

Proposal for diversion of 409.53 Ha (387.13 ha Horizontal area as per ETS & DGPS survey) of forest land in Keshavapur RF, Medchal-Malkajgiri District for Construction of 10 TMC reservoir at Keshavapuram with associated components under Godavari river source for drinking water requirements to the Hyderabad City in favour of HMWS&SB, Hyderabad
Benefit Cost Ratio as per Guidelines of MoEF&CC

Costs:

Sl.No.	Parameters	Value (Rs.)	Value (Rs.inLakhs)	Value (crores)	Remarks
1	Ecological services losses (NPV) including Penal NPV	2563,65,780.00	2,563.66	25.64	
2	Potential Value of the forest land = NPV + Market Value (Rs.25 Lakhs per acre)	27862,37,355.00	27,862.37	278.62	
3	Loss of forest goods (10% NPV)	256,36,578.00	256.37	2.56	
4	Possession value (30% NPV)	769,09,734.00	769.10	7.69	
5	Habitation Fragmentation cost (50% NPV)	1281,82,890.00	1,281.83	12.82	
6	Compensatory Afforestation(CA) Cost	4611,95,100.00	4,611.95	46.12	
7	Cost of boundary pillars	100,00,000.00	100.00	1.00	
8	Extraction of tree growth	50,00,000.00	50.00	0.50	
9	Part II/III/IV/V conditions	200,00,000.00	200.00	2.00	
10	Others costs due to forest land diversion	350,00,000.00	350.00	3.5000	
11	Scoping Costs incurred for activities such as DPR, Survey, Forest and Environmental Clearances, etc.	180,00,000.00	180.00	1.800	
12	Project Cost per Annum - Total capital expenditure to be incurred for the project including the cost of capital, costs for building infrastructure such as civil engineering, signal and telecommunication, electrical etc - Project Cost as per GO Ms No.273, Dt:24.10.2017 is 4777.59 Cr and Project life span is 50 Years. The project cost per annum is Rs.87.54 Crores	8754,00,000.00	8754.00	87.540	
13	Costs of power purchase - include the cost of purchasing the power from the power generating units for further transmission for the quantum of water requires lifting as per GO Rt.No.129; Dt:29.2.2020 i.e. 10TMC through Keshavapuram and 10 TMC from KPS Ghanpur Schemes.	7000,00,000.00	7000.00	70.000	
14	Operating Costs -maintenance cost, depreciation, tax liability, royalty/cess to State/Central Govt., salary of employees etc	437,70,000.00	437.70	4.38	
15	Economic costs of water-borne diseases	-	-	-	
16	Reservoir Induced Seismicity and Landslides	-	-	-	
17	Cost of human resettlement	-	-	-	
18	Loss of public facilities and administrative infrastructure on forest land, which would require forest land if these facilities were diverted due to the project.	-	-	-	
19	Cost of suffering to oustees	-	-	-	
	Total Cost:	54416,97,437.00	54,416.97	544.17	

Benefits:

Sl.No.	Parameters	Value (Rs.)	Value (Rs.inLakhs)	Value (crores)	
1	Receipts from water cess - 344 Mgd (172 Mgd from Keshavapuram & 172 Mgd from KPS Ghanpur) with 5% treatment losses and 15% UFW losses with average tariff @Rs.20/- per KL - The per annum cost works out to	93013,53,182.61	93,013.53	930.14	
2	Increase in productivity and economy benefited and attribute to the specific project - 10% of revenues per annum	9301,35,318.26	9,301.35	93.01	
3	Economic benefits due to direct and indirect employment due to the project - 5% of revenues per annum	4650,67,659.13	4,650.68	46.51	
4	Economic benefits due to compensatory afforestation	119,78,654.00	119.79	1.20	
5	No. of population benefited due to specific project - 74.89 Lakhs of ultimate population	-	-	-	
	Total Annual Benefit:	10708534814	1,07,085.35	1,070.85	
	Cost Benefit Ratio	1.97	1.97	1.97	

Peareddy
 General Manager (Engg.),
 Project Division-IX,
 HMWS&SB, Khairatabad, Hyd.
General Manager(Engg)
Project Division No,IX
H.M.W.S & S. Board.

THF
 Chief General Manager (Engg.),
 Keshavapuram Circle,
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Chief General Manager (Engg.)
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Khairatabad, Hyderabad-500 004.

[Signature]
 Director (Technical),
 HMWS&SB, Khairatabad,
 Hyderabad.
Director Technical
HMWSSB

Cost of Forest Land

Sl.No:	Description of item	Amount in Rs.	Amount in Lakhs	Amount in Crores
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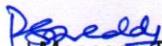

 General Manager (Engg.),
 Project Division-IX,
 H.M.W.S & S. Board,
 Hyderabad.


 Chief General Manager (Engg.)
 Keshavapuram Circle,
 H.M.W.S & S. Board,
 Khairatabad, Hyderabad-500 004.


 Director (Technical),
 HMWS&SB, Khairatabad,
 Hyderabad.
Director-Technical
HMWSSB

Economic benefits due to compensatory afforestation (NFL and DFL)

Sl.No	Division	Type of Land	Area (Ha)	Amount in Rs./Ha	Benefit in Rs
1	Siddipet	Non Forest Land	106.6900	20000	2133800.00
2	Yadadri-Bhuvanagiri	Non Forest Land	12.8919	20000	257838.00
3	Suryapet	Non Forest Land	292.3508	20000	5847016.00
4	Manuguru	Degraded Forest Land	20.0000	17000	340000.00
5	Kothagudem	Degraded Forest Land	200.0000	17000	3400000.00
6	Kinnerasani WLS	Degraded Forest Land	130.0000	17000	2210000.00
Economic benefits due to compensatory afforestation per annum (in Rs)					11978654.00


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