



Government of India
Ministry of Environment, Forest and Climate Change
IA Division
(River Valley and Hydroelectric Projects)



**Minutes of 25TH MEETING OF THE EXPERT APPRAISAL COMMITTEE meet
 ing River Valley and Hydroelectric Projects held from 27/02/2025 to 27/02/2025 Date: 11/03/2025**

MoM ID: EC/MOM/EAC/216917/2/2025
Agenda ID: EC/AGENDA/EAC/216917/2/2025
Meeting Venue: N/A
Meeting Mode: Virtual
Date & Time:

27/02/2025	10:30 AM	05:30 PM
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1. Opening remarks

The 25th meeting of the EAC for River Valley & Hydro-electric Projects organized by the Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi, was held on 27th February, 2025 (Virtual Mode), under the Chairmanship of Prof. G. J. Chakrapani.

2. Confirmation of the minutes of previous meeting

The Minutes of the Meeting held on 24th EAC meeting on 14th February, 2025 were confirmed.

3. Details of proposals considered by the committee

Day 1 -27/02/2025

3.1. Agenda Item No 1:

3.1.1. Details of the proposal

Proposed Expansion of Tembhu Lift Irrigation Project Taluka Karad, District Satara, Maharashtra by Department of Irrigation located at SATARA, MAHARASHTRA			
Proposal For		Fresh EC	
Proposal No	File No	Submission Date	Activity (Schedule Item)
IA/MH/RIV/482689/2024	J-12011/48/2023-IA.I (R)	06/01/2025	River Valley/Irrigation projects (1(c))

3.1.2. Project Salient Features

25.1.1: The proposal is for grant of Environmental Clearance (EC) to the project for Expansion of Tembhu Lift Irrigation Project in an area of 2284.601 ha at Village Tembhu, Ranad, Govare and etc, Sub District Khatav, Atpadi, Karad and etc, District Satara, Sangli and Solapur, Maharashtra by M/s Minor Irrigation Division, Sangli Water Resources Department, Maharashtra Krishna Valley Development Corporation.

25.1.2: The Project Proponent and the accredited Consultant M/s MITCON Consultancy & Engineering Services Ltd., Pune, Maharashtra, made a detailed presentation on the salient features of the project and informed that:

- i. Krishna Koyana Lift Irrigation Scheme (KKLI), which is under construction, provides irrigation benefits to drought prone Kadegaon, Khanapur, Tasgaon, Miraj & Kavathe Mahankal and Jat Taluka of Sangli district and Songola and Mangalvedha taluka of Solapur of district. Takari Lift Irrigation Scheme provides irrigation in Khanapur, Kadegaon and Tasgaon talukas up to RL 2100 ft. while Mhaisai Lift Irrigation Scheme provides Irrigation in Miraj, and Kavathemahankal, Jath, Songola and Mangalvedha taluka up to RL. 2200 ft. There was persistent demand for irrigation benefits to areas above RL 2100 ft from Kadegaon, Khanapur, Tasgaon, Atpadi, Sangola, Kavathe Mahankal talukas by way of Lift Irrigation Scheme. As it was not possible to make changes in scope of KKLIS, which was in advanced stage of construction, a separate lift irrigation scheme named Tembhu Lift Irrigation Scheme was proposed for drought prone area of Kadegaon, Khanapur, Tasgaon, Atpadi, Sangola, Kavathemahankal taluka above RL 2100 Ft i.e. which could not be covered under KKLI scheme. Accordingly, a preliminary report based on topo sheet study was submitted to Govt. by C.E. (I.D.) Pune vide Letter No. PB/ Desk (2)/ DE (10) Tembhu/ 971 Dt. 22/02/1994 Govt. approved this proposal, vide letter No. 5-95/ 1093/ 668/ (140/93) WRI, DT. 15/04/1994 and directed to prepare D.P.R. of this scheme.
- ii. The barrage across Krishna River @ Tembhu is constructed. The F.S.L. of barrage is within the river bank. The 11 gates of size 15 x 9 m. are provided to let out the water from Krishna River to irrigate 80472 ha (ICA) of land from drought prone regions of Satara, Sangli and Solapur districts of Maharashtra state. (Total 5 stages).
- iii. The Proposed Expansion of Tembhu Lift Irrigation Project Taluka Karad, Dist. Satara, Sangli and Solapur, Maharashtra by M/s. Executive Engineer, Minor Irrigation Division, Sangli project envisage construction to irrigate ICA 41003 ha
 - v Existing Khanapur -Tasgaon Canal (Stage 6 A-6B LIS)
 - v Kavathe Mahankal Canal (Bevnur Scheme)
 - v Palashi LIS (Palshi LIS)
 - v 3 A to Ghanand Canal (Man - Khatav LIS)
 - v Kamath Lake (Kamath Scheme)
 - v Length of new pipeline proposed (PDN) : 200 km
 - v Length of proposed Distributaries :1000 km
 - v Total electricity requirement: 22 MW (Source: MSEDCL)
 - v Water Utilization: Existing: 22.0 TMC + Proposed 8.00 TMC = Total 30.00 TMC
- iv. Accordingly, detailed project Report of Tembhu Lift Irrigation Scheme was prepared which envisaged construction of barrage across river Krishna near village Tembhu and Lifting the stored water in 5 stages to irrigate 79600Ha. Of area from 7, taluka's of Satara, Sangli and Solapur district. This DPR was administratively approved by Govt. letter no. (Marathi) Tembhu 1095/ 1427/ (361/ 95) WRI dt. 19.02.1996. (for Rs. 1456.19 crores)
- v. The project proposal was considered by the Expert Appraisal Committee (Hydro River Valley Sector) in its 51st meeting held during 12 Sept 2023 and recommended for grant of Terms of References (ToRs) for the Project. The ToR has been issued by Ministry vide letter File No: J-12011/48/2023-IA. I (R) Dated 02/11/2023.
- vi. Earlier, Ministry had issued EC vide letter no. 12011/43/2003-A. I Dated August 17, 2007 to the existing project in favour of M/s. Minor Irrigation Circle, Maharashtra Krishna Valley Development Corporation, Warnali, Sangli.
- vii. The geographical co-ordinate of the project are

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viii. Land requirement:

Nature of Land involved in (Ha)	Area Existing in Ha	Additional Area Proposed in Ha	Total Area required after expansion in Ha
Non-Forest Land	2265.13	2.78	2267.92
Forest Land	7.05	7.93	14.98
Total	2272.18	10.71	2282.90

ix. Demographic details in 10 km radius of project area:

x. Water requirement:

District	Taluka	No. of villages	ICA (Ha)	Water Requirement TMC
Sangli	1) Khanapur	11	6471	1.5

	2) Tasgaon	17	6026	1.00
	3) Kawathemahankal	9	2450	0.50
	4) Atpadi	12	5294	1.00
	5) Jat	4	2636	0.50
	Total of Sangli District	53	22877	4.50
Satara	6) Khatav	21	7440	1.50
	7) Maan	27	5686	1.00
	Total of Satara District	48	13126	2.50
Solapur	8) Sangola	8	5000	1.00
	Total Of Solapur District	8	5000	1.00
	Gross Total	109	41003	8.00

xi. **Project Cost:** The estimated project cost is Rs 7370.03 Cr. including existing investment of Rs 4088.14 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 193.00 L and the Recurring cost (operation and maintenance) will be about Rs 160.00 L per annum.

xii. **Project Benefit:** Total Employment will be 15 persons as direct & 360 persons indirect after expansion. Industry proposes to allocate Rs 820 Lakh @ of 0.25 % towards CER (as per Ministry's OM dated 1st May 2018).

xiii. **Environmental Sensitive area:** There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. However, Mayani Bird Conservation Reserve & Other sacred groves are present within 10 km radius.

Sr. No.	Name of the Grove	Deity	Tahsil	Distance	Direction
1	Arewadi	Biroba	Kavathe Mahankal	3 km	SE
2	Raywadi	Lord Shiva	Kavathe Mahankal	3 km	W
3	Shukacharya	Sukhdev	Khanpur-Atpadi	2 km	NE
4	Mayani	Bird Conservation Reserve*	Khatav	1.28 km	NE

*5.2 km from Khatav Main Distributary

Sr. No.	Ap pr ov als	A m o u	D S R	Re ma rks
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		n t		
1.	O r i g i n a l A d m i n i s t r a t i v e A p p r o v a l	1 4 1 6. 5 9	1 9 9 5- 9 6	G O M v i d e l e t e r N o. T e m b h u- 10 9 5/ 14 27 /(3 6 1/ 9 5)/ W R I d a t e d 1 9/ 0 2/ 19 96
2.	1 ^s t R e v i s e d A d m i n i s t r a t i v e	2 1 0 6. 0 9	2 0 0 0- 0 1	M K V D C l e t e r N o M K V D D C/

	A p p r o v a l			M P- 6/(38 3/ 20 0 2)/ 71 8 da te d 2 2/ 0 1/ 20 04
3.	C W C A p p r o v a l	3 4 5 0. 3 5	2 0 0 9- 1 0	In 10 9 th h Te ch ni ca l a dv is or y co m mi tte e of Ce ntr al W at er C o m mi ssi on m ee

				tin g on 1 4/ 0 3/ 20 11
4.	2 ⁿ d R ev is ed A d m in is tr at iv e A p pr o va l co st	4 0 8 8. 9 4	2 0 1 6- 1 7	(w or k po rti on R s.3 72 9. 82 C r.+ E T P R s.3 5 9. 12 C r)
5.	3 ⁿ d R ev is ed A d m in is tr at iv e A p pr	7 3 7 0. 0 3	2 0 2 2- 2 3	(w or k po rti on R s.6 70 8. 4 8. C r.+ E T P R s.6

	o va l co st (P ro p os e d)			6 1. 55 C r)
6.	U p to da te E x pe n di tu re S ep te m be r 2 0 2 2	3 3 8 8. 3 3	2 0 2 2- 2 3	(w or k po rti on R s.3 15. 5. 2. C r.+ E T P R s.2 3 2. 8 1. C r)
7.	B al an ce C os t of Pr oj ec t	3 9 8 1. 6 9	2 0 2 2- 2 3	(w or k po rti on R s.3 55 2. 96 cr + E T

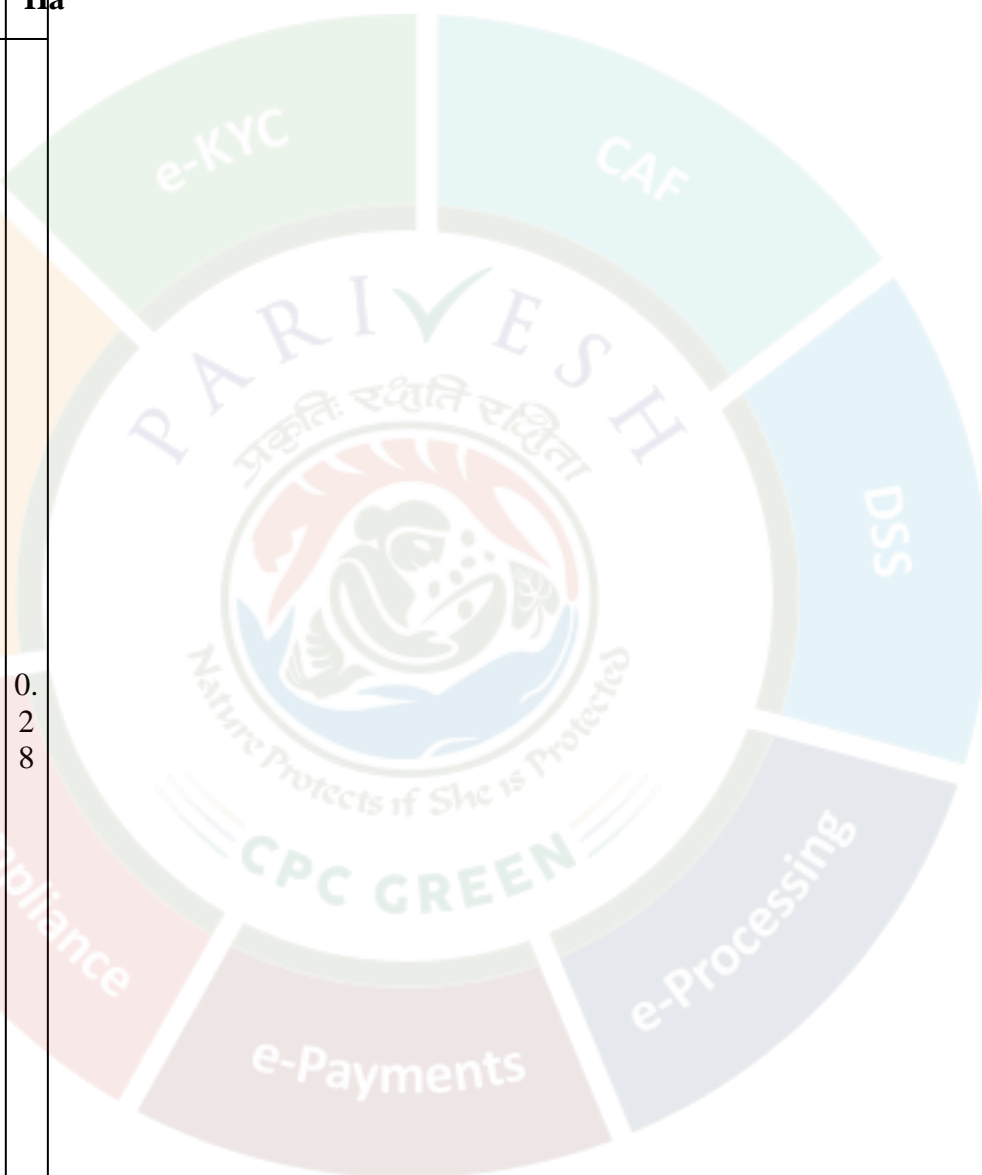
				P4 2 8. 73 cr)
8.	St a g e 1 C l e a r a n c e	-	-	St a g e 1 C l e a r a n c e r e c e i v e d v i d e o n l i n e P r o p o s a l N o. F P/ M H/ P i p e l i n e/ 46 63 9 5/ 20 24 da te d 0 6. 0 1. 20 25

xv. Resettlement and rehabilitation:

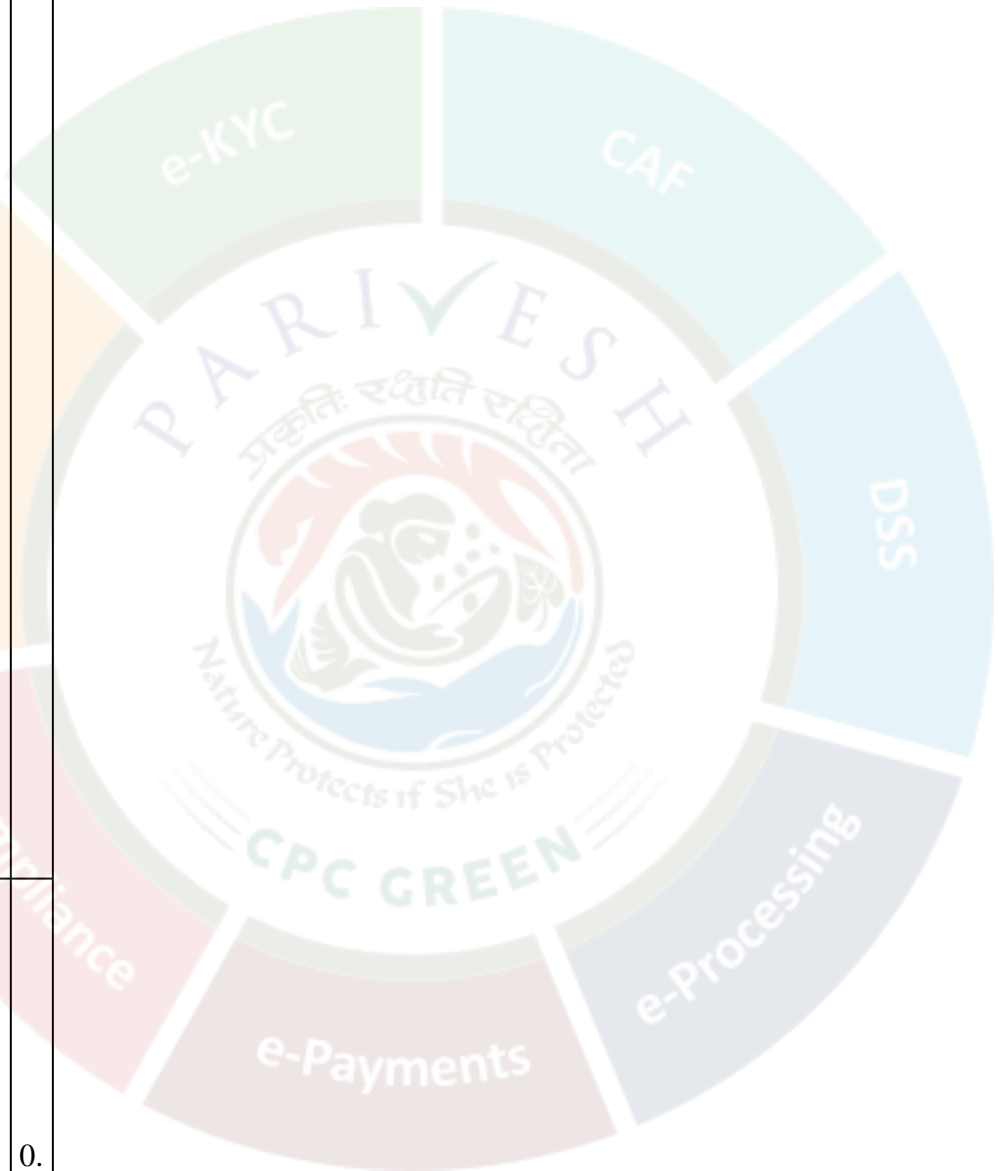
For the Expansion of Tembhu Lift Irrigation Project, private land of around 2.7825 Ha is proposed for acquisition. The land acquisition will be done and compensation shall be paid to land owners as per The Right to Fair Compensation & Transparency in Land Acquisition, Rehabilitation and Resettlement Act 2013. As there are no households in the land to be acquired, there is no issue of rehabilitation & resettlement of the land owners.

Details of Land Acquisition:

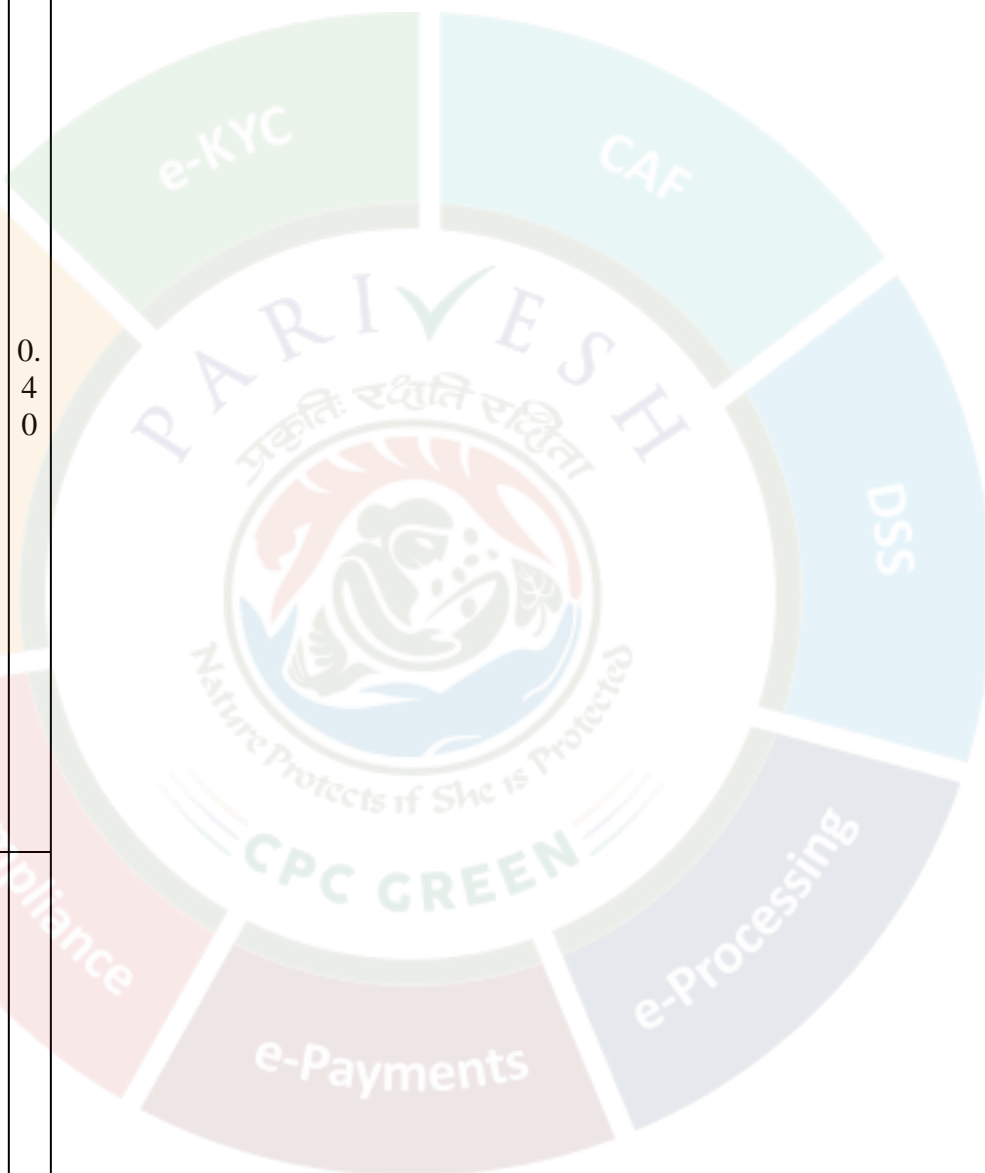
Sr. No	Name of Farmer	Village	Guaranteed Area in Ha	Area in Ha
1.	S hr i. D at tu C h a n d r u M o r e a n d S hr i. L a x m a n C h a n d r u M o r e	V e j e g a o n T a l:- K h a n a p u r, D i s t. S a n g l i	1 4 5	0. 2 8
2.	S hr i. R	V e j e g	1 4 6	0. 1 9



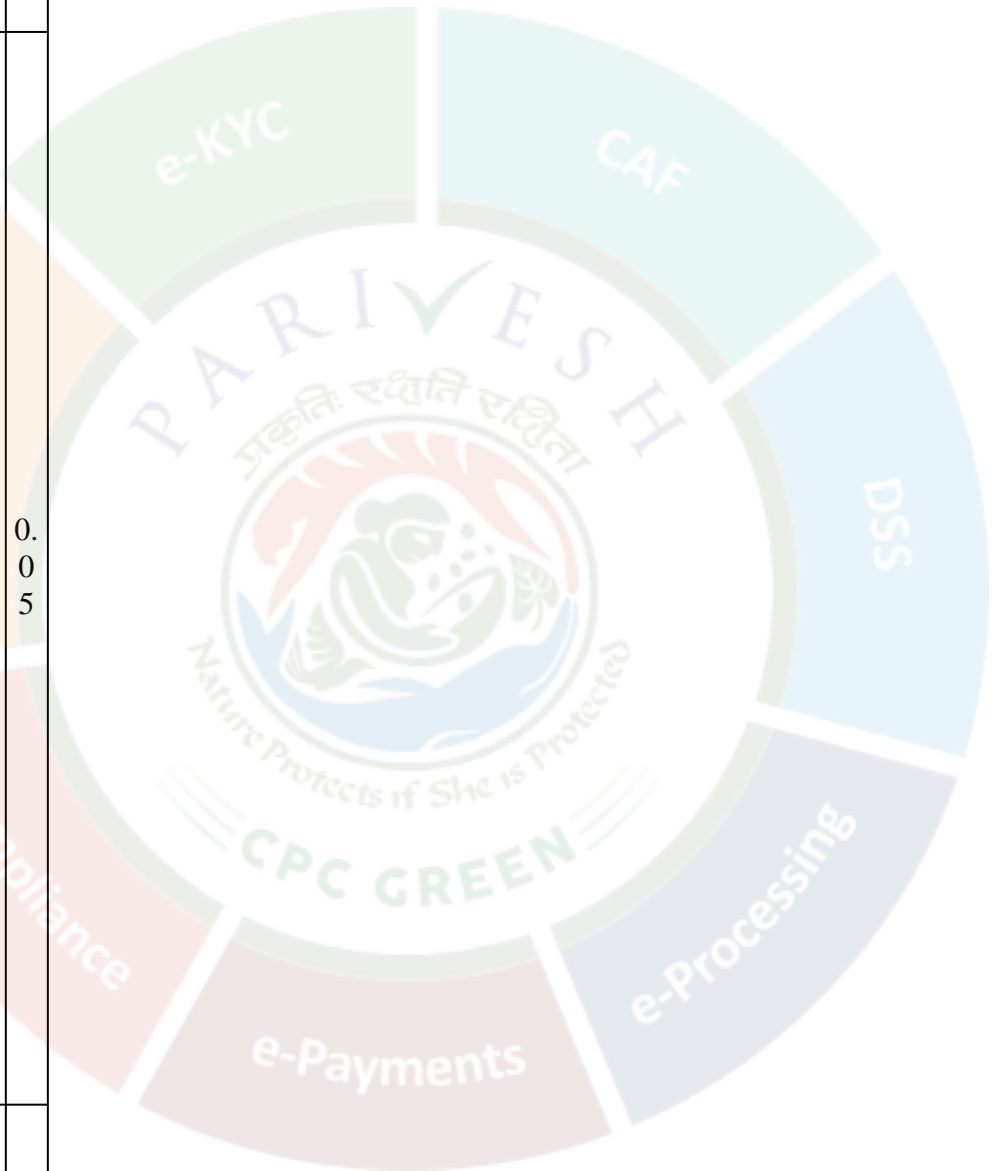
	aj ar a m G o v i n d D e v k a r S h r i. H a n m a n t G o v i n d D e v k a r	a o n T a l:- K h a n a p u r, D i s t. S a n g l i		
3.	S h r i. D a v a l M a l i k A r c h a k	B h i k a v a d i T a l:- K h a n a p u r,	9 9 2	0. 0 6 2 5



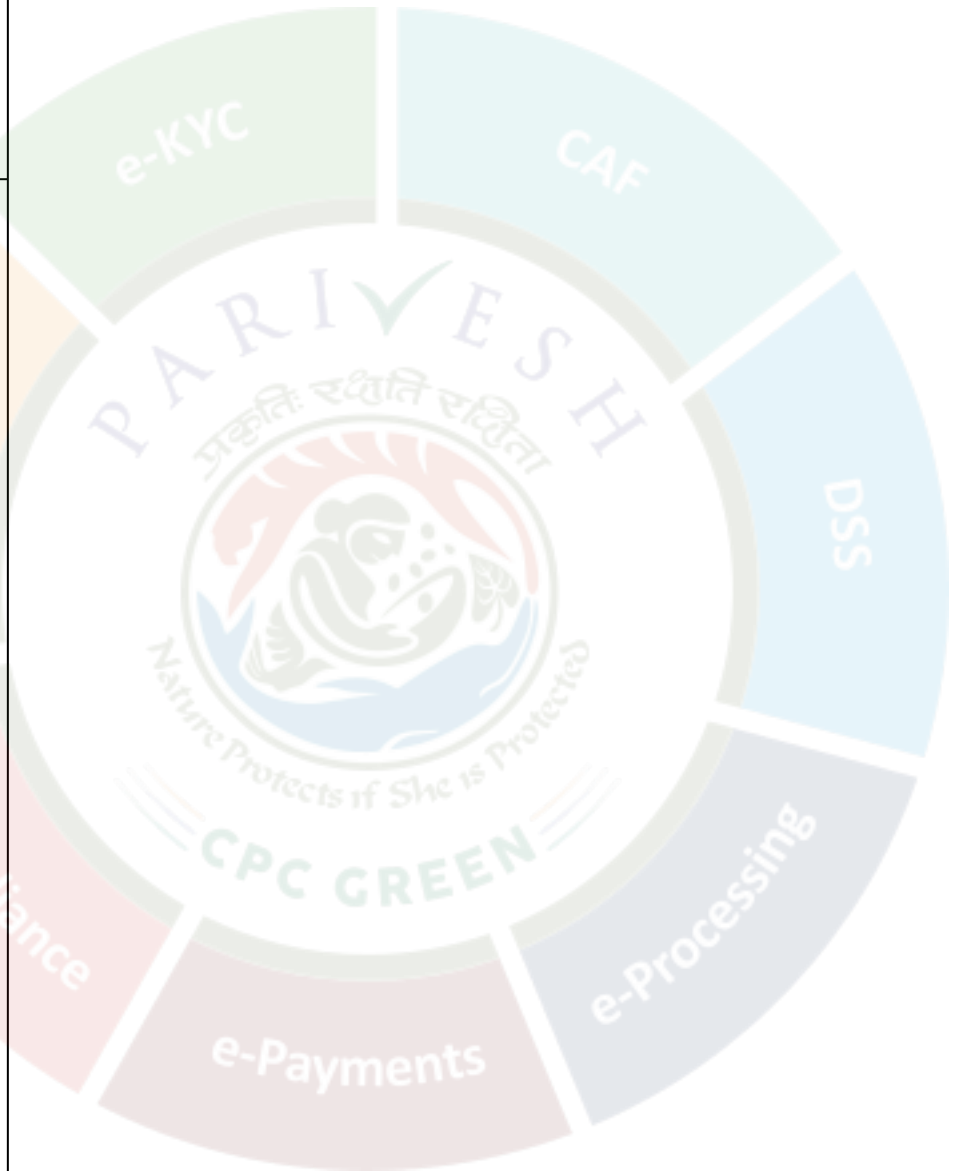
		D is t. S a n g l i		
4.	S hr i. U tt a m A t m ar a m Y a d a v a n d o t h er	R e n a vi T a l:- K h a n a p u r, D is t. S a n g l i	4 9 8	0. 4 0
5.	S hr i. A ni l P a n d hr in at h G ai k ea d	K as a b e V it a ea s t, T a l:- K h a n a	1 9 4	0. 4 0



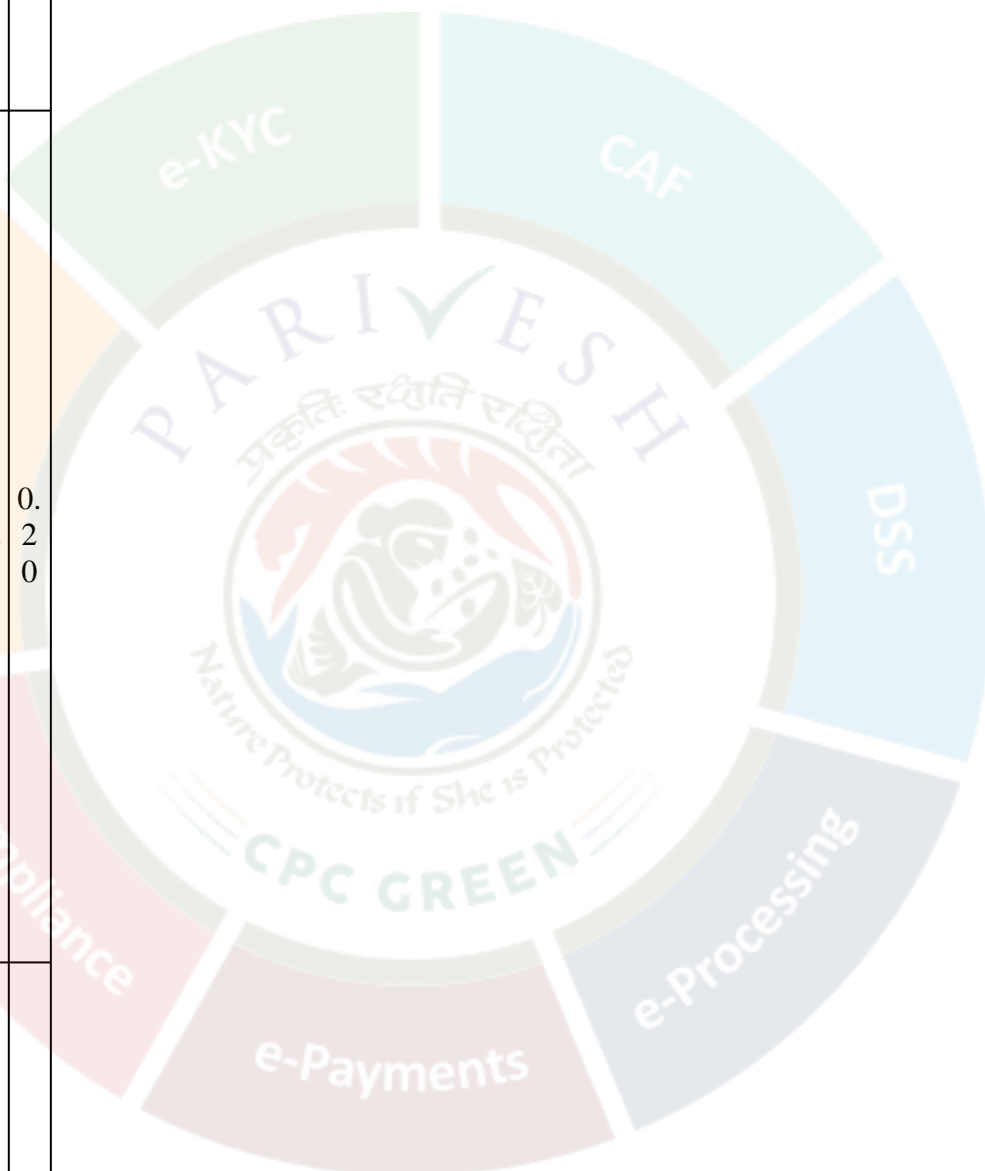
	a n d o t h e r 1 0	p u r, D i s t. S a n g l i		
6.	S m t. S h a r a d a R a m c h a n d r a N i c h a l a n d o t h e r	P o s e w a d i, T a l:- K h a n a p u r, D i s t. S a n g l i	8 3 6	0. 0 5
7.	S h r i. A r j u n T u k a r a	D h o n e w a d i, T a l:-	4 5 0	0. 0 5



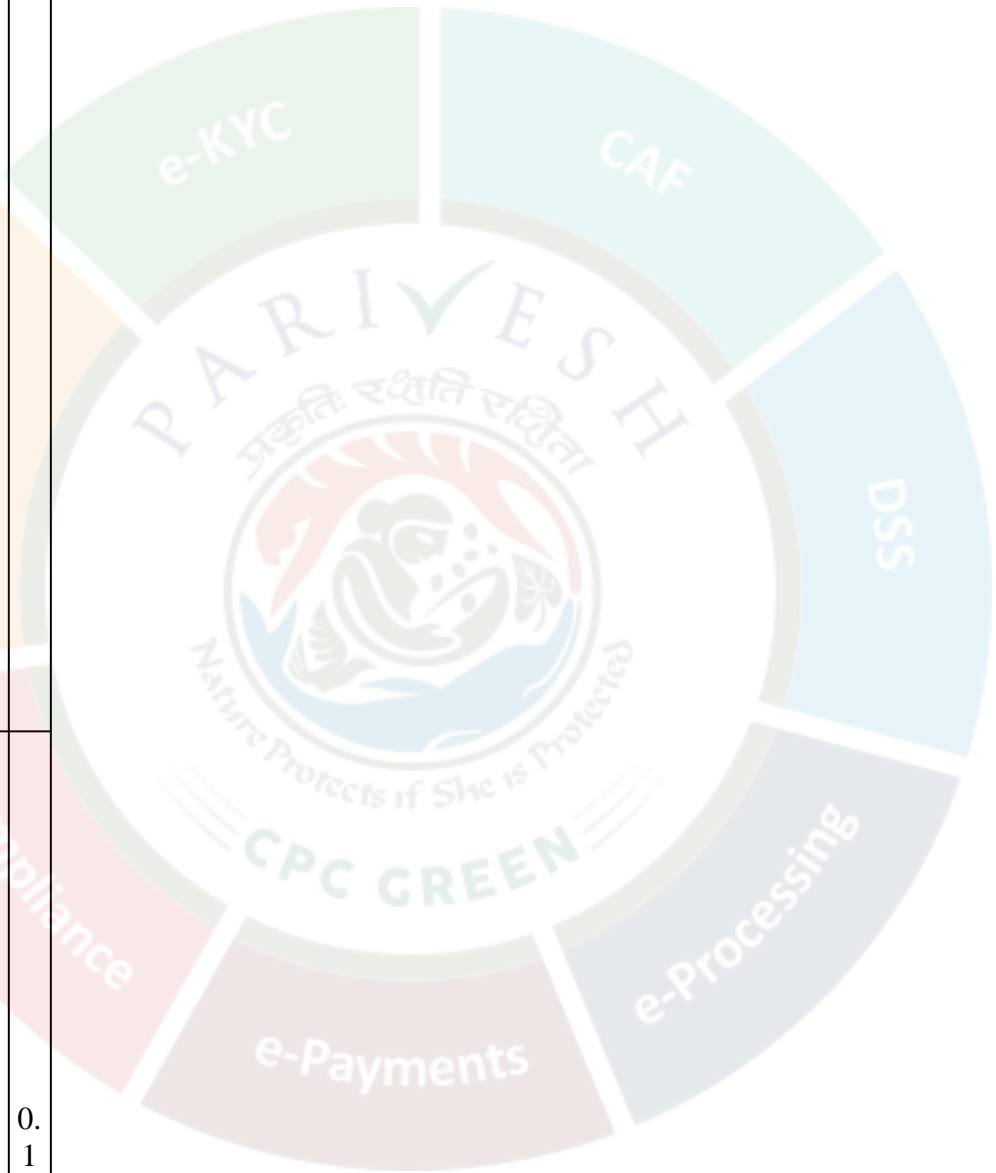
	m k o l e a n d o t h e r	K a n a p u r, D i s t. S a n g l i		
8.	S h r i. D i p a k S a d a s h i v K a n a s e a n d o t h e r 2	V i j a y n a g a r, T a l - K h a n a p u r, D i s t. S a n g l i	3 0 9	0. 0 5
9.	U j a w a l a H i n d	V i t a p u t v a	1 4 8	0. 6 0



	ur a o S a w a n t o t h e r 1 4			
10.	M a r u t h i D e o a n d o t h e r s	P a l a s h i T a l:- K h a n a p u r D i s t. S a n g l i	6 1 0 /3	0.20
11.	J a g u b a i B h i m r a o C h a n d a	P a l a s h i T a l:- K h a n a p u r, D	6 0 2	0.40



	ns hi v e, M a n g a l B h i m r a o C h a n d a n s h i v e a n d o t h e r	is t. S a n g l i		
12.	U m e s h S u k h d e o J a d h a v, S u l o c h n	P a l a s h i T a l:- K h a n a p u r, D i s t. S a n g l	2 3 2	0. 1 0



	a S u k h d e o J a d h a v a n d o t h e r	i		
Total			27 82 5 Ha	

S r. N o	Clas s	Scient ific ame	Com mon Name	IWP A Sta tus	I U C N S t a t u s
1.	M a m m al	C a n i s l u p u s	G r e y W o l f	S c h e d u l e - I	L C
2.	M a m m al	A n t i l o	B l a c k b u c	S c h e d	L C

S r. N o	Clas s	Scient ific ame	Com mon Name	IWP A Sta tus	I U C N S t a t u s
		<i>p e c e r v i c a p r a</i>	k	u l e - I	
3.	M a m m al	<i>H y e n a h y a e n a</i>	St ri p e d H y e a n a	S c h e d u l e - I	N o t E n l i s t e d
4.	M a m m al	<i>V u l p e s b e n g a l e n s i s</i>	B e n g a l F o x	S c h e d u l e - I	L C
5.	M	B	G	S	V

S r. N o	Clas s	Scient ific ame	Com mon Name	IWP A Sta tus	I U C N S t a t u s
	a m m al	<i>o s g a u r u s</i>	au r	c h e d u l e - I	U
6.	M a m m al	<i>P r i o n a i l u r u s r u b i g i n o s u s</i>	R u s t y S p o t e d C a t	S c h e d u l e - I	N T
7.	M a m m al	<i>F e l i s c h a u s</i>	Ju n g l e C a t	S c h e d u l e - I	L C
8	B	<i>P</i>	In	S	L

S r. N o	Class	Scientific Name	Common Name	IWP A Status	I U C N S t a t u s
	bird	<i>avocristatus</i>	dian Peafowl	ch e d u l e - I	C
9.	Bird	<i>Accipiter badius</i>	Shikra	S c h e d u l e - I	L C
10.	Bird	<i>Halastur indus</i>	Brahmanykite	S c h e d u l e - I	L C
11.	Reptile	Crocod	Muger	S c h e d u	V U

S r. N o	Clas s	Scient ific ame	Com mon Name	IWP A Sta tus	I U C N S t a t u s
		y l u s p a l u s t r i s		l e - I	
1 2.	R e p t i l e	F o w l e a p i s c a t o r	C h e q u e r e d k e l b a c k	S c h e d u l e - I	L C
1 3.	R e p t i l e	P t y a s m u c o s a	D h a m a n	S c h e d u l e - I	L C
1 4	R e p t i l e s	V a r a n u s	B e n g a l M o	S c h e d u l	E N

S r. N o	Clas s	Scient ific ame	Com mon Name	IWP A Sta tus	I U C N S t a t u s
		<i>ben g ai e n si s</i>	ni to r	e - I	
1 5	B ir d	<i>P l a t a l e u c o r o d i a</i>	E ur a s i a n S p o n b i ll	S c h e d u l e - I	L C
1 6	B ir d	<i>S t e r n a a u r a n t i a</i>	R i v e r T e r n	S c h e d u l e - I	V U
1 7	B ir d	<i>C i r c</i>	S h o r	S c h	L C

S r. N o	Clas s	Scient ific ame	Com mon Name	IWP A Sta tus	I U C N S t a t u s
		<i>a et u s g al li c u s</i>	t-t o e d S na k e- E agle	e d u l e - I	
1 8	B ir d	<i>T ri n g a n e b ul a ri a</i>	C o m m o n G re en sh an k	S c h e d u l e - I	L C
1 9	B ir d	<i>A yt h y a fe ri n a</i>	C o m m o n P oc ha rd	S c h e d u l e - I	L C
2 0	B ir d	<i>P e ri c r</i>	S m al l M	S c h e d	L C

S r. N o	Class	Scientific Name	Common Name	IWP A Status	I U C N S t a t u s
		<i>ocotus cinnamomeus</i>	inivet	u l e - I	
21	Bird	<i>Clanga clanga</i>	Greater Spotted Eagle	Schedule - I	VU

* VU = Vulnerable; **NT = Near Threatened, EN = Endangered

AAQ parameters	PM_{10} = 23.5 to 76.3 $\mu\text{g}/\text{m}^3$ $\text{PM}_{2.5}$ = 12.4 to 31.9 $\mu\text{g}/\text{m}^3$ SO_2 = 6.2 to 16.5 $\mu\text{g}/\text{m}^3$ NO_x = 10.4 to 23.2 $\mu\text{g}/\text{m}^3$. CO = BDL			
	Parameter	Season	Season	Season

er	o n 1	o n 2	o n 3
p H	7. 01 to 7. 43	7. 02 to 7. 49	7. 1 to 7. 5
T D S	38 5 to 14 59 m g/ li t.	35 7 to 16 62 m g/ li t.	49 2 to 14 15 m g/ li t.
T o t a l H a r d n e s s a s C a C O 3	15 4. 3 to 51 7 m g/ li t.	16 9. 54 to 49 0. 12 m g/ li t.	17 1 to 51 4 m g/ li t.
C a l c i u m a s C a	4 6. 13 to 11 3. 37 m g/ lit	5 0. 13 to 13 0. 45 m g/ lit	48 to 11 0 m g/ lit
M a g n e s i u m a s M g	1 8. 13 to 8 3. 28 m g/ lit	2 0. 14 to 8 3. 02 m g/ lit	23 to 80 m g/ lit

mples at 36

Parameter	Sample 1	Sample 2	Sample 3
pH	7.02 to 7.57	7.08 to 7.62	7.03 to 7.78
Total Dissolved Solids	314 to 2012 mg/lit.	320 to 1990 mg/lit.	289 to 2183 mg/lit.
Total Hardness as CaCO ₃	140.56 to 758.13 mg/lit.	130.14 to 771.19 mg/lit.	125.16 to 767.52 mg/lit.
Calcium	41.08 to 124.1 mg/lit &	37.1 to 130.18 mg/lit &	18.52 to 145.12 mg/lit
Magnesium	13.	14.	11.13 to 95.27 m

g n es iu m as M g	26 to 9 2. 14 m g/ lit	25 to 9 5. 24 m g/ lit	g/lit
C hl or id e as C l &	2 4. 25 to 11 0. 92 m g/ lit &	2 1. 16 to 11 5. 24 m g/ lit	25.42 to 128.12 mg/lit
S ul p h at e as S O 4	1 4. 92 to 12 0. 15 m g/ li t.	1 6. 02 to 12 0. 14 m g/ li t.	15.9 to 131.15 mg/lit.

Noise levels Leq

The Leq values for day time was observed to be

Zone /Area	Day Time	Night Time
Residential Zone	47.3-to 54.8dB (A)	39.1to 43.8 dB (A).
Silent Zone	41.6-to 48.9dB (A)	33.2 to 39.8 dB (A).
Commercial Zone	66.5 to 69.4dB (A)	60.5 to 64. 2 dB (A).

Pa ra me ter s	S e a s o n 1	S e a s o n 2	S e a s o n 3
p H	7. 35 to 8. 0 5.	7. 21 to 7. 9 2.	7.02 to 8.24.
C o	41 1.	50 1.	424.5 to 872.5 µ

	nductivity	8 to 90.8 μs/cm.	6 to 10.4 μs/cm.	cm.
	N	13.12 to 16.93 kg/ha	11.84 to 16.03 kg/ha	138.15 to 185.15 kg/ha,
	P	9.15 to 25.2 kg/ha	1.02 to 2.91 kg/ha	13.45 to 24.1 kg/ha
	K	15.13 to 20.43 kg/ha	12.05 to 20.61 kg/ha	148.1 to 211.67 kg/ha
	Total 172 floral species were recorded in and around the project area (i.e. 10 km radius study). Among them 41 Herbs, 97 Trees, 27 shrubs & climbers were 7. Fauna Diversity : Mammals - 15, Bird – 135, Fishes-109, Frog -3, Reptile -4,			

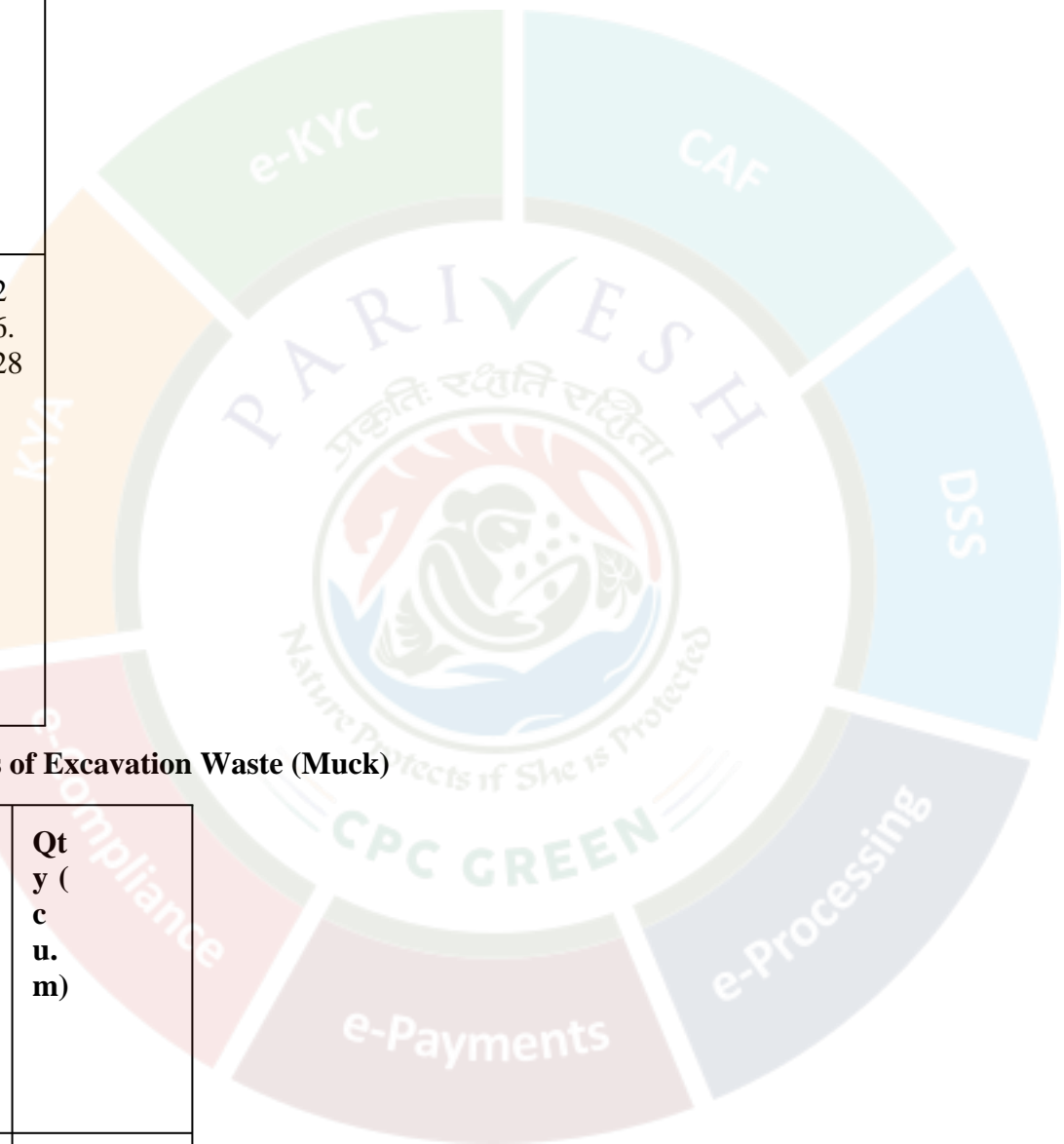
Domestic Waste:

N a m e	S o u r	Q ty (T P
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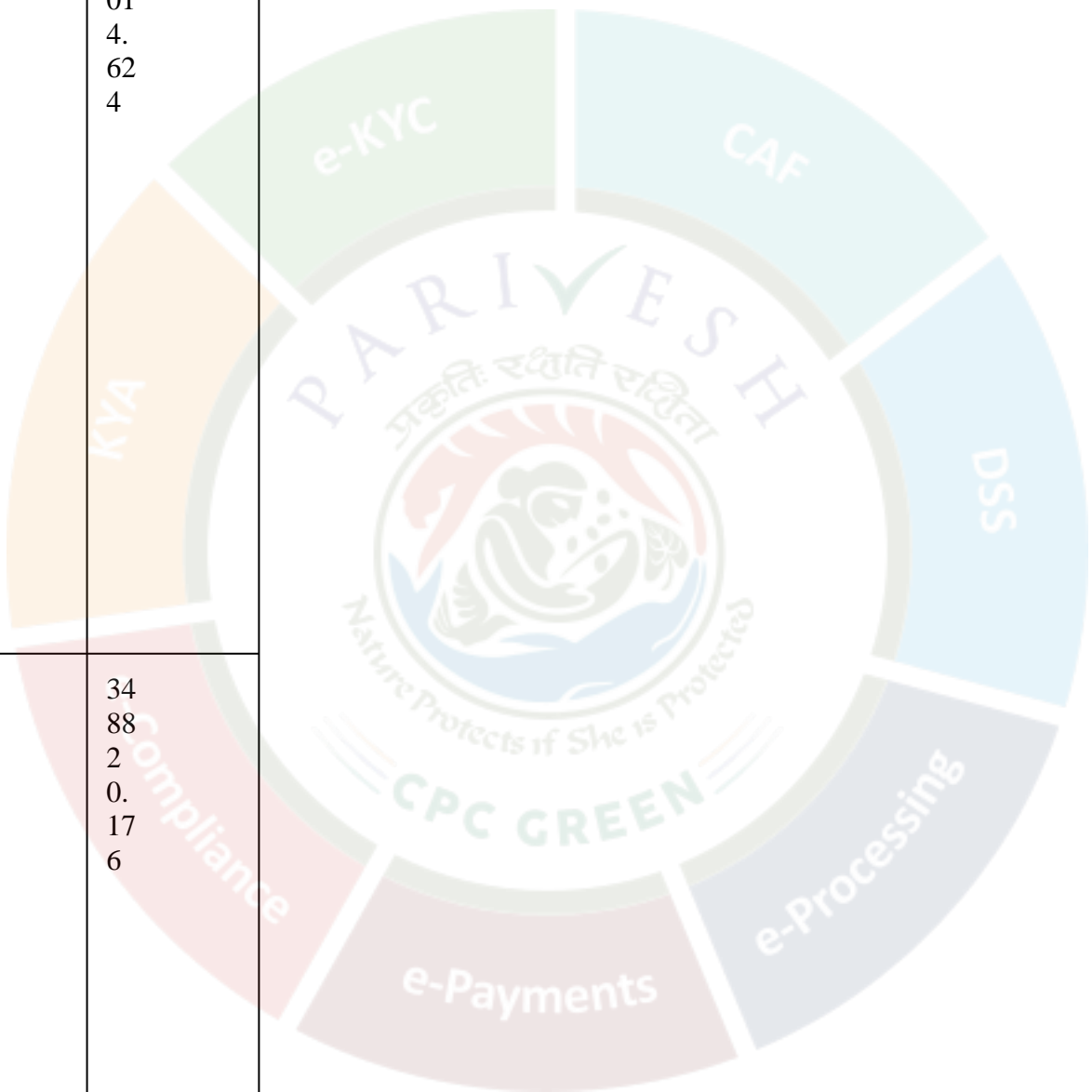
of W as te	c e	A)
D ry W as te	L a b o u r C o l o n y	3 9. 42
W et W as te	L a b o u r C o l o n y	2 6. 28

Details of Excavation Waste (Muck)

N a m e o f W a s t e	Q t y (c u. m)
Q u a n t i t y o f c u t t i n g m	29 06 83 5



at er ial (m uc k)	
Pr op os ed ut ili za ti on /d is po se of cu tti ng m at er ial	25 58 01 4. 62 4
Q ua nt it y of fil li ng m at er ial	34 88 2 0. 17 6
S ou rc e of fil li ng M	Tr en ch cu tti ng



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The detail of the muck likely to be disposal at low lying area adjacent to project site

Sr. No	Stage of LIS	Total Muck quantity in cum
1	Man Khatav	104646
2	Kamat	69764
3	Bevnoor	69764
4	6 A and 6 B	34882
5	Palshi	34882
6	Budhyal	34882

xix. **Public Hearing Details:** Public Hearing for the proposed project has been conducted by the State Pollution Control Board at three districts separately.

Advertisement for PH with date	Marathi Newspaper: Sangli: Sakal Dated 19.01.2024 Solapur: Sanchar 31.01.2024, Satara: Pudhari Dated 01.02.2024, English Newspaper: Sangli: The Times of India Dated 19.01.2024, Solapur: Divya Marathi Dated 31.01.2024, Satara: The Indian Express Dated 01.02.2024
Date of Public Hearing	1. Sangli: 21/02/2024 2. Solapur: 01/03/2024 3. Satara: 05/03/2024
Venue	1. Vita Panchayat Samiti, Vita, Khanapur, Sangli 2. Bachat Bhavan Auditorium, Panchayat samite, Sangola, Solapur 3. Tai Convention Hall, Shri Shivaji Maharaj Chowk, Satara
Chaired by	1. Dr. Raja Dayanidhi, Chairman & District Magistrate, Sangli 2. Mrs. Manisha Kumbhar, Chairman & Additional District Magistrate, Solapur 3. Shri. Nagesh Patil, Chairman & Upper District Magistrate (Residential Deputy Collector), Satara
Main issues raised during PH	All the participants raised the water scarcity issue by heart. Many years the local people are suffering due to drought
No. of people attended	Sangli: 157

Solapur: 102
Solapur: 140

xx. Details of Certified compliance report submitted by RO, MoEF&CC.

Dr. P. R. Sakhare, Scientist E, inspected the site to check implementation of environmental safeguards status on 29.07.2024.

Status of compliance of conditions stipulated in the environmental clearance granted by MOEF & CC New Delhi vide letter No. J-12011/43/2003-IAI, dated 17.08.2007 submitted by Regional Office, Nagpur, vide F. No. EC-2556/RON/2024-NGP/3436 dated 12th August, 2024.

xxi. Status of Litigation Pending against the proposal, if any : NIL

xxii. The salient features of the project are as under:

EAC meeting/s	Agenda ID: EC/AGENDA/EAC/216917/2/2025 Agenda Of 25th Meeting Of The Expert Appraisal Committee
Date of Meeting/s	27/02/2025
Date of earlier EAC meetings	51st Meeting of EAC, MoEFCC, New Delhi held on 12/09/2023 (Agenda Item No. 51.4) for Terms of Reference (ToR) 22nd Meeting of The Expert Appraisal Committee held on 10.01.2025 for EC (PP Absent)
Name of the Proposal	Proposed Expansion of Tembhu Lift Irrigation Project Dist. Satara, Sangli and Solapur, Maharashtra
Proposal No.	IA/MH/RIV/482689/2024
Location (Including Coordinates)	Longitude: 74° 14' (East) Latitude : 17°17' (North)
Company's Name	Executive Engineer Minor Irrigation Division, Sangli Water Resource Department Maharashtra Krishna Valley Development Corporation (MKVDC), District Sangli 416 415
CIN no. of Company/user agency	-
Accredited Consultant and certificate no.	MITCON Consultancy & Engineering Services Ltd., Pune, Maharashtra Certificate No. NABET/EIA/24-27/RA 0343
Project location (Coordinates /River/Reservoir)	Longitude: 74° 14' (East) Latitude : 17°17' (North)
Inter- state issue involved	No

Proposed on River/ Reservoir		-																																																																																																										
Type of Hydro-electric project		Not Applicable																																																																																																										
Seismic zone		Zone III (i. e. Moderate Risk Zone)																																																																																																										
Category of the project	1 (c) Cat. 'A'																																																																																																											
Capacity / Cultural command area and area (CCA)	<table><thead><tr><th rowspan="2">Sr No</th><th rowspan="2">Taluka</th><th rowspan="2">District</th><th colspan="2">GCA</th><th colspan="2">Command Area CCA</th><th rowspan="2">Existing</th></tr><tr><th>Existing</th><th>Extended Area</th><th>Existing</th><th>Extended Area</th></tr></thead><tbody><tr><td>A</td><td>Karad</td><td>Satara</td><td>1150</td><td>0</td><td>860</td><td>0</td><td>600</td></tr><tr><td>B</td><td>Khanapur</td><td>Sangli</td><td>41135</td><td>19691</td><td>32921</td><td>11902</td><td>18975</td></tr><tr><td>C</td><td>Kadegaon</td><td>Sangli</td><td>20215</td><td>0</td><td>16179</td><td>0</td><td>9325</td></tr><tr><td>D</td><td>Tasgaon</td><td>Sangli</td><td>20570</td><td>15280</td><td>15450</td><td>11083</td><td>7700</td></tr><tr><td>E</td><td>Atpadi</td><td>Sangli</td><td>61569</td><td>9015</td><td>43100</td><td>9737</td><td>16000</td></tr><tr><td>F</td><td>Sangola</td><td>Solapur</td><td>36500</td><td>20745</td><td>29200</td><td>5876</td><td>20000</td></tr><tr><td>G</td><td>Jat</td><td>Sangli</td><td>-</td><td>6506</td><td>-</td><td>4848</td><td>-</td></tr><tr><td>H</td><td>Kavathe Mahankal</td><td>Sangli</td><td>17475</td><td>12455</td><td>10300</td><td>7826</td><td>7872</td></tr><tr><td>I</td><td>Khatav</td><td>Satara</td><td>-</td><td>18362</td><td>-</td><td>13685</td><td>-</td></tr><tr><td>J</td><td>Man</td><td>Satara</td><td>-</td><td>14033</td><td>-</td><td>10458</td><td>-</td></tr><tr><td colspan="3">Total</td><td>198614</td><td>116087</td><td>148010</td><td>75415</td><td>80472</td></tr></tbody></table>								Sr No	Taluka	District	GCA		Command Area CCA		Existing	Existing	Extended Area	Existing	Extended Area	A	Karad	Satara	1150	0	860	0	600	B	Khanapur	Sangli	41135	19691	32921	11902	18975	C	Kadegaon	Sangli	20215	0	16179	0	9325	D	Tasgaon	Sangli	20570	15280	15450	11083	7700	E	Atpadi	Sangli	61569	9015	43100	9737	16000	F	Sangola	Solapur	36500	20745	29200	5876	20000	G	Jat	Sangli	-	6506	-	4848	-	H	Kavathe Mahankal	Sangli	17475	12455	10300	7826	7872	I	Khatav	Satara	-	18362	-	13685	-	J	Man	Satara	-	14033	-	10458	-	Total			198614	116087	148010	75415	80472
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Total			198614	116087	148010	75415	80472																																																																																																					
Attracts the General Condition	Yes, Bird Conservation Reserve located @ 1.2 km from proposed alignment																																																																																																											

on s (Y e s/ N o)		
A dd iti on al in fo r m ati on (if an y)		
To R P rop osa l N o.	IA/MH/RIV/439901/2023, F. No. J-12011/48/2023-IA. I (R)	
EA C me etin g d ate	12/09/2023	
To R Let ter No.	F.No. J-12011/48/2023-IA. I (R)	
To R g ran t D ate	02/11/2023	
Co st o f pr	Existing Project: Rs 4088.14 Proposed Expansion: Rs. 3281.89 Total Cost: Rs. 7370.0	

oject																					
Total area of Project	<table> <tr> <th>Nature of Land involved in (Ha)</th> <th>Area Existing in Ha</th> <th>Additional Area Proposed in Ha</th> <th>Total Area required after expansion in Ha</th> </tr> <tr> <td>Non-Forest Land</td> <td>2265.138</td> <td>2.7825</td> <td>2267.92</td> </tr> <tr> <td>Forest Land</td> <td>7.051</td> <td>7.93</td> <td>14.981</td> </tr> <tr> <td>Total</td> <td>2272.189</td> <td>10.7125</td> <td>2282.902</td> </tr> </table>	Nature of Land involved in (Ha)	Area Existing in Ha	Additional Area Proposed in Ha	Total Area required after expansion in Ha	Non-Forest Land	2265.138	2.7825	2267.92	Forest Land	7.051	7.93	14.981	Total	2272.189	10.7125	2282.902				
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Total	2272.189	10.7125	2282.902																		
Height of Dam from River Bed (EL)	NA																				
Details of submergence area	Not applicable as there is no submergence.																				
District to provide irrigation facility (if applicable)	v Length of new pipeline proposed (PDN) : 200 km v Length of proposed Distributaries :1000 km																				
Det	Not Applicable																				

ails of tunnels on upper level & lower level and length of canal (if applicable)

No. of affected Village.

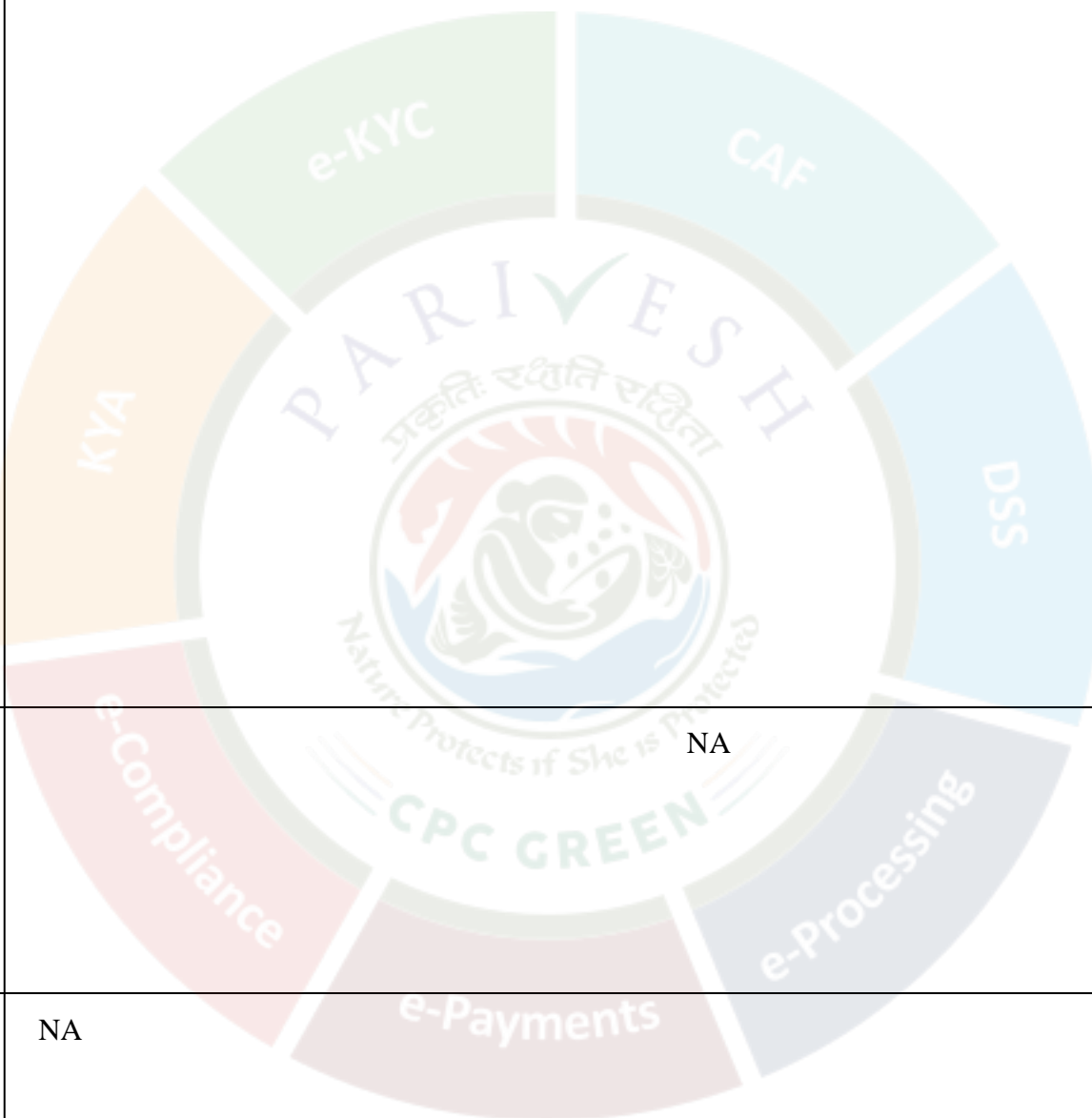
9

No. of Affected Families

SI	Name of Farmers	Village	Gut No	
1	Shri. Dattu Chandru More and Shri. Laxman Chandru More	Vejegaon Tal:-Khanapur, Dist. Sangli	145	
2	Shri. Rajaram Govind Devkar Shri. Hanmant Govind Devkar	Vejegaon Tal:-Khanapur, Dist. Sangli	146	
3	Shri. Daval Malik Archak	Bhikavadi Tal:-Khanapur, Dist. Sangli	992	
4	Shri. Uttam Atmaram Yadav and other	Renavi Tal:-Khanapur, Dist. Sangli	498	
5	Shri. Anil Pandhri Nath Gaikwad and other 10	Kasabe Vita east, Tal:-Khanapur, Dist. Sangli	194	
6	Smt. Sharada Ramchandra Nichaland other	Posewadi, Tal:-Khanapur, Dist. Sangli	836	
7	Shri. Arjun Tukaram Kole and other	Dhoneswadi, Tal:-Khanapur, Dist. Sangli	450	
8	Shri. Dipak Sadashiv Kanase and other 2	Vijaynagar, Tal:-Khanapur, Dist. Sangli	309	
9	Ujawala Hindurao Sawant other 14	Vita putva	148	

	<table><tr><td>10</td><td>Maruthi Deoand others</td><td>Palashi Tal:-Khanapur Dist. Sangli</td><td>610/3</td><td></td></tr><tr><td>11</td><td>Jagubai Bhimrao Chandanshive, Mangal Bhimrao Chandanshive and other</td><td>Palashi Tal:-Khanapur, Dist. Sangli</td><td>602</td><td></td></tr><tr><td>12</td><td>Umesh Sukhdeo Jadhav, Sulochna Sukhdeo Jadhav and other</td><td>Palashi Tal:-Khanapur, Dist. Sangli</td><td>232</td><td></td></tr><tr><td colspan="2">Total</td><td colspan="2">2.7825 Ha</td><td></td></tr></table>	10	Maruthi Deoand others	Palashi Tal:-Khanapur Dist. Sangli	610/3		11	Jagubai Bhimrao Chandanshive, Mangal Bhimrao Chandanshive and other	Palashi Tal:-Khanapur, Dist. Sangli	602		12	Umesh Sukhdeo Jadhav, Sulochna Sukhdeo Jadhav and other	Palashi Tal:-Khanapur, Dist. Sangli	232		Total		2.7825 Ha																																																																																																				
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R&R details	For the Expansion of Tembhu Lift Irrigation Project, private land of around 2.7825 Ha is proposed for acquisition. The land acquisition will be done and compensation shall be paid to land owners as per The Right to Fair Compensation & Transparency in Land Acquisition, Rehabilitation and Resettlement Act 2013.																																																																																																																						
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Ma teri al u sed for bla stin g a nd its co mp osit ion as per DG MS sta nda rds.	Not Applicable	
E-F low s fo r th e P roj ect	NA	
Is Pro ject s e arli er s tud ied in Cu mu lati ve Im	NA	



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Det ails on pro visi on of f ish pas s	NA	
Pro ject ben efit incl udi ng em plo ym ent det ails (no of em	<p>During construction phase</p> <p>Permanent employment</p> <ul style="list-style-type: none"> ♣No. of permanent employment: 360 ♣Period of employment (days): 730 <p>Temporary employment</p> <p>Temporary / Contractual employment (No. of Man days): 33000</p> <p>During operational phase</p> <ul style="list-style-type: none"> ♣Permanent employment proposed: 10 ♣Temporary employment proposed: 5 	

plo yee)		
Are a o f C om pen sat ory Aff ore stat ion (C A) wit h te ntat ive no of pla ntat io n.	Compensatory land 4.50 ha non forest land gut no. 36 at Village Pimpri B, Tal Atpadi, Dist Sangli selected for Compensatory afforestation. 130 number of trees will be affected and same will be transplanted in nearby area.	
Pre vio us EC det ails	Environmental clearance for 80472 ha ICA. Vide letter No.12011/43/2003-A.I Dated August 17,2007	
EC Co mp lian ce Re por t b y R. O, M OE F& CC	Dr. P. R. Sakhare, Scientist E, inspected the site to check implementation of environmental safeguards submitted on 29.07.2024. Status of compliance of conditions stipulated in the environmental clearance granted by MOEF &CC Nagpur, Maharashtra vide letter No. J-12011/43/2003-IAI, dated 17.08.2007 submitted by Regional Office, Nagpur, vide letter No. EC-2556/RON/2024-NGP/3436 dated 12th August 2024	
♣Muck Management Details:		

No. of proposed disposal area/ (type of Land /Pvt. land)	<table><tr><th>Sr. No</th><th>Stage of LIS</th><th>Total Muck quantity in cum</th></tr><tr><td>1</td><td>Man Khatav</td><td>104646</td></tr><tr><td>2</td><td>Kamat</td><td>69764</td></tr><tr><td>3</td><td>Bevnoor</td><td>69764</td></tr><tr><td>4</td><td>6 A and 6 B</td><td>34882</td></tr><tr><td>5</td><td>Palshi</td><td>34882</td></tr><tr><td>6</td><td>Budhyal</td><td>34882</td></tr></table> Muck likely to be disposal at low lying area adjacent to project Site	Sr. No	Stage of LIS	Total Muck quantity in cum	1	Man Khatav	104646	2	Kamat	69764	3	Bevnoor	69764	4	6 A and 6 B	34882	5	Palshi	34882	6	Budhyal	34882
Sr. No	Stage of LIS	Total Muck quantity in cum																				
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3	Bevnoor	69764																				
4	6 A and 6 B	34882																				
5	Palshi	34882																				
6	Budhyal	34882																				
Cross section of proposed muck area, Height of muck with slope.	Utilization of 80 % of excavated material shall be backfilled in Approach roads, Conveyance roads, Pump House and 20% shall be filled in low laying areas and local bunds of agriculture land.																					
Distance of muck disposal area(location), from muck generation sources (project area)/River, HFL of proposed muck disposal area.	Average 0 km to 5 km																					
Total Muck Disposal Area	<table><tr><th>Sr. No</th><th>Stage of LIS</th><th>Total Muck quantity in cum</th></tr><tr><td>1</td><td>Man Khatav</td><td>104646</td></tr><tr><td>2</td><td>Kamat</td><td>69764</td></tr><tr><td>3</td><td>Bevnoor</td><td>69764</td></tr><tr><td>4</td><td>6 A and 6 B</td><td>34882</td></tr><tr><td>5</td><td>Palshi</td><td>34882</td></tr><tr><td>6</td><td>Budhyal</td><td>34882</td></tr></table>	Sr. No	Stage of LIS	Total Muck quantity in cum	1	Man Khatav	104646	2	Kamat	69764	3	Bevnoor	69764	4	6 A and 6 B	34882	5	Palshi	34882	6	Budhyal	34882
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6	Budhyal	34882																				
Estimate Muck to be generated	<table><tr><th>Sr No</th><th>Type of material</th><th>Total generated quantity in excavation in cum</th><th>Total generated quantity in excavation in Mm³</th></tr><tr><td>1</td><td>Soft Soil</td><td>225174.6</td><td>0.225175</td></tr><tr><td>2</td><td>Hard murum & soft Rock</td><td>505580.2</td><td>0.50558</td></tr><tr><td>3</td><td>Hard Rock</td><td>2176080</td><td>2.176080</td></tr><tr><td></td><td>Total</td><td>2906835</td><td>2.90684</td></tr></table>	Sr No	Type of material	Total generated quantity in excavation in cum	Total generated quantity in excavation in Mm ³	1	Soft Soil	225174.6	0.225175	2	Hard murum & soft Rock	505580.2	0.50558	3	Hard Rock	2176080	2.176080		Total	2906835	2.90684	
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	Total	2906835	2.90684																			
Transportation	By Road																					
Monitoring mechanism for Muck Disposal Transportation	Environmental Management Cell (EMC) shall monitor mechanism of muck disposal.																					
Private land	2265.138 + 2.7825 = 2267.92																					
Government land/Forest Land	7.051 + 7.93 = 14.981																					

Submergence area/Reservoir area		NA																							
Land required for project components		<table><tr><td>Nature of L and involved in (Ha)</td><td>Area Existing in Ha</td><td>Additional Area Proposed in Ha</td><td colspan="2">Total Area required after expansion in Ha</td></tr><tr><td>Non-Forest Land</td><td>2265.138</td><td>2.7825</td><td colspan="2">2267.92</td></tr><tr><td>Forest Land</td><td>7.051</td><td>7.93</td><td colspan="2">14.981</td></tr><tr><td>Total</td><td>2272.189</td><td>10.7125</td><td colspan="2">2282.9015</td></tr></table>				Nature of L and involved in (Ha)	Area Existing in Ha	Additional Area Proposed in Ha	Total Area required after expansion in Ha		Non-Forest Land	2265.138	2.7825	2267.92		Forest Land	7.051	7.93	14.981		Total	2272.189	10.7125	2282.9015	
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		Total	2272.189	10.7125	2282.9015																				
Forest Land/ Protected Area / Environmental Sensitivity Zone	Yes/No	Details of Certificate/ letter/ Remarks																							
Reserve Forest/Protected Forest Land	Yes	<table><tr><td>Nature of Land involved in (Ha)</td><td>Area Existing in Ha</td><td>Additional Area Proposed in Ha</td><td colspan="2">Total Area required after expansion in Ha</td></tr><tr><td>Forest Land</td><td>7.051</td><td>7.93</td><td colspan="2">14.981</td></tr></table>				Nature of Land involved in (Ha)	Area Existing in Ha	Additional Area Proposed in Ha	Total Area required after expansion in Ha		Forest Land	7.051	7.93	14.981											
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n			
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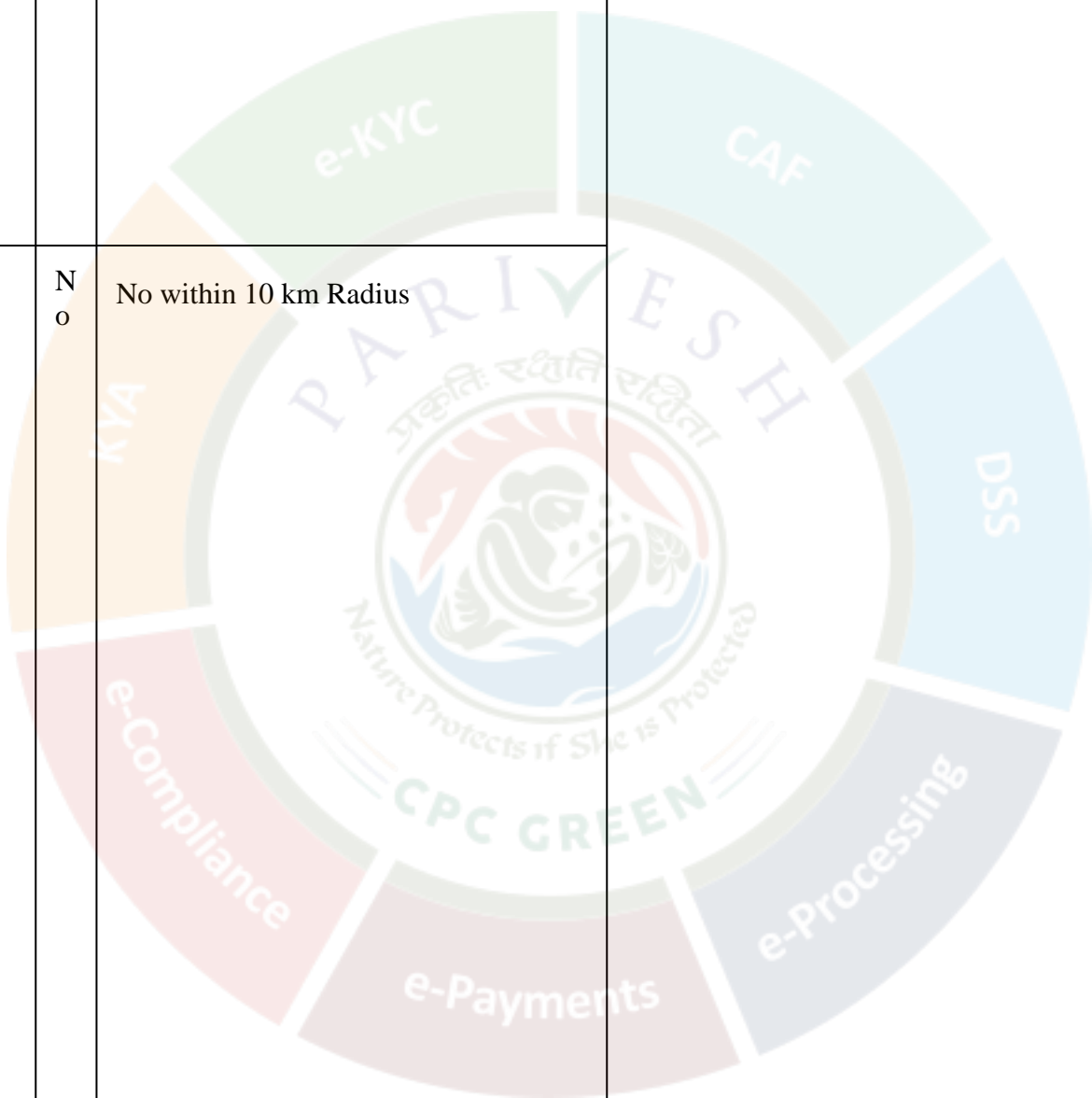
Sacred groves & conservation reserves present in the study area

S r. N o.	Name of the Gro ve	Deity	T a h s i l	Dist ance	Direct ion
1	A re w a di	B ir o b a	K a v at h e M a h a n k al	3 k m	S E
2	R a y w a di	L o r d S h i v a	K a v at h e M a h a n k al	2 k m	W
3	S h u k a c h a r y a	S u k h d e v	K h a n p u r - A tp a di	2 k m	N E
4	M a y a ni	Bird Cons ervat ion R eserv e*	K h at a v	1. 2 8 k m	N E

*5.2 km from Khatav Main Distributary

N at	N o	-
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io na l P ar k		
W il d l if e S an ct ua ry	N o	Not Applicable as per Parivesh Web portal under applicability of green clearances
A rc ha eo lo gi ca l s it es m o n u m en t s/ hi st or ic al te m pl es et c.	N o	No within 10 km Radius
Addi tional i nforma tion (if an	-	-



y)			
Particulars		Letter no. and date	
Status of Stage- I FC		Stage 1 Clearance received vide online Proposal No. FP/MH/Pipeline/466395/2024 dated 06.01.2025	
Approval of Central Water Commission		In 109th Technical advisory committee of Central Water Commission meeting on 14/03/2011	
Approval of Central Electricity Authority		NA	
Additional detail (If any)		NA	
Is FRA (2006) done for FC-I		-	
Sr. No	Pollution Control & Other Environment Infrastructure	Capital Cost Rs. Lakhs	Recurring Cost (per annum) Rs. Lakhs
	Ambient Air Quality	-	18.00
	Noise Level	-	12.00
	Surface and Ground Water Quality	-	25.00
	Soil Quality	-	15.00
	Solid/ hazardous wastes	03.00	15.00
	Green Belt Development	400.00	50.00
	Fisheries Conservation & Management Plan	15.00	
	Labour Management Plan	25.00	
	Wildlife Conservation Plan	75.00	
	Muck Management Plan	25.00	
	Health & Safety	-	25.00
	Command Area Development Plan	24887.00	
	Corporate Environmental Responsibility	820.00	-
Summary of allocation of fund for EMP			

Sr. No	Pollution Control & Other Environment Infrastructure	Capital Cost Rs. Lakhs	Recurring Cost (per annum) Rs. Lakhs
1.	EMPs: (eg.: Air Environment, Water Environment)		193.00 L
2.	Capital Cost (in Cr.)		3281.89
3.	Recurring Cost per annum (In Lakhs)		160.00 L

3.1.3. Deliberations by the committee in previous meetings

Date of EAC 1 :10/01/2025

Deliberations of EAC 1 :

The accredited consultant 'MITCON Consultancy & Engineering Services Limited' vide email dated 10.01.2025 informed that they will be unable to attend meeting and present their case. Accordingly, the EAC decided to **defer** the matter.

3.1.4. Deliberations by the EAC in current meetings

The EAC during deliberations noted the following:

- The Expert Appraisal Committee (EAC) deliberated on the information submitted by the Project Proponent and the details presented during the meeting. The Committee observed that the proposal pertains to the grant of Environmental Clearance for the Expansion of Tembhu Lift Irrigation Project in an area of 2284.601 ha at Village Tembhu, Ranad, Govare and etc, Sub District Khatav, Atpadi, Karad and etc, District Satara, Sangli and Solapur, Maharashtra by M/s Minor Irrigation Division, Sangli Water Resources Department, Maharashtra Krishna Valley Development Corporation.
- The project falls under Item 1(c) of the Schedule to the Environmental Impact Assessment (EIA) Notification, 2006, and is categorized as a Category 'A' project, which requires appraisal at the Central level by the Expert Appraisal Committee (EAC).
- The EAC, constituted under the provisions of the EIA Notification, 2006, and comprising expert members/domain experts from various relevant fields, examined the proposal submitted by the Project Proponent. This examination included a review of the Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) reports, which were prepared and submitted by a QCI/NABET-accredited consultant on behalf of the Project Proponent.
- The EAC further noted that the Ministry had granted Environmental Clearance (EC) to the existing project vide letter No. 12011/43/2003-A.I dated 17/08/2007, in favor of M/s. Minor Irrigation Circle, Maharashtra Krishna Valley Development Corporation, Warnali, Sangli for an Irrigation Command Area (ICA) of 80,472 ha. For the current expansion project, the Ministry has issued Terms of Reference (ToR) for conducting the Environmental Impact Assessment (EIA)/Environmental Management Plan (EMP) and a public hearing vide letter File No. J-12011/48/2023-IA.I(R) dated 02/11/2023.
- The EAC also noted that the project was previously considered during its 22nd meeting on 10/01/2025. However, the proposal was deferred as the Project Proponent (PP) did not attend the meeting.
- The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and

Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

- The EAC further noted that the total land area required for the project is 2282.90 ha, comprising 2272.18 ha of the existing project area and an additional 10.71 ha required for the proposed expansion. Of this additional land, 2.78 ha is non-forest land, while 7.93 ha is forest land. The PP informed that for the 7.93 ha of forest land, Stage-I Forest Clearance (FC) has already been obtained for 4.10 ha (vide FP/MH/Pipeline/466395/2024 dated 06/01/2025), while the proposal for the remaining 3.83 ha has been submitted for approval.
- The estimated project cost is ₹7370.03 crore, which includes the existing investment of ₹4088.14 crore. A total capital cost of ₹193.00 lakh has been allocated for environmental pollution control measures, with a recurring (operation and maintenance) cost of ₹160.00 lakh per annum.
- The Committee discussed the issues raised during the Public Hearing (PH) which was conducted in three districts as per the EIA Notification, 2006 and reviewed the action plan submitted by the Project Proponent to address these concerns. After careful deliberation, the Committee found the action plan satisfactory.
- The EAC observed that approval on the Hydrology has been obtained from State Government, vide letter (Marathi) . - /0411/11/305.1-2019/02/04. The expert representative from CWC informed the Committee that DPR of the existing project was examined by the CWC; however, the PP has not submitted the DPR for concurrence of CWC for present expansion proposal.
- Additionally, the EAC noted that Certified Compliance Report of earlier EC conditions has been submitted by RO, MoEF&CC vide F. No. EC-2556/RON/2024-NGP/3436 dated 12th August, 2024. The RO, MoEF&CC raised serious concerns over compensatory afforestation, Multidisciplinary Committee, non- submission of half yearly compliance report etc. Taking cognizance of these issues, the EAC requested the PP to submit a closure report from the RO, MoEF&CC, addressing the observations/ suggestions provided by the RO, MoEF&CC.

The EAC after detailed deliberations deferred the proposal for want of following additional information:

1. PP shall submit the status of the 3.83 Ha of forest land for obtaining Stage-I Forest Clearance (FC), along with all relevant supporting documents.
2. PP shall submit a closure report from the RO, MoEF&CC, addressing the observations/suggestions provided by the RO, MoEF&CC.
3. The concurrence/approval of CWC for hydrology of the present expansion proposal shall be examined and a clarification of CWC in this regard be submitted.
4. The MoU for water usage for the proposed project shall be submitted along with an English-translated copy, duly attested by the PP.
5. PP shall submit detail plan on water utilization for existing project and proposed project.
6. PP shall submit details of land reclamation practices undertaken in the existing project. Based on these practices, a comprehensive plan for implementing land reclamation in the proposed expansion shall also be submitted.

3.1.5. Recommendation of EAC

Deferred for ADS

4. Any Other Item(s)

N/A

5. List of Attendees

Sr. No.	Name	Designation	Email ID	Remarks
1	Prof G J Chakrapani	Chairman, EAC	cha*****@gmail.com	
2	Dr Mukesh Sharma	Member (EAC)	muk***@iitk.ac.in	Absent
3	Dr Uday Kumar R Y	Member (EAC)	uda*****@yahoo.com	
4	Dr J A Johnson	Member (EAC)	jaj@wii.gov.in	Absent
5	Dr J V Tyagi	Member (EAC)	jvt*****@gmail.com	
6	Shri Kartik Sapre	Member (EAC)	kar*****@gmail.com	
7	Shri Ajay Kumar Lal	Member (EAC)	akl*****@gmail.com	
8	Dr A K Sahoo	Member (EAC)	ami***@gmail.com	
9	Shri Balram Kumar	Member	emo***@nic.in	
10	Shri Rajeev Varshney	Member	rva*****@gov.in	
11	Yogendra Pal Singh	Scientist - F	yog*****@nic.in	

MINUTES OF THE 25TH MEETING (VIRTUAL) OF THE EXPERT APPRAISAL COMMITTEE FOR RIVER VALLEY AND HYDROELECTRIC PROJECTS HELD ON 27TH FEBRUARY, 2025

The 25th meeting of the EAC for River Valley & Hydro-electric Projects organized by the Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi, was held on 27th February, 2025 (Virtual Mode), under the Chairmanship of Prof. G. J. Chakrapani. The list of Members present in the meeting is at Annexure.

Confirmation of the Minutes of the 24th EAC meeting:

The Minutes of the Meeting held on 24th EAC meeting on 14th February, 2025 were confirmed.

Agenda Item No. 25.1

Expansion of Tembhu Lift Irrigation Project in an area of 2284.601 ha at Village Tembhu, Ranad, Govare and etc, Sub District Khatav, Atpadi, Karad and etc, District Satara, Sangli and Solapur, Maharashtra by M/s Minor Irrigation Division, Sangli Water Resources Department, Maharashtra Krishna Valley Development Corporation– Environmental Clearance (EC) - reg.

[Proposal No. IA/MH/RIV/482689/2024; F. No. J-12011/48/2023-IA.I (R)]

25.1.1: The proposal is for grant of Environmental Clearance (EC) to the project for Expansion of Tembhu Lift Irrigation Project in an area of 2284.601 ha at Village Tembhu, Ranad, Govare and etc, Sub District Khatav, Atpadi, Karad and etc, District Satara, Sangli and Solapur, Maharashtra by M/s Minor Irrigation Division, Sangli Water Resources Department, Maharashtra Krishna Valley Development Corporation.

25.1.2: The Project Proponent and the accredited Consultant M/s MITCON Consultancy & Engineering Services Ltd., Pune, Maharashtra, made a detailed presentation on the salient features of the project and informed that:

- i. Krishna Koyana Lift Irrigation Scheme (KKLI), which is under construction, provides irrigation benefits to drought prone Kadegaon, Khanapur, Tasgaon, Miraj & Kavathe Mahankal and Jat Taluka of Sangli district and Songola and Mangalvedha taluka of Solapur of district. Takari Lift Irrigation Scheme provides irrigation in Khanapur, Kadegaon and Tasgaon talukas up to RL 2100 ft. while Mhaisal Lift Irrigation Scheme provides Irrigation in Miraj, and Kavathemahankal, Jath, Songola and Mangalvedha taluka up to RL. 2200 ft. There was persistent demand for irrigation benefits to areas above RL 2100 ft from Kadegaon, Khanapur, Tasgaon, Atpadi, Sangola, Kavathe Mahankal talukas by way of Lift Irrigation Scheme. As it was not possible to make changes in scope of KKLIS, which was in advanced stage of construction, a separate lift irrigation scheme named Tembhu Lift

Irrigation Scheme was proposed for drought prone area of Kadegaon, Khanapur, Tasgaon, Atpadi, Sangola, Kavathemahankal taluka above RL 2100 Ft i.e. which could not be covered under KKLI scheme. Accordingly, a preliminary report based on topo sheet study was submitted to Govt. by C.E. (I.D.) Pune vide Letter No. PB/ Desk (2)/ DE (10) Tembhu/ 971 Dt. 22/02/1994 Govt. approved this proposal, vide letter No. 5-95/ 1093/ 668/ (140/93) WRI, DT. 15/04/1994 and directed to prepare D.P.R. of this scheme.

- ii. The barrage across Krishna River @ Tembhu is constructed. The F.S.L. of barrage is within the river bank. The 11 gates of size 15 x 9 m. are provided to let out the water from Krishna River to irrigate 80472 ha (ICA) of land from drought prone regions of Satara, Sangli and Solapur districts of Maharashtra state. (Total 5 stages).
- iii. The Proposed Expansion of Tembhu Lift Irrigation Project Taluka Karad, Dist. Satara, Sangli and Solapur, Maharashtra by M/s. Executive Engineer, Minor Irrigation Division, Sangli project envisage construction to irrigate ICA 41003 ha
 - ❖ Existing Khanapur -Tasgaon Canal (Stage 6 A-6B LIS)
 - ❖ Kavathe Mahankal Canal (Bevnur Scheme)
 - ❖ Palashi LIS (Palshi LIS)
 - ❖ 3 A to Ghanand Canal (Man - Khatav LIS)
 - ❖ Kamath Lake (Kamath Scheme)
 - ❖ Length of new pipeline proposed (PDN) : 200 km
 - ❖ Length of proposed Distributaries :1000 km
 - ❖ Total electricity requirement: 22 MW (Source: MSEDCL)
 - ❖ Water Utilization: Existing: 22.0 TMC + Proposed 8.00 TMC = Total 30.00 TMC
- iv. Accordingly, detailed project Report of Tembhu Lift Irrigation Scheme was prepared which envisaged construction of barrage across river Krishna near village Tembhu and Lifting the stored water in 5 stages to irrigate 79600Ha. Of area from 7, taluka's of Satara, Sangli and Solapur district. This DPR was administratively approved by Govt. letter no. (Marathi) Tembhu 1095/ 1427/ (361/ 95) WRI dt. 19.02.1996. (for Rs. 1456.19 crores)
- v. The project proposal was considered by the Expert Appraisal Committee (Hydro River Valley Sector) in its 51st meeting held during 12 Sept 2023 and recommended for grant of Terms of References (ToRs) for the Project. The ToR has been issued by Ministry vide letter File No: J-12011/48/2023-IA. I (R) Dated 02/11/2023.
- vi. Earlier, Ministry had issued EC vide letter no. 12011/43/2003-A. I Dated August 17, 2007 to the existing project in favour of M/s. Minor Irrigation Circle, Maharashtra Krishna Valley Development Corporation, Warnali, Sangli.
- vii. The geographical co-ordinate of the project are

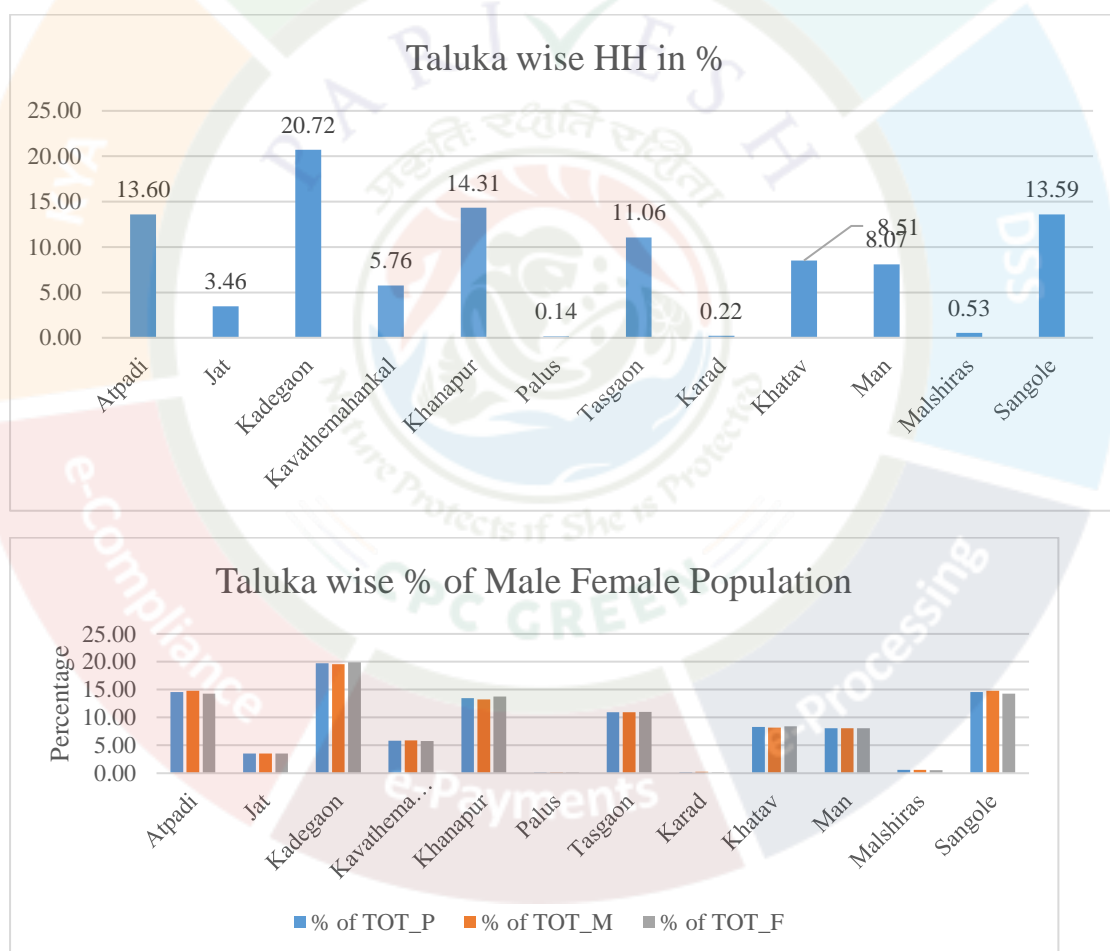
Location (Including coordinates)	Longitude: 74° 14' (East)
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	Latitude : 17°17' (North)
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viii. **Land requirement:**

Nature of Land involved in (Ha)	Area Existing in Ha	Additional Area Proposed in Ha	Total Area required after expansion in Ha
Non-Forest Land	2265.13	2.78	2267.92
Forest Land	7.05	7.93	14.98
Total	2272.18	10.71	2282.90

ix. **Demographic details in 10 km radius of project area:**



x. **Water requirement:**

District	Taluka	No. of villages	ICA (Ha)	Water Requirement
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				TMC
Sangli	1) Khanapur	11	6471	1.5
	2) Tasgaon	17	6026	1.00
	3) Kawathemahankal	9	2450	0.50
	4) Atpadi	12	5294	1.00
	5) Jat	4	2636	0.50
	Total of Sangli	53	22877	4.50
Satara	6) Khatav	21	7440	1.50
	7) Maan	27	5686	1.00
	Total of Satara District	48	13126	2.50
Solapur	8) Sangola	8	5000	1.00
	Total Of Solapur District	8	5000	1.00
	Gross Total	109	41003	8.00

- xi. **Project Cost:** The estimated project cost is Rs 7370.03 Cr. including existing investment of Rs 4088.14 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 193.00 L and the Recurring cost (operation and maintenance) will be about Rs 160.00 L per annum.
- xii. **Project Benefit:** Total Employment will be 15 persons as direct & 360 persons indirect after expansion. Industry proposes to allocate Rs 820 Lakh @ of 0.25 % towards CER (as per Ministry's OM dated 1st May 2018).
- xiii. **Environmental Sensitive area:** There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. However, Mayani Bird Conservation Reserve & Other sacred groves are present within 10 km radius.

Sr. No.	Name of the Grove	Deity	Tahsil	Distance	Direction
1	Arewadi	Biroba	Kavathe Mahankal	3 km	SE
2	Raywadi	Lord Shiva	Kavathe Mahankal	3 km	W
3	Shukacharya	Sukhdev	Khanpur-Atpadi	2 km	NE
4	Mayani	Bird Conservation Reserve*	Khatav	1.28 km	NE

**5.2 km from Khatav Main Distributary*

- xiv. **MoU / any other clearance/ permission signed with State government:**

Sr. No.	Approvals	Amount	DSR	Remarks
1.	Original Administrative Approval	1416.59	1995-96	GOM vide letter No. Tembhu-1095/ 1427 /(361/95)/WRI dated 19/02/1996
2.	1 st Revised Administrative Approval	2106.09	2000-01	MKVDC letter No MKVDDC/MP-6/(383/2002)/718 dated 22/01/2004
3.	CWC Approval	3450.35	2009-10	In 109 th Technical advisory committee of Central Water Commission meeting on 14/03/2011
4.	2 nd Revised Administrative Approval cost	4088.94	2016-17	(work portion Rs.3729.82 Cr.+ ETP Rs.359.12 Cr)
5.	3 rd Revised Administrative Approval cost (Proposed)	7370.03	2022-23	(work portion Rs.6708.48. Cr.+ ETP Rs.661.55 Cr)
6.	Up to date Expenditure September 2022	3388.33	2022-23	(work portion Rs.3155.52. Cr.+ ETP Rs.232.81.Cr)
7.	Balance Cost of Project	3981.69	2022-23	(work portion Rs.3552.96cr +ETP428.73cr)
8.	Stage 1 Clearance	-	-	Stage 1 Clearance received vide online Proposal No. FP/MH/Pipeline/ 466395/ 2024 dated 06.01.2025

xv. Resettlement and rehabilitation:

For the Expansion of Tembhu Lift Irrigation Project, private land of around 2.7825 Ha is proposed for acquisition. The land acquisition will be done and compensation shall be paid to land owners as per The Right to Fair Compensation & Transparency in Land Acquisition, Rehabilitation and Resettlement Act 2013. As there are no households in the land to be acquired, there is no issue of rehabilitation & resettlement of the land owners.

Details of Land Acquisition:

Sr. No	Name of Farmers	Village	Gut No	Area in Ha
1.	Shri. Dattu Chandru More and Shri. Laxman Chandru More	Vejegaon Tal:- Khanapur, Dist. Sangli	145	0.28

2.	Shri. Rajaram Govind Devkar Shri. Hanmant Govind Devkar	Vejegaon Tal:- Khanapur, Dist. Sangli	146	0.19
3.	Shri. Daval Malik Archak	Bhikavadi Tal:- Khanapur, Dist. Sangli	992	0.0625
4.	Shri. Uttam Atmaram Yadav and other	Renavi Tal:- Khanapur, Dist. Sangli	498	0.40
5.	Shri. Anil Pandhrinath Gaikead and other 10	Kasabe Vita east, Tal:- Khanapur, Dist. Sangli	194	0.40
6.	Smt. Sharada Ramchandra Nichal and other	Posewadi, Tal:- Khanapur, Dist. Sangli	836	0.05
7.	Shri. Arjun Tukaramkole and other	Dhonestwadi, Tal:- Khanapur, Dist. Sangli	450	0.05
8.	Shri. Dipak Sadashiv Kanase and other 2	Vijaynagar, Tal:- Khanapur, Dist. Sangli	309	0.05
9.	Ujawala Hindurao Sawant other 14	Vita putva	148	0.60
10.	Maruthi Deo and others	Palashi Tal:- Khanapur Dist. Sangli	610/3	0.20
11.	Jagubai Bhimrao Chandanshive, Mangal Bhimrao Chandanshive and other	Palashi Tal:-Khanapur, Dist. Sangli	602	0.40
12.	Umesh Sukhdeo Jadhav, Sulochna Sukhdeo Jadhav and other	Palashi Tal:- Khanapur, Dist. Sangli	232	0.10
Total				2.7825 Ha

xvi. **Scheduled –I species:**

Sr. No	Class	Scientific Name	Common Name	IWPA Status	IUCN Status
1.	Mammal	<i>Canis lupus</i>	Grey Wolf	Schedule - I	LC
2.	Mammal	<i>Antelope cervicapra</i>	Blackbuck	Schedule – I	LC
3.	Mammal	<i>Hyena hyaena</i>	Striped Hyeana	Schedule – I	Not Enlisted
4.	Mammal	<i>Vulpes bengalensis</i>	Bengal Fox	Schedule – I	LC
5.	Mammal	<i>Bos gaurus</i>	Gaur	Schedule – I	VU

Sr. No	Class	Scientific Name	Common Name	IWPA Status	IUCN Status
6.	Mammal	<i>Prionailurus rubiginosus</i>	Rusty Spotted Cat	Schedule – I	NT
7.	Mammal	<i>Felis chaus</i>	Jungle Cat	Schedule – I	LC
8.	Bird	<i>Pavo cristatus</i>	Indian Peafowl	Schedule – I	LC
9.	Bird	<i>Accipiter badius</i>	Shikra	Schedule – I	LC
10.	Bird	<i>Haliastur indus</i>	Brahminy Kite	Schedule – I	LC
11.	Reptile	<i>Crocodylus palustris</i>	Mugger	Schedule – I	VU
12.	Reptile	<i>Fowlea piscator</i>	Chequered keelback	Schedule – I	LC
13.	Reptile	<i>Ptyas mucosa</i>	Dhaman	Schedule - I	LC
14.	Reptiles	<i>Varanus bengaiensis</i>	Bengal Monitor	Schedule - I	EN
15.	Bird	<i>Platalea leucorodia</i>	Eurasian Spoonbill	Schedule – I	LC
16.	Bird	<i>Sterna aurantia</i>	River Tern	Schedule – I	VU
17.	Bird	<i>Circaetus gallicus</i>	Short-toed Snake-Eagle	Schedule – I	LC
18.	Bird	<i>Tringa nebularia</i>	Common Greenshank	Schedule – I	LC
19.	Bird	<i>Aythya ferina</i>	Common Pochard	Schedule - I	LC
20.	Bird	<i>Pericrocotus cinnamomeus</i>	Small Minivet	Schedule - I	LC
21.	Bird	<i>Clanga clanga</i>	Greater Spotted Eagle	Schedule – I	VU

* VU = Vulnerable; **NT = Near Threatened, EN = Endangered

xvii. **Baseline Environmental Scenario:**

Period	From 01/03/2023 to 31/12/2023			
AAQ parameters at 14 locations (min. & Max.)	<ul style="list-style-type: none"> PM10 = 23.5 to 76.3 µg/m³ PM2.5 = 12.4 to 31.9 µg/m³ SO₂ = 6.2 to 16.5 µg/m³ NO_x = 10.4 to 23.2 µg/m³. CO = BDL 			
Surface water samples (10 samples)	Parameter	Season 1	Season 2	Season 3
	pH	7.01 to 7.43	7.02 to 7.49	7.1 to 7.5
	TDS	385 to 1459 mg/lit.	357 to 1662 g/lit.	492 to 1415 mg/lit.
	Total Hardness as CaCO ₃	154.3 to 517 mg/lit.	169.54 to 490.12 mg/lit.	171 to 514 mg/lit.

	Calcium as Ca	46.13 to 113.37 mg/lit	50.13 to 130.45 mg/lit	48 to 110 mg/lit
	Magnesium as Mg	18.13 to 83.28 mg/lit	20.14 to 83.02 mg/lit	23 to 80 mg/lit
	Chloride as Cl	23.25 to 130.15 mg/lit	41.14 to 138.16 mg/lit .	19 to 104 mg/lit
	Sulphate as SO ₄	32.16 to 145.25 mg/lit	37.12 to 148.13 mg/lit	33 to 142 mg/lit.
	BOD	4 to 9 mg/lit	5 to 13 mg/lit	4 to 10 mg/lit
	COD	15 to 33 mg/lit	19 to 47 mg/lit	18 to 32 mg/lit
	DO	3.7 to 4.7 mg/lit	2.9 to 4.4 mg/lit	3.5 to 4.6 mg/lit
	Total Coliforms	present	present	present
Ground Water samples at 36 locations				
	Parameters	Season 1	Season 2	Season 3
	pH	7.02 to 7.57	7.08 to 7.62	7.03 to 7.78
	Total Dissolved Solids	314 to 2012 mg/lit.	320 to 1990 mg/lit.	289 to 2183 mg/lit.
	Total Hardness as CaCO ₃	140.56 to 758.13 mg/lit.	130.14 to 771.19 mg/lit.	125.16 to 767.52 mg/lit.
	Calcium as Ca	41.08 to 124.1 mg/lit &	37.1 to 130.18 mg/lit &	18.52 to 145.12 mg/lit
	Magnesium as Mg	13.26 to 92.14 mg/lit	14.25 to 95.24 mg/lit	11.13 to 95.27 mg/lit
	Chloride as Cl &	24.25 to 110.92 mg/lit &	21.16 to 115.24 mg/lit	25.42 to 128.12 mg/lit
Noise levels Leq (Day & Night) at 25 locations	Sulphate as SO ₄	14.92 to 120.15 mg/lit.	16.02 to 120.14 mg/lit.	15.9 to 131.15 mg/lit.
	The Leq values for day time was observed to be			
	Zone /Area	Day Time	Night Time	
	Residential Zone	47.3-to 54.8dB (A)	39.1to 43.8 dB (A).	
	Silent Zone	41.6-to 48.9dB (A)	33.2 to 39.8 dB (A).	
Soil Quality at 30 Locations	Commercial Zone	66.5 to 69.4dB (A)	60.5 to 64. 2 dB (A).	
	Parameters	Season 1	Season 2	Season 3
	pH	7.35 to 8.05.	7.21 to 7.92.	7.02 to 8.24.
	Conductivity	411.8 to 900.8 µs/cm.	501.6 to 1014.6 µs/cm.	424.5 to 872.5 µs/cm.

	N	132.12 to 168.9 kg/ha	118.47 to 160.3 kg/ha	138.15 to 185.15 kg/ha,
	P	9.15 to 25.2 kg/ha	11.02 to 19.1 kg/ha	13.45 to 24.1 kg/ha
	K	152.13 to 204.3 kg/ha	124.05 to 206.1 kg/ha	148.1 to 211.67 kg/ha
Flora & Fauna	<p>Total 172 floral species were recorded in and around the project area (i.e. 10 km radius study). Among them 41 Herbs, 97 Trees, 27 shrubs & climbers were 7.</p> <p>Fauna Diversity : Mammals - 15, Bird – 135, Fishes-109, Frog -3, Reptile -4,</p> <p>Total 22 Schedule 1 species observed in the study area</p>			

xviii. Details of Solid waste/ Hazardous waste generation/ Muck and its management

Domestic Waste:

Name of Waste	Source	Qty (TPA)
Dry Waste	Labour Colony	39.42
Wet Waste	Labour Colony	26.28

Details of Excavation Waste (Muck)

Name of Waste	Qty (cu.m)
Quantity of cutting material (muck)	2906835
Proposed utilization /dispose of cutting material	2558014.624
Quantity of filling material	348820.176
Source of filling Material	Trench cutting

The detail of the muck likely to be disposal at low lying area adjacent to project site

Sr. No	Stage of LIS	Total Muck quantity in cum
1	Man Khatav	104646
2	Kamat	69764
3	Bevnoor	69764
4	6 A and 6 B	34882
5	Palshi	34882

6	Budhyal	34882
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- xix. **Public Hearing Details:** Public Hearing for the proposed project has been conducted by the State Pollution Control Board at three districts separately.

Advertisement for PH with date	Marathi Newspaper: Sangli: Sakal Dated 19.01.2024 Solapur: Sanchar 31.01.2024, Satara: Pudhari Dated 01.02.2024, English Newspaper: Sangli: The Times of India Dated 19.01.2024, Solapur: Divya Marathi Dated 31.01.2024, Satara: The Indian Express Dated 01.02.2024
Date of Public Hearing	1. Sangli: 21/02/2024 2. Solapur: 01/03/2024 3. Satara: 05/03/2024
Venue	1. Vita Panchayat Samiti, Vita, Khanapur, Sangli 2. Bachat Bhavan Auditorium, Panchayat samite, Sangola, Solapur 3. Tai Convention Hall, Shri Shivaji Maharaj Chowk, Satara
Chaired by	1. Dr. Raja Dayanidhi, Chairman & District Magistrate, Sangli 2. Mrs. Manisha Kumbhar, Chairman & Additional District Magistrate, Solapur 3. Shri. Nagesh Patil, Chairman & Upper District Magistrate (Residential Deputy Collector), Satara
Main issues raised during PH	All the participants raised the water scarcity issue by heart. Many years the local people are suffering due to drought
No. of people attended	Sangli: 157 Solapur: 102 Satara: 140

- xx. **Details of Certified compliance report submitted by RO, MoEF&CC.**

Dr. P. R. Sakhare, Scientist E, inspected the site to check implementation of environmental safeguards status on 29.07.2024.

Status of compliance of conditions stipulated in the environmental clearance granted by MOEF & CC New Delhi vide letter No. J-12011/43/2003-IAI, dated 17.08.2007 submitted by Regional Office, Nagpur, vide F. No. EC-2556/RON/2024-NGP/3436 dated 12th August, 2024.

- xxi. **Status of Litigation Pending against the proposal, if any : NIL**

xxii. The salient features of the project are as under:

- EAC Meeting Details:**

EAC meeting/s	Agenda ID: EC/AGENDA/EAC/216917/2/2025 Agenda Of 25th Meeting Of The Expert Appraisal Committee
Date of Meeting/s	27/02/2025
Date of earlier EAC meetings	51st Meeting of EAC, MoEFCC, New Delhi held on 12/09/2023 (Agenda Item No. 51.4) for Terms of Reference (ToR) 22nd Meeting of The Expert Appraisal Committee held on 10.01.2025 for EC (PP Absent)

- Project details:**

Name of the Proposal	Proposed Expansion of Tembhu Lift Irrigation Project Dist. Satara, Sangli and Solapur, Maharashtra
Proposal No.	IA/MH/RIV/482689/2024
Location (Including Coordinates)	Longitude: 74° 14' (East) Latitude : 17°17' (North)
Company's Name	Executive Engineer Minor Irrigation Division, Sangli Water Resource Department Maharashtra Krishna Valley Development Corporation (MKVDC), District Sangli 416 415
CIN no. of Company/user agency	-
Accredited Consultant and certificate no.	MITCON Consultancy & Engineering Services Ltd., Pune, Maharashtra Certificate No. NABET/EIA/24-27/RA 0343
Project location (Coordinates /River/ Reservoir)	Longitude: 74o 14' (East) Latitude : 17o17' (North)
Inter- state issue involved	No
Proposed on River/ Reservoir	-
Type of Hydro-electric project	Not Applicable
Seismic zone	Zone III (i. e. Moderate Risk Zone)

- **Category details:**

Category of the project	1 (c) Cat. 'A'								
Capacity / Cultural command area (CCA)	Sr No	Taluka	District	Command Area					
				GCA		CCA		ICA	
				Exist	Exten	Exist	Exten	Exist	Exten
	A	Karad	Satara	1150	0	860	0	600	0
	B	Khanapur	Sangli	41135	19691	32921	11902	18975	6471
	C	Kadegaon	Sangli	20215	0	16179	0	9325	0
	D	Tasgaon	Sangli	20570	15280	15450	11083	7700	6026
	E	Atpadi	Sangli	61569	9015	43100	9737	16000	5294
	F	Sangola	Solapur	36500	20745	29200	5876	20000	5000
	G	Jat	Sangli	-	6506	-	4848	-	2636
	H	Kavathe Mahankal	Sangli	17475	12455	10300	7826	7872	2450
	I	Khatav	Satara	-	18362	-	13685	-	7440
J	Man	Satara	-	14033	-	10458	-	5686	
	Total		198614	116087	148010	75415	80472	41003	
Attracts the General Conditions (Yes/No)	Yes, Bird Conservation Reserve located @ 1.2 km from proposed alignment								
Additi									

onal inform ation (if any)	
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• **ToR/EC Details:**

ToR Proposal No.	IA/MH/RIV/439901/2023, F. No. J-12011/48/2023-IA. I (R)			
EAC meeting date	12/09/2023			
ToR Letter No.	F.No. J-12011/48/2023-IA. I (R)			
ToR grant Date	02/11/2023			
Cost of project	Existing Project: Rs 4088.14 Proposed Expansion: Rs. 3281.89 Total Cost: Rs. 7370.0			
Total area of Project	Nature of Land involved in (Ha)	Area Existing in Ha	Additional Area Proposed in Ha	Total Area required after expansion in Ha
	Non-Forest Land	2265.138	2.7825	2267.92
	Forest Land	7.051	7.93	14.981
	Total	2272.189	10.7125	2282.902
Height of Dam from River Bed (EL)	NA			
Details of submergence area	Not applicable as there is no submergence.			
District to provide irrigation facility (if applicable)	❖ Length of new pipeline proposed (PDN) : 200 km ❖ Length of proposed Distributaries :1000 km			
Details of tunnels on upper level	Not Applicable			

& lower level and length of canal (if applicable)					
No. of affected Village.	9				
No. of Affected Families	SI	Name of Farmers	Village	Gut No	Area in Ha
	1	Shri. Dattu Chandru More and Shri. Laxman Chandru More	Vejegaon Tal:- Khanapur, Dist. Sangli	145	0.28
	2	Shri. Rajaram Govind Devkar Shri. Hanmant Govind Devkar	Vejegaon Tal:- Khanapur, Dist. Sangli	146	0.19
	3	Shri. Daval Malik Archak	Bhikavadi Tal:- Khanapur, Dist. Sangli	992	0.0625
	4	Shri. Uttam Atmaram Yadav and other	Renavi Tal:- Khanapur, Dist. Sangli	498	0.40
	5	Shri. Anil Pandhri Nath Gaikwad and other 10	Kasabe Vita east, Tal:-Khanapur, Dist. Sangli	194	0.40
	6	Smt. Sharada Ramchandra Nichaland other	Posewadi, Tal:- Khanapur, Dist. Sangli	836	0.05
	7	Shri. Arjun Tukaram Kole and other	Dhonestwadi, Tal:- Khanapur, Dist. Sangli	450	0.05
	8	Shri. Dipak Sadashiv Kanase and other 2	Vijaynagar, Tal:- Khanapur, Dist. Sangli	309	0.05
	9	Ujawala Hindurao Sawant other 14	Vita putva	148	0.60

	10	Maruthi Deoand others	Palashi Tal:- Khanapur Dist. Sangli	610/3	0.20																														
	11	Jagubai Bhimrao Chandanshive, Mangal Bhimrao Chandanshive and other	Palashi Tal:- Khanapur, Dist. Sangli	602	0.40																														
	12	Umesh Sukhdeo Jadhav, Sulochna Sukhdeo Jadhav and other	Palashi Tal:- Khanapur, Dist. Sangli	232	0.10																														
	Total			2.7825 Ha																															
Project Benefits	<ul style="list-style-type: none">❖ With increased land parcels from draught prone area getting irrigated, farmers are shifting from food crops like sorghum, pearl millet and wheat to Cash crops like sugarcane, pulses, grapes, and Pomegranate.❖ Provide better consumer experience and improved operational performance with an end-to-end coverage from pump house to water distribution network with minimum water charges cost to farmers.❖ The drought prone area earlier is transforming to horticulture hub.❖ Improvement in operational performance and reliability in water supply by futuristic interventions enabled through SCADA interventions qualifying smart utilities and digital utilities.❖ Generation of Employment - The draught prone area under the jurisdiction of Tembhu LIS has limited activities for income generation.																																		
R&R details	For the Expansion of Tembhu Lift Irrigation Project, private land of around 2.7825 Ha is proposed for acquisition. The land acquisition will be done and compensation shall be paid to land owners as per The Right to Fair Compensation & Transparency in Land Acquisition, Rehabilitation and Resettlement Act 2013.																																		
Command area	<table><tr><th rowspan="3">Sr No</th><th rowspan="3">Taluka</th><th rowspan="3">Dist rict</th><th colspan="6">Command Area</th></tr><tr><th colspan="2">GCA</th><th colspan="2">CCA</th><th colspan="2">ICA</th></tr><tr><th>Exis ting</th><th>Exte nded</th><th>Exis ting</th><th>Exte nded</th><th>Exis ting</th><th>Exte nded</th></tr><tr><td>A</td><td>Karad</td><td>Sata ra</td><td>1150</td><td>0</td><td>860</td><td>0</td><td>600</td><td>0</td></tr></table>					Sr No	Taluka	Dist rict	Command Area						GCA		CCA		ICA		Exis ting	Exte nded	Exis ting	Exte nded	Exis ting	Exte nded	A	Karad	Sata ra	1150	0	860	0	600	0
Sr No	Taluka	Dist rict	Command Area																																
			GCA		CCA				ICA																										
			Exis ting	Exte nded	Exis ting	Exte nded	Exis ting	Exte nded																											
A	Karad	Sata ra	1150	0	860	0	600	0																											

	B	Khanapur	San gli	4113 5	1969 1	3292 1	1190 2	1897 5	6471
	C	Kadegaon	San gli	2021 5	0	1617 9	0	9325	0
	D	Tasgaon	San gli	2057 0	1528 0	1545 0	1108 3	7700	6026
	E	Atpadi	San gli	6156 9	9015	4310 0	9737	1600 0	5294
	F	Sangola	Sola pur	3650 0	2074 5	2920 0	5876	2000 0	5000
	G	Jat	San gli	-	6506	-	4848	-	2636
	H	Kavathe Mahankal	San gli	1747 5	1245 5	1030 0	7826	7872	2450
	I	Khatav	Sata ra	-	1836 2	-	1368 5	-	7440
	J	Man	Sata ra	-	1403 3	-	1045 8	-	5686
		Total			1986 14	1160 87	1480 10	7541 5	8047 2
Types of Waste and quantity of generation during Construction /Operation	Name of Waste		Source		Qty (TPA)				
	Dry Waste		Labour Colony		39.42				
	Wet Waste		Labour Colony		26.28				
	Sr No	Type of material		Total generated quantity in excavation in cum		Total generated quantity in excavation in Mm³			
	1	Soft Soil		225174.6		0.225175			
	2	Hard murum & soft Rock		505580.2		0.50558			
	3	Hard Rock		2176080		2.176080			
	Total		2906835		2.90684				

Material used for blasting and its composition as per DGMS standards.	Not Applicable
E-Flows for the Project	NA
Is Projects earlier studied in Cumulative Impact assessment & Carrying Capacity studies(CIA &CC) for River in which project located. If yes then E-flow with TOR/Recommendation by EAC as per CIA&CC study of River Basin. If not the E-Flows maintain criteria for sustaining river ecosystem.	NA
Details on provision of	NA

fish pass	
Project benefit including employment details (no of employee)	<p>During construction phase</p> <p><i>Permanent employment</i></p> <ul style="list-style-type: none"> No. of permanent employment: 360 Period of employment (days): 730 <p><i>Temporary employment</i></p> <p>Temporary / Contractual employment (No. of Man days): 33000</p> <p>During operational phase</p> <ul style="list-style-type: none"> Permanent employment proposed: 10 Temporary employment proposed: 5
Area of Compensatory Afforestation (CA) with tentative no of plantation.	Compensatory land 4.50 ha non forest land gut no. 36 at Village Pimpri B, Tal Atpadi, Dist Sangli selected for Compensatory afforestation. 130 number of trees will be affected and same will be transplanted in nearby area.
Previous EC details	Environmental clearance for 80472 ha ICA. Vide letter No.12011/43/2003-A.I Dated August 17,2007
EC Compliance Report by R.O, MOEF&CC	<p>Dr. P. R. Sakhare, Scientist E, inspected the site to check implementation of environmental safeguards status on 29.07.2024.</p> <p>Status of compliance of conditions stipulated in the environmental clearance granted by MOEF &CC New Delhi vide letter No. J-12011/43/2003-IAI, dated 17.08.2007 submitted by Regional Office, Nagpur, vide F. No. EC-2556/RON/2024-NGP/3436 dated 12th August 2024</p>

• **Muck Management Details:**

No. of proposed disposal area/ (type of Land /Pvt. land)	Sr. No	Stage of LIS	Total Muck quantity in cum	
	1	Man Khatav	104646	
	2	Kamat	69764	
	3	Bevnoor	69764	
	4	6 A and 6 B	34882	
	5	Palshi	34882	
	6	Budhyal	34882	
Muck likely to be disposal at low lying area adjacent to project Site				
Cross section of proposed muck area, Height of muck with slope.	Utilization of 80 % of excavated material shall be backfilled in Approach roads, Conveyance roads, Pump House and 20% shall be filled in low laying areas and local bunds of agriculture land.			
Distance of muck disposal area(location) , from muck generation sources (project area)/River, HFL of proposed muck disposal area.	Average 0 km to 5 km			
Total Muck Disposal Area	Sr. No	Stage of LIS	Total Muck quantity in cum	
	1	Man Khatav	104646	
	2	Kamat	69764	
	3	Bevnoor	69764	
	4	6 A and 6 B	34882	
	5	Palshi	34882	
	6	Budhyal	34882	
Estimate Muck to be generated	Sr No	Type of material	Total generated quantity in excavation in cum	Total generated quantity in excavation in Mm ³
	1	Soft Soil	225174.6	0.225175

	2	Hard murum & soft Rock	505580.2	0.50558
	3	Hard Rock	2176080	2.176080
		Total	2906835	2.90684
Transportation	By Road			
Monitoring mechanism for Muck Disposal Transportation	Environmental Management Cell (EMC) shall monitor mechanism of muck disposal.			

• **Land Area Breakup:**

Private land	2265.138 + 2.7825 = 2267.92			
Government land/Forest	7.051 + 7.93 = 14.981			
Submergence area/Reservoir area	NA			
Land required for project components	Nature of Land involved in (Ha)	Area Existing in Ha	Additional Area Proposed in Ha	Total Area required after expansion in Ha
	Non-Forest Land	2265.138	2.7825	2267.92
	Forest Land	7.051	7.93	14.981
	Total	2272.189	10.7125	2282.902

• **Presence of Environmentally Sensitive areas in the study area**

Forest Land/ Protected Area / Environmental Sensitivity Zone	Yes/ No	Details of Certificate/ letter/ Remarks			
Reserve Forest/Protected Forest Land	Yes	Nature of Land involved in (Ha)	Area Existing in Ha	Additional Area Proposed in Ha	Total Area required after expansion in Ha

		Forest Land	7.051	7.93	14.981		
		Sacred groves & conservation reserves present in the study area					
		Sr. No .	Name of the Grove	Deity	Tahsil	Distance	Direction
		1	Arewadi	Biroba	Kavathe Mahankal	3km	SE
		2	Raywadi	Lord Shiva	Kavathe Mahankal	2km	W
		3	Shukacharya	Sukhdev	Khanpur-Atpadi	2km	NE
		4	Mayani	Bird Conservation Reserve*	Khatav	1.28 km	NE
		*5.2 km from Khatav Main Distributary					
National Park	No	-					
Wildlife Sanctuary	No	Not Applicable as per Parivesh Web portal under applicability of green clearances					
Archaeological sites monuments/historical temples etc.	No	No within 10 km Radius					
Additional information (if any)	-	-					

- **Court case details:** Nil
- **Status of other statutory clearances**

Particulars	Letter no. and date
Status of Stage- I FC	Stage 1 Clearance received vide online Proposal No. FP/MH/Pipeline/466395/2024 dated 06.01.2025
Approval of Central Water Commission	In 109th Technical advisory

	committee of Central Water Commission meeting on 14/03/2011
Approval of Central Electricity Authority	NA
Additional detail (If any)	NA
Is FRA (2006) done for FC-I	-

• **Details of the EMP**

Sr. No	Pollution Control & Other Environment Infrastructure	Capital Cost Rs. Lakhs	Recurring Cost (per annum) Rs. Lakhs
1.	Ambient Air Quality	-	18.00
2.	Noise Level	-	12.00
3.	Surface and Ground Water Quality	-	25.00
4.	Soil Quality	-	15.00
5.	Solid/ hazardous wastes	03.00	15.00
6.	Green Belt Development	400.00	50.00
7.	Fisheries Conservation & Management Plan	15.00	
8.	Labour Management Plan	25.00	
9.	Wildlife Conservation Plan	75.00	
10.	Muck Management Plan	25.00	
11.	Health & Safety	-	25.00
12.	Command Area Development Plan	24887.00	
13.	Corporate Environmental Responsibility	820.00	-
Summary of allocation of fund for EMP			
1.	EMPs: (eg.: Air Environment, Water Environment)		193.00 L
2.	Capital Cost (in Cr.)		3281.89
3.	Recurring Cost per annum (In Lakhs)		160.00 L

25.1.3 The EAC during deliberations noted the following:

- The Expert Appraisal Committee (EAC) deliberated on the information submitted by the Project Proponent and the details presented during the meeting. The Committee observed that the proposal pertains to the grant of Environmental Clearance for the Expansion of Tembhu Lift Irrigation Project in an area of 2284.601 ha at Village Tembhu, Ranad, Govare and etc, Sub District Khatav, Atpadi, Karad and etc, District Satara, Sangli and Solapur, Maharashtra by M/s Minor Irrigation Division, Sangli Water Resources Department, Maharashtra Krishna Valley Development Corporation.

- The project falls under Item 1(c) of the Schedule to the Environmental Impact Assessment (EIA) Notification, 2006, and is categorized as a Category 'A' project, which requires appraisal at the Central level by the Expert Appraisal Committee (EAC).
- The EAC, constituted under the provisions of the EIA Notification, 2006, and comprising expert members/domain experts from various relevant fields, examined the proposal submitted by the Project Proponent. This examination included a review of the Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) reports, which were prepared and submitted by a QCI/NABET-accredited consultant on behalf of the Project Proponent.
- The EAC further noted that the Ministry had granted Environmental Clearance (EC) to the existing project vide letter No. 12011/43/2003-A.I dated 17/08/2007, in favor of M/s. Minor Irrigation Circle, Maharashtra Krishna Valley Development Corporation, Warnali, Sangli for an Irrigation Command Area (ICA) of 80,472 ha. For the current expansion project, the Ministry has issued Terms of Reference (ToR) for conducting the Environmental Impact Assessment (EIA)/Environmental Management Plan (EMP) and a public hearing vide letter File No. J-12011/48/2023-IA.I(R) dated 02/11/2023.
- The EAC also noted that the project was previously considered during its 22nd meeting on 10/01/2025. However, the proposal was deferred as the Project Proponent (PP) did not attend the meeting.
- The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.
- The EAC further noted that the total land area required for the project is 2282.90 ha, comprising 2272.18 ha of the existing project area and an additional 10.71 ha required for the proposed expansion. Of this additional land, 2.78 ha is non-forest land, while 7.93 ha is forest land. The PP informed that for the 7.93 ha of forest land, Stage-I Forest Clearance (FC) has already been obtained for 4.10 ha (vide FP/MH/Pipeline/466395/2024 dated 06/01/2025), while the proposal for the remaining 3.83 ha has been submitted for approval.
- The estimated project cost is ₹7370.03 crore, which includes the existing investment of ₹4088.14 crore. A total capital cost of ₹193.00 lakh has been allocated for environmental pollution control measures, with a recurring (operation and maintenance) cost of ₹160.00 lakh per annum.

- The Committee discussed the issues raised during the Public Hearing (PH) which was conducted in three districts as per the EIA Notification, 2006 and reviewed the action plan submitted by the Project Proponent to address these concerns. After careful deliberation, the Committee found the action plan satisfactory.
- The EAC observed that approval on the Hydrology has been obtained from State Government, vide letter (Marathi) शासन ननर्णय क्र. टेंभूसुप्रमा- /0411प्रक्र/11/305.मोप्र1- नि2019/02/04. The expert representative from CWC informed the Committee that DPR of the existing project was examined by the CWC; however, the PP has not submitted the DPR for concurrence of CWC for present expansion proposal.
- Additionally, the EAC noted that Certified Compliance Report of earlier EC conditions has been submitted by RO, MoEF&CC vide F. No. EC-2556/RON/2024-NGP/3436 dated 12th August, 2024. The RO, MoEF&CC raised serious concerns over compensatory afforestation, Multidisciplinary Committee, non- submission of half yearly compliance report etc. Taking cognizance of these issues, the EAC requested the PP to submit a closure report from the RO, MoEF&CC, addressing the observations/ suggestions provided by the RO, MoEF&CC.

25.1.4 The EAC after detailed deliberations deferred the proposal for want of following additional information:

1. PP shall submit the status of the 3.83 Ha of forest land for obtaining Stage-I Forest Clearance (FC), along with all relevant supporting documents.
2. PP shall submit a closure report from the RO, MoEF&CC, addressing the observations/suggestions provided by the RO, MoEF&CC.
3. The concurrence/approval of CWC for hydrology of the present expansion proposal shall be examined and a clarification of CWC in this regard be submitted.
4. The MoU for water usage for the proposed project shall be submitted along with an English-translated copy, duly attested by the PP.
5. PP shall submit detail plan on water utilization for existing project and proposed project.
6. PP shall submit details of land reclamation practices undertaken in the existing project. Based on these practices, a comprehensive plan for implementing land reclamation in the proposed expansion shall also be submitted.

Agenda Item No. 25.2

OA No. 71/2020 (SZ) in the matter of Gavinolla Srinivas Vs. UOI and Ors. Hon'ble NGT, Southern Bench, Chennai regarding Rayalaseema Lift Scheme of State of Andhra Pradesh. – Compliance of Hon'ble NGT Order

The Member Secretary, EAC informed the committee that the instant court matter is regarding new lift scheme namely “ Rayalaseema Lift Scheme ” taken up by the State of Andhra Pradesh without obtaining the prior EC. The Applicant has alleged that the State of Andhra Pradesh has started construction in the guise of preparation of DPR even after directions of the Hon'ble Tribunal for not constructing the project without prior environmental clearance.

2. The EAC deliberated on the aforementioned issue during the EAC meeting held on 05.11.2024 and 10.01.2025 wherein the EAC suggested following Terms of Reference to ensure that the investigations done for DPR preparation have not resulted in alteration of natural environment and does not encroach the provisions of the EIA Notification, 2006, as amended:

- a) The Project Proponent must restore the project site to its original condition after completion of field studies for preparation of the DPR. All temporary structures, excavated areas, and any other modifications made during the DPR preparation phase must be reverted to their pre-existing state.
- b) The Project Proponent before submitting a proposal for grant of EC shall ensure compliance of the following directions:
 - i. A Certificate/ NOC for a limited period stating that activities undertaken by the Project Proponent at proposed project site for DPR preparation are within the ambit of EIA Notification, 2006, as amended be obtained from concerned RO MoEF&CC. This certification/ NOC should be based on a joint inspection conducted by representatives of RO MoEF&CC, CWC, GSI, CSMRS. The concerned RO MoEF&CC would be the Nodal authority in this regard.
 - ii. The joint inspection team must ensure and certify that no environmental damage has been caused by the Project Proponent in the guise of DPR preparation. If, any damage is observed, it must be documented and addressed as per applicable legal and regulatory provisions.
 - iii. The Project Proponent must submit a comprehensive report to the Ministry on the actions taken for site restoration, including photographic evidence, restoration methods, and a timeline of the activities.

3. Furthermore, the Terms of Reference suggested by the EAC were then examined by the Ministry and it emerged that, seeking a certificate based on site inspection would add another layer to the EC process and increase the compliance burden and the time taken for grant of EC.

It was felt that the use of technological interventions may be more appropriate. Therefore, it was decided that the matter shall be further deliberated in consultation with sectoral EAC.

EAC Deliberations:

4. The EAC in the current meeting deliberated on the aforementioned issue and agreed with the concern raised by the Ministry. In this regard, it was suggested that at the time of EC application the PP shall submit an undertaking in the form of an affidavit authorised and duly signed by the competent authority stating that no work has been done beyond the purpose of preparation of DPR along with a comprehensive report to the Ministry on the actions taken for site restoration, including photographic evidence, restoration methods, and a timeline of the activities. Further, if any part of the information and data found to be false or misleading at any stage, he shall be liable for action under the provisions of Water (Prevention and Control of Pollution) Act, 1974; the Air (Prevention and Control of Pollution) Act, 1981; and the Environment (Protection) Act, 1986.

5. In light of the above, the Committee unanimously recommended the modification of additional Terms of reference suggested vide EAC Meeting dated 10.01.2025.

Agenda Item No. 25.3

Harmonization and Optimization of Environmental Clearance Conditions for River valley and Hydro-electric sector- reg

The Member Secretary of the EAC informed the committee that the Ministry is in the process of harmonizing and optimizing Environmental Clearance conditions for River Valley and Hydro-Electric Projects in consultation with the sectoral EAC. It was further stated that the EAC had previously discussed a similar process during its meeting on 13.08.2024, where the committee made the following observations:

"....After perusal of the document the EAC observed that many conditioned mentioned in the document are not applicable to the River Valley and Hydro-electric Sector. Accordingly, it was recommended that Member Secretary may prepare a comparative chart showing existing environmental conditions and the conditions which have been optimised for the River Valley and Hydro-electric sector. The comparative chart may be shared with the EAC members so that after thorough examination, the same can be finalised in the next meeting of the EAC..."

Accordingly, a draft set of conditions were shared with the EAC. Subsequently, the EAC members provided various suggestions on the conditions, which were discussed in detail during the present meeting.

The Expert Appraisal Committee (EAC) recommended for having a consultation with stakeholder such as MoJS, MoP, EIA consultants, Project Proponents and other subject area experts for addressing the recent environmental/social challenges in developing the River Valley

and Hydro-electric projects in India so that a comprehensive and monitorable environmental safeguard conditions could be framed.

Additional Agenda Item

Site Visit Report of Sub-Committee of the EAC (River Valley & Hydro-electric) from 24.01.2025 to 26.01.2025 for Proposed Sharavathy Pumped Storage Project of capacity 2000 MW at village Begodi, Tehsil Honavar, District Uttara Kannada, Karnataka

The Member Secretary, EAC informed to the committee that the Ministry of Environment, Forest and Climate Change (MoEF&CC) granted Terms of Reference (ToR) vide letter dated 14.12.2023. The Expert Appraisal Committee (EAC) in its 16th meeting held on 27.09.2024 ‘..... emphasized that, prior to granting environmental clearance or making any recommendations, all pumped storage projects in Western Ghats that have been granted ToR by the Ministry, a site visit shall be carried in’

2. Accordingly, the Sub-Committee comprising Shri Ajay Kumar Lal, Member, EAC; Dr. Uday Kumar R. Y., Member, EAC; and Dr. Krishnendu Mondal, Scientist D, Representative from MoEF&CC) conducted a site visit to the proposed project from 24th to 26th January, 2025 with the site inspection carried out on 25th January, 2025.
3. The EAC deliberated on the observations of the sub-committee report and recommended the following:

1. The proposed project involves much less engineering and civil interventions compared to a newly developed Pumped Storage Project (PSP) of similar scale, where both dams and reservoirs would need to be constructed afresh and water sources would have to be identified and tapped. The Sharavathy Project benefits from an existing favorable condition, as both reservoirs, with adequate water availability and storage capacity, are already in place.
2. The proposed site is located within a dense forest area, which, while topographically stable and not prone to landslides, falls within the fragile ecosystem of the Western Ghats and is part of an Eco-Sensitive Zone (ESZ). Consequently, the decision to grant of final Environmental Clearance (EC) will heavily depend on the progress/approval of Stage I Forest Clearance.
3. As the project is situated within the Eco-Sensitive Zone (ESZ) of the Sharavathy Wildlife Sanctuary, obtaining Wildlife Clearance from the National Board for Wildlife (NBWL) is a prerequisite and must be prioritized.
4. According to the project team present at the site, there is no requirement for forest land for submergence, reservoir expansion, or muck dumping, as these activities will be carried out entirely on non-forest land. This claim must be independently verified and confirmed.

5. The Project Proponent will explore possibilities and will relook at the total forest land requirement for expansion/widening or construction of approach road. The Committee observed on ground and noted that there was good scope for reducing road width especially at the straight stretches and thereby saving trees/ forest lands. If not feasible or implementable, PP should give good acceptable reasons for the same.
6. All conditions and safeguards stipulated in the ToR granted by MoEF&CC (vide File No. J-12011/19/2017-IA.I, dated 14.12.2023, detailed in Annexure 1) must be strictly adhered to and comprehensively implemented.

The site visit report is annexed at Annexure –I.



Site visit Report on Proposed Sharavathy Pumped Storage Project of capacity 2000 MW at village Begodi, Tehsil Honavar, District Uttara Kannada, Karnataka

Background

The Sharavathy Pumped Storage Project is located in the Shimoga and Uttara Kannada districts of Karnataka. The project utilizes the existing reservoirs, with Talakalale serving as the upper reservoir and Gerusoppa as the lower reservoir.

The Ministry of Environment, Forest and Climate Change (MoEF&CC) granted Terms of Reference (ToR) vide letter dated 14.12.2023. The Expert Appraisal Committee (EAC) in its 16th meeting held on 27.09.2024 ‘..... emphasized that, prior to granting environmental clearance or making any recommendations, all pumped storage projects in Western Ghats that have been granted ToR by the Ministry, a site visit shall be carried in’.....

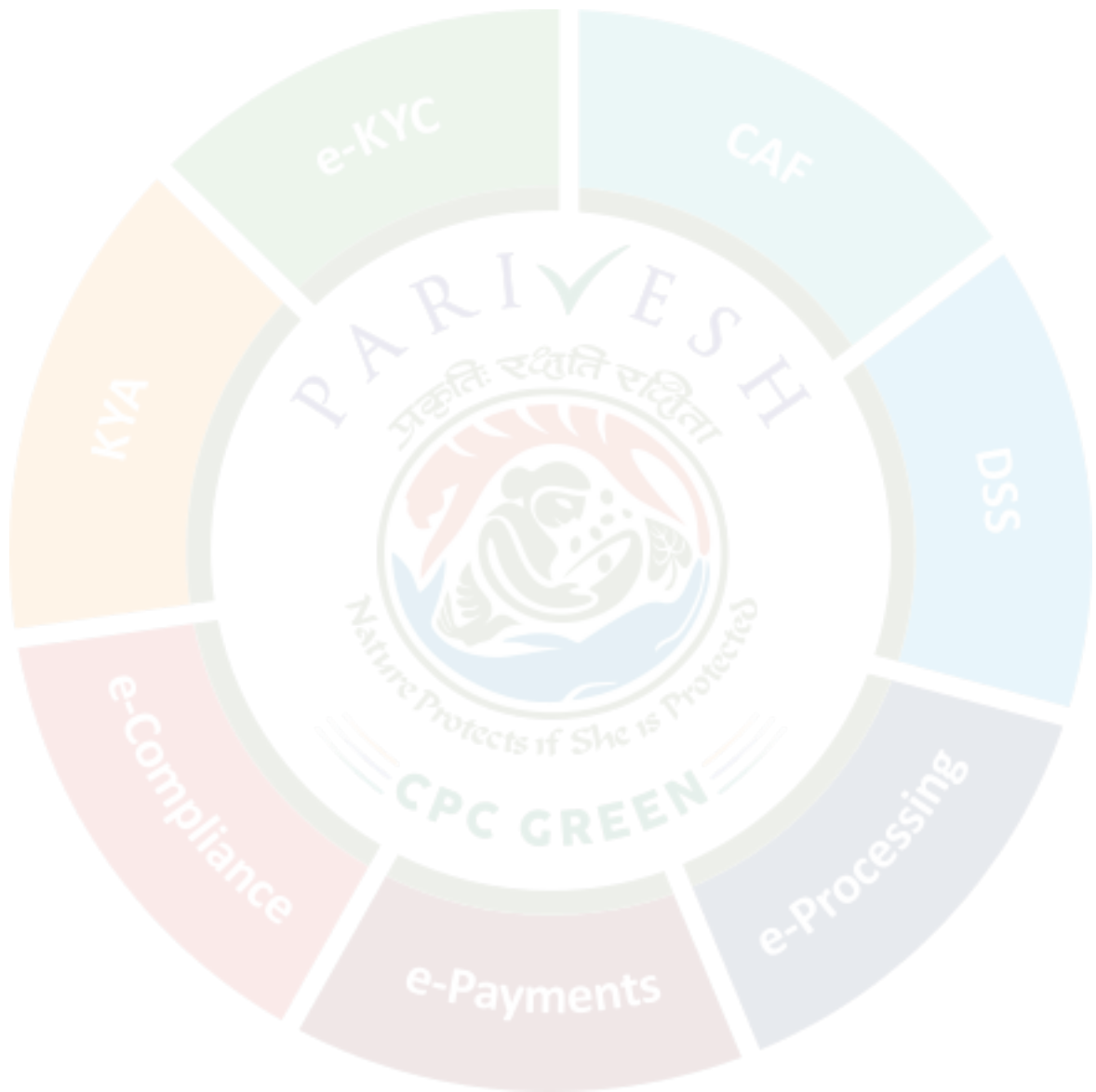
Site Visit

In compliance with the Office Order dated 22.01.2025 issued by the IA Division of the Ministry of Environment, Forest and Climate Change (MoEF&CC), the Sub-Committee comprising Shri Ajay Kumar Lal, Member, EAC; Dr. Uday Kumar R. Y., Member, EAC; and Dr. Krishnendu Mondal, Scientist D (Representative from MoEF&CC) conducted a site visit to the proposed project from 24 to 26th January, 2025, with the site inspection carried out on 25th January, 2025.

The EAC team members were accompanied by technical representatives from the Karnataka Power Corporation Limited (KPCL) including:

- Smt.Shilpa D Raj, Superintending Engineer(CD)-1
- Sri.Vijay .V.M, Executive Engineer(C)
- Sri.Umapathi K R, Executive Engineer(C)
- Smt Divya K, Assistant Executive Engineer(C)
- Sri Chandrashekara M Assistant Engineer(C)

During the inspection, the Sub-Committee examined the existing upper and lower dams along with their reservoirs, the proposed penstock path, the powerhouse, the muck dumping site, and



nearby areas likely to experience disturbances and environmental impacts. The inspection covered areas between the two existing reservoirs, namely the Talakalale Reservoir (upper reservoir) and the Gerusoppa Reservoir (lower reservoir for SPSP), situated near the highest waterfalls in India on the Sharavathy River. The assessment was conducted both by road and on foot.

The site visit was attended by authorized representatives of the project proponent, their consultants, local staff, and a few local residents.

General Observations

Topography

The proposed project area is situated along the coastal western edge of the Western Ghats, extending in a north-south direction. The terrain is predominantly hilly, characterized by an undulating rocky subsurface primarily composed of granite and basalt, with a thin layer of dominant lateritic and reddish-brown topsoil. The land slopes range from 25–40 degrees, with steeper sections reaching up to 60 degrees. The region experiences an average annual rainfall of approximately 4,080 mm, which is nearly three and a half times the normal precipitation, classifying it as a wet region. The Sharavathy River is the primary watercourse traversing the area.

Vegetative Cover

The area supports one of the densest forest regions in Karnataka, with moderate to very dense forests exhibiting a canopy density of approximately 0.7 to 0.8. The predominant forest types include:

- **West Coast Semi-Evergreen Forest**
- **Southern Moist Mixed Deciduous Forest**
- **Patches of Laterite Semi-Evergreen Forest**

Dominant tree species observed in the region include *Terminalia paniculata*, *Dipterocarpus serratus*, *Tectona grandis*, *Syzygium cuminii*, and *Anogeissus latifolia*. The key Non-Timber Forest Products (NTFPs) identified in the area include *Cinnamomum* spp., *Cymbopogon citratus* (lemongrass), pepper, cardamom, cinnamon, mango, and jackfruit.

Fauna

Existing records indicate that the area is rich in faunal diversity and is particularly notable for the rare presence of the Lion-Tailed Macaque. Other significant wildlife species recorded in the region include:

- **Mammals:** Leopard, Lion-Tailed Macaque, Mouse Deer, Sambar Deer
- **Reptiles:** King Cobra

Due to the limitations of a single-day site visit, a comprehensive firsthand assessment of faunal diversity was not feasible. No direct evidence of large mammals or big cats was observed during the visit. However, available documents and certificates pertaining to their presence, movement, or habitat corridors will provide further insights. Local residents present during the visit confirmed the presence and movement of these species in the area.

Human Settlement and Habitation

As the area predominantly comprises reserved forest land and is located in the interior, human settlements are minimal. The number of villages directly affected by the project is limited to four, with only four project-displaced families. In total, approximately 130 families will be impacted within the project area. Given the relatively low displacement, rehabilitation and resettlement (R&R) concerns are not expected to be significant.

Specific Observations and Recommendations

1. The proposed project involves much less engineering and civil interventions compared to a newly developed Pumped Storage Project (PSP) of similar scale, where both dams and reservoirs would need to be constructed afresh and water sources would have to be identified and tapped. The Sharavathy Project benefits from an existing favorable condition, as both reservoirs, with adequate water availability and storage capacity, are already in place.
2. The proposed site is located within a dense forest area, which, while topographically stable and not prone to landslides, falls within the fragile ecosystem of the Western Ghats and is part of an Eco-Sensitive Zone (ESZ). Consequently, the decision to grant of final Environmental Clearance (EC) will heavily depend on the progress/approval of **Stage I Forest Clearance**.
3. As the project is situated within the Eco-Sensitive Zone (ESZ) of the Sharavathy Wildlife Sanctuary, obtaining **Wildlife Clearance from the National Board for Wildlife (NBWL)** is a prerequisite and must be prioritized.
4. According to the project team present at the site, there is no requirement for forest land for submergence, reservoir expansion, or muck dumping, as these activities will be carried out entirely on non-forest land. This claim must be independently verified and confirmed.

5. The Project Proponent will explore possibilities and will relook at the total forest land requirement for expansion/widening or construction of approach road. The Committee observed on ground and noted that there was good scope for reducing road width especially at the straight stretches and thereby saving trees/ forest lands. If not feasible or implementable, PP should give good acceptable reasons for the same.
6. All conditions and safeguards stipulated in the **ToR granted by MoEF&CC** (vide File No. J-12011/19/2017-IA.I, dated 14.12.2023, detailed in Annexure 1) must be strictly adhered to and comprehensively implemented.

Site Visit Photographs



Mat Entrance Area



Gerusoppa Dam Top – TRT Outfall Area



Talakalae Reservoir – Psp Intake Area



Near U/S Surge Tank

Signature of members

Shri Ajay Kumar Lal, Member, EAC

Dr. Uday Kumar R. Y., Member, EAC

Dr. Krishnendu Mondal
MoEFCC Representative

ATTENDANCE

S. No.	Name of Member	Role
1.	Prof. Govind Chakrapani	Chairman
2.	Dr. Uday Kumar R Y	Member
3.	DR. J. V. Tyagi	Member
4.	Shri Kartik Sapre	Member
5.	Shri Ajay Kumar Lal	Member
6.	Shri Rajeev Varshney	Member Representative of Central Electricity Authority (CEA)
7.	Shri Balram Kumar	Member Representative of Central Water Commission (CWC)
8.	Dr. A.K. Sahoo	Member Representative of CIFRI
9.	Shri Yogendra Pal Singh	Member Secretary

Approval of the Chairman

Re: Draft MOM of the EAC (RVHEP) meeting held on 28.02.2024-reg.

CG Chakrapani GovindaJoseph <govind.chakrapani@es.iitr.ac.in>
Tue, 11 Mar 2025 3:38:28 PM +0530 •

To "Yogendra Pal Singh" <yogendra78@nic.in>

Reading 2 / 2

Approved.
Chakrapani

On 11-Mar-2025 15:19, Yogendra Pal Singh <yogendra78@nic.in> wrote:

Dear Sir,

The draft MOM of the EAC (RVHEP) was circulated amongst EAC members, no comments received so far. The corrections suggested by you have been incorporated suitably. Accordingly, the draft MOM is attached herewith for approval please.

With Regards,

Yogendra Pal Singh
Scientist 'F'
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M/o Environment, Forest and Climate Change
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