to the notice of Hon'ble Supreme Court that reckless and indiscriminate large scale diversions of forests under of FRA 2006 will definitely cause irreversible damage to forests of this hilly State, through fragmentation of habitats and tragic loss of biodiversity, and certainly these fragmented forests cannot be brought under Scientific Forest Management, notwithstanding assurances given by the State Government to Hon'ble Supreme Court.

3.4.6.1 RECOMMENDATIONS:

BOX: 3.7 Our Concerns Regarding Applicability of FRA, 2006 in Himachal Pradesh

As mentioned in the Preamble, this act is applicable only to “forest dwelling Scheduled Tribes and other traditional forest dwellers who have been residing in such forests for generations but whose rights could not be recorded”.

Therefore, the Monitoring Committee would like to point out that, it is a matter of interpretation whether the rural population in HP, where the rights of the people inclusive of all categories have already been settled, can be included in the definition of “forest dwelling Scheduled Tribes (as defined under definition (c) and other traditional forest dwellers (as defined under definition (o), who have been residing in such forests for generations but whose rights could not be recorded”,

Furthermore, the Act may probably require an interpretation or reading down by the Hon'ble Apex Court whether the said provisions would apply to valuable slow growing coniferous forests like Fir, Spruce, Deodar, Kail and Chirpine as against the majority of tribal areas of India, where the forests involved are fast growing and hence replaceable.

Consequently, in order to address this matter without any further loss of time, we would like to make the following two Recommendations for approval by Hon'ble Supreme Court:

A. IMMEDIATE ACTION PROPOSED:

1. With immediate effect, all cases of diversions where approvals have been given by DFOS, but felling of trees has not commenced should be deemed as cancelled and no fellings be allowed.
2. Diversion of any forest allotted to a **Protection Working Circle** in any Working Plan should be totally banned hereafter, under FRA and FCA.
3. **We are convinced that DFOS are exercising unbridled powers under pressure to appease local residents and are blatantly facilitating a virtual plunder and destruction of valuable precious forests of Himachal Pradesh. Therefore, till further orders, the power of a DFO under Sec 3(2) of FRA 2006 should be deemed withdrawn.**
4. Hereafter all cases of diversion of forest for non-forestry purpose should be processed **only** under FCA regulations.

B. STRATEGIC ACTION PLAN FOR MITIGATION OF PERMANENT LOSS OF FOREST COVER IN HIMACHAL: Let the Experts submit their findings by December end 2019. Based on their findings, it will be possible for the Monitoring Committee to submit a **STRATEGIC ACTION PLAN FOR MITIGATION OF PERMANENT LOSS OF FOREST COVER**

IN HIMACHAL PRADESH in our Fourth Six Monthly Report due on 15 February 2020, for approval by Hon'ble Supreme Court.

3.5 FIFTH RECOMMENDATION: PROPOSED NEXT STEPS TO CONCLUDE EXPERIMENTAL SILVICULTURE FELLING PROGRAMME

In relation to the overall key objective of the Experimental Silviculture Felling programme spread over 2018-19 and 2019-20 being ***“to see whether Silviculture felling actually helps in the regeneration of forests or not”***, we need to clarify that the order of Hon'ble Supreme Court of 16th February 2018, reads as follows:

“11. The Committee should submit its report to this Court every 6 months.”

We anticipate that in our four Six Monthly Reports we will be able to address **only** the following activities:

FIRST SIX MONTHLY REPORT (Already sent on 15th August 2018):

The initial work of understanding, planning and laying down the broad parameters for monitoring and supervising this Experimental Silviculture Felling programme for two years has been laid down.

SECOND SIX MONTHLY REPORT (Being sent on 15th February 2019):

The Report gives results of 100% enumerations and silviculture markings over an area of only 432 ha and covers planning to accomplish huge backlog of 2018-19 areas totaling 1622 ha.

THIRD SIX MONTHLY REPORT (To be sent on 15th August 2019): The Report will summarize results of fellings likely to be completed and inspections and approvals of new areas of 2019-20.

FOURTH SIX MONTHLY REPORT (To be sent on 15th February 2020):

The Report will summarize results of 100% enumerations and silviculture markings over forests approved for 2019-20.

It needs to be clarified that the assessment of regeneration at ground level is only practically possible when in the entire Compartment, felling operations have been completed by HPSFDC and forests are handed back to HPFD.

In view of field practicalities as explained above, at the earliest, we can initiate this work in a meaningful manner from March 2020 and it can be reported in two Reports as follows:

FIFTH SIX MONTHLY REPORT (To be sent on 15th August 2020): The Report will summarize the initial status of compliance of enabling conditions for natural regeneration and possibly recommend to what extent natural regeneration has to be supplemented with artificial with tall plants of each species raised in poly bags of 15x9 inches having minimum 4 feet height.

FINAL SIX MONTHLY REPORT (To be sent on 15th February 2021):

The Report will contain our conclusive Recommendations on:

- Holistic results and lessons learnt including key takeaways from Experimental Silviculture Felling programme for 2018-19 and 2019-20 ***“to see whether Silviculture felling actually helps in the regeneration of forests or not”.***

- Based on our work of supervision and guidance, we will be able to develop a **“Manual of Methodology for Executing Silvicultural Fellings in HP including a Revamped System of Evaluation and Monitoring ”** based on our extensive field inspections of two years and lessons learnt which can be used for replicating this work in future.

In view of the above practicalities and the minimum time period required to complete all field activities, we recommend that the Monitoring Committee may be allowed to conclude this challenging professional work by 15th February 2021 by completion of FINAL SIX MONTHLY REPORT.

3.6 SIXTH RECOMMENDATION: APPROVAL FOR AVAILING TECHNICAL EXPERTISE OF DR. DEVENDRA PANDEY BY MONITORING COMMITTEE

Dr. Devendra Pandey, Ex DG-FSI Dehradun, a senior retired IFS officer from Apex grade, of 1975 Year of Allotment from Union Territories Cadre, now called AGMUT- Arunachal, Goa, Mizoram and Union Territory, has worked in IFS for more than 34 years during 1975 to 2009. After retirement he has settled in Noida and is working part time/ honorary with governments, international organizations etc. even now. Besides forestry education, he has done Masters in Statistics from Allahabad University and Ph.D. in Forest Resource Monitoring and Assessment from Swedish University of Agricultural Sciences (SLU), Sweden.

He headed India's premier national institution "Forest Survey of India" twice as Director General (1997 to 2000) and (2005 to 2009), in total more than 7 years because of his expertise in the field of forest assessment and monitoring which is a rare positioning in Indian conditions. He has been on short term foreign assignments (3 to 6 months) a number of times during his service and even after retirement, especially to FAO of UN, Rome, Italy, Centre for International Forestry Research (CIFOR) Bogor, Indonesia, United Nations Framework Convention on Climate Change (UNFCCC), Bonn, Germany and United Nations Educational, Scientific and Cultural Organization (UNESCO), Paris France in fields of forest inventory, biomass and carbon assessment of forest ecosystem.

In view of his professional attainments and specialized experience in Monitoring and assessment of forest resources, application of Remote Sensing technology, Green House Gas inventory, forest biomass and carbon assessment and climate change and Forestry Education, it is recommended that Hon'ble Supreme Court may approve hiring of his **short term services and inputs as and when needed by us**, on the following terms:

- After superannuation, he continues drawing his pension from GOI.
- Only his travel costs from Noida to Himachal Pradesh and back to be defrayed by the State Government apart from admissible daily

allowance etc. for the period he travels in HP, in connection with on-going work of Experimental Silviculture Felling in HP.

3.7 SEVENTH RECOMMENDATION: APPROVAL FOR UPLOADING HON'BLE SUPREME COURT MONITORED EXPERIMENTAL SILVICULTURE PROGRAMME ON A DEDICATED WEBSITE

The on-going Experimental Silviculture Felling Programme is primarily based on the application of the latest professional standards and will be of immense technical interest for many of the serving young professionals who have not seen such operations because of ban on green fellings for over two decades in HP. Even otherwise, it will be very useful to upload all these sequential details of the process and methodology on a dedicated website to make this process transparent for the interested professionals, researchers and media subject to the approval of Hon'ble Supreme Court.

MAP: Himachal Pradesh Drainage & River Basin

