

**GOVERNMENT OF TELANGANA  
FOREST DEPARTMENT**

Rc.No.1163/2017/M11  
Date: 25.11.2017

Office of the Chief Conservator of Forests  
Khammam Circle

From  
**Sri P.V. Raja Rao, IFS,**  
Chief Conservator of Forests  
Khammam Circle

The Principal Chief Conservator of Forests &  
Head of Forest Force,  
Aranya Bhawan, Saifabad, Hyderabad

Sir,

**Sub: TSFD - Forest (Conservation) Act, 1980 - Proposal for diversion of 1531.0548 ha (revised from 1602.2871 ha) of forest land in five different forest divisions viz. Manuguru, Paloncha and Kothagudem divisions of Bhadradri-Kothagudem District and Sathupally and Khammam divisions of Khammam District for construction of canals, tunnels, laying of power lines etc. involved in Sitarama Lift Irrigation Project in favour of Chief Engineer, Projects, I&CADD, Khammam - Forwarding the Proposals for further processing with remarks - Submitted - Regd.**

- Ref: 1. Prl.CCF, T.S., Hyderabad, Rc.No. 9000/2017/FCA-1, Dt: 20.10.2017.  
2. FDO, Sathupally, Rc.No. 851/2017/A3, Dt: 23.11.2017.  
3. FDO, Khammam, Rc.No. SRLIP/2017/S3, Dt.23.11.2017  
4. DFO, Khammam, Rc.No. 1237/2017/A3 Dated: 24.11.2017

Adverting to the subject and reference to the above, it is submitted that vide reference 1<sup>st</sup> cited the Prl. Chief Conservator of Forests (HoFF), T.S., Hyderabad has forwarded the proposals for processing pertains to diversion of Forest land to an extent of 330.0521 Ha (total 1602.2871 Ha), for Sita Rama Lift Irrigation Project (SRLIP) in favour of Chief Engineer, Irrigation Projects Circle, Khammam, falling in Sathupally and Khammam forest divisions of Khammam District for processing under Forest (Conservation) Act,1980, Rules, Guidelines and amendments issued therein.

The Proposals were forwarded to DFO Khammam and in turn to FDOs of Sathupally and Khammam so as to process the same under Forest (Conservation) Act,1980 and Rules & amendments issued therein and as per the instructions of PCCF (HoFF), issued from time to time and submit the processed proposals along with mandatory information / certificates.

Further the DFO Khammam and FDOs of Khammam District have also been requested to inspect the non-forest CA lands identified for CA for assessing the suitability for raising CA and prepare CA scheme as per the guidelines issued from time to time. Also FDO Sathupally has been instructed to identify the degraded forest land for Compensatory afforestation and prepare Scheme to meet the requirement of planting 1000 plants/ ha as per FCA guideline for

the area of forest land diverted for the Project. Issued instructions to the Forest Divisional Officers to submit the Proposal in a complete shape.

Accordingly the proposals have been processed by respective Forest Divisional Officers and furnished vide ref 2<sup>nd</sup> and 3<sup>rd</sup> with due recommendation in Part II along with the Site Inspection notes, CA schemes, schemes for raising canal bank plantations, WL conservation plan etc. along with all the necessary undertakings, documents etc. which have been countersigned by District Forest Officer, Khammam and received vide ref 4<sup>th</sup> cited.

The details of the proposals are as follows:

**I. The User Agency has furnished the following information in Part - I:**

- The Sita Rama Lift Irrigation Scheme is a reengineered project of Rajiv Dummugudem and Indira Sagar LIS Projects. It is contemplated to cover the Khammam, Bhadradri-Kothagudem and Mahabubabad Districts, with a command area of 3,28,853 Acres as new ayacut and Stabilization of existing ayacut about 3,45,534 Acres.
- Stabilization of existing ayacut under Major and Medium projects like NSP, Wyra, Lankasagar and Paleru is of about 2,48,376 Acres and other minor irrigation schemes and PR Tanks where there is no assured irrigation source for an area of about 97,158 Acres is envisaged.
- The Sita Rama Lift irrigation Project is proposed to draw water from Godavari River (R/S) U/S of existing Dummugudem Anicut to draw 70.4 TMC of water from River Godavari through an approach channel of CBL EL.+45 m
- Sita Rama Lift Irrigation Project envisages construction of Head Regulator at Dummugudem Anicut and to draw water from Godavari through an approach channel right side of Godavari, It consists of gravity canal, four pump houses at (1) B.G.Kothuru, Aswapuram (M), (2) V.K.Ramavaram, H/O Pusugudem, Mulakalapally(M), (3)Kamalapuram, Mulakalapally(M), (4) Dibbagudem H/o Gandugulapally(V), Dammapeta(M), Lift systems, Tunnels and Distributory Networks.
- Total cost of the project is Rs. 13263.860 Crores.
- Total Project works are proposed to be divided into 9 number of reaches for the purpose of work convenience.
- The total extent of Forest area required for diversion for the purpose of SRLIP is 1602.287 Ha (1272.2349 Ha. in Kothagudem Circle + 330.0521 Ha. in Khammam Circle) the Division wise areas as follows:

Sl No	Name of the Circle	Name of the District Forest Officer	Name of the Forest Divisional Officer	Extent of Forest Area in ha
<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
1	Kothagudem	Bhadradri Kothagudem	Kothagudem	418.3755
2			Paloncha	640.9060
3			Manuguru	212.9534
<b>Kothagudem Circle Total::</b>				<b>1272.2349</b>

4	Khammam	Khammam	Sathupalli	277.4033
5			Khammam	52.6488
			<b>Khammam Circle Total::</b>	<b>330.0521</b>
			<b>Grand Total::</b>	<b>1602.287</b>

- Out of which 275.44 ha is falling in notified Eco Sensitive Zone (ESZ) of Kinnerasani wild life Sanctuary, but does not fall in the Kinnerasani WLS. An extent of about 167.5191 ha of Non forest area also falls in notified ESZ.
- The total extent of non-Forest area required for diversion for the purpose of SRLIP is 5429.90 ha, out of which 167.5191 ha of area falls in notified ESZ of Kinnerasani WLS.
- The alignment is marked in the field with boundary stones. The actual involvement of forest land and its extent is ascertained after joint field inspection with forest authorities.
- Non-forest CA lands have been identified in an area of 1983.2943 Ha to handover to the forest department for raising compensatory afforestation.
- The ETS & DGPS/ GNSS Survey for the forest areas proposed for diversion as well as the non-forest CA lands have been carried out, authenticated by forest department and same are overlaid on the SOI topo maps and furnished along with the proposals.
- This Project proposal doesn't involve any places of historical, religious, archaeological, recreational importance.
- Necessary undertakings to pay NPV & additional NPV, cost of raising and CA & its maintenance, cost of ETG etc., and other documents required under Forest (Conservation) Act, 1980 have been furnished.

**II(A). The Forest Divisional Officer, Sathupally has furnished the information in Part II, Inspection Report, and Covering letter, as detailed below:**

- The above said proposals were forwarded to the Forest Range Officer, Sathupally having jurisdiction over the forest area, for processing under Forest (Conservation) Act, 1980 and the relevant rules and guidelines issued by GoI from time to time. The Forest Range Officer, Sathupally inspected the areas proposed for diversion, enumerated the tree growth and submitted the relevant information/documents to be enclosed to the proposals.
- The field inspection of the proposed area was conducted along with the concerned officials of the User Agency and enumeration test checked on 20.10.2017, 02.11.2017 & 18.11.2017. The requirement of the land in Sathupally Division by User Agency is as follows:

Sl. No.	Range	Package No.	Section.	Proposed Forest Area in Ha
1	2	3	4	5
1	Sathupally	FP/TG/IRRIG/29724/2017	Sathupally Trunk	277.4033 ha
<b>TOTAL:</b>				<b>277.4033</b>

- Purpose-wise break up of forest land is detailed below:

S. No	Component	Area in Ha.	Remarks
1	Tunnel	1.7750	
2	Canal	275.6283	
	<b>Total</b>	<b>277.4033</b>	

- The area proposed for diversion is passing in R.F. The terrain is plain to undulating, which is vulnerable to erosion.
- Proposed Tunnel and Canal involving in Sitarama Lift Irrigation Project Sathupally are passing through the Annapureddypally and Lankapally reserve forest of Sathupally range.
- The legal status of the said forest area proposed is as follows for diversion :
  - a. 2.1071 ha of Compartment No.137 of Buggapadu Beat in Annapureddypally R.F, Notified U/s 18 Hyderabad Forest Act 1326 F, vide Gazette. No.3,Dt 16-01-1350 F
  - b. 24.7427 ha of Compartment No.138 of Buggapadu Beat in Annapureddypally R.F, Notified U/s 18 Hyderabad Forest Act 1326 F, vide Gazette. No.3,Dt 16-01-1350 F
  - c. 18.4736 ha of Compartment No. 139 of Buggapadu Beat in Annapureddypally R.F, Notified U/s 18 Hyderabad Forest Act 1326 F vide Gazette. No.3,Dt 16-01-1350 F
  - d. 15.3567 ha of Compartment No.140A of Kommugudem Beat in Lankapally R.F, Notified U/s 19 of Hyderabad Forest Act 1355 F vide GO Ms No. 369,Dt.10-06-1357 F
  - e. 31.5907 ha of Compartment No.149/1 of Bhavannapalem Beat in Lankapally R.F, , Notified U/s 19 of Hyderabad Forest Act 1355 F vide GO Ms.No. 369,Dt.10-06-1357 F
  - f. 50.3377 ha of Compartment No.152 of Turakalagudem Beat in Lankapally R.F, , Notified U/s19 of Hyderabad Forest Act 1355 F vide GO Ms No. 369, Dt.10-06-1357 F
  - g. 99.1877 ha of Compartment No.153 A of Rudrakshapally South Beat in Lankapally RF, Notified U/s 19 of Hyderabad Forest Act 1355 F vide GO Ms No.369, Dt.10-06-1357 F

h. 99.1877 ha of Compartment No.153 B of Rudrakshapally North Beat in Lankapally R.F, Notified U/s 19 of Hyderabad Forest Act 1355 F vide GO Ms No. 369, Dt.10-06-1357 F

i. 15.3567 ha of Compartment No.154 of Yatalakunta Beat in Lankapally R.F, , Notified U/s.19 of Hyderabad Forest Act 1355 F vide GO Ms No. 369,Dt.10-06-1357 F

- The Proposed Canal is passing through the middle of forest with varying distance from forest boundary approximately 0.5 km to 5 km.
- The forests are Tropical Dry Deciduous Forests with 0.1 to 0.7 canopy density. The density break-up of 277.4033 Ha is given below:

Density Class	Area in ha
0.4 to 0.7	48.0626
<0.4	229.3407
<b>Total</b>	<b>277.4033</b>

- The said proposed area for diversion does not form part of National Park, Wildlife Sanctuary, Biosphere reserve, Tiger reserve, Elephant Corridor etc.
- No rare / endangered / unique species of flora and fauna are found in the forest area proposed for diversion.
- There are no protected Archaeological / Heritage site / defense establishment or any other important monument in the forest area proposed for diversion.
- As per the proposals with alternatives submitted by the user agency and technical details involved in the project at col.2 of Part-I, the proposed area is unavoidable and barest minimum required.
- The vegetation in the linear stretch is of good forest with natural generation of misc species with Tiruman, Pala Kodisa, Tuniki, Tani, Yegisa, Jitregi, Maddi, Ippa, Gumpena, Chennangi, Karangi, Duddi, Teak, Chilla, Chinduga, Bamboo etc. and canopy density as shown above.
- The fauna found in the proposed area are Melursus ursines (Sloth Bear), Hysterix indica (Porcupine), Lepus Nigricollis (Hare), Sus scropha (Wild Boar), Axis Axis (Spotted deer), Kondagorre, Sambar, Langurs, Chinkara, Nilgai, Bison, Painted stork, Peafowl , Porcupine, Python, Chameleon, Monitor lizard, etc.
- As regards the landuse/ landcover, the details are as follows:

Section	Beat	Block	Compt.	Area_ha	Landuse/ Landcover (in ha)			
					Plantn	RoFR	Encr	Forest
Rudrakshapalli	Buggapadu	Annapureddipalli	137	2.1071	0	6.113	1.64	0.4671
Rudrakshapalli	Buggapadu	Annapureddipalli	138	24.7427	0.3		17.545	0.7847
Rudrakshapalli	Buggapadu	Annapureddipalli	139	18.4736	3.5		11.67	3.3036

Rudrakshapalli	Kommugudem	Annapureddipalli	140 A	15.3567	0	2.784	3.376	9.1967
Bhavanapalem	Bhavanapalem	Lankapalli	149/1	31.5907	0	0	0	31.5907
Kistaram	Turakalagudem	Lankapalli	152	50.3377	17.08	0	0	33.2577
Rudrakshapalli	Rudrakshapalli-South	Lankapalli	153 A	99.1877	0	5.568	12.532	81.0877
Rudrakshapalli	Rudrakshapalli-North	Lankapalli	153 B	18.8718	0		2.81	16.0618
Yatalakunta	Yatalakunta	Lankapalli	154	16.7353	0	0	13.5	3.2353
<b>Total</b>				<b>277.4033</b>	<b>20.88</b>	<b>14.465</b>	<b>63.073</b>	<b>178.9853</b>

- 72.6800 ha of forest area proposed for diversion is under encroachment.
- 2.33 ha is covered under plantations raised by forest department under CAMPA-NPV-NFM 2017-18 and 18.55 ha of plantation raised by forest Development Corporation. For the loss of plantations of FDC, the UA has to pay the cost of anticipated loss of field to FDC. For 2.33 ha loss of plantation raised by forest department, the UA has to pay the cost of raising and maintenance of plantation over 2.33 ha in degraded forest land.
- For 14.465 ha (35.73 acre) RoFR rights (13 claims) have been conferred. For the RoFR right holders the UA has to make payment as per the R&R plan prepared by District Collector, Khammam as per prevalent R&R Policy of the Government.
- **Enumeration of Tree Growth:** The total enumeration of tree growth was taken up.
- There are in total 98,337 number of trees are existing in the proposed area. Out of which 47519 trees are above 30 cm girth and 50778 are below 30 cm girth. The trees above 22 cm girth were enumerated and Serial numbered and they are in total 75069 trees.
- The yield particulars of tree growth enumeration for 47519 trees, 27550 poles and as per the report submitted by the Forest Range Officer, Sathupally are as follows:

Beat	Compt.	Area_ha	Enumeration of trees			
			Teak (No's)	Teak (Vol in cum)	Non Teak (No's)	Non Teak (Vol in cum)
Buggapadu	137	2.1071	0	0	0	0
Buggapadu	138	24.7427	0	0	0	0
Buggapadu	139	18.4736	0	0	0	0
Kommugudem	140 A	15.3251	0	0	0	0
Bhavanapalem	149/1	34.6317	520	1.7325	17202	697.9892
Turakalagudem	152	50.3377	1324	5.1113	20413	818.3952
Rudrakshapalli-South	153 A	99.1877	87	0.5576	26071	819.6994
Rudrakshapalli-	153 B	18.9034	64	0.1289	9186	357.0225

North						
Yatalakunta	154	13.6943	14	0.1735	188	3.5145
	<b>Total</b>	<b>277.4033</b>	<b>2009</b>	<b>7.7038</b>	<b>73060</b>	<b>2696.6208</b>

- It is proposed to take up translocation of 5000 for a cost of **Rs.11.34929 lakhs** to be borne by the User Agency. The scheme for translocation of 5000 trees is enclosed.
- **No Work in violation of Forest (Conservation) Act, 1980 has been committed by the User Agency.**
- **RoFR Certificate:** The proposal is examined in the light of guidelines issued by the Government of India under Scheduled Tribes and other Traditional Dwellers (recognition of Forest Rights) Act 2006 Vide Lr.No.11-9/1998-Fc (Pt) Dt.03.08.2009 and 05.07.2013 is examined and there are 13 no.of claims in 35.73 acres (14.465 ha) under RoFR Act in the proposed areas for diversion. The Collector, Khammam District vide Rc.No. A6/ROFR/ITDA/384/SRLIP/2017, Dated:10.11.2017 has issued RoFR certificate in Form-I (for Linear Projects) certifying that the complete process for identification and settlement of rights under FRA has been carried out for the **entire 277.4033 Ha of forest area**. The resolutions of Division Level Committee and Sub - Divisional level Committee and the Gram Panchayat are enclosed. The User Agency has furnished undertaking to make payments to the RoFR claimants as per the R&R package approved by the District Collector Khammam.

**The details of Site Inspection Report of FDO Sathupally (enclosed):**

The details of observations mentioned in the field inspection of the forest area proposed for diversion are furnished below.

- The site inspection was conducted on 21.10.2017 and test checked the boundary demarcation at stations of proposed for diversion.
- In the proposals submitted by the User Agency, an area of **277.4033 ha** forest area has been proposed for diversion in Sathupally Division and the breakup of diversion area consists of **275.6283 ha** for canal, **1.7750 ha** for tunnels.
- It is observed that the majority of the proposed area is falling in **Lankapally Reserve Forest block** and **Annapureddypally Reserve Forest block** with dense miscellaneous mixed forest with canopy density of about 0.1 to 0.7
- The alignment is passing through middle of the forests at certain reaches and fragmenting the forest areas.
- Movement of wildlife is seen at places and there may be disturbance to the wildlife. Hence, detailed **Wildlife conservation Plan** is prepared for an amount of **Rs 96.849 Lakhs** and enclosed. Establishment of artificial bird perches along the canal in Lankapally RF in Comp.No's 152,153 & 154 is also proposed.

- One Eco-bridge at 17.283961° N, 80.796276° E in Lankapally RF is proposed for movement of wildlife.
- UA shall construct 13 CM/CD structures across the canal for movement of wildlife with a minimum height clearance of 3 m and width of 4 m, at the locations specified in the project proposal.
- A detailed CAT plan is prepared for an amount of Rs.80.330 Lakhs to minimize the soil erosion, for protection of remnant blocks duly proposing the appropriate works and enclosed to CA scheme.
- Scheme for raising canal bank plantations has been prepared for an amount of Rs.103.36635 Lakhs to stabilize the canal banks and enclosed.
- Total yield particulars of 75069 trees including 27550 trees of < 30 cm in girth. The details are as follows:

Range	Beat	Compt. No.	Area_ha	Enumeration of trees			
				Teak (No's)	Teak (Vol in cum)	Non Teak (No's)	Non Teak (Vol in cum)
Sathupally	Buggapadu	137	2.1071	0	0	0	0
		138	24.7427	0	0	0	0
		139	18.4736	0	0	0	0
	Kommugudem	140 A	15.3567	0	0	0	0
	Bhavanapalem	149/1	31.5907	520	1.7325	17202	697.9892
	Turakalagudem	152	50.3377	1324	5.1113	20413	818.3952
	Rudrakshapalli-South	153 A	99.1877	87	0.5576	26071	819.6994
	Rudrakshapalli-North	153 B	18.8718	64	0.1289	9186	357.0225
	Yatalakunta	154	16.7353	14	0.1735	188	3.5145
		<b>Total</b>	<b>277.4033</b>	<b>2009</b>	<b>7.7038</b>	<b>73060</b>	<b>2696.6208</b>

- The said proposed area for diversion does not form part of National Park, Wildlife Sanctuary, Biosphere reserve, Tiger reserve, Elephant Corridor etc.
- No rare / endangered / unique species of flora and fauna are found in the forest area proposed for diversion.
- There are no protected Archaeological / Heritage site / defense establishment or any other important monument in the forest area proposed for diversion.
- In the proposed area 2.33 Ha is under plantations raised under CAMPA Scheme. For the loss of the plantations, CA scheme for raising of plantations with 10 years of maintenance in 52.33 ha in degraded forest land is prepared and enclosed.
- **Compensatory Afforestation:** As against the forest land proposed for diversion, User Agency has identified 24.732 ha of non-forest land for compensatory afforestation in this division. The areas have been inspected along with the concerned forest Range Officer on 02.11.2017 and total area of 24.732 ha were found to be suitable for raising Compensatory Afforestation. The details are as follows:

Sl No	Mandal	Village	Survey No.	Area in Ha.	Area found suitable for CA	Remarks
1	Tallada	Annarugudem	68	6.177	6.177	Gap planting @ 400 plants per ha is proposed
2	Tallada	Annarugudem	68	7.212	7.212	
3	Tallada	Balapeta	189	11.343	11.343	
			<b>Total</b>	<b>24.732</b>	<b>24.732</b>	

- The proposed Compensatory Afforestation land is hilly and stony interspersed sporadically with trees & shrubs. The non-forest CA lands are, mostly bouldary with rocky patches of hillock in nature, having moderate standing growth of vegetation of mostly miscellaneous species. There is no good natural regeneration in the CA areas. The soil is of mostly red morram and degraded with continuous erosion. Hence a special plan is required to raise good plantations along with protection of area from erosion and taking up required SMC works. As the areas are isolated with a small patches, with lot of biotic pressure from adjoining villages and there is every possibility of encroachment of this land for agriculture or for quarry.
- Hence suitable protection measures are needed from biotic pressure and encroachment by way of protection wall or chain link fence. The selected areas are easily accessible by road and are found suitable for Compensatory Afforestation.
- Accordingly, keeping in view of the above points, a plan is prepared for growing of successful plantations miscellaneous plantations in the non-forest CA areas to compensate the part of diverted forest land with a financial outlay of Rs.287.76127 Lakhs and is submitted.
- In addition to the above 24.732 ha of non-forest CA land, an area of 50 ha is also proposed for CA in degraded forest land in Sathupally Range to meet the requirement of planting 1000 plants/ ha of forest land diverted for the Project.
- Further, plantation raised under CAMPA under Forest Department in an area of 2.33 ha is being lost in the proposed project alignment in Sathupally Range. CA Scheme is proposed for raising 2.33 ha in degraded forest land and added to 50 ha of CA scheme in DFL. Hence, the total area proposed for CA in DFL is 52.33 ha with an outlay of Rs.288.3186 Lakhs. The details of areas identified for DFL CA with < 0.4 density are as follows:

Sl. No.	Range	Compartment	Area in Ha
1	Sathupally	139, 350	52.33

The financial outlay of the CA scheme is Rs287.76127 Lakhs in NFL and Rs 288.31861 lakhs in DFL and the CA Schemes along with CAT Plan, Wildlife Conservation Plan, Canal Bank plantation and translocation of 5000 plants from alignment are enclosed.

The FDO, Sathupally has recommended the Project in Part II with the following observations and conditions:

- i. User Agency has to provide funds for digging peripheral trench/ fencing and construction of boundary pillars along boundary of fragmented forest areas to avoid further encroachments.
- ii. The user agency shall provide funds for installing security gates/ barricades at entry & exit of the canal in forest areas and other locations as specified by the forest department.
- iii. Proposed Cross Masonry & Cross Drainage (CM&CD) structures at 15 locations across the canal by the User Agency shall be of minimum 3 m in height and 4 m width for facilitating crossing of the animals.
- iv. User Agency shall provide water from the canal at appropriate places as specified by the forest department, so that water can be used for forestry and wildlife purposes.
- v. Funds to be provided for Engaging of protection watchers in base camps and strike force for three years in wildlife conservation plan as well as for preventing encroachment and controlling fire, as proposed by forest department.
- vi. Funds shall be provided by UA for creating of nesting sites for avifauna.
- vii. Funds for Catchment area treatment plan in the affected area to be provided by the UA.
- viii. Canal bank plantations shall be taken up by the Forest Department at the cost of the User Agency.
- ix. Funds for translocation of 5000 trees of below 30 cm in girth (established natural regeneration) in the nearby natural gaps by the forest department are to be provided by the User Agency.
- x. UA to construct Eco-bridge of 20 m width at 17.283961<sup>o</sup> N and 080.796276<sup>o</sup> E location for smooth passage of wildlife, specially Bisons and other ungulates.

II(B). The Forest Divisional Officer, Khammam has furnished the information in Part II, Inspection Report, Covering letter, as detailed below:

The above said proposals were forwarded to the Forest Range Officer, Karepally having jurisdiction over the forest area, for processing under Forest (Conservation) Act, 1980 and the relevant rules and guidelines issued by Gol from time to time. The Forest Range Officer,

Karepally has inspected the areas proposed for diversion, enumerated the tree growth and submitted the relevant information/documents to be enclosed to the proposals.

- The field inspection of the proposed area was conducted along with the concerned officials of the User Agency and enumeration test checked on 01.11.2017, 02.11.2017 and 13.11.2017. The requirement of the land in Khammam Division by User Agency is 52.6488 ha and there is no deviation.

Sl. No.	Range	Patch No.	Beat.	Proposed Forest Area in Ha
1	2	3	4	5
1	Karepally	49	Cheemalapadu	33.0157
2	Karepally	60	Cheemalapadu	5.6746
3	Karepally	42	Cheemalapadu	12.0085
4	Karepally	50	Cheemalapadu	1.9500
<b>TOTAL:</b>				<b>52.6488</b>

- Purpose-wise break up of forest land is detailed below:

S. No	Component	Area in Ha
1	Open Canal - I	5.6746
2	Tunnel	1.950
3	Open Canal - II	33.0157
4	Power Line	12.0085
<b>Total</b>		<b>52.6488</b>

S.No	Component	Area in Ha.	Remarks.
1	Pressure main	Nil	
2	Gravity Canals and CM/CD works - 2 Nos	38.6903	
3	Power line 1 of 220 kV line.	12.0085	RoW for laying 220 kV is taken as 35 m and for 400 kv line RoW is taken as 46 m which is as per the specification issued by MoEF&CC, Gol vide Lr.No.7-25/2012-FC, dt.05.05.2014
4	Power line 2 of 400 kV line	Nil	
5	Tunnel	1.950	
6	Distributary	Nil	
<b>Total</b>		<b>52.6488</b>	

- The area proposed for diversion for excavation of canal and tunnel is passing through middle of the Cheemalapadu reserve forest of Karepally range, The terrain is undulating, which is moderately vulnerable to erosion.
- The legal status of the said forest area proposed is as follows for diversion:
  - 38.092 ha of Compartment No.29 of Cheemalapadu Beat in Cheemalapadu R.F, notified U/s.7, 7 and published in Govt., Gazette No. 1, Dt: 6-1-1347 F and U/s 10 published in Govt., Gazette No. 46, Dt; 4-8-1347 F.
  - 5.4231 ha of Compartment No.28 of Cheemalapadu Beat in Cheemalapadu R.F, notified U/s.7, 7 and published in Govt., Gazette No. 1, Dt: 6-1-1347 F and U/s 10 published in Govt., Gazette No. 46, Dt; 4-8-1347 F.
  - 9.1336 ha of Compartment No.27/2 of Cheemalapadu Beat in Cheemalapadu R.F, notified U/s.7, 7 and published in Govt., Gazette No. 1, Dt: 6-1-1347 F and U/s 10 published in Govt., Gazette No. 46, Dt; 4-8-1347 F.
- The Proposed Canal and tunnel are passing through the middle of forest with boundary of the forest at a distance of 0 to 2.9 km.
- The forests are Tropical Dry Deciduous Forests with 0.1 to 0.8 canopy density. The density break-up of 52.6488 Ha is given below:

Density Class	Area in ha
0.7 and above	0.2122
0.4 to 0.7	0.0829
<0.4	52.3537
<b>Total</b>	<b>52.6488</b>

- The said proposed area for diversion does not form part of National Park, Wildlife Sanctuary, Biosphere reserve, Tiger reserve, Elephant Corridor etc.
- No rare / endangered / unique species of flora and fauna are found in the forest area proposed for diversion.
- There are no protected Archaeological / Heritage site / defense establishment or any other important monument in the forest area proposed for diversion.
- As per the proposals with alternatives submitted by the user agency and technical details involved in the project at col.2 of Part-I, the area proposed by them is unavoidable and barest minimum required.
- The vegetation is of good forest with natural generation of misc species with Tiruman, Pala Kodisa, Tuniki, Tani, Yegisa, Jitregi, Maddi, Ippa, Gumpena, Chennangi, Karangi, Duddi, Teak, Chilla, Chinduga, Bamboo etc. and canopy density varying from 0.1 to 0.8 as shown above.

- The fauna found in the proposed area are Spotted deer, Chinkara, Nilgai, Wild Boar, Hare, Painted stork, Peafowl, Porcupine, Python, Monitor lizard, etc.
- Enumeration of Tree Growth:** The total enumeration of tree growth was taken up. The yield particulars of tree growth enumeration for 24705 trees, 890 poles and as per the report submitted by the Forest Range Officer, Karepally are as follows:

Beat	Patch No	Compt	Area_ha	Enumeration of trees			
				Teak (No's)	Teak (Vol in cum)	Non Teak (No's)	Non Teak (Vol in cum)
Cheemalapadu	42	27/2, 28, 29	12.0085	59	1.9373	1928	120.4861
Cheemalapadu	49	29	33.0157	0	0	1512	72.6983
Cheemalapadu	50	27/2, 28	1.95	84	2.625	16307	569.249
Cheemalapadu	60	27/2	5.6746	5	0.0271	4810	88.0353
		<b>Total</b>	<b>52.6488</b>	<b>148</b>	<b>4.5894</b>	<b>24557</b>	<b>850.4687</b>

- 16391 trees enumerated over the tunnel portion shall be retained (84 Teak with 2.625 CMT and 16307 Non-Teak trees with 569249 CMT)
- No Work in violation of Forest (Conservation) Act, 1980 has been committed by the User Agency.
- RoFR Certificate:** The proposal is examined in the light of guidelines issued by the Government of India under Scheduled Tribes and other Traditional Dwellers (recognition of Forest Rights) Act 2006 Vide Lr.No.11-9/1998-Fc (Pt) Dt.03.08.2009 and 05.07.2013 is examined and there are <sup>(16)</sup>14 no. of claims in <sup>(31.00)</sup>36.970 acres under RoFR Act in the proposed areas for diversion. The Collector, Khammam District vide Rc.No. A6/RoFR/ITDA/354/SRLIP/2017, Dt: 30.10.2017 has issued RoFR certificate in Form-I (for Linear Projects) certifying that the complete process for identification and settlement of rights under FRA has been carried out for the entire 52.6488 Ha of forest area. The resolutions of District Level Committee and Sub - Divisional level Committee and the Gram Panchayath are enclosed. The User Agency has furnished undertaking to make payments to the RoFR claimants as per the R&R package approved by the District Collector Khammam. *Total 13 no of claims in 67.970 Ac*

**The details of Site Inspection Report of FDO Khammam (enclosed):**

The details of my observations in the field inspection of the forest area proposed for diversion are furnished below.

- The forest area proposed for diversion of 52.6488 ha consists of 38.69 ha for canals, 1.95 ha for tunnels, 12.009 ha for power lines.

- The site inspection was conducted on 01.11.2017, 02.11.2017 and 13.11.2017 and test checked the boundary demarcation at stations of proposed for diversion.
- It is observed that the majority of the proposed area is falling in Cheemalapadu forest block with dense and open miscellaneous mixed forest with canopy density of about 0.1 to 0.8.
- The alignment is passing through middle of the forests at certain reaches and fragmenting the forest areas.
- Movement of wildlife is seen at places and there may be disturbance to the wildlife. Hence, detailed Wildlife conservation Plan is prepared for an amount of Rs 59.112 lakhs and enclosed.
- UA shall construct 2 Nos CM/CD structures as proposed in the project for movement of wildlife as per specifications given in Part - II.
- Scheme for raising has been prepared for an amount of Rs.16.17820 Lakhs to stabilize the canal banks and enclosed.
- Total enumeration is taken up and there are 24705 trees including 18193 No of trees of < 30 cm in girth. The details are as follows:

Beat	Patch No	Compt	Area_ha	Enumeration of trees			
				Teak (No's)	Teak (Vol in cum)	Non Teak (No's)	Non Teak (Vol in cum)
Cheemalapadu	42	27/2, 28, 29	12.0085	59	1.9373	1928	120.4861
Cheemalapadu	49	29	33.0157	0	0	1512	72.6983
Cheemalapadu	50	27/2, 28	1.95	84	2.625	16307	569.249
Cheemalapadu	60	27/2	5.6746	5	0.0271	4810	88.0353
		<b>Total</b>	<b>52.6488</b>	<b>148</b>	<b>4.5894</b>	<b>24557</b>	<b>850.4687</b>

- The 16391 no of trees enumerated over the tunnel shall be retained.

#### Compensatory Afforestation:

- As against the forest land proposed for diversion, User Agency has identified 186.368 ha of non-forest land for compensatory afforestation in this division. The areas have been inspected along with the concerned Forest Range Officers on 02.08.2017, 03.08.2017 and 04.08.2017 and only 186.368 ha were found to be suitable for raising Compensatory Afforestation out of 230.535 Ha. The details are as follows:

Sl No	Mandal	Village	Survey No.	Area in ha	Area accepted for CA in ha	Remarks
1	Kamepally	Mucherla-1	52	77.767	33.60	Reduced area due to encroachments
2	Raghunadhapalem	Erlapudi-A	52	6.649	6.649	
3	Raghunadhapalem	Erlapudi-B	52	7.324	7.324	
4	Raghunadhapalem	Erlapudi-C	52	48.881	48.881	

5	Khammam Rural	Kasirajugudem nallagutta-1	94	9.364	9.364	
6	Khammam Rural	Teldharpalli-1	205	6.115	6.115	
7	Khammam Rural	Teldharpalli-2	569	7.146	7.146	
8	Khammam Rural	Are Kodu	36	7.799	7.799	
9	Tirumalayapalem	Tirumalayapalem- Puligutta	169	7.297	7.297	
10	Madhira	Rompinalla	-	23.013	23.013	
11	Madhira	Yendepalli	61	10.262	10.262	
12	Yerrupalem	Choppakatlupalem	58	18.918	18.918	
			Total	230.535	186.368	

The non-forest CA lands area mostly the type of soil generally is Red Soil, Rocky Soil and Gravel Red Soil, Red & Brown Red loamy Soil. The land is with moderate tree growth Pebbled stony-sloppy, undulating and covered with Nemilina, Seethapal, Palakodisha, Rela, NallaKodisha, Moduga, Vepa & Pachari and miscellaneous vegetation. The area consists of gullies, boulders, rocks and best suited for wildlife such as peafowl, wild boars etc. The areas proposed for taking over for C.A. are having moderate tree growth and planting is proposed in the blanks of 186.368 ha proposed to be taken over. In the areas where forest growth is existing, activities like singling and coppicing for Assisted Natural Regeneration will be taken up. Major thrust is required for development of Soil and Moisture retention capacity in the area. Soil & Moisture conservation works and formation of Water harvesting structures shall be taken up during the 1<sup>st</sup> & 2<sup>nd</sup> years of the project to gain the impact of such structures over the vegetation growth in the proposed area. The land mentioned above is free from all sorts of encumbrances and encroachments.

Accordingly, keeping in view of the suitability of land, a plan is prepared for growing of successful miscellaneous plantations in the CA areas to compensate the part of diverted forest land with a financial outlay of Rs 923.65003 Lakhs in non-forest CA lands and is submitted.

The financial outlay of the CA scheme is Rs.923.65003 Lakhs in NFL the CA Scheme is enclosed.

The FDO, Khammam has recommended the Project in Part II with the following observations and conditions:

- The user agency shall provide funds for installing security gates/ barricades at entry & exit of the canal in forest areas and other locations as specified by the forest department.

- ii. Proposed Cross Masonry & Cross Drainage (CM&CD) structures at two locations across the canal by the User Agency shall be of minimum 3 m in height and 4 m width for facilitating crossing of the animals.
- iii. User Agency shall provide water from the canal at appropriate places as specified by the forest department, so that water can be used for forestry and wildlife purposes.
- iv. Funds to be provided for implementation of mitigative measures in wildlife conservation plan as proposed by Forest Department.
- v. Funds for stabilization of the banks over a length of 2.5 km after releasing the canal into natural streams in Cheemalapadu notified RF, till it leaves the RF. Canal bank plantations shall be taken up by the Forest Department at the cost of the User Agency for a length of 2.9 km on both sides.

### III. General Note of District Forest Officer, Khammam:

#### 1) Gist of the Project:

- The Sita Rama Lift Irrigation Scheme is contemplated to cover the Khammam, Bhadradri-Kothagudem and Mahabubabad Districts, with a command area of 3,28,853 Acres as new ayacut and Stabilization of existing ayacut about 3,45,534 Acres.
- The Sita Rama Lift irrigation Project is proposed to draw water from Godavari River (R/S) U/S of existing Dummugudem Anicut to draw 70.4 TMC of water from River Godavari through an approach channel of CBL El.+45 m.
- The Water will be drawn through approach Chanel from River Godavari by constructing Head Regulator at Dummugudem Anicut then Gravity channel starts from Head Regulator. It consists of gravity canal, four pump houses Lift systems, Tunnels and Distributary Networks.
- The SRLIP alignment starts from 110.300 in Khammam Division and ends at 114.50 km.
- The Sathupally trunk canal enters Sathupally division from Pentlam area of Kothagudem into Compt.No.154 of Yathalakunta beat of Sathupally division. The alignment passes through Compt.No.149/1, 152, 153/a, 153/b, 140/1, 137, 138 and 139 of various beats.
- The said proposed area for diversion does not form part of National Park, Wildlife Sanctuary, Biosphere reserve, Tiger reserve, Elephant Corridor etc.
- No rare / endangered / unique species of flora and fauna are found in the forest area proposed for diversion.

- There are no protected Archaeological / Heritage site / defense establishment or any other important monument in the forest area proposed for diversion.
  - The vegetation in the linear stretch is of good forest with natural generation of misc species with Tiruman, Pala Kodisa, Tuniki, Tani, Yegisa, Jitregi, Maddi, Ippa, Gumpena, Chennangi, Karangi, Duddi, Teak, Chilla, Chinduga, Bamboo etc. and canopy density as shown above.
  - The fauna found in the proposed area are Melursus ursines (Sloth Bear), Hysterix indica (Porcupine), Lepus Nigricollis (Hare), Sus scropha (Wild Boar), Axis Axis (Spotted deer), Kondagorre, Sambar, Langurs, Chinkara, Nilgai, Bison, Painted stork, Peafowl, Porcupine, Python, Chameleon, Monitor lizard, etc.
- 2) The details of the Notified forest areas proposed for diversion falling in Sathupally and Khammam divisions of Khammam District are furnished below:

Division	Notified forest area proposed for diversion in ha	
	Proposed by User Agency	Area confirmed by FDOs
Sathupally	277.4033	277.4033
Khammam	52.6488	52.6488
<b>Total</b>	<b>330.0521</b>	<b>330.0521</b>

Thus there is no deviation in the areas that are proposed for the project with respect to reserve forests in Khammam district.

- 3) Purpose of diversion of Notified forest for SRLIP falling in <sup>Khammam</sup> Bhadradi Kothagudem:

Sl.No.	Component	Forest Area involved in Ha		
		Sathupally	Khammam	Total
1	Pressure Main	Nil	Nil	Nil
2	Gravity Canals and CM/ CD works	275.6283	38.6903	314.32
3	Power line 1 of 220 KV line.	Nil	12.0085	12.009
4	Power line 2 of 400 KV line	Nil	Nil	Nil
5	Distributary	Nil	Nil	Nil
6	Tunnel	1.7750	1.950	3.725
	<b>Total:</b>	<b>277.4033</b>	<b>52.6488</b>	<b>330.0521</b>

- 4) The vegetation canopy density of proposed forest area for diversion is furnished below:

Density Class	Sathupally	Khammam	Area in Ha
< 0.4	229.3407	52.3537	281.6944
0.4-0.7	48.0626	0.0829	48.1455
>0.7	Nil	0.2122	0.2122
<b>Total</b>	<b>277.4033</b>	<b>52.6488</b>	<b>330.0521</b>

5) The total extent of Forest area required for diversion for the purpose of SRLIP is 1531.0548 ha (revised from 1602.2871 ha). Of which 330.0521 Ha area is notified reserve forest area falls within the jurisdiction of Khammam district.

6) Number of trees falling within the alignment are furnished below:

Division	Area ha	Enumeration of trees					
		Teak(No's)	Teak (in cum)	Non Teak (No's)	Non Teak (in Cum)	Total Trees	Total Volume
Sathupally	277.4033	2009	7.7038	73060	2696.6208	75069	2704.325
Khammam	52.6488	148	4.5894	24557	850.4687	24705	855.0581
<b>Total:</b>	<b>330.0521</b>	<b>2157</b>	<b>12.2932</b>	<b>97617</b>	<b>3547.0895</b>	<b>99774</b>	<b>3559.3827</b>

16391 trees with volume of 569.249 CuM enumerated over the tunnel portion shall be retained

7) Table showing the details of Non forest CA lands accepted for compensatory afforestation in Khammam District in lieu of diversion:

Division	Non-forest CA lands
	Area in Ha
Sathupally	24.732
Khammam	186.368
<b>Total</b>	<b>211.100</b>

8) Table showing the details of Degraded forest lands identified for Compensatory afforestation in addition to the non-forest CA lands to meet the requirement of planting 1000 plants/ ha of forest land diverted:

Name of the Division	Degraded forest Lands (Area in Ha)
Sathupally	52.33
Khammam	Nil
<b>Total</b>	<b>52.33</b>

9) Description of the loss of the plantations due to SRLIP:

An extent of 2.33 Ha in Sathupally division of recent plantations raised by forest department is falling within the alignment of SRLIP and will be lost. The UA has to pay the cost of raising and maintenance of plantation in degraded forest land for the loss of plantations. Accordingly, it is proposed to raise plantations in DFL in an area of 2.33 Ha of Sathupally division and the CA scheme has been prepared.

**The details of the TSFDC Plantations falling in the alignment of the SRLIP:**

Sl.	Name of TSFDC Division	Ref. No. & Date	Area of Loss in Ha and Financial loss in Rs.
1.	Sathupally	SRLIP/DM/SPL/ 2017-18, Dt:06.11.2017	18.25 ha
Total TSFDC loss of area and financial loss in Rs.			2,79,85,848/-

The UA has to make payment for the loss of plantations to TSFDC.

**10) Tallying sheet of Compensatory afforestation proposed in lieu of diversion of forest area:**

Division	Non-forest CA lands					Area to be diverted in ha		DFL proposed for CA in ha			Total Plants - NFL+ DFL
	Area in ha	Suitable area in ha	plants/ha	total plants	Method	Proposed	Final	Area in ha	Plants/ha	Total	
Sathupally	24.732	24.732	400	9893	BHA	277.4033	277.4033	50.00	1111	55550	65443
Khammam	186.368	186.368	100	18637	BHA	52.6488	52.6488	0.00			18637
<b>Total</b>	<b>211.100</b>	<b>211.100</b>		<b>28530</b>		<b>330.0521</b>	<b>330.0521</b>	<b>50.00</b>		<b>55550</b>	<b>84080</b>

Thus, 84080 number of plants are proposed for planting against the 330052 number of plants to be planted.

**12) Financial statement of various proposed schemes proposed (Rs.in Lakhs):**

S.No	Division	CA NFL (Rs.in lakhs)	CA DFL (Rs.in lakhs)	CAT (Rs.in lakhs)	WL (Rs.in lakhs)	Translocation of regeneration plants from canal alignment (Rs.in lakhs)	Canal Bank plantations (Rs.in lakhs)	Total (Rs.in lakhs)
1	Sathupally	287.76127	288.31861	80.33029	96.84947	11.34929	103.36635	867.97528
2	Khammam	923.65003	0.00000	0.00000	59.11197		16.17820	998.94020
	<b>Total</b>	<b>1211.4113</b>	<b>288.31861</b>	<b>80.33029</b>	<b>155.9614</b>	<b>11.34929</b>	<b>119.54455</b>	<b>1866.91548</b>

The CA amount for DFL is inclusive of 2.33 ha proposed for loss of plantations in Sathupally.

The User Agency (Chief Engineer, Irrigation) has furnished under taking to make payment/ compensation as per the R&R plan prepared by District Collector, Khammam and as per the prevalent R&R Policy of the Government.

**13) Vulnerability of Forest area to erosion due to diversion:**

Major part of the forest area is passing through the plains and around 25% of the area is passing through the hillocks. Due to the project the stability of the canal side of the hillocks will be affected and become vulnerable to erosion and this will cause erosion of the forest land on one side and on the other side may damage the canals. In view of the above, separate Catchment Area Treatment Plan (CAT) is prepared by including all the treatments necessary to minimize the ill effects due to diversion mainly on the hillocks through which the alignment of the project passes with an estimated amount of 80.3303 Lakhs in the District mainly in the Sathupally Division.

**14) Wildlife Conservation Plan:**

The movement of wildlife is evidenced at some places and the construction of the project will be causing disturbance to the wildlife. Hence, detailed **Wildlife Conservation Plans** are prepared with an amount of Rs 96.849 Lakhs for Sathupally Division and Rs 59.11197 Lakhs for Khammam division, thus total plan outlay of 155.9610 Lakhs in the District is proposed and the plans are enclosed.

**15) Eco-bridges:** As part of the alignment is passing through a contiguous patch of forest with good presence of Bisons and other ungulates, it is proposed for Eco-Bridge in Sathupally range with the tentative geo-coordinates of 17.283961<sup>o</sup> N and 080.796276<sup>o</sup> E to ensure the free movement of the wildlife from one side to another side of the canal across the forest.

**16) CM/CD Structures:** UA shall construct CM/CD structures across the canal for movement of wildlife in 12 locations in Sathupally division and 2 in Khammam division.

**17) Canal Bank Plantations:**

Due to the diversion for SRLIP, the adjacent forest areas along the canal will become vulnerable for degradation due to various factors. Hence a separate Scheme is proposed for raising canal bank plantations along the canal with an estimated amount of Rs. 103.36635 Lakhs in Sathupally division and Rs.16.1782 Lakhs in Khammam division, thus in total the plan for District is proposed for Rs.119.5446 Lakhs.

**IV. SRLIP Conclusion by Chief Conservator of Forests/ Conservator of Forests, Khammam Circle, Khammam:**

- The undersigned have inspected the forest lands proposed for diversion as well as the non-forest CA lands to be taken over and same are enclosed.
- Thus in a nut shell the total area of Reserve Forest land to be diverted in this circle (Divisions Khammam and Sathupally) is 330.0521 Ha. The proposed canal is passing through Reserve Forest of following divisions and details of RF area proposed for diversion is as follows.

Sl.No	Name of the division	Total length of the canal passing through the Reserve Forest, Area including Power line etc in Km	Area of the Canal to be diverted in Ha.
1	Sathupally	17	277.4033
2	Khammam	2.9	52.6488
	<b>Total</b>	<b>19.9</b>	<b>330.0521</b>

- The Forest Divisional Officers of the above divisions have been instructed to take up enumeration of all the trees falling within the proposed canal alignment. Accordingly the Forest Divisional Officers have taken up enumeration of all the trees within their jurisdiction and the details are as follows.

Sl.No	Name of the Division	No of trees < 30 cm in girth	No of trees > 30 cm in girth
1.	Sathupally	27550	47519
2.	Khammam	18240	6465

- All along the canal alignment some of the area consists of RoFR title deed holders and some area is under illegal occupation, part of the land is under the plantations raised by the respective Forest Divisional Officers and some area is under the plantations raised by the TSFDC.

Division	the Range	Number of RoFR titles		Area under Encroachment in ha	Area under Plantations in ha	
		Number	Extent of Area in ha		raised by FD	raised by TSFDC
Sathupally	Sathupally	13	14.465	63.073	2.33	18.55
Khammam	Karepally	30	27.5071	12.2567	Nil	Nil

- The District Collector, Khammam has furnished under taking that RR policy will be implemented to all the RoFR title holders who have been granted RoFR lands and all the

claim holders whose claims were verified and accepted by the DLCC during November 2017. The Chief Engineer, Irrigation has furnished an Under taking that all the title holders displaced due to the canal would be compensated as per the RR policy and land as per the latest LR act (The copies are enclosed in the respective division proposals).

- In lieu of the proposed diversion of Reserve Forest land of 330.0521 ha, the user agency has identified Non Forest land for the purpose of Compensatory Afforestation in this district and 211.100 ha of CA land accepted by the respective Forest Divisional Officers and found that the certain areas are suitable for planting and certain area are fit for protection. "To compensate and match land for land" and "tree for tree" an area of 50.00 ha has been identified by the respective Forest Divisional Officers in the Degraded Forest land having a canopy density of less than 0.4 Ha. Further, CA is also proposed in 2.33 ha of degraded forest lands for the loss of plantations raised under various schemes due to the execution of the project. The total cost for taking up Compensatory Afforestation in Non-Forest lands to be taken over and to afforest identified Degraded Forest land an amount of Rs.1499.72991 Lakhs is estimated, including cost for raising plantations lost due to the Project. Thus a total of 86668 plants are proposed to be planted under the CA both in Non-forest and in Degraded Forest land, including plants to be raised lost due to the Project. The effective number of plants proposed to be planted are 84080 as against the stipulated number of plants of 330052. The details are as follows.

Division	Non-forest CA lands					DFL proposed for CA			Total Plants - NFL+DFL
	Area in ha	Suitable area in ha	plants/ha	total plants	Method	Area in ha	Plants/ha	Total	
<b>Total</b>	<b>1103.141</b>	<b>453.641</b>		<b>158947</b>		<b>1110.00</b>		<b>1233210</b>	<b>1392157</b>
Sathupally	24.732	24.732	400	9893	BHA	50.00	1111	55550	65443
Khammam	186.368	186.368	100	18637	BHA	0.00			18637
<b>Total</b>	<b>211.100</b>	<b>211.100</b>		<b>28530</b>		<b>50.00</b>		<b>55550</b>	<b>84080</b>

- The cost of CA in NFL and DFL are as follows (including 2.33 ha CA for loss of plantation)

Rs. In Lakhs

S.No	Division	Final Area to be diverted	CA in NFL					CA amount incl. SMC
			CA NFL to be taken over	CA NFL suitable area in ha	Plants/ha	Total plants	Method	
7	Sathupally	277.4033	24.732	24.732	400	9893	BHA	287.76127
8	Khammam	52.6488	186.368	186.368	100	18637	BHA	923.65003
<b>Total</b>		<b>330.0521</b>	<b>211.1000</b>	<b>211.100</b>		<b>28530</b>		<b>1211.41130</b>

S.No	Division	Final Area to be diverted	CA in DFL				CA amount	Total Plants - NFL+DFL	Total CA amount - NFL+DFL
			Area in ha	Plants/ha	Total plants	Method			
7	Sathupally	277.4033	52.33	1111	58138.63	SMM	288.31861	68031	576.07988
8	Khammam	52.6488	0.00				0	18637	923.65003
<b>Total</b>		<b>330.0521</b>	<b>52.33</b>		<b>58139</b>		<b>288.319</b>	<b>86668</b>	<b>1499.72991</b>

- As the alignment is passing through the plantations raised by the Forest Department compensation in the form of raising an equal area has been proposed. The details of the division wise area plantations lost to be raised are as follows:

Sl.No	Name of the Division	Area in ha
1	Sathupally	2.33

- To provide Greenery and cover to the wild animals along the canal passing through the Reserve Forest, a total length of 19.9 km is proposed for taking up (2) rows of Planting of tall plants on either side of the canal @ 400 plants per kilometre and per row. The total cost of raising of 19.9 km of Canal Bank Plantations is Rs.119.54455 lakhs.
- The soils within the Reserve Forest through which the canals are aligned are prone to erosion and in order to minimize the erosion, soil moisture conservation measures have been proposed and accordingly catchment area plan has been prepared with financial outlay of Rs.80.33029 lakhs.
- Some of the good patches of Reserve Forest through which the canal is aligned consists of well-established strong and sturdy samplings of forestry species like yegisa, musti, tuniki, togara, chirmanu etc. These young regeneration could be destroyed during the digging the canal and in order to conserve them, it is proposed to translocate and plant them in the adjacent forest areas, the technique involves digging of soil upto 30 cm radius around the

plant to a depth of 45 cm, all and without disturbing the root system, each plants would be uprooted and tied in a wet gunny bag and shifted to nearby blank area where 60 cm cubic pit is already dug in advance. The translocated plant is then planted into pit and after full consolidation of soil, watering is done. In order to assist the plant to overcome the shock and to enable the plant to establish waterings @ 8 watering per plant is proposed. Similarly to ensure that these plants to not suffer water deficiency, 17 watering are also provided in the 1<sup>st</sup> year maintenance. As this is a experimental method 5000 plants are proposed in the Sathupally division with a financial out lay of Rs.11.34929 lakhs.

- The Forests of Sathupally support the flagship species i.e. Indian gaur (Bison), Sambar, Spotted deer, wildboar, sloth bear, hares etc. Therefore in order to mitigate the disturbance to the wildlife, wildlife management plan has been prepared for two divisions with a financial out lay of Rs.152.81144 lakhs. Movement of Indian gaur and Ungulates is noticed with high frequency at the following locations:

Sl. No	Name of the Division	Location of frequent animal sightings
1	Sathupally	Turakalagudem, Rudrakshapally N & S and Yatalakunta beats of Lankapally RF.

- The above locations are being divided by the canal which restricts and reduces the area of movement of exercise of the wild animals. Therefore the Forest Divisional Officers have proposed one eco-bridges in Sathupally on the canal with a width of 20 meters to felicitate the movement of wild animals. The user agency has to construct suitably designed robust ecologically suited such bridges during the first year of commencement of work.
- The UA has identified locations where natural water nallas or springs and rivulets are existing and in order to protect the course of water flow, 14 CD & CM structures have been proposed for construction by the user agency, which are indicated on the map and enclosed.

Sl.No	Name of the Division	Number of Location Details
1	Sathupally	12
2.	Khammam	2

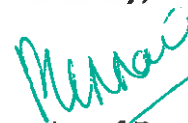
The said proposals have been duly processed by the respective Forest divisional Officers as per the Forest (Conservation) Act, 1980, the Rules, Guidelines and amendments issued therein and the instructions of PCCF(HoFF) issued time to time in this regard and furnished vide references 2<sup>nd</sup> and 3<sup>rd</sup> cited with due recommendation in Part II along with the Site Inspection notes, CA schemes, schemes for raising canal bank plantations, WL conservation plan etc. along with all the necessary undertakings, documents etc. which have been countersigned by District Forest Officer, Khammam and received in (5) sets for each Division, vide ref 4<sup>th</sup> cited.

The undersigned fully agree with the observations and recommendations of the Forest Divisional Officers, Khammam and Sathupally and District Forest Officer, Khammam and approved the CA schemes, Canal Bank Plantations Scheme, WL Conservation Scheme etc.

Recommendations of CCF, Khammam:

In view of the above, the statutory proposal along with necessary enclosures with due recommendation of undersigned in Part-III in quadruplicate are submitted herewith along with the field inspection notes, for obtaining Forest Clearance under Forest (Conservation) Act, 1980, at an early date. The conditions proposed by the Forest Divisional Officer / District Forest Officer in respective Part-II and Site Inspection reports/ covering letters are agreed to and the same may be imposed while considering the proposal for clearance.

Yours faithfully,



Chief Conservator of Forests,  
Khammam Circle.

Encl: (As above).

Copy to District Forest Officer, Khammam and all the Forest Divisional Officers of Khammam District for information.

Copy to Chief Engineer, Sita Rama Lift Irrigation Project, Khammam for information.

