

## भारत सरकार /GOVERNMENT OF INDIA

पर्यावरण, वन एवं जलवाय् परिवर्तन मंत्रालय

# MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE

क्षेत्रीय कार्यालय, भोपाल/ REGIONAL OFFICE, BHOPAL

Kendriya Paryavaran Bhavan, Link Road No.3, E-5, Ravi Shankar Nagar, BHOPAL - 462016 (M.P.)

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File No. 6-MPA006/2023-BHO/264

Dated: 0

07 /11/2023.

To,

Additional Director General of Forests (FC) Ministry of Environment, Forest & Climate Change Indira Paryavaran Bhawan Jor Bagh Road, Aliganj New Delhi - 110 003.

Sub: Site Inspection for diversion of 2250.05 ha (instead of 2272.05 ha) forest land for contraction of Morand-Ganjal irrigation project located in Hoshangabad, Betul, Harda and Khandwa districts of Madhya Pradesh in favour of M/s Narada Valley Development Authority (Online No. FP/MP/IRRI/36231/2018).

Ref: MoEF&CC, New Delhi Letter No. 8-16/2023-FC dated 16/10/2023. Sir,

With respect to the subject and reference cited above, the Site Inspection Report of Regional Office, Bhopal in respect of 2250.05 ha (instead of 2272.05 ha) forest land for contruction of Morand-Ganjal irrigation project located in Hoshangabad, Betul, Harda and Khandwa districts of Madhya Pradesh is submitted herewith for further necessary action.

Encl: As above.

(A.K. Sinha)

Dy. Director General of Forests (C)

Copy to:

Shri Suneet Bhardwaj, AIGF, Ministry of Environment, Forest & Climate Change (FC Division), Indira Paryavaran Bhawan, Jor Bag Road, Aliganj, New Delhi.

### **SITE INSPECTION REPORT**

Ref: MoEF&CC, (FC Division) letter No. 8-16/2023-FC dated 20.09.2023.

Date of Site inspection: 25th to 26th October 2023 & 31st Oct, 2023.

### Officers present during site inspection:

- 1. A. K. Sinha, Dy. Director General of Forests (C), Regional Office, MoEF&CC, Bhopal.
- 2. Shri Anil Kumar Shukla, CCF Narmadapuram.
- 3. Shri K. S. Sengar, Sub DFO, Seoni Malwa.
- 4. Shri G.S. Panwar, Incharge RFO, Seoni Malwa Range.
- 5. Shri B. S. Sisodiya, SDO PIU, NVDA.
- 6. Other Officials from Forest & NVDA.

Title	of theProject:  I i	Aorand Betul, F n favou	l-Ganjal Harda a ur of M/	Irrigation l	Project lo Districts o Illey Deve	ocated in of Madhya lopment A	
1.	Legal status of the forest land proposed for diversion:	Fo	rest vision	Reserved Forest (ha)	Protecte d Forest (ha)	Un classed Forest(ha)	i Total
		No Bet		16.15 188.886	18.31	0.00	34.46 188.886
			rmadap	1049.863	165.557	0.00	1215.42
		Khandw Harda <b>TOTAL</b>		0.00 821.59 <b>2076.489</b>	0.35 9.5 <b>193.717</b>	1.84 0.00 <b>1.84</b>	2.19 831.09 2272.046
2. Item-wise break-u details of the fores			item wis	se breakup of		ed diversio	n areas are as
	land proposed for diversion:	No.	С	omponent	Forest Involved		Revenue Area nvolved (in Ha)
		1.	Dam Seat	& Sluice	29.	29.32	
		2.	Submerg	ence	213	3.78	811.272
		3.	Pipeline-	PH/DC	15.	76	435.901
		4.	Spill way Ladder	Channel with Fis	n 38.	.09	0.00
					The second secon	Control of the Contro	

Transmission Line

TOTAL

5.95

2250.05

23.76

1277.694

3.	Whether proposal involves any construction of buildings (including residential) or not.If yes, details thereof:	Rs. 281300 Lakhs (As per online Part-I)
4.	Total cost of the project at present rates:	
5.	Wildlife:	As per the SIR of the DFO & CF, Narmadapuram, the area is very important from Wildlife point of view as Tiger (transient movement), Leopard, Spotted deer, Chinkara, Sloth bear, Pangolin, Honeybadger, etc. are found in the area. The proposed diversion area is a part of Satpura-Melghat Tiger Corridor.
6.	Vegetation:	Eco Class 3 and Crown Density is from 0.5 to 0.7
		The main species present in the area are as follows :-
		(i) Tectona grandis
		(ii) Azadirachta indica
		(iii) Buchanania lanzan
		(iv) Madhuca indica
		(v) Adina cordifolia
		(vi) Diospyros melanoxylon
		(vii) Terminalia tomentosa
		(viii) Terminalia chebula
		(ix) Terminalia bellirica
		(x) Terminalia arjuna
		(xi) Syzygiun cuminii
		(xii) Mangifera indica
		(xiii) Chloroxylon swietenia
		(xiv) Lannea coromandelica
		(xv) Pongamia pinnata
		(xvi) Other misc. Species
7.	Background note on the proposal:	The Morand Ganjal Irrigation project is proposed on two (02) Rivers i.e. Morand & Ganjal. River Morand is a tributary of river Ganjal and originates near village Bori of Narmadapuram district. The river Ganjal ultimately drains into river Narmada Command area of the total project is 64,111 ha (as per

		riv Na of of inv Ga	rers ru rmadar the cato water is volves o	un through rouram & Harda chment of the rivers maintained alroporters), laying construction of vers), laying construction of	approval dated 21.04.20 mostly dry deciduous districts of Madhya Prades vers are in good dense fore most throughout the year. To two dams (one each on of pipeline, Transmission	forest of th. As most st, the flow The project Morand &
8.	Compensatory Afforestation:		District Name	Village	Khasra No.	NFL Area (in ha.)
		1	Agar Malwa	Shyampura, Garda	8,11,93,106, 188,189,100, 191,192, 194,195,292/2, 311, 304/1, 304/3, 305, 309, 310, 308, 219	156.24
		2	Agar Malwa	Dongargaon, Bid Madhopur	461, 462, 463, 464,465,466,467,468, 16, 35, 151,158, 160, 190,192 199, 213, 215, 193, 34	119.04
		3	Jabalpur	Barguva,Khalari	136,168	120
		4	Jabalpur	Kivlari	180	50
		5	Betul	Sehara,Diwan charsi, Mor dangri	320/1, 412/1, 465, 45	57
		6	Betul	Tirmahu	830	10
		7	Betul	Gopalpur, Gandhigram, Sukadhana, Shobhapur, Shobhapur, Sukadhana, Pandhara, Bodana, Chapada	1, 11, 5/1, 2/2, 2/1, 1414, 54/1, 17	319.469
		8	Sagar	Dongar saleya, Jetpur kacheya, Jhiriya	181, 571/1, 103/1, 23, 100, 13	184.24
		9	Sagar	Bhuhara, Bilaiki, Chakk Bilaiki, Khathola, Jhiriya, Patna Khurd, Chirai, Regajholi	336 103 234/1	545.83
		10	Sagar	sahajpuri kalan	1/2	37.45
		11	Sagar	Khamkuwa	6, 9/1, 37/1, 53/1, 58, 84, 104/1, 144/1, 415, 595, 623	449.51
		12	Sagar	Chirari	1122, 275, 372, 332, 446/1,1109, 1217,1200, 1107	240.43
				T	otal	2289.209

9.	Whether proposal involves violation of Forest (Conservation) Act, 1980 or not. If yes, a detailed report on violationincluding action taken against the concerned officials:	No
10.	Whether proposal involves rehabilitation of displaced persons.If yes, whether rehabilitation plan has been prepared by the State Government or not:	<ol> <li>Yes. Division wise details of affected families are:</li> <li>In Harda Forest Division 172 families of which 98.25% are Schedule Tribes. Total 1075 number of persons are affected by the project, out of which 1063 belong to Schedule Tribes community.</li> <li>In Narmadapuram Forest Division 472 families of which 94.09% are Schedule Tribes. Total 2253 number of persons are affected by the project, out of which 2120 belong to Schedule Tribes community.</li> <li>A total of six (06) villages come under submergence (04 villages in Narmadapuram &amp; 02 villages in Harda Districts).</li> <li>The rehabilitation plan has been approved by Ministry of Tribal Affairs.</li> </ol>
11.	Reclamation Plan: (If applicable) submit details and financial allocation:	Not applicable.
12.	Details on catchment and command area under the project:	Submitted.
13.	Cost benefit ratio:	1:1.50 (As per proposal)
14.	Recommendations of the Principal Chief Conservator of Forests/State Government:	The proposal is recommended by the Principal Chief Conservator of Forests (LM) & State Government in Part-IV & Part-V.
15.	Utility of the Project:	The project is aimed at providing additional irrigation facilities in 64,111 ha of area in Narmadapuram, Harda, Betul and Khandwa districts of Madhya Pradesh.

16.	Whether land being diverted has any socio-cultural/religious value:	No.
17.	Situation w.r.t. any P.A.	The proposed diversion area is part of Satpura-Melghat Tiger Corridor. It is also located at more than 10 km away from any PA.
18.	Any other information relating to the Project:	

19. Specific comments/ observation of inspecting officer

### Proposed area for Diversion:

Date of inspection 25.10.2023.

Following are the component wise area proposed for diversion:

No.	Component	Forest Area Involved (in Ha)	Revenue Area Involved (in Ha)
1.	Dam Seat & Sluice	29.32	2.956
2.	Submergence	2133.78	811.272
3.	Pipeline- PH/DC	15.76	435.901
4.	Spill way Channel with Fish Ladder	38.09	0.00
5.	Approach & Division Road	27.15	3.805
6.	Transmission Line	5.95	23.76
	TOTAL	2250.05	1277.694

1) Forest Division- Narmadapuram, Range- Seoni Malwa, Beat- Morghat, Comptt. No: RF-404, Unclassed Forest-Khasra No. 05.

### Area for diversion-1215.42 ha.

Inspected dam seat, site for spillway channel and submergence area on river Morand in Narmadapuram District. The forest involved was a very good teak forest along with its associates as shown in column no. 06. The area was highly undulating with good grass cover on the forest floor. There was very little erosion. The forest stand looked to be mostly composed of young and matured crops. The crown density of the forest also varied from 0.5 to 0.8.

Stones demarcating HFL, HFL-2, HFL-4 were observed to be fixed in the field.

It was observed that there was no numbering of the trees falling in either submergence area or dam seat or spillway channel. On enquiry with the Local Forest Officials, it was found that there was no complete enumeration of the trees in the proposed area for diversion, had taken place. As per online Part-II, the no. of trees falling in FRL=417526, FRL-2=375529 & FRL-4=340528. As discussed with CCF Narmadapuram, the figures given for no. of affected trees in the proposed diversion area was as per the no. of trees per ha mentioned in the working plan. Since, the forest is observed to be dominated with excellent Teak trees, the value of the forest seems to be quite high. Also, the data given does not give the true picture of species wise and girth class wise trees getting affected. Therefore to have actual assessment of the no. of trees getting affected, species wise, girth class wise, complete enumeration of the trees falling in proposed diversion area must be done.

As per the information provided by Local Forest Officials, the area has a lot of Wildlife including movement of Tigers. The Wild animals present in the area are as shown in column No. 05.

It is further observed that certain forest compartments in the proposed diversion area is falling in Pench-Satpura-Melghat Tiger Corridor which are as follows: RF-365, 366, 367, 372, 373, 386, 387, 388, 392, 393, 394, 395, 399, 400, 401, 402, 403, 404, 407, 408, 409, 414, 416 & PF-466.

So, the area is very important from wildlife point of view. Therefore, a study must be undertaken by a competent agency to find out the impact of the project on Flora & Fauna of the area. Any mitigative measures, if suggested must be complied by the User Agency.

2) Forest Division-Harda, Range- Temagaon, Beat-Dong, Forest Comptt. No.- RF-254, Area for diversion-831.09 ha.

### Officers Present:

- 1. A. K. Sinha, Dy. Director General of Forests (C), Regional Office, MoEF&CC, Bhopal.
- 2. Shri Anil Kumar Shukla, CCF Narmadapuram.
- 3. Shri Anil Chopra, DFO Harda.
- 4. Shri S.K. Jain, Sub-DFO Harda.
- 5. Shri D.P. Goswami, RFO Temagaon.
- 7. Shri B. S. Sisodiya, SDO PIU, NVDA.
- 6. Shri G.S. Waskale, SDO PIU, NVDA.

Inspected dam seat, site for spillway channel and submergence area on river Ganjal in Harda District. The forest involved was a very good teak forest along with its associates as shown in column no. 06. The girth of some of the Teak trees was measured at breast height and was found to be varying from 110 to 120cms. The area was highly undulating with good grass cover on the forest floor. There was very little erosion. The forest stand looked to be mostly composed of young and matured crops. The crown density of the forest also varied 0.5 to 0.8.

Stones demarcating HFL, HFL-2, HFL-4 were found to be fixed in the field.

It was observed that there was no numbering of the trees falling in the submergence area and dam seat. On enquiry with the Local Forest Officials, it was found that the complete enumeration of the trees in the proposed area for diversion falling in submergence area and dam seat had taken place in 2019, i.e. more than 04 years back. Whereas the complete enumeration of the trees in the proposed diversion area falling in spillway channel, approach road, transmission line & laying of pipeline were taken up in 2023.

As per online Part-II, the no. of trees falling in FRL= 299706, FRL-2= 249112 & FRL-4=222411. Since, the forest is observed to be dominated with excellent teak trees, the value of the forest seems to be quite high. So the complete enumeration carried out more than 04 years back, may not give

true picture of the actual no. of trees getting affected in the field now. Therefore to have actual assessment of the no. of trees, species wise, girth class wise, complete enumeration of the trees falling in proposed diversion area (submergence area & dam seat) must be done now.

As per the information provided by Local Forest Officials, the area has a lot of Wildlife including movement of Tigers.

It is further observed that certain forest compartments in the proposed diversion area is falling in Pench-Satpura-Melghat Tiger Corridor which are as follows: RF-237, 239, 240, 251, 252, 254, 260 & 262.

So, the area is very important from wildlife point of view. Therefore, a study must be undertaken by a competent agency to find out the impact of the project on the Flora & Fauna of the area. Any mitigative measures, if suggested must be complied by the User Agency.

## 3) Inspection of CA area:

The details of CA area are shown as in column No. 08.

Since the project is an irrigation project and the executing agency is State agency, so the Compensatory Afforestation has to be carried out on equivalent non-forest land. As the proposed area for diversion is 2250.05 ha, the user agency has provided 2289.209 ha non-forest land at several locations in Betul, Jabalpur, Sagar & Agar Malwa Districts.

District- Betul, Division- South Betul, Range-Tapti, Circle-Sehra, Beat-Sehra, Revenue Khasra No. 465, Area- 15 ha

### Officers Present:

- 1. A. K. Sinha, Dy. Director General of Forests (C), Regional Office, MoEF&CC, Bhopal.
- 2. Shri Ramesh Ganawa, CCF, Betul.
- 3. Shri B. S. Sisodiya, SDO PIU, NVDA.
- 4. Shri T.R. Vejayanantham, DFO South Betul.
- 5. Mrs. Taruna Verma, SDO, Amla.
- 6. Shri Shyamlata Merave, RFO, Tapti.
- 7. Shri Omkarnath Malviya, DRO, Sehra Circle.
- 8. Shri Rajesh Kumar Sharma, FBO Sehra Beat.

The CA area was allotted in 15 ha. The area was having a gentle slope on the foothills of a small hillock. Out of 15 ha, about 7 ha was found to be under encroachment. The upper reaches of the block was having good vegetation, hence only about 10 ha area was fit for taking up plantation which included the encroached portion also. Therefore, the User Agency was suggested to identify another plot for CA, free from all encumbrances.

# Date of Inspection 26.10.2023

#### Officers Present:

- 1. A. K. Sinha, Dy. Director General of Forests (C), Regional Office, MoEF&CC, Bhopal.
- 2. Shri Kamal Arora, CCF, Jabalpur.
- 3. Shri V.C. Meshram, DFO, Jabalpur (I/c).
- 4. Shri Maheshchadra Kushwaha, RFO Kundam.
- 5. Other Forest Officials.

Division : Jabalpur, Range: Kundam, Beat : Amjhar, Khasra No. 180, Tehsil-Kundam, Area: 50 ha

It was observed that the said area was handed over to the Forest Department under the project but on 2<sup>nd</sup> July, 2017, the said area was planted with the help of State funds. Species planted were as follows:

- 1. Teak
- 2. Gmelina arborea
- 3. Bamboo
- 4. Azadirachta indica, etc.

Total No. of plants planted were 21250. Fencing was done in area of 70 ha. About 1.5 ha area was observed to be vacant but full of grass. In the remaining areas there was natural tree growth of species such as, Teak, Butea monosperma, Lagerstroemia parviflora. It was observed that the area was completely fenced and hence there were no signs of grazing resulting into a lot of grass growth. The planted trees were looking very healthy and promising. Due to protection, the growth of natural trees were also picking up fast. In general it was a successful plantation. In the vacant area, it was observed that the same was due to water logging. The Forest Officials were suggested to take up plantation with species like Terminalia arjuna & Syzygiun cuminii for proper stocking.

Two plots of 100.00 ha & 20.00 ha non forest land in Sehora range were also handed over to the forest department by the User Agency under the project for CA. The Forest Officials, informed that those two plots were also planted similarly on 02.07.2017. It was learnt that the mutation of all these plots had already been completed in favour of forest department. As the plantations were carried out in 170.00 ha of non forest land with the help of State funds, the State Govt. has proposed to take up 170.00 ha plantation in DFL for the CA which is as follows:

### Range-Kundam,

- 1) Beat-Dadargawan, Comptt. No. -RF-340, Area-40.00 ha
- 2) Beat-Dadargawan, Comptt. No. -RF-340, Area-30.00 ha
- 3) Beat-Barantouri, Comptt. No. -0-587, RF-296, Area-40.00 ha
- 4) Beat-Dabra, Comptt. No. -RF-311, Area-25.00 ha
- 5) Beat-Baghraji, Comptt. No. -0-593, Area-35.00 ha.

# Inspection of DFL area-70.00 ha (40.00 ha & 30.00 ha) Range-Kundam, RF-340.

The 70.00 ha area was observed to be an open forest with lot of grass growth. There was a stream bifurcating the area into two parts i.e. 40.00 & 30.00 ha. The area was also infested with weeds like lantana. There were some natural tree growth of Teak, Butea monosperma and Terminalia arjuna. The area was having good soil depth and found to be suitable for plantation with miscellaneous tree species. It was also suggested to plant Terminalia arjuna & Syzygiun cuminii on the sides of the stream and also construct check dams across the stream at suitable locations.

Division : Sagar South, Range: Kesli, Village- Patna khurd, Beat : Lakadyau domariya, Khasra No. 673, Tehsil- Kesli, Area: 41.56 ha

### Officers Present:

- 1. A. K. Sinha, Dy. Director General of Forests (C), Regional Office, MoEF&CC, Bhopal.
- 2. Shri Mahendra Pratap Singh, DFO, South Sagar.
- 3. Shri Shailendra Tiwari, RFO Kesli.
- 4. Shri Bharat Singh Thakur, FBO.
- 5. Other Forest Officials.

The area was observed to be mostly open leveled ground draining into streams found due to erosion on its periphery. The soil was observed to be sandy with very little clay content. Due to severe grazing, the top soil looked to be very compact. Most of the fertile top soil had already been eroded over the years. There were two low tension power line passing over the area. The DFO informed that about 3.00 ha of land was under encroachment and he also added that they would be evicted with the help of Revenue Authorities at the time of planting. The area was interspersed with trees like Teak, Lagerstroemia parviflora, Acacia leucophloea, Butea monosperma, Azadirachta indica, etc. The area was also infested with weed like Lantana. The area looked to be dry. The same could be overcome by proposing suitable irrigation facilities by the DFO in the CA Scheme. The area was also abutting to a black top road. On the whole, the site was found to be suitable for taking up plantations.

Division : South Sagar, Range: Kesli, Village: Chirai, Beat: Lakadyau domariya, Khasra No. 103, Tehsil- Kesli, Area: 100.66 ha

The area was observed to be mostly small hillock with a small portion on its foothill. About 5.00 ha area was also covered with big black boulders and hence not fit for taking up plantations. The small hillock was covered with good tree cover in almost an area of 20.00 ha and there is no need for further plantation in the same. The tree cover comprised of Teak, Madhuca indica, Aegle marmelos, Azadirachta indica, etc. The FRO informed that about 10.00 ha was under encroachment and he further added that the same could be evicted with the help of Revenue Authorities at the time of plantation. The soil looked to be very compact due to severe grazing. As the area is sloping at high gradient, the top fertile soil had already been eroded over the years. The area looked to be dry. The same could be overcome by proposing suitable irrigation facilities by the DFO in the CA Scheme. However, the area was found to be suitable for taking up plantation. It is observed that in

about 25.00 ha no plants can be planted due to good forest cover and boulders. The shortfall in planting @ of 1000 plants per ha, if any, could be taken up in Degraded Forest Area and CA scheme for the same along with KML file shall be submitted by the DFO.

# Date of Inspection 31.10.2023

District- Agar Malwa Tehsil - Susaner, Forest Division- Shajapur Forest Range- Susaner Beat- Palada

### Officers Present:

- 1. A. K. Sinha, Dy. Director General of Forests (C), Regional Office, MoEF&CC, Bhopal.
- 2. Shri Mayank Chandiwal, DFO Shajapur.
- 3. Shri Chandra Singh Pawar, RFO Susaner.
- 4. Shri Siyaram Sharma, Dy. RFO Susaner.
- 5. Shri Suresh Prajapati, FBO Palada.
- 6. Other Forest Officials.

# 1) Village: Shyampura, Khasra No. 11, Area: 62.86 ha

The area was found to be open without much vegetation. It was sloping from high to moderate gradient as it was on a hilly slope. The depth of top soil was found to be very shallow. It was looking like only lateritic. On the lower portion of the area was in a valley which had good depth of soil and better moisture regime. Some of the areas which were observed to be at high gradient may not be suitable for raising plantation. In areas with moderate gradient the pitting for the plantation could be done with machines and imported soil could be put in the pit at the time of plantation. The areas of moderate slopes could be approached by making jeepable tracks. Certain SMC structures like staggered contour trenches on the slopes and percolation tanks in the valley region would benefit the plantations. The vegetation in the area were mainly observed to be Butea monosperma, Acacia leucophloea and at certain locations it was infested with Lantana. The whole area was covered with dry grass.

As the annual rainfall of the area is about 600 to 700 mm, a suitable irrigation facility may be proposed by the DFO in the CA Scheme. It was informed by the Range Officer that the area is heavily grazed by Goats and Neelgai. Therefore, the CA area should have strong chain link fence all around. The area may not be suitable for planting @ 1000 plants per ha at certain places. In such case the balance number of plants may be planted in degraded forest area and for the same the DFO should submit a suitable CA scheme along with KML file. Overall the area is found to be suitable for taking up plantations. During the inspection a CA plantation was inspected which was the fenced from all sides by chain link fencing. It was observed that the species like Gmelina arborea, Terminalia bellirica and Pithecellobium dulce were performing very promisingly.

# 2) Village: Dongragaon, Khasra No. 464, 465, 466, 467& 468, Area: 33.98 ha

The area was found to be open without much vegetation. It was having undulating terrain with moderate gradient as it was on a hilly slope. The depth of top soil was found to be very shallow. It was looking like only lateritic. In most of the areas, the pitting for the plantation could be done with

machines and imported soil could be put in the pit at the time of plantation. As the annual rainfall of the area is about 600 to 700 mm, a suitable irrigation facility may be proposed by the DFO in the CA Scheme. Certain SMC structures like staggered contour trenches on the slopes and percolation tanks in the valley region would benefit the plantations. The vegetation in the area were mainly observed to be Butea monosperma, Acacia leucophloea and at certain locations it was infested with Lantana. The whole area was covered with dry grass. It was informed by the Range Officer that the area is heavily grazed by Goats and Neelgai. Therefore, the CA area should have strong chain link fence all around. The area may not be suitable for planting @ 1000 plants per ha at certain places. In such case the balance number of plants may be planted in degraded forest area and for the same the DFO should submit a suitable CA scheme along with KML file. Overall the area is found to be suitable for taking up plantations. During the inspection a CA plantation was inspected which was the fenced from all sides by chain link fencing. It was observed that the species like Gmelina arborea, Terminalia bellirica and Pithecellobium dulce were performing very promisingly.

3) Village: Bid Madhopur, Khasra No. 16, 35, 151, 158, 160, 190, 192, 199, 213, 215, 193, 34, Area: 85.06 ha

The whole area is divided into 5 bits.

Bit-1 (Khasra No. 16): 3.00 ha

Bit-2 (Khasra No. 34 & 35): 20.72 ha

Bit-3 (Khasra No. 215): 9.00 ha

Bit-4 (Khasra No. 151, 158 & 160): 19.09 ha

Bit-5 (Khasra No. 190, 192, 193, 199 & 213): 33.25 ha

The area was abutting to a black top road and found to be open without much vegetation. It was almost a plain ground with gentle slope. The depth of top soil was found to be very shallow. It was looking like lateritic. In most of the areas, pitting for the plantation could be done with machines and imported soil could be put in the pit at the time of plantation. As the annual rainfall of the area is about 600 to 700 mm, a suitable irrigation facility may be proposed by the DFO in the CA Scheme. The vegetation in the area was mainly observed to be Butea monosperma, Acacia leucophloea and at certain locations it was infested with Lantana. The whole area was covered with dry grass. It was informed by the Range Officer that the area is heavily grazed by Goats and Neelgai. Therefore, the CA area should have strong chain link fence all around. The area may not be suitable for planting @ 1000 plants per ha at certain places. In such case the balance number of plants may be planted in degraded forest area and for the same the DFO should submit a suitable CA scheme along with KML file. Overall the area is found to be suitable for taking up plantations. During the inspection a CA plantation was inspected which was the fenced from all sides by chain link fencing. It was observed that the species like Gmelina arborea, Terminalia bellirica and Pithecellobium dulce were performing very promisingly.

20 Recommendations of Regional Deputy Director General of Forests (C) along withdetailed reasons:

The proposal is recommended for consideration in view of the observations made in the field inspection as given in column no. 19.

Spiel

21. Regional Head shall give detailed comments on whether there are any alternatives routes/alignment for locating the project on the non-forest land:	
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Ashok Kumar Sinha Dy. Director General of Forests (C) IRO, Bhopal. **Photographs of Diversion Area** 



# Photographs of Inspected site of CA Area

## **CA Site of Betul**





# **CA Site of Jabalpur**









## **CA site of Sagar**





## **CA Site of Agar Malwa**











