BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL,
PRINCIPAL BENCH, NEW DELHI
ORIGINAL APPLICATION NO. 175/2018(PB) WITH OA NO. 350/2018 (PB) RELATED TO PURUSHOTHAPATNAM LIFT IRRIGATION SCHEME, ANDHRA PRADESH

IN THE MATTER OF

Original Application No. 175/2018
(Earlier O.A. No. 125/2017 (SZ)
(With report dated 28.04.2020 28.04.2020)

Jammula Choudharaiah & Anr. — Applicant(s)

Versus

Union of India & Ors. — Respondent(s)

WITH

Original Application No. 350/2018

Madicharla Satyanarayana & Anr. — Applicant(s)

Versus

Union of India & Ors. — Respondent(s)

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Joint Chief Environmental Engineer
A.P.POLLUTION CONTROL BOARD
ZONAL OFFICE
VISAKHAPATNAM

COMMITTEE REPORT OF CENTRAL POLLUTION CONTROL BOARD, ANDHRA PRADESH POLLUTION CONTROL BOARD, ANDHRA PRADESH STATE ENVIRONMENTAL IMPACT ASSESSMEMT AUTHORITY AND DISTRICT COLLECTOR, EAST GODAVARI IN THE MATTER OF OA NO. 175/2018(PB) WITH OA NO. 350/2018 (PB) RELATED TO PURUSHOTHAPATNAM LIFT IRRIGATION SCHEME, ANDHRA PRADESH AS PER THE HON'BLE NGT ORDERS DATED 09.09.2020.

Submitted To

HON'BLE NATIONAL GREEN TRIBUNAL

PRINCIPAL BENCH, NEW DELHI

June, 2021

I Preamble

Since Polavaram project was getting delayed, Purushothapatnam Lift Irrigation Scheme (PPLIS) was undertaken by the State of Andhra Pradesh for drawl and lifting of water from River Godavari, near Purushothapatnam Village in Seethanagaram (M), East Godavari district and to use the infrastructure of Polavaram project scheme. But however Environmental Clearance (EC) as per the procedure laid down in the Environment Impact Assessment (EIA) Notification, 2006 was neither obtained for Purushothapatnam Lift Irrigation Scheme nor the EC granted to Polavaram project scheme was amended. In total the project was constructed without obtained any Clearance from MOEFCC. MoEFCC issued show-cause notice dated 23.07.2019 under Section 5 of the Environment (Protection) Act, 1986 to the State of Andhra Pradesh for non-compliance of the Environment Clearance granted to Polavaram project and for stopping all activities relating to Purushothapatnam Lift Irrigation Scheme. In addition Purushothapatnam Lift Irrigation Scheme is not cleared or accepted by Central Water Commission. To clarify whether the Purushothapatnam project requires independent EC or the existing EC of Polavaram project scheme can be amended or not, Hon'ble NGT had constituted a committee comprising EAC of MoEF&CC on irrigation projects, CPCB and IIT Roorkee. The committee clarified that the Purushothapatnam Lift Irrigation Scheme has to obtain Environmental Clearance as per EIA notification 2006. But PPLIS was constructed and commissioned without obtaining EC, Hence Hon'ble NGT vide order dated 09.09.2020 has constituted a Committee of CPCB, State PCB, SEIAA, Andhra Pradesh and District Magistrate, Andhra Pradesh to determine the extent of damage caused and the amount of compensation liable to be paid to the affected persons.

II Orders of the Tribunal

Hon'ble NGT vide order dated 09.09.2020 has directed that "*Since it has been found that EC is necessary, a Committee of CPCB, State PCB, SEIAA, Andhra Pradesh and District Magistrate, Andhra Pradesh may determine the extent of damage caused and the amount of compensation liable to be paid to the effected persons and furnish a report to this Tribunal within six months by e-mail at judicialngt@gov.in preferably in the form of searchable PDF/OCR Support PDF and not in the form of Image PDF. The State PCB will be nodal agency for coordination and compliance. A copy of this order be forwarded to the CPCB, State PCB, SEIAA, Andhra Pradesh and District Magistrate, East Godavari District, by email for compliance*". Copy of Hon'ble NGT order is enclosed as **Annexure-I**.

III Composition of the Committee

As directed by the Hon'ble Tribunal, the following committee was composed:

1. Sri. D. Muralidhar Reddy, IAS, District Collector, East Godavari
2. Prof. P. Jagannadha Rao, Dept. of Chemical Engineering, Andhra University, Visakhapatnam
3. Smt. Mahima T, Scientist-D, Central Pollution Control Board, Regional Directorate, Chennai
4. Sh. T. Rajendra Reddy, JCEE & Zonal Officer, Andhra Pradesh Pollution Control Board, Visakhapatnam (Nodal agency)

IV Scope of the Committee

The committees mandate is to assess damage on the environment and the amount of compensation liable to be paid to the affected persons on account of constructing Purushothapatnam lift Irrigation scheme without obtaining Environmental Clearance. Carrying out Environmental Impact Assessment is a pre-requisite to obtain Clearance. Once EIA is carried out, Environmental Management Plan is prepared to mitigate or nullify the impacts. In the present scenario since no EMP was prepared to prevent or mitigate the impacts, the committee has to ascertain the damages by means of available information. The committee convened its first meeting online on 16.11.2020. The committee made a preliminary visit during 15-12-2020 to 16-12-2020. The committee carried out detailed investigation of project site during February 22nd to 25th, 2021.

V. About Purshothpattanam Lift Irrigation Scheme

Table 1: Details about Purshothpattinam LIS

Sl. No.	**Details of the Project**		
a.	Objective of Project	Lifting 30 TMC of water (100 cumecs @ 10 cumecs of pumping by each pump) from River Godavari	
b.	Project location	17° 15' 21" N 81° 39' 41" E	
c.	Date of start of project	30.01.2017	
d.	Date of completion	Scheme commissioned on 31.07.2018 and inaugurated on 04.01.2019	
	Component	Present status	% work completed

	Land excavation	Completed	100 %
	Civil construction	Completed	100 %
	Commissioning	Completed	100 %
	Operational status	Completed	100 %
e.	Reservoir capacity (TMC)	It is a pumping scheme to divert 30 TMC of water from River Godavari. Exclusively there is no reservoir under this Scheme but the existing Yeleru reservoir will be stabilized.	
f.	Canal Length (km)	Nil	
g.	River from where water is drawn	Godavari	
h.	Details of the water pumped	Flood water during rainy season	
i.	Land Acquired	It is reported by PP that the total land required was 151.43 hectares (374.19 acres) and it is fully acquired out of which 104.54 ha in stage-I and 46.89 ha in stage-2. Out of total land of 151.43 ha, 119.87ha is agricultural land while remaining 31.56 ha is Government land.	
j.	Command Area	Nil	
k.	Ayacut Area	The project shall pump water to the existing Yeleru reservoir, hence the existing 67,614 acres (27,362 ha) of ayacut in and around Yeleru Reservoir is stabilized under this project.	
l.	Total cost of the Project	Rs 1637.48 crores	
m.	Forest land involved	Nil	
n.	Any other sensitive areas	Nil	
o.	Number of Pumps	Stage I: 10 pumps of capacity 3500 Cusec Stage II: 8 pumps of capacity 1400 Cusec	
p.	Length of the Pressure Main at stage I	10.148 Km, 5 rows of 3.2 m dia. MS pipes	
q.	Length of the Pressure Main	13.262 Km, 2 rows of 3.2 m dia. MS pipes	

	at stage II	
r.	Status of Environmental Clearance	Not obtained. As on 18.06.2021, the PP is yet to submit DPR to MOEFCC. It is reported that the PP has submitted the DPR to GRMB Hyderabad on dt.25.05.2019. The GRMB has returned the DPR with Some remarks. After attending all the remarks and resubmitted DPR to GRMB on dt: 11.12.2020 for onward submission to CWC, New Delhi. Further, It is reported that as per the directions of Hon'ble NGT, a consultancy of M/s WAPCOS, Hyderabad is entrusted with the job of DPR preparation, EIA/EMP studies and obtaining EC from MOEFCC by the PP on Dt.16.03.2021.

Purushothapatnam Lift scheme (PLIS) has been constructed at 40.80 km on AGLB(Akhanda Godavari Left Bank) to lift 30 TMC from river Godavari during rainy season. The project involves land acquisition, construction of pump house and pressure main connecting Godavari River at Purushothapatnam Village to LMC of PMPP. Lifting of water is done at two stages. The Stage-1 Pump House is located on Godavari river at km 40.800 of AGLB (akhanda Godavari left bank) and delivers water at km 1.600 of LMC of PMPP through 5 rows of Pressure Main of dia. 3.2 m of length 10.148 km. Similarly, the Stage-2 Pump House is located on LMC of PMPP at km 50.00 and delivers water through 2 rows of Pressure Main of dia. 3.2 m of length 13.262 km to Yeleru reservoir. It is reported that water from Yeleru Reservoir will be used for drinking, industrial purposes and for irrigating existing Ayacut of around 68,000 ha CCA. PP has informed that the water from Yeleru Reservoir will be used for stabilizing the existing ayacut of 67,614 acres(27,362 ha)

It is reported by PP that this lift Scheme is temporary in nature and it will become nonoperational once the Polavaram Project is completed and the pumps, motors and pressure main can be used elsewhere in the similar projects or can be autioned. Purshothpattnam lift irrigation scheme consists of two stages, stage-1 & 2. It is claimed by Govt of Andhra Pradesh that PPLIS shall used only during monsoon to draw surplus water.

The components of the scheme and Geo-cordinates are described below:

Table 2: Components of the scheme and geo-coordinates

Stage-1		Geo-Cordinates
1	Pump house at KM 40.800 of Akhanda Godavari left bank (AGLB) is installed. It comprises of 10 pumps each of 350 cusecs	Stage-I Pump house→17°15'21"N 81°39'41"E Delivery cistern→ $17^0$13'57"N $81^0$43'48"E Stage-II Pump house → $17^0$11'30"N $82^0$04'20"E Delivery cistern→$17^0$15'21"N $82^0$04'57"E
2	Pressure main length of each row 10.148 KM, 5 rows of 3.2 m dia MS pipes	Pressure Main @ KM 0.600, 17°15'10"N 81°39'56"E Pressure main @ KM 3.550, 17°13'57"N 81°40'44"E Pressure main @ KM 6.575, 17°13'0.5"N 81°42'33"E
In stage-1, water is pumped from +14 m to deliver level at +40.54 m and in stage-2 is pumped from level +33.0m to +86.56m.		
Stage-2		
3	Pressure main length of each 13.262 KMs, 2 rows of 3.2m dia of MS pipes	Pressure Main @ KM 1.500, 17°12'16"N 82°04'27"E Pressure main @ KM 4.50, 17°13'56"N 82°04'41"E Pressure main @ KM 6.00, 17°14'43"N 82°04'47"E Pressure Main@ KM 8.500, 17°15'39"N 82°04'55"E Pressure main @ KM 11.000 17°17'20"N 82°05'41"E
5	Delivery cistern @ Yeleru reservoir	17°17'51"N 82°04'57"E
6	Details of the structures/ components involved with design and capacity details	<u>Stage-I</u> Pump House: 10 No of vertical Turbine

		pumps having a discharge of 350 Cusecs each and 10 No of 11KV Synchronous Motors, * Delivery Cistern, * Pressure Main: 5 rows of underground pipe lines of each 10.148 km length * Sub Station: 220/11 KV. <u>Stage-II</u> *Pump House: 8 No of vertical Turbine pumps having a discharge of 175 Cusecs each and 8 No of 11KV Synchronous Motors, *Delivery Cistern, *Pressure Main: 2 rows of underground pipe lines of each 13.262 km length, *Sub Station: 220/11KV.

Present Status of PPLIS: Construction of the project was fully completed and commissioned on 31.07.2018 and inaugurated on 04.01.2019. As per records maintained at PPLIS stage-1 pump house, the pumping and lifting of water from river Godavari was started from August 2018 onwards. MOEFCC issued Show cause notice to Purushothapatnam lift irrigation scheme vide letter dated 23-07-2019 and directed the PP to stop all the activities. In response to MoEFCC directions, the PP has stopped all pumps on 02.08.2019. During 2020 due to ongoing Hon'ble NGT case and in compliance to MOEFCC directions, the operation of the PPLIS was stopped. The total quantity of water lifted during 2018 is 13.33 TMC and during 2019 (upto 02.08.2019) is 0.31 TMC.

VI Damage Assessment

The committees mandate is to assess damage on the environment and the amount of compensation liable to be paid to the affected persons on account of constructing Purushothapatnam lift Irrigation schemes without obtaining Environmental Clearance from MOEFCC. The project is completed, fully commissioned and operated during 2018 and 2019 monsoon. If the project was carried out by obtaining EC, then Environmental Impact Assessment study which is a pre-requisite to obtaining EC would have been carried out. Once

EIA is carried out, Environmental Management Plan is prepared to mitigate or nullify the impacts.

In the present scenario since no EMP was prepared to prevent or mitigate the impacts, the committee has ascertained the damages by means of available information, official records provided by concerned departments & interaction with officials, satellite images, Air quality and water quality data available with APPCB.

The various damages ascertained is summarized below

VI.a Land acquisition and Rehabilitation: The total land acquired under stage-1 is 104.54 ha out of which 85.20 ha is private agricultural land and remaining 19.34ha is government land. In stage-2 total land acquired is 46.89 ha of which 12.22ha is Government land and 34.67 ha is private agricultural land. The PP has submitted to Hon'ble NGT that the total land acquired is 312 acres but as per records and as per the submissions made to committee the total land is 151.43 ha or 374.19 acres of which 312 acres is private agricultural land and 62.19 acres is Government land. R&R commissioner has compensated the farmers as per Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 for acquiring 312 acres of private agricultural land. Paddy, Maize, Banana, Sugar Cane, Sesame, Papaya were mainly cultivated in the agricultural land acquired.

But for remaining 62.19 acres of Government land, survey, assessment is yet to be made. R & R Commissioner informed to the committee that out of the total 374.19 acres acquired, no forest land is involved but few variety of forest trees like teak wood, rose wood etc were present for which the PP has paid compensation. Further it was also reported that no threatened or endemic flora or fauna species were present in the acquired land.

The committee interacted with the R & R Commissioner, verified the records and noticed that the compensation process towards land acquisition is completed for 312 acres as per prevailing Land Acquisition Act 2013. But committee suggests R & R Commissioner to carry out survey assessment of 62.19 acres of Government land so that the information on type of trees present is available and same can be conserved in future.

VI.b Impact on Neighboring community: It is obvious that every construction projects whether carried out by obtaining EC or not will have adverse impacts due to dust, noise etc

on the residents who live in the neighbourhood which are disturbing in nature. The type of adverse impact on neighbourhood is as follows:

Adverse impact due to Construction activity	Secondary impact	Nature of impact	Status of impact if EC was obtained
Noise	Loss of peace and quietude of neighbourhood	Nuissance/ disturbance	By adopting environmental management plan, the PP can prepare time table of activities only but overall impact cannot be nullified but may have minimized. The impact is only during construction activity.
Dust	Cleanliness of house & neighbourhood is affected (emissions considered in subsequent paras)	Nuissance/ disturbing	By water sprinkling, use of curtains, impact could have been minimized. Impact is observed during construction and may continue till vegetation cover is restored in areas where muck is dumped.
Traffic congestion	Prolonged closure of road spaces	disturbing	PP informed that since project was in a village, problem of traffic congestion did not arise.

The adverse impacts on residents in the neighbourhood are disturbing in nature and not damaging. The construction activity whether carried out by obtaining EC or without EC these nuissances are likely to arise. The impacts could have been minimized by adopting EMP but cannot be fully nullified. There is no damage to neighbouring community and hence compensation do not arise.

VI.c Impacts in upstream states: As per the available records, the PPLIS is operated only during monsoon. PP informed that surplus water that will join the sea is lifted before River Godavari confluences with sea by using pumps under this scheme. As per River Godavari flow pattern, the projects Puroshthpattnam lift irrigation, Pattiseema lift irrigation, Chintalapudi lift irrigation are constructed towards the tail end of the river and further down after Dowleswaram there are no end users and Godavari river will join the sea. When the water level reaches +14.0m at Sir Arthur Cotton barrage in dowleswaram, the river water will join sea. PP informed that PPLIS is designed such that when the level of water reaches +14m at Dowleswaram barrage, the lifting of water is started by PPLIS. Hence WRD, Govt of AP submitted to the committee not to consider surplus water utilized as the allocated share of water of A.P. But however the surplus water during monsoon joining the sea may also be unutilized share Godavari river of upstream states. The committee is of the opinion that the operation of PPLIS during monsoon period during 2018 & 2019 may have not caused water scarcity in upstream states but it is essential that the State of A.P obtains Clearance from Central Water Commission and Godavari Water Dispute Tribunal for using Godavari river water. The committee observed that major part of the year, water is maintained at FRL level +14.0m at Sir Arthur Cotton barrage in Dowleswaram.

Further from the registers it is observed that stage-1 pumping was started during September, 2017. The extract of log books for level +13.9 and pumping in 2017 is placed **as Annexure-IIa &IIb**. The committee suggests that the PP shall install automatic full proof system (interlocking) to ensure that only when water reaches level +14.0m at Dowleswaram, water is lifted using PPLIS scheme.

VI.d Impacts on Fish: Generally, extraction of gravel and sand may cause considerable damage to fish stocks and other aquatic life by destabilizing the sub-stratum, increasing the turbidity of water, silting of the channel bottom and modifying the flow, which in turn may result in erosion of the river channel. The suspended solids in excess of 100 ppm brought by suspended solids may choke the gills of young fish. Fine solids in concentration greater than 25 mg/l may adversely affect the development of fish eggs and fish. These alterations may have a significant impact on the benthic fauna especially fish. In case of Purshothpatnam project, PP claims that there are no incidence of fish kill in the region and pump bays are laid 2m above the bed level of the river, hence there may not be any impact on fishes. Fisheries department vide letter dated 25.05.2021 has stated that there is no decrease in the fish &

prawn catches from last 6 years and the livelihood of traditional fishermen is not affected near the project site. Letter received from Fisheries department is enclosed as **Annexure-III**.

VI.e C & D waste and Muck Management Disposal: 15,11,902 Cum of muck from stage-I and 8,14,418 Cum of muck from stage-2 including construction debris was generated. The PP has dumped the muck in their own lands near to point of excavation in the form of large heaps. Portion of excavated muck is used for refilling after laying of pressure mains and remaining portion of the muck is still laying near point of excavation. The PP has not maintained records on quantity generated and quantity reused and quantity still laying as heaps. Totally Quantity of muck generated→ 2326320 m^3

Total quantity likely to be re-used→ though records are not maintained but it was informed that around 70% is reused. 1628424m^3 of muck used for refilling

Quantity of muck still laying at different dump locations→697896 m^3

Parameter	Impact by obtaining EC and implementation of EMP	Actual Mode of disposal	Remarks Impact that may have caused by not obtaining EC and non-implementation of EMP
Muck generation and disposal	Area is designated for dumping of muck which is not close to point of excavation. After dumping of muck the sides & slopes are stabilized to prevent runoff by rains Compaction, wetting are practiced to suppress dust. Maintenance of proper	Muck is disposed near point of excavation, no designated area identified which may have caused dust emissions and runoff. Muck dumps are not stabilized. Muck utilization plan is not prepared. The PP informed that measures such as water sprinkling, road wetting using tankers	Dust emissions, muck is washed out along with rains By implementation of EMP the muck generated could have been managed in a more sustainable manner.

	records	were practiced during project execution and videos of the same were presented to committee.	

VI.f Show cause Notice issued by MOEFCC: MoEFCC vide letter dated 23.07.2019 issued Showcause Notice to the PP to stop all the activities. The PP in compliance to MOEFCC order has stopped the activities on 02.08.2019. Copy of Showcause notice is enclosed as **Annexure-IV**. The total quantity of water pumped is summarized as follows

2017→ 1.63 TMC

2018→ 13.33 TMC

2019→ 0.31 TMC (upto 02.08.2019)

2020→ Nil

VI.g Damage assessment through satellite images: Historical satellite images are used to ascertain the damages but the images are only indicative and depends on various factors.

	
GE 1/2017 of PPLIS-1 before taking up project	GE 3/2017 of PPLIS-1 project started. Temporary Ramp is constructed by which is obstructing flow of river. However PP informed the committee that below the ramp, openings were provided to enable flow of river.

GE 4/2017 of PPLIS-1. *Sand is extracted near the construction site and is transported to project site through temporary ramp. Approximately sand mined in 2.5 ha.*

GE image 3/ 2018 of PPLIS-1 which indicates turbulence due to construction activity. The PP informed to the committee that an approach channel is necessary for drawl of water into the forebay of the pumphouse.

	
GE 3/2019 of PPLIS-1	*GE 3/2020* of PPLIS-1
PPLIS Stage-2	
	
2/2016 GE of PPLIS-2	*3/2017 PPLIS-2*
	
6/2018 GE image	*2/2019 GE image*

3/ 2017 PPLIS-2 pressure main

6/ 2018 PPLIS2 pressure main

PPLIS stage1 → white arrow marks indicate the pumping flow pattern. Water lifted from Minimum Water Level +14.00 M to Delivery Level +40.54M. After lifting upto +40.56m the water is made to fall in the canal through pressure main pumphouse through 1.6KM and then again lifted from level +33.0m and delivered to yeleru reservoir at level +86.56m

PPLIS stage-2 → white arrow marks indicate pumping flow pattern. Water Level +33.00 M Delivery Level +86.56M.

PPLIS stage 1 & 2 the map clearly indicates that water is pumped from river Godavari to Yeleru reservoir. Two pump houses are constructed. Red line indicates flow pattern

Observations made from the satellite images

1. Agricultural land is lost. The PP has compensated to the farmer as per LARR Act, 2013 for the private land acquired under stage-1 & Stage-I
2. Satellite image 3/2017→ project is initiated, ground clearance started. Temporary earthern ramp constructed for transporting sand. The sand required for construction is mined from the river bed. PP showed photos of openings are provided below the ramp for movement of river.
3. From satellite image of 3/2017 it is clear that PPLIS-2, sheds and few components were constructed and it implies ground clearance and construction works started in January, 2017.

Environmental compensation for violation for paras VIa, VIc, Vie, VIf and VIg: The committee has used CPCB formula for calculation of EC

EC for violation (construction of temporary ramp, haphazard muck disposal without adopting scientific muck disposal plan)	=	PI x N x R x S x LF EC= No. of days violation caused x Rupee factor (for the purpose of calculation Rupee factor is taken as 250) EC = Environmental Compensation in INR PI = Pollution Index of industrial sector (orange-50) N = Number of days of violation took place =548 construction days. R = A factor in Rupees for EC (Rs. 250/- is taken) S = Factor for scale of operation (large-1.5) LF = Location factor (population is less than 5lakh=1)
EC	=	50*548*250*1.5*1
EC for violation	=	Rs 1,02,75,000/- Rupees One Crore two lacs Seventy-five thousand only

VI h Dust emission due to construction: As per US Environmental Protection Agency (EPA), the emissions from construction activity is calculated using following formula 1.2tons/acre/month of activity. Referring to EPA formula the committee has used the formula to suite to present project conditions 1.2 tons/hectare/month

(the present project is carried out in villages and within the radius of 2Km, the population is less than 10,000. In addition it is completely an open area with less obstructions which will help in quick dispersion. When construction activity is taken up in urban centers, dispersion of dust / pollutants is low as compared to villages due to presence of high rise buildings. Considering these aspects, the formula was suitably used. In para VIb impact of dust on neighbourhodd is described and in para VI.e, muck management, dust emission due to muck is described. Suitable adopting the formula will avoid double counting of EC for same dust emissions).

Total executed land (construction activity carried out in): 159.04 acres or 64.36 ha

Total no. of months from start of project to completion: 18 months

No. of months of core construction activity: 12 months (remaining six months was fininshing, electrical, safety and trial works).

Emission E	=	1.2tons/hectare/month of activity
E	=	Total area of construction= 64.36 ha remaining land acquired is used for placing the machinery, transporation etc.
	=	No. of days of construction = 12 months (dust is mainly emitted during excavation, transportation and construction)
EC	=	1.2 tons *64.36*12
	=	926.784 tons 927 tons
The dust emitted from construction activity mainly comprises of particulate matter PM_{10}. Out of the total quantity of dust emitted 50% of the dust could have been suppressed by adopting safe environment management practices. 100% dust suppression may not be achived during construction activity. Hence committee has attributed 50% of dust has contributed for constructing the project without obtaining EC/without implementation of EMP.		
EC factor on	=	50 % of the total dust emitted= 927*50/100

dust emissions		
Dust Emissions without EMP	=	464 tons
Major portion -50% of dust in construction activity is PM_{10}. The committee by referring to UK Defra environmental prices and other reports submitted to Hon'ble NGT and NEERI calculation the environmental price for Particulate emission € 44.6 per tonne of PM10 emission by suitably adopting the formula for present conditions.		
Environmental compensation for dust (particulate) emissions	=	Rs. 15,72,774/- Rupees fifteen lacs seventy two thousand seven hundred and seventy four only

VIi Impacts on water quality, Sewage Generation and Disposal: The PP informed that adequate sanitary arrangements were provided in labour camps to ensure public health. Poor sanitary arrangements at labour camps & construction sites may lead to proliferation of insects or other vectors which in turn causes both vector borne & water borne diseases like malaria, dengue etc. The PP informed to the committee that no incidences of water borne or vector borne diseases occurred in the project site during the entire construction period. The Medical Officer from Primary Health Center, East Godavari district located in the vicinity of project site has certified that no cases of malaria, dengue, filariasis, schistosomiasis and enteric parasites etc have been reported. Copy of the letter is placed as **Annexure-V**.

Project proponent had provided sanitary arrangements like mobile toilets etc but however no proper arrangements were made for treatment & disposal of sewage. Though it is understood that no serious incidences of water pollution or water borne diseases have occurred from the inception of project till completion but however the committee has calculated compensation for disposal of sewage without treatment. Three temporary labour camps were established by PP during construction in 2016. During committee visit, the camps were dismantled and area was fully cleaned. In Stage-I→ 180 labours per day + 60 labours per night and in Stage-2→ 135 labours per day + 55 labours per for night were working in the project site. As per documents shown to the committee, totally 430 labours (unskilled & semi-skilled) and 50

skilled labours were working in the project site during peak construction activity for about 12months and remaining period on an average 250 labours were working.

Environmental compensation for sewage disposal without any treatment into the environment	=	[17.5(Total Sewage Generation – Installed Treatment Capacity) + 55.5(Total Sewage Generation-Operational Capacity)] + 0.2(Sewage Generation-Operational Capacity) x N + Marginal Cost of Environmental Externality x (Total Sewage Generation-Operational Capacity) x N
Total workers→430 (unskilled & semi-skilled) +50 (skilled) during peak construction of 12 months + 200 (unskilled & semi-skilled) +50 (skilled) during completion stages of 6.3 months Per capita water demand is 100 liters. 80 liters is wastewater generated per worker per day Total sewage generated=0.0384 MLD during peak construction+ 0.02 MLD in remaining period Marginal cost of environment externality=0.1 Total no. of construction activity- 548 days of which peak construction has taken place for about a year and remaining period finishing activity, electrical activity was being carried out.		
EC on account of non-implementation of sewage management plan and disposal without any treatment into the environment/ riverine system	=	{17.5 *(0.0384-0) +55.5 *(0.0384-0)+0.2* (0.0384-0) *365+0.1*(0.0384-0)*365} + {17.5 *(0.02-0) +55.5 *(0.02-0)+0.2* (0.02-0) *183+0.1*(0.02-0)*183}
	=	Rs. 9, 56, 600/- Rupees Nine lacs fifty six thousand six hundred only

Central Pollution Control Board (CPCB) in collaboration with State Pollution Control Boards (SPCBs) has established a National Water Quality Monitoring Network (NWMP) in order to assess status of water quality and to facilitate for prevention and control of pollution in water bodies. Under these programme, five monitoring stations are located on River Godavari in East Godavari district. The water quality monitoring data for the years 2016 & 2017 is presented in Table 3 & table 4 respectively.

Table 3: Water quality data on River Godavari in East Godavari district as CPCB-

NWMP data 2016										
Station name	Dissolved oxygen (mg/L)		pH		BOD (mg/L)		Faecal coliform		Total coliform	
Water quality criteria	>4 mg/L		6.5 to 8.5		<3 mg/L		<2500 MPN/100ml		<5000 MPN/100ml	
	min	max	min	max	min	max	min	max	min	max
Godavari at Polavaram	5.6	6.4	6.6	7.8	1.2	2.8	3	45	9	2400
Godavari u/s Rajahmundry	5.6	6.6	6.7	7.9	1.2	3.1	3	49	7	3200
Godavari D/s Rajahmundry of Nallah channel	5.8	6.4	5.7	7.5	1.5	3	9	28	28	1100
Godavari D/s Rajahmundry	5.9	7	5.9	7.6	1.2	2.8	9	23	93	460
Godavari D/s Rajahmundry of Nallah channel	5.2	6.5	5.8	7.7	1	3.4	2.8	4	39	460

Table 4: Water quality data on River Godavari in East Godavari district as CPCB- NWMP data 2017										
Station name	Dissolved oxygen (mg/L)		pH		BOD (mg/L)		Faecal coliform		Total coliform	
Water quality criteria	>4 mg/L		6.5 to 8.5		<3 mg/L		<2500 MPN/100ml		<5000 MPN/100ml	
	min	max	min	max	min	max	min	max	min	max
Godavari at Polavaram	6.1	7.8	6.5	7.6	1.4	2.1	7	28	210	2400
Godavari at Rajahmundry U/s kumaradevam	5.8	8.4	6.5	7.7	1.1	2.3	9	39	150	2400

Godavari at Rajahmundry D/s of Nallah channel	5.6	8.6	6.6	8	1.4	2.3	11	29	120	1100
Godavari at Rajahmundry U/s of Nallah channel	5.8	8	6.5	7.9	1.3	2.3	7	28	65	460
Godavari D/s Rajahmundry of Nallah channel	5.8	8.3	6.6	7.7	1.2	2.5	9	23	150	460

From tables 3 & 4 it is clear that River Godavari at East Godavari district is meeting the desired water quality criteria w.r.t dissolved oxygen, pH, faecal coliform, total coliform both during 2016 & 2017 (when construction was in progress) but there is slight marginal increase in BOD during 2016. However during 2017 and water monitoring results of 2018, river Godavari is meeting the water quality criteria. Hence the construction activity may not have a seriousdamage to water environment.

VIj Solid waste generation and disposal: Per capita generation of solid waste per day is 0.1 kg/ day for small towns & cities. The project proponent has not devised any mechanism for solid waste disposal as per SW Rules 2016.

Environmental compensation for solid waste disposal without any treatment into the environment	=	EC (Lacs Rs.) = 2.4(Waste Generation - Waste Disposed as per the Rules) +0.02 (Waste Generation - Waste Disposed as per the Rules) x N + Marginal Cost of Environmental Externality x (Waste Generation - Waste Disposed as per the Rules) x N The project proponent has not devised any mechanism for solid waste disposal as per SW Rules 2016.
Per capita solid waste generated 0.1kg/ day. Marginal cost of environment externality=0.05 Total workers→430 (unskilled & semi-skilled) +50 (skilled) during peak construction of 12 months + 200 (unskilled & semi-skilled) +50 (skilled) during completion stages of 6.3 months Total solid waste generated per day=0.048 TPD for 12 months and 0.025 TPD for 6.5		

months		
	=	{2.4*(0.048-0)+0.02*(0.048-0)*365+0.05*(0.048-0)*365} + { 2.4*(0.025-0)+0.02*(0.025-0)*183+0.05*(0.025-0)*183}
EC on account of solid waste dumping	=	Rs. 1, 72, 185/- Rupees One lac Seventy Two Thousand One Hundred and eighty five only

VIk Sand Mining and in-house utilization: It is reported by the project proponent that 43835.5 Cum of sand was utilized for construction. From the satellite image it is observed that the sand required for construction was mined from River Godavari near to project site but however necessary permissions from APPCB and Mining Department were not obtained. Environmental Compensation for mining the sand without obtaining necessary permissions and without scientifically assessing the quantity of sand.

EC for sand mining	=	qty of sand mined per day x no. of days x Environmental compensation rate for mining*
	=	total sand mined (total sand utilized)x EC factor EC factor= During 2017 to 2019 (from project start to completion) there was free sand policy. Due to sand extraction there may not have been damage to the ecosystem and quantity of sand extracted may have replenished but to enforce that sand mining shall be carried out in a sustainable manner by obtaining necessary clearance, the committee has considered EC factor as 100 Factor= Rs.100
	=	43835.5 Cum x 100
EC for sand mining	=	Rs. 43, 83, 550/- Rupees Forty Three Lacs Eighty Three Thousand Five Hundred and Fifty only

VI L EC for emissions due to transportation: Vehicular movement would have taken place both with and without EC but however if EMP was implemented the traffic movement would have been regulated and traffic congestion will be avoided. If Environmental Clearance was

obtained and EMP was implemented trucks would have been covered with tarpualins, regular PUC checks would have been carried out etc but these were not done. Minimum 48 Heavy vehicles like excavators, earth moving machines, trucks, dumpers, bulldozers were plying everyday. Since traffic was not regulated the emissions caused by 1/3rd of the vehicles is attributed to congestion emissions. The committee by means of discussion has arrived at this figure. It was informed by PP that BS-II vehicles were used and assuming that the vehicles complied with norms and reported that vehicles were operated for 12hrs per day.

The emission due to traffic congestion from 1/3rd of vehicles is considered for calculating vehicular emissions due to congestion without implementing EMP.

CO=26.30kgs

NOx=46.032 Kgs

PM-0.9864 Kgs

As per UK Defra environmental price book, 2017

	CO- 4g/kmhr	PM 0.15 g/kmhr	Nox- 7g/kmhr	Total
BS-II emission factor from CPCB vehicular exhaust	26304	986.4	46032	
qty emitted in kgs	26.304	0.9864	46.032	
pricing	4.3352376	3392.133	2639.171	
Total valuation	114.0340898	3346	121486.3	124946.352
EC due to vehicular emission				Rs. 1,24,946

VIm EC for not utilizing top soil for further beneficial purpose: Top soil is the top 1 ½ ft layer of soil which is most fertile soil and essential for plants growth. It takes several years for its formation. As per MOEFCC guidelines topsoil has to be used for horticultural purposes. The PP has not made any efforts to conserve the top soil and for its beneficial use of same.

Total executed area→ 156.04 acres

Top 1 ½ ft of top soil from 156.04 acres is removed and this top soil is not used for further beneficial purposes. The project proponent has not caused any damage to soil instead top soil was dumped along with muck. 1 ½ ft of top soil from 156.04 acres will account to 294260 m^3

of top soil. After laying the pressure mains the muck was refilled along which portion of top soil is also being refilled. Refilling of top soil along with muck will enhance the growth of vegetation. Portion of top soil is also laying along with the muck. Since there are no records of quantity of top soil reused. The committee has assumed that 50% of top soil is not used for further beneficial purposes. Post committee inspection, Agricultural Department has collected 28 no. of soil samples from Purushothapatnam project site and based on soil testing results Agricultural department has concluded that there is considerable impact on fertility of soil. The soil testing report of Agricultural department is enclosed as **Annexure-VI**. The committee discussed with horticultural department and imposes a fine of Rs.50 per m3 amounting to Rs. 73,56,500/-

(Rupees Seventy three lacs fifty six thousand five hundred only)

Total qty of top soil =294260 m3 of which 50% refilled back and remaining 50% is not used for beneficial purpose. Rupee factor=The committee imposes an EC of Rs.50 per m3 for not utilizing top soil for beneficial purposes.		
EC for not using the top soil for further beneficial purpose	=	Quantity of top soil not utilized for beneficial purposes * Rupee factor (50*294260 m3/100)* Rs. 50
EC for not utilizing the top soil for beneficial purposes	=	Rs. 73,56,500/- Rupees Seventy three lacs fifty six thousand five hundred only


Photos taken during inspection. Vegetation under rejuvenation in the area where pressure mains are laid


Post completion of laying of pressure mains, normal conditions are restored.


stage-I- pump house Delivery cistern- stage-II

VII Conclusions & Recommendations of the committee

1. Purushothapatnam Lift Irrigation Scheme (PPLIS) was undertaken by the State of Andhra Pradesh for drawl and lifting of surplus water (only during monsoon July to December) before river Godavari joins the sea. The project is completed, commissioned and stage-I operation started during 2017 and stage-II operation started

during 2018 without obtaining EC. MOEFCC has clarified that PPLIS project requires Environmental Clearance. Hon'ble NGT vide order dated has vested the committee to ascertain the damage caused due to construction of project without EC.

2. The adverse impacts likely caused due to construction of project without obtaining Environmental Clearance and not carrying out EIA study and non-implementation of Environmental Management plan are:
    a. Land Acquisition and loss of agricultural land: The project proponent has paid compensation to the farmers as per Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 for private agricultural land acquired from farmers.
    b. Impacts on residents of neighbouring community dust, noise etc: The construction activity is likely to cause dust and noise which are nuisance and disturbing to the residents of the neighbouring communities. The nuisance is restricted only during construction activity. No damage caused. Through EMP impacts may have minimized but cannot be nullified.
    c. Non-implementation of muck management plan and disposal of muck near point of excavation without stabilizing the slopes
    d. Dust emission due to construction, excavation, transportation activities
    e. Non-implementation of sewage and solid waste management plans for the sewage and solid waste generated from labour camps and from construction sites.
    f. Extraction of sand from river bed for inhouse utilization
    g. Vehicular emissions
    h. Not utilizing the fertile top soil for beneficial purposes

3. Of the total 374.19 acres acquired for the project, R & R Commissioner has carried out survey assessment for 312 acres private agricultural land only. The committee humbly submits to Hon'ble NGT to direct R & R Commissioner, Govt of AP to carry out survey assessment for remaining 62.19 acres of Government land and thereby the existing forest trees and other vegetation present in Government land can be conserved.
4. Polavaram Project Authority which is the nodal agency for monitoring shall exercise strict surveillance mechanism to monitor the activities associated with Polavaram project.

5. The PP shall submit DPR to MOEFCC, CWC and GWDT appraise the project for obtaining necessary statutory post facto clearances.
6. Presently the excavated area where the pressure mains are laid is levelled and vegetation is recovering. The PP shall carry out compensatory afforestation. The PP shall submit as what will be the fate of components after the project becomes non-operational
7. The Project Proponent shall pay Environmental compensation to Andhra Pradesh Pollution Control Board as follows:

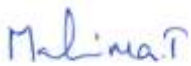
Impact	**Amount**
EC for violations such as construction of ramp, haphazard muck disposal, lifting the water at level less than +14.0m	Rs 1,02,75,000/- Rupees One Crore two lacs Seventy-five thousand only
EC for dust emissions	Rs. 15,72,774/- Rupees fifteen lacs seventy two thousand seven hundred and seventy four only
EC on account of non-implementation of sewage management plan and disposal without any treatment into the environment/ riverine system	Rs. 9, 56, 600/- Rupees Nine lacs fifty six thousand six hundred only
EC on account of solid waste dumping	Rs. 1, 72, 185/- Rupees One lac Seventy Two Thousand One Hundred and eighty five only
EC for sand mining and in-house utilization without obtaining necessary clearances from APPCB and Mining Department	Rs. 43, 83, 550/- Rupees Forty Three Lacs Eighty Three Thousand Five Hundred and Fifty only
EC for vehicular emissions due to traffic congestion	Rs. 1,24,946 Rupees One lac twenty four thousand nine hundred and forty six only
EC for not utilizing top soil for beneficial purposes	Rs. 73,56,500/- Rupees Seventy three lacs fifty six thousand five hundred only
Total compensation to be paid by project proponent	**2, 48,41,555/-** **Rupees Two Crores Forty eight lacs**

	Forty One thousand Five Hundred and fifty five only

8. GWDT may fix the level at Dowlaiswaram barrage above which surplus water can be drawn.The committee suggests that the PP shall install automatic full proof system (interlocking) to ensure that only when water reaches level +14.0m at Dowlaiswaram, water is lifted using PPLIS scheme.
9. The committee concludes that due to construction of the Purushothapatnam LIS without obtaining EC has caused adverse impacts on neighbouring community in terms of dust, noise and traffic congestion which are disturbing in nature but has not caused damage or loss of livelihood to the neighbouring communities. The adverse impacts on the neighbouring community largely restricted to construction stage and has subsequently nullified. Since there is no damage to persons due to construction of project without EC, there is no treatment cost. Hence project proponent need not pay any compensation amount on account of this since there are no affected persons. The PP has taken adequate arrangement to prevent incidence of any endemic health problems due to water/soil / vector borne diseases. The committee has calculated the Environmental compensation by considering various impacts arising out of project, by using satellite images, physical inspection of the area, verification of records. There are no specific affected group of people due to project. There is no specific serious damage due to project and there is no requirement of remediation.

D. Muralidhar Reddy, IAS, District Collector East Godavari

Prof. P. Jagannadha Rao, Dept. of Chemical Engineering, Andhra University, Visakhapatnam



Mahima T, Scientist-D, Central Pollution Control Board, Regional Directorate, Chennai

T. Rajendra Reddy, JCEE & Zonal Officer, Andhra Pradesh Pollution Control Board, Visakhapatnam

Item Nos. 05 & 06 Court No. 1

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

(By Video Conferencing)

Original Application No. 175/2018
(Earlier O.A. No. 125/2017 (SZ)

(With report dated 28.04.2020 28.04.2020)

Jammula Choudharaiah & Anr. Applicant(s)

Versus

Union of India & Ors. Respondent(s)

WITH

Original Application No. 350/2018

Madicharla Satyanarayana & Anr. Applicant(s)

Versus

Union of India & Ors. Respondent(s)

,
Date of hearing: 09.09.2020

CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON
HON'BLE MR. JUSTICE S. P. WANGDI, JUDICIAL MEMBER
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER

Applicant(s): Mr. Sravan Kumar, Advocate
Respondent(s): Mr. R. Venkataramani, Senior Advocate with Mr. G.N. Reddy, Advocate for State of Andhra Pradesh
Mr. Raj Kumar, Advocate for CPCB
Mr. Vinayak Gupta, Advocate for MoEF&CC

ORDER

1. The issue for consideration is the legality of Purushothapatnam Lift Irrigation Scheme, undertaken by the State of Andhra Pradesh, for drawl and lifting of water from River Godavari, near Purushothapatnam Village in Seethanagaram (M), E.G. District, Andhra Pradesh, without

obtaining Environmental Clearance (EC) as per the procedure laid down in the Environment Impact Assessment (EIA) Notification, 2006.

2. The matter has been considered on several hearings earlier and finally on 20.02.2020, after referring to the earlier proceedings, the Tribunal observed:

> *"4. After more than six months, the matter has been taken up today on account of delay in furnishing of report by the MoEF & CC. We have perused additional affidavit filed on behalf of the MoEF&CC on 27.01.2020 to the effect that* ***show cause notice has been issued under Section 5 of the Environment (Protection) Act, 1986 to the State of Andhra Pradesh for non-compliance of the Environment Clearance and for stopping all activities relating to Purushothapatnam Lift Irrigation Scheme. Accordingly, all operations of the said scheme have been stopped in the light of the said show cause notice****. The State has, however, prayed for the withdrawal of show cause notice to enable drinking water supply to Vishakhapatnam City and other areas. The MoEF&CC sought comments of the Central Water Commission. The comments of the said commission are that:*
>
> > *"DPR of Purushothapatnam Lift Irrigation Scheme (PLIS) has never been cleared/accepted by the CWC. As per Section 90 of Andhra Pradesh Reorganization Act, 2013, Polavaram Irrigation Project (PIP) was declared as National project. While appraising the 2nd Revised Cost Estimate of PIP, Purushothapatnam Lift Irrigation Scheme was not appraised as part of PIP and Government of India is not reimbursing the expenditure incurred by the State Government of this project".*
>
> *5. In view of the above,* ***since the Purushothapatnam Lift Irrigation Scheme is using the infrastructure of Polavaram Project Scheme, without seeking amendment of the EC granted for the said project, such activities are not permissible without appropriate amendment to the EC, granted for Polavaram Project Scheme or taking independent EC, as may be found necessary.*** *To determine whether independent EC is required or amendment of existing EC is to be taken or what is permissible course or action,* ***we direct constitution of a Committee comprising EAC of MoEF&CC on irrigation projects, CPCB and IIT Roorkee****. The CPCB will be the nodal agency for coordination and compliance. The committee may hold its first meeting within two weeks and give its report within one month thereafter at judicialngt@gov.in. The committee may also consider social aspects, apart from environmental aspects."*

3. In view of above, report dated 28.04.2020 has been filed by the Central Pollution Control Board (CPCB) inter-alia stating as follows:

"Accordingly, the meeting of the Committee was held on 05/03/2020 under the Chairmanship of Dr. S.K. Jain, Chairman EAC of River Valley Projects in the Ministry of Environment, Forest & Climate Change at MoEF&CC, New Delhi. The Committee during the meeting discussed the matter among the members and further heard the Project Proponent (PP) in detail. The Committee discussed the views submitted by the project proponent, replies/arguments of the members of the EAC committee, MOEFCC, CWC and CPCB. Based on the facts and figures, Minute of the Meeting (MOM) ***(Annexure- II)*** *was unanimously prepared. This is to state that the all the members signed in the attendance* ***(Annexure- III)*** *were present throughout the meeting and agreed to the joint minutes. Hence individual signatures were not taken on the MOM.*

The Committee held its meeting on 05/03/2020 where PP gave a detailed presentation about PLIS. Outcomes/observations of the Committee meeting, which is also a part of the MOM, are reproduced as follows:

i. *The Committee has examined the issue as directed by the NOT and on the facts presented by the PP.*
ii. ***The present set up is not only for drinking and industrial use but also for use of irrigation of the existing Ayacut. Therefore, the Committee felt that since there is an irrigation component, environmental clearance for the scheme should be obtained as per the EIA Notification, 2006.***
iii. *Water balance/use is to be provided at each stage to clarify how much will be used for different purposes.*
iv. *The left main canal of Polavaram Project is supposed to receive water from the Polavaram reservoir. But now the PLIS is transporting water through LMC to Yeleru reservoir for which NOC is to be obtained from the Polavaram Project Authorities.*
v. *Consent to stablish (CTE) and Consent to Operate (CTO) for the present lift Scheme to be obtained by the PP.*
vi. ***Necessary permission/clearance is to be obtained from CWC.***
vii. ***When the PP will come to seek the EC, Social Impact Assessment shall be dealt with during the appraisal process as per the guidelines of EIA Notification, 2006.***
viii. *After the issue of show-cause notice by the Ministry, the Lift Irrigation Scheme for lifting water has been stopped from River Godavari. Therefore, the Committee suggested that the same may continue till all the statutory clearances are obtained."*

4. The report annexes record of discussion of the Committee, which is as follows:

*"**Details of the project:***

The following are the details of the Purushothapatnam Lift Irrigation Scheme based on the information provided by the Project Proponent (PP, the Water Resources Department, Andhra Pradesh) during presentation, the Regional Office, Chennai and Office Records of the MoEF & CC:

Sr. No.	***Details of the Project***	
1.	*Purpose of Project:*	*Lifting 30 TMC of water (100 cumecs @ 10 cumecs of pumping by each pump) from River Godavari*
2.	*Project location:*	*17^{0}15'21" N, 61°39'41" E*
3.	*Date of start of project:*	*31.01.2017*
4.	*Date of completion:*	*04.01.2019*
5.	*Reservoir capacity (TMC):*	*It is a pumping scheme to divert 30 TMC of water from River Godavari*
6.	*Canal Length (km):*	*Nil*
7.	*River from where water is drawn:*	*Godavari*
8.	*Details of the water pumped:*	*Flood water during rainy season*
0.	*Land Requirement:*	*326.38 acres (plain land)*
1.	*Land Acquired:*	*326.38 acres*
2.	*Command Area:*	*Nil*
3.	*Ayacut Area:*	***Existing 68,000 ha of ayacut in and around Yeleru Reservoir is used for***
4.	*Estimated cost of the Project:*	*Rs 1637.48 crores*
5.	*Category of the Project:*	*1 (c)*
6.	*Forest land involved:*	*Nil*
7.	*Any other sensitive areas:*	*Nil*
8.	*Number of Pumps*	*Stage I: 10 pumps of capacity 3500 Cusec Stage II: 8 pumps of capacity 1400 Cusec*
9.	*Length of the Pressure Main at stage I:*	*10.148 km, 5 rows of 3.2 m dia. MS pipes*
10.	*Length of the Pressure Main at stage II:*	*13.262 km, 2 rows of 3.2 m dia. MS pipes*
18.	*Status of Environmental Clearance*	*Not obtained*

The PP informed that completion of construction of Polavaram Multi-Purpose Project (PMPP) will take another 4-5 years and it will take some more time for it to become fully operational. Hence, to avail early benefits, the existing infrastructure of Left Main Canal (LMC) of PMPP, the project viz., Purushothapatnam Lift scheme (PLIS) has been constructed at 40.80 km downstream of AGLB to lift 30 TMC from river Godavari during rainy season. The project involved land acquisition, construction of pump house and

pressure main connecting Godavari River at Purushothapatnam Village to LMC of PMPP. Lifting of water is done at two stages. The Stage-I Pumped House is located on Godavari river at km 40.800 of AGLB and delivers water at km 1.600 of LMC of PMPP through 5 rows of Pressure Main of dia. 3.2 m of length 10.148 km. Similarly, the Stage-II Pumped House is located on LMC of PMPP at km 50.00 and delivers water through 2 rows of Pressure Main of dia. 3.2 m of length 13.262 km to Yeleru reservoir. The concerned Deputy Executive Engineer (DEE) of the Water Resource department, Government of Andhra Pradesh informed that the project is already completed on 30/04/2019. Water is lifted from Godavari river during rainy season only.

The PP submitted that after completion of the PMPP, the water from Polavaram Irrigation Project head works will flow under gravity to the LMC and the infrastructure of PLIS shall be dismantled and all the equipment of this scheme will be reused in some other schemes. But, there is no clarity about dismantling of the pipeline laid on the Pressure main of Stage I. However, the Stage II and its Pressure Main will remain for PMPP.

The PP further informed that the PLIS is not having any cultivable command area but during presentation it was clarified that the water from Yeleru Reservoir will be used not only for drinking and industrial purposes but also for irrigating existing Ayacut of around 68,000 ha CCA.

Dr. S. Kerketta, Member Secretary of EAC (River Valley projects) informed the committee that the Ministry issued a show-cause notice vide dated 23/07/2019 under Section 5 of Environment (Protection) Act, 1986 to the State of Andhra Pradesh for non-compliance of the Environment Clearance and also directed them to stop all the activities related to Purushothapatnam Lift Irrigation Scheme with immediate effect.

The Ministry received the response to the show-cause notice vide letter dated 11/09/2019 from the Special Chief Secretary, Water Resources Department, Andhra Pradesh. Extract of the response to the show-cause notice is reproduced below:

i. *During the monsoon season, lakhs of cusecs of Godavari River water is going into the sea unutilized. The Purushothapatnam Lift Irrigation Scheme was proposed keeping in mind the drinking water needs and demands of the people and in order to utilize flood-water of the river Godavari going into sea.*
ii. *The Scheme is proposed on the left bank of the river Godavari near Purushothapatnam, Seethanagaram of East Godavari District to lift water from river Godavari under Stage I Pump House and drop the water into Polavaram Left Main Canal at km 1.800 and then lift the water from Polavaram Left Main Canal at km. 50.000 under Stage II Pump House and let that water into Yeleru reservoir for providing drinking and industrial needs of Visakhapatnam City and enroute villages.*

iii. *The present lift Scheme is temporary in nature and it will become nonoperational ~~till~~ once the Polavaram Project is completed. ~~in future~~. The water from the Polavaram Project Reservoir will flow through gravity into canals and pumping of water from river Godavari would not be required. Once the Polavaram Project becomes fully operational, the pumps of the lift scheme would be taken away and used for other projects.*

iv. *It is also stated that the Purushothapatnam Lift Irrigation Scheme is neither a hydroelectric project with dam/barrage nor an Irrigation Project having component of canal system and distributary network to cater to the needs of new command area under it. The land used for the Project does not have any forest area and therefore no requirement of either forest or other environment clearance. Land necessary for erecting the pumps and laying of underground pipelines have been acquired.*

The PP also informed that the operations of the PLIS have been stopped on receipt of the show-cause notice. Further, the PP informed during presentation made on 05/03/2020 that during flood period, the scheme lifted 1.63 TMC of water in 2017-18 and 13.33 TMC of water in 2018-19. From the Stage II Pump House, part of water is again lifted to fill the Yeleru Reservoir and remaining is let into Yeleru river, tributary of Godavari river. The Yeleru reservoir is also filled up from its upper catchment during rainy season.

Then the Ministry has sought comments on the response to the Show-cause Notice from Central Water Commission (CWC) and the same has been received vide letter dated 21/11/2019. The comments received from CWC are reproduced below:

i. *It is mentioned that Jal Shakti Mantralay (Erstwhile MoWR, RD 81, GR) has issued guidelines for environmental clearance in respect of Irrigation, Flood control and multipurpose projects. In the said guidelines,* ***CWC is mandated for techno-economic appraisal of all major and medium irrigation projects, which are planned on Inter-State River/River Basin****. Till date no proposal of Purushothapatnam Lift Irrigation Scheme has been received for techno-economic appraisal in CWC.*

ii. *As per the Detailed Project Report (DPR) of Polavaram Irrigation Project, there is no association between Purushothapatnam Lift Irrigation Scheme and Polavaram Irrigation Project. Cost of the Purushothapatnam Lift Irrigation Scheme has not been included in the DPR of Polavaram Irrigation Project.*

iii. *It is also mentioned that the Godavari River Management Board (GRMB) has also informed that the DPR of the Project has not been made available to GRBM by the Project Authority/ Govt. of Andhra Pradesh for appraisal and technical clearance as per AP Reorganization Act, 2014.*

*The CWC has further clarified the same and has stated that "**DPR of Purushothapatnam Lift Irrigation Scheme (PLIS) has***

never been cleared/accepted by the CWC. As per Section 90 of Andhra Pradesh Reorganization Act, 2013, Polavaram Irrigation Project (PIP) was declared as National Project. While appraising the 2nd Revised Cost Estimate of PIP, Purushothapatnam Lift Irrigation Scheme was not appraised as part of PIP and Government of India is not reimbursing the expenditure incurred by the State Government of this project".

The NGT, while hearing the matter on 20/02/2020, directed to constitute a Committee comprising members of EAC of MoEF&CC on River Valley Projects, CPCB and IIT, Roorkee. The CPCB will be the nodal agency for coordination and compliance, to determine whether independent EC is required or amendment of existing EC is to be taken or what is permissible course or action. The Committee held its meeting on 05/03/2020 where PP gave a detailed presentation about PUS. During the presentation following issues were discussed:

i. *The Committee has examined the issue as directed by the NGT and on the facts present by the PP.*

ii. ***The present set up is not only for drinking and industrial use but also for use of irrigation of the existing Ayacut. Therefore, the Committee felt that since there is an irrigation component, environmental clearance for the scheme should be obtained as per the EIA Notification, 2006.***

iii. *Water balance/use is to be provided at each stage to clarify how much will be used for different purposes.*

iv. *The left main canal of Polavaram Project is supposed to receive water from the Polavaram reservoir. But now the PUS is transporting water through LMC to Yeleru reservoir for which NOC is to be obtained from the Polavaram Project Authorities.*

v. *Consent to establish and consent to operate for the present lift Scheme to be obtained by the PP.*

vi. *Necessary permission/clearance is to be obtained from CWC.*

vii. *When the PP will come to seek the EC, Social Impact Assessment shall be dealt with during the appraisal process as per the guidelines of EIA Notification, 2006.*

viii. ***After the issue of show-cause notice by the Ministry, the Lift Irrigation Scheme for lifting water has been stopped from River Godavari. Therefore, the Committee suggested that the same may continue till all the statutory clearances are obtained.****"*

5. Even though learned Counsel for the State of Andhra Pradesh sought an adjournment on the ground that the report has been uploaded only two days back on 07.09.2020, we find from the record that the report was uploaded on 02.07.2020 as earlier date was 06.07.2020. Since the matter was not listed on that day, the report was uploaded

again on 07.09.2020. There is no prejudice to the State of Andhra Pradesh as State of Andhra is fully conversant with the issue and also presented its view point before the joint committee constituted by this Tribunal. The report is reiteration of the stand of the MoEF&CC. We do not find any justification for the adjournment or rejecting the view of the independent Committee. The project has potential of impact on the environment and is not merely for water supply but also involves irrigation and thus, EIA and EC are necessary as per procedure laid down in the EIA Notification 2006. The project proponent may thus ensure compliance of the statutory clearances before going ahead with the project.

6. Since it has been found that EC is necessary, a Committee of CPCB, State PCB, SEIAA, Andhra Pradesh and District Magistrate, Andhra Pradesh may determine the extent of damage caused and the amount of compensation liable to be paid to the affected persons and furnish a report to this Tribunal within six months by e-mail at judicial-ngt@gov.in preferably in the form of searchable PDF/OCR Support PDF and not in the form of Image PDF. The State PCB will be nodal agency for coordination and compliance.

A copy of this order be forwarded to the CPCB, State PCB, SEIAA, Andhra Pradesh and District Magistrate, East Godavari District, by e-mail for compliance.

List for further consideration on 12.04.2021.

Adarsh Kumar Goel, CP

S. P. Wangdi, JM

Dr. Nagin Nanda, EM

September 09, 2020
Original Application No. 175/2018
& Original Application No. 350/2018
DV

2

ANNEXURE-4A

DATE	MOTOR NO	STARTING TIME (HOURS)	STOPPING TIME (HOURS)	RUNNING HOURS	TMC During the day	TMC Cumulative	AGENCY SIGNATURE	WRD AEE/AE	WRD DEE	WRD EE	WATER LEVEL	REMARKS
25-08-2017	02			04:00							+17.800	
			Total	04:00	0.00504	0.00504						
01-09-2017	02			06:00								
			Total	06:00	0.00756	0.0126		1/9/17	4/9		+19.820	
04-09-2017	02			05:30								
			Total	05:30	0.00693	0.01953		4/9/17			+18.505	
08-09-2017	02			1:40								
			Total	1:40	0.0021	0.02163		8/9/17	8/9		+17.050	
14-09-2017	02			06:15								
			Total	06:15	0.00787	0.0295		14/9/17			+15.515	
15-09-2017	02			08:10								
			Total	08:10	0.0029	0.03979		15/9/17			+15.860	
16-09-2017	02			03:45								
			Total	03:45	0.00472	0.04451		16/9/17			+15.907	
17-09-2017	02			05:00								
			Total	05:00	0.0063	0.05081					+15.915	

AnnexURE-II 361

Date	MOTOR NO	Starting time (Hrs)	Stoped time (Hrs)	Running Hours	T.M.C During the Day	T.M.C Cumulative	Agency signature	W.R.D AE/AEE	W.R.D DEE	W.R.D EE	water level	Rem
19/11/18	03	16:18	24:00	07:42							14.157	
	07	10:51	15:15	04:24								
	10	00:00	11:14	11:14			[signature]					
			Total	23:20	0.02940	13.15771						
20/11/18	03	00:00	24:00	24:00			[signature]				14.054	
			Total	24:00	0.03024	13.18795		21/11/18				
21/11/18	03	00:00	07:30	07:30			[signature]	22/11/18	22/11		13.940	
			Total	07:30	0.00945	13.19740						
23/11/18	09	17:45	24:00	06:15			[signature]	24/11/18			14.131	
			Total	06:15	0.00787	13.21535						
24/11/18	09	00:00	16:00	16:00			[signature]	25/11/18			14.100	
			Total	16:00	0.02016	13.23551						
25/11/18	09	05:53	13:53	08:00			[signature]	26/11/18			14.097	
			Total	08:00	0.01008	13.24559						
26/11/18	03	05:23	13:23	08:00			[signature]	27/11/18	27/11		14.088	
			Total	08:00	0.01008	13.25567						
27/11/18	07	05:15	13:15	08:00			[signature]	28/11/18			14.080	
			Total	08:00	0.01008	13.26575						
28/11/18	10	05:05	13:05	08:00				29/11/18	29/11		14.071	
			Total	08:00	0.01008	13.27583	[signature]					
29/11/18	04	05:13	13:13	08:00								
			Total	08:00	0.01008	13.28591					14.065	

GOVERNMENT OF ANDHRA PRADESH
DEPARTMENT OF FISHERIES

From :
P.V. Satyanarayana, M.Sc.,
Joint Director of Fisheries (FAC),
East Godavari, Kakinada

To :
The Superintending Engineer,
PITLMP, TUNI,

Rc. No.1774 /A3/2021, date: 25.05.2021.

Sir,

Sub:- Fisheries – Impact study on Fish and Flora affected by construction of Purushothapatnam Lift Irrigation Project at Purushothapatnam, Seethanagaram, East Godavari District – Objections raised by National Green Tribunal – Report – submitted - Regarding.

Ref:- Lr. No. 121 / A3 / 2021, Dt. 24-05-2021 of the Asst. Director of Fisheries, Rajamahendravaram.

-o0o-

I am to inform that the Purushothapatnam Lift Irrigation Project was constructed at the river bank of Godavari at Purushothapatnam, Seethanagaram Mandal. The Purushothapatnam Lift Irrigation Project was started lifting of water during the year 2017-18 for the supply of water to irrigation and drinking purposes etc., and worked upto 2018-19 and afterwards the operations of lift irrigation project were stopped.

Further it is also informed that as per the report of the AD Fisheries, Rajamahendravaram , on observing the statistical data of the Fish and prawn catches from 2014-15 to 2019-20, around the project area i.e, in Seethanagaram Mandal, Fish and Prawn catches are not decreased due to construction and operations of Purushothapatnam lift irrigation project. I submit hereunder the details of fishermen and their catches year wise from 2014-15 to 2019-20 in Seethanagaram Mandal.

S.No.	Year	No.of Fishermen	Inland Fish		Fresh Water Prawn	
			Target in Tonnes	Achievement in tonnes	Target in Tonnes	Achievement in tonnes
1	2014-15	655	260.000	274.800	110.000	127.600
2	2015-16	663	325.000	336.400	136.000	149.200
3	2016-17	680	390.600	398.200	164.000	168.800
4	2017-18	700	780.000	793.600	426.000	429.600
5	2018-19	710	1128.000	1364.000	814.000	524.800
6	2019-20	710	1470.000	1687.200	844.000	914.800

Further I submit that, the Department of Fisheries is stocking of fish fingerlings (70 to 100 mm size) in river Godavari every year duly rearing fish fry to fingerlings at Departmental fish seed farms vested in the East Godavari District and Juvenile prawn is also being stocking in the upper reaches of Godavari near Dowleswaram barriage with an aim to increase the fish and prawn production in river Godavari and also to create the livelihood and earnings to the fishermen .

In view of the above, the effect of suspended solids chocking the gills and development of fish eggs is negligible and there is no decrease in fish and prawn catches from the last 6 years and the livelihood of the traditional fishermen is not affected near the Purushothapatnam lift irrigation project area.

This is for information and further course of action.

Yours faithfully,

P.V.S 25/5/21

Joint Director of Fisheries (FAC),
East Godavari, Kakinada.

25/5/21

Copy to the AD Fisheries, Rajamahendravaram for information.
Copy submitted to the Commissioner of Fisheries, AP, Vijayawada for kind information.

C:\Users\Delljdf\Desktop\National green tribunal.docx

P.T.O

Endt.No. DB/D8/21 & PIPCMC / 68[R] Dt: 08-06-2021

Copy of Joint Director of Fisheries, E.G.District, Kakinada letter dated 25-05-2021 is Communicated to the Executive Engineer, PIPCMC Division No.1, Rajamahendravaram @ Dowlaiswaram for information and taking further necessary action in the matter.

To

The Executive Engineer,
PIPCMC Division No1,
RJY@ Dowlaiswaram.

Superintending Engineer,
P.I.P.L.M.C. Circle, TUNI.
5/06/2021

By Speed Post

L-11011/13/2017-IA.I (R)
Government of India
Ministry of Environment, Forest and Climate Change
(I.A. Division)

Indira Paryavaran Bhavan
Jor Bagh Road, Aliganj
New Delhi-110 003
E-mail: s.kerketta66@gov.in
Dated: 23rd July, 2019

Show Cause Notice

Sub: Show Cause Notice under Section 5 of Environment (Protection) Act for Non-compliance of Environmental Clearance conditions - reg.

WHEREAS, Environmental Clearance (EC) was granted to **Irrigation and CAD Department, State of Andhra Pradesh** for project titled Indira Sagar (Polavaram) Multipurpose Project in West Godavari District, Andhra Pradesh vide **Ministry Environmental Clearance letter dated 25th October, 2005,** subject to implementation of the various conditions and environmental safeguards contained therein, and

2. WHEREAS, the project was monitored for ascertaining compliance to the conditions stipulated in the aforesaid environmental clearance by Ministry's Regional Office at **Chennai** on **20.06.2019**. The monitoring report has been submitted by Regional Office to the Ministry vide its email dated **28.06.2019**. The report has been examined by the Ministry and it is found that there are substantive violation of environmental conditions contained in **EC** letter **dated 25th October, 2005** as follows:

i. *The Project Authorities have constructed a pump house at left bank of river Godavari to lift water and release in Left Main Canal of Polavaram Project without obtaining prior permission from the Competent Authorities.*

ii. *Further, the site visit report mentions that the Project Authorities have under taken the Purushopathanam Lift Irrigation Scheme as a separate project. Prior Permission for the same has not been obtained from the Competent Authorities which amounts to be violation of EIA Notification 2006 and amendments thereof.*

3. NOW, THEREFORE, you are **directed as to why this Ministry shall not take action against you under the provision of Environment (Protection) Act, 1986 for the non- compliance of the environmental conditions mentioned above. You are also advised to submit your reply within 30 (thirty) days of the receipt of this Notice failing which Ministry will be constrained to issue**

directions for the closure, prohibition or regulation of industry, operation or process; or stoppage or regulation of electricity or water or any other service affecting the functioning of industry, operation or process, as deemed fit and appropriate in the circumstances of the case without any further notice to the Project. You are also directed to stop all the activities related to Purushothapathnam Lift Irrigation Scheme immediately.

(Dr. S. Kerketta)
Director IA.I

To,

The Secretary & Commissioner (CAD)
Water Resource Department,
Room No: 216, First Floor, Building No. IV
A.P. Secretariat, Amaravati, Andhra Pradesh 522237
Phone No.: 0863-2444248
Email: sbkr2001@gmail.com

Copy to:

1. The Deputy DGF (C), MoEF&CC, Regional Office (SEZ), I & II Floor, Handloom Export Promotion Council, 34, Cathedral Garden Road, Nungambakkam, Chennai – 34, Email: ro.moefccc@gov.in - **It is requested that the matter may kindly be followed-up with Project Authority. Further, follow-up action taken by the Regional Office and observations / comments of Regional Office on the response of the project, if any, may kindly be provided to the MoEF&CC to enable us to take further necessary action.**
2. The Chairman, Central Water Commission, 3rd Floor (South), Sewa Bhawan, R.K. Puram, Sector-1, New Delhi – 110066, Email: chairman-cwc@nic.in – **For information.**
3. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032, Email: ccb.cpcb@nic.in- **For information.**
4. The Chairman, Andhra Pradesh Pollution Control Board, D. No. 33-26-14 D/2, Near Sunrise Hospital, Pushpa Hotel Centre, Chalamalavari Street, Kasturibaipet, Vijayawada – 520 010, Email: chairman@appcb.gov.in - **It is requested to take necessary actions in this regard.**
5. Guard file

Director IA.I

OFFICE OF THE DISTRICT MEDICAL & HEALTH OFFICER
EAST GODAVARI :: KAKINADA

Dated: 19.06.2021

From
District Medical & Health Officer
East Godavari District,
Kakinada.

To
Sri B.S.S.Srinivasa Yadav, M. Tech.
Superintending Engineer,
P.I.P.L.M.C. Circle,
TUNI-533401, E.G. District.

Sub: Impact of Construction of Purushothapatnam lift Irrigation Scheme on the Local Public – Enquiry report Submitted - Regarding.

Ref: Rc. No. 033/Enquiries/Dy. DM&HO Rjy/2021 Dt. 19/06/2021.

<<<>>>

With respect to the ref. cited above, Dr.P Komala, Dy.DMHO Rajahmundry and Dr. Chaitanya, Medical Officer - PHC Seethanagaram has conducted an enquiry on the local public regarding the number of cases registered for bronchitis and other respiratory issues during the construction and after the construction of Purushothapatnam Lift Irrigation Scheme i.e., 2015-16,2016-17,2017-18 and 2018-19 in the area of construction i.e, Purushothapatnam village in Seethanagaram (M), E.G.Dt for stage-I and Jaggampeta mandal for stage-II.

1. On enquiry No Severe Respiratory Issues noted
2. There is no spike in regular minor ailments of respiratory issues too
3. Observed normal trends in respiratory issues like cough, flu like symptoms etc, which are not related to the above said construction of lift irrigation scheme.

Encl: Enquiry report received from Dy. DM&HO, Rajamahendravaram

19/6/2021

District Medical & Health Officer,
East Godavari Dist, Kakinada.

DDSP 19/6/21

GOVERNMENT OF ANDHRA PRADESH
HEALTH, MEDICAL & FAMILY WELFARE DEPARTMENT

OFFICE OF THE DEPUTY DISTRICT MEDICAL & HEALTH OFFICER, RAJAMAHENDRAVARAM DIVISION, RAJAMAHENDRAVARAM.

From
Dr P.Komala,
MBBS, MD.
Dy. Dist Medical & Health Officer,
Rajamahendravaram Division,
Rajamahendravaram.

To
The Dist Medical & Health Officer,
East Godavari District,
Kakinada.

Rc. No. 033/Enquiries/Dy. DM&HO Rjy/2021 Dt. 19/06/2021

Respected Sir,

Sub:- APH&FW – Submission of detailed report on health issues i.e. Lungs infections, bronchitis due to construction of 1st phase lift irrigation scheme – Purushottapatnam - submitting – reg.

Ref:- 1. Lr No. SE/PIPLMCC/Tuni/DB/DS/L1 of PIPLMC/456M Dt. 16/06/21
2. Lt DM&HO/Kkd Dt. 17/06/2021.

***

Adverting the reference cited above, I am here with submitting few lines before you for your kind consideration.

In view of the above our field staff have conducted door to door survey in Purushottapatnam Village to trace our any Bronchitis, Lung infection diseases on account of construction of Purushottapatnam lift irrigation scheme during 1st phase from 2015 – 2019.

In this context there was no significant impact of health issues due to construction of the above said lift irrigation scheme.

Further I am here with submitting few evidences of people pulse in this regard.

Thanking You Sir,

Yours faithfully
P. Komala
19/6/21
Dy. District Medical & Health Officer
&
Enquiry Officer
Rajamahendravaram Division.

Date - 19/6/2021 46
Purushothapatnam

TO

The medical officer,

అయ్యా B. manga అను నేను phc seethanagaram subcenter Purushothapatnam village లో M P H A (F) 2013 may 18 నుండి ఈ గ్రామంలో పని చేయుచున్నాను. పోలవరం ప్రాజెక్టు సంబంధించి దాంట్లో lift irrigation సంబంధించి ఏ విధమైన రోగాలు గాని, రేడియేషన్ సంబంధించి గాని మరియు ఏ ఇతర రోగాలు లేవు. 2016 నుండి 2019 వరకు మేము ప్రతి రోజు fild survey చేయగా ఏ వంటి పైన పేర్కొన రోగాలతో ఎవరు ఇబ్బంది పడలేదు జరగలేదు D.M.H.O గారు పంపించిన message ప్రకారం, ప్రజారోగ్య సేకరణ చేయగా అందరూ మాకు ఏవిధమైన ఇబ్బందులు లేవని చెప్పడం జరిగింది. ప్రజల అందరి సమక్షంలో survey చేసి మేము ఈ Rep ఇవ్వడం జరిగింది. అందరూ ఆరోగ్యంగా ఉన్నారని గ్రామ ప్రజల సమక్ష మేము తెలియ చేయడం జరిగింది. ఇందు సాక్ష్యులు.

1 challamalla sugiraju.
2 వెంకాయ నారాయణ
3. Y. sivaramakrishna.
4 V. మెహర్ బాబు
5. Y. అప్పన్నదు
6, R. Lasami
7. చెరుకూరి శారద
8. Y. Venkatarao
9 N. Ramulu
10 M. రామలక్ష్మి
11. M. మరియమ్మ
12. K. శ్రీనివాస

DEPARTMENT OF AGRICULTURE

From
Sri.J.Eliyazar
Assistant Director of Agriculture
Soil Testing Laboratory
Samalkot

To
Deputy Executive Engineer
P.I.P.L.M.C. Subdivision -1
Jaggampeta, E.G.District

Sir,

A/26/2021 Dt.25.05.2021

Sub : Soil testing Laboratory, Samalkot –Submission of results of soil samples of purushotapatnam Lift irrigation scheme stage-2,Jaggampeta -Reg.

Ref : Lr. No. DEEE/PIPLMC SUB DIV No.1/JPT/30 E Dt: 26.04.2021 of Deputy Executive Engineer , P.I.P.L.M.C. Subdivision No.1, Jaggampeta.

&

I invite kind attention of refrence cited above .

It is to inform that here with soil analysis has been conducted for 28 No. of Soil samples collected from Purushotapatnam Lift irrigation scheme stage-2 and results copy is enclosed.

Assistant Director of Agriculture
Soil Testing Laboratory
Samalkot

Copy submitted to Joint Director of Agriculture, Kakinada for favour of information.
Copy submitted to Joint Director of Agriculture (Soil correlator) O/o Commissioner & Director of Agriculture,Guntur for favour of information.

DEPARTMENT OF AGRICULTURE
SOIL TESTING LABORATORY, SAMALKOT
SOIL SAMPLES ANALYTICAL DATA

To,
Sri.M.V.A.N.Subramaneyeswara
Deputy Executive Engineer
P.I.P.L.M.C.Subdivision -1 Jaggampeta
East Godavari District,A.P.

10.5.2021

Lab.No	Sample Code	Place of sample collection	Soil type	P^H	Rating	EC dS/m	Rating	OC %	Rating	P Kgs/ha	Rating	K Kgs/ha	Rating	Remarks
33	RP-1	Above the Pipeline	sandy Clayloam	6.5	Slightly Acidic	0.07	Normal	0.59	Medium	4.82	Low	172.00	Medium	There is no considerable effect on fertility
34	RC-1	Adjucent field	sandy Clayloam	6.5	Slightly Acidic	0.06	Normal	0.76	High	4.82	Low	181.00	Medium	
35	RP-2	Above the Pipeline	clay	6.4	Slightly Acidic	0.04	Normal	0.78	High	4.82	Low	193.00	Medium	There is no considerable effect on fertility
36	RC-2	Adjucent field	clay	6.5	Slightly Acidic	0.07	Normal	0.48	Low	9.63	Low	158.00	Medium	
37	RP-3	Above the Pipeline	clay	6.3	Slightly Acidic	0.06	Normal	0.41	Low	4.82	Low	175.00	Medium	There is no considerable effect on fertility
38	RC-3	Adjucent field	clay	6.3	Slightly Acidic	0.04	Normal	0.37	Low	4.82	Low	191.00	Medium	
39	RP-4	Above the Pipeline	Clay lsoil	8.5	Strongly alkaline	0.27	Normal	0.85	High	4.82	Low	136.00	Medium	There is no considerable effect on fertility
40	RC-4	Adjucent field	Clay lsoil	8	Moderately alkakline	0.2	Normal	0.36	Low	4.82	Low	162.00	Medium	
41	RP-5	Above the Pipeline	clay soil	8.2	Moderately alkakline	0.57	Normal	0.57	Medium	14.41	Medium	175.00	Medium	There is no considerable effect on fertility
42	RC-5	Adjucent field	Sandyclay loam	8.1	Moderately alkakline	0.41	Normal	0.41	low	4.82	Low	192.00	Medium	
43	RP-6	Above the Pipeline	sandy clayloam	8	Moderately alkakline	0.87	Normal	0.87	High	4.82	Low	136.00	Medium	There is no considerable effect on fertility
44	RC-6	Adjucent field	sandy clayloam	7.4	slightly alkaline	0.35	Normal	0.35	Low	4.82	Low	189.00	Medium	
45	RP-7	Above the Pipeline	clay	8.5	Strongly alkaline	0.37	Normal	0.37	Low	4.82	Low	223.00	Medium	There is no considerable effect on fertility
46	RC-7	Adjucent field	Clay	7.9	Moderately alkakline	1.39	Normal	0.32	Low	4.82	Low	225.00	Medium	
47	RP-8	Above the Pipeline	Sandyclay loam	7.9	Moderately alkakline	0.24	Normal	0.62	Medium	4.82	Low	226.00	Medium	There is no considerable effect on fertility
48	RC-8	Adjucent field	Sandyclay loam	7.7	slightly alkaline	0.29	Normal	0.33	Low	4.82	Low	168.00	Medium	
49	RP-9	Above the Pipeline	clay	8.1	Moderately alkakline	0.21	Normal	0.26	Low	0.02	Low	192.00	Medium	There is no considerable effect on fertility
50	RC-9	Adjucent field	clay	7.6	slightly alkaline	0.14	Normal	0.29	Low	0.02	Low	188.00	Medium	
51	RP-10	Above the Pipeline	clay	7.5	slightly alkaline	0.11	Normal	0.30	Low	4.82	Low	136.00	Medium	There is no considerable effect on fertility
52	RC-10	Adjucent field	Clay	7.1	Neutral	0.23	Normal	0.32	Low	4.82	Low	165.00	Medium	
53	RP-11	Above the Pipeline	sandy loam	7.5	slightly alkaline	0.08	Normal	0.25	Low	4.82	Low	192.00	Medium	There is no considerable effect on fertility
54	RC-11	Adjucent field	sandy loam	7.5	slightly alkaline	0.07	Normal	0.32	Low	4.82	Low	138.00	Medium	
55	RP-12	Above the Pipeline	sandy soil	7.3	Neutral	0.11	Normal	0.31	Low	4.82	Low	148.00	Medium	There is no considerable effect on fertility
56	RC-12	Adjucent field	sandy soil	7.2	Neutral	0.04	Normal	0.52	Medium	9.63	Low	159.00	Medium	
57	RP-13	Above the Pipeline	Sandyclay loam	7.1	Neutral	0.05	Normal	0.81	High	14.44	Medium	183	Medium	There is no considerable effect on fertility
58	RC-13	Adjucent field	Sandyclay loam	7	Neutral	0.04	Normal	0.24	Low	4.82	Low	162	Medium	
59	RP-14	Above the Pipeline	Sandyclay loam	7	Neutral	0.04	Normal	0.3	Low	4.82	Low	153.00	Medium	There is no considerable effect on fertility
60	RC-14	Adjucent field	Sandyclay loam	6.9	Neutral	0.06	Normal	0.37	Low	4.82	Low	194.00	Medium	

28/5/2021

Assistant Director of Agriculture,
Soil testing Laboratory, Samalkot

28/5/2021