BEFORE THE NATIONAL GREEN TRIBUNAL

SOUTHERN ZONE, CHENNAI

ORIGINAL APPLICATION No. 13 OF 2022 (SZ)

IN THE MATTER OF:

Dara Nagaraju .... Applicant

Versus

Union of India,
MoEF&CC, New Delhi & Ors .... Respondent(s)

REPORT OF THE JOINT COMMITTEE

RUNNING INDEX

Place: Hyderabad

Date: 04-04-2022.

(1)

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL

SOUTHERN ZONE, CHENNAI

Original Application No.13 of 2022 (SZ)

REPORT OF THE JOINT COMMITTEE CONSTITUTED IN THE O.A No.13 of 2022 (SZ) and I.A No.24 & 25 of 2022, IN THE MATTER OF SRI DARA NAGARAJU

VERSUS

M/S. GTN INDUSTRIES LTD., (YARN PROCESSING UNIT), GUNDLAPOTLAPALLY (V), RAJAPUR (M), MAHABUB NAGAR DISTRICT REGARDING WATER POLLUTION TO THE SURROUNDINGS AREA.

The Joint committee inspection on 04.03.2022

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL

SOUTHERN ZONE, CHENNAI

Original Application No.13 of 2022 (SZ) & I.A No. 24 & 25 of 2022

IN THE MATTER OF:

1.	Sri Dara Nagaraju	Applicant
	Versus	
1.	Union of India Rep. its Secretary, Ministry of Environment, Forest & CC, Indira Priyadarshini Bhavan, Jorbagh, New Delhi - 110003	Respondent (s)
2.	Telanga State Pollution Control Board, Rep. it's Member Secretary, A-3, Paryavaran Bhavan, Sanathnagar, Hyderabad – 500018.	
3.	District Magistrate & Collector, Office of Collector, Mahabub Nagar, Telangana – 509001.	
4.	General Manager, District Industries Centre, Metugadda, Mahabubnagar – 509001.	
5.	M/s. GTN Indutries Ltd., (Yarn processing unit), Rep. by its Managing Director, Gundlapotlapally (V), Balanagar (M), Mahabub Nagar District	

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Report of the Joint Committee constituted in the O.A. No. 13 of 2022 and I.A. No. 24 & 25 of 2022 in the matter of Sri Dara Nagaraju versus M/s. GTN Indutries Ltd., (Yarn Processing Unit), Gundlapotlapally (V), Balanagar (M), Mahabub Nagar District regarding water pollution to the surroundings area

1. Introduction:

It is to submit that the Original application was filed before the Hon'ble NGT, Chennai by Dara Nagaraju, r/o Mahabubnagar District against the pollution caused by M/s GTN industries Ltd, (Yarn processing Unit), Gundlapotlapally (V) ,Balanagar (M), Mahabubnagar Dist.

Respondents:

1. Secretaray,MoEF&CC,Newdelhi
2. MS,TSPCB,
3. District collector , Mahabubnagar District .
4. GM ,DIC,Mahabubnagar district.
5. M/s GTN industries Ltd., (Yarn processing Unit), Gundlapotlapally (V), Balanagar (M), Mahabubnagar Dist.

Prayer:

prays the Hon'ble Tribunal to

I. Direct the R1to R4 to take action on R5 for conducting illegal activity with Environmental complementation causing pollution ,irreparable loss to agriculture , ground water & water bodies;

II. Direct the R3 to assess the loss caused to the applicant and similarly situated persons due to illegal discharge of pollutants by R5 for paying compensation;

III. Direct the district collector to take appropriate measures for restoring the fertility of agriculture land of applicant and other similarly situated persons by taking the help of agriculture experts etc.,

It is to submit that the applicant filed IA Nos.24&25 of 2022 seeking exemption from payment of court fee payable under the second proviso to Rule12(1) of the national green tribunal (Practice and procedure) Rules, 2011 and seeking amendment of the application incorporating claim for personal compensation of Rs.43,73,750/- respectively.

Accordingly, the Hon'ble NGT has constituted a joint committee consisting of following members with nodal agency as Telangana State Pollution Control Board.

1. District Collector, Mahabubnagar district or his nominee not below the rank of Asst.collector/Sub-Div. Magistrate .
2. Senior Officer from Telangana State Pollution Control Board.
3. Joint Director of Agriculture, Mahabubnagar District or his / her nominee deputed by JD, Mahabubnagar Dist.

The Hon'ble NGT has directed the joint committee to inspect the area in question and submit a factual as well as Action taken report if there is any violation found.

2. Constitution of Joint Committee:

In compliance with the directions of Hon'ble NGT, the TSPCB has nominated Sri D.Krupanand, Joint Chief Environmental Engineer (JCEE) as representative of Telangana State Pollution Control Board (TSPCB) (Annexure-I). Sri. Seetharama Raju, Additional collector, Mahabubnagar was nominated as a representative of District Collector, Mahabubnagar District and Sri. B. Venkatesh, District, Agriculture officer (FAC), Mahabubnagar was nominated as representative of Joint Director of Agriculture Department.

3. Terms of references (TOR) of the Committee:

a. Whether the allegation of pollution caused on account of discharge of untreated effluents into the agricultural properties has resulted in any damage,

b. Whether on account of the alleged act, any contamination has been caused to the groundwater as well as soil or the applicant's land affecting its fertility and reduction in yield level and if so, what is the quantum of compensation payable for the applicant on account of such loss of agricultural income.

c. If any contamination has been caused to the soil and groundwater, what is the nature of remediation to be carried out and they are directed to assess the compensation for the remediation as well.

d. Whether on account of the alleged polluting activities of the 5th Respondent, any damage is caused to the environment and if so, what is nature of damage caused and assess the compensation for damage caused and its restoration, apart from assessing independent compensation payable to the applicant

e. If the unit is closed, then suggest the remedial measures for the pollution caused on account of their previous action and past violation which resulted in the alleged contamination of the soil as alleged by the applicant.

4. The joint committee inspection:

The joint committee inspected M/s. GTN industries Ltd and its surroundings on 04.03.2022. At the time of inspection M//s. GTN industries Ltd was not in operation and as per the letter submitted by the industry to TSPCB, Regional office, Hyderabad, the industry is not in operation since 15.04.2021. The petitioner Sri. Dara Nagaraju has accompanied for inspection.

The joint committee observed the following:

1. M/s. GTN industries Ltd is located at Gundlapotlapally village of Balanagar (M),Mahabubnagar Dist. (Coordinates ($16^0$53'23.6"N, $78^0$11'57.0" E) is surrounded by Agriculture lands on East, West, North and south directions.
2. As per the income certificate issued by the Revenue department vide letter dt: 26.03.2022. The petitioner Sri D. Nagaraju's income Rs. 80,000/- (Rupees Eighty Thousand only). Further it is stated that the certificate issued is for purpose of filing application for sanction of scholarship / fee- reimbursement

and availments of benefits under any scheme of the Govt. as requested by the applicant.(Annexure-II)

3. A natural unlined stream / channel is flowing adjacent to the industry from North to south direction and it is a non perennial stream which flows only during rainy season. Sri Nagaraju's land is in an area of about 2.5 Acres and is at a distance of about 200 meters from the industry in southern direction. Before Nagaraju's land, Sri D. Balaiah's (Complainant father) land admeasuring about 2.5 acres is at a distance about 100 mtrs from industry just adjacent to the industry. The same natural stream is flowing adjacent to the industry, Sri D. Balaiah's land & Nagaraju's land from north to south direction.
4. At the time of inspection the flow in the unlined stream / channel is very low except traces of pooled water on the up stream side of unlined stream was observed.
5. An open well with full of water is located in D. Balaiah's (Complainant father) agriculture land which is on north side of Nagaraju's land and just adjacent to M/s. GTN industries ($16^0$53'12.28" N, $78^0$12'10.61" E).
6. A bore well is located in the land of Sri D.Nagaraju which is situated on south east corner of his land ($16^0$53'08.98" N, $78^0$12'51.3" E).
7. The claim of applicant Sri. D. Nagaraju is, the industry has discharged the effluents into unlined stream / channel which has caused damage to ground water (Borewell) and soil of his agriculture field. In this regard the joint committee has collected the following samples on 04.03.2022.

Water Samples:

- The water sample collected from Upstream of GTN Textile near unlined stream / channel. ($16^0$53'03.44" N, $78^0$12'12.86" E)
- The Open well water sample collected from D. Balaiah's Agricultural Land. ($16^0$53'12.28" N, $78^0$12'10.61" E)
- Bore well water sample collected from D. Naga Raju's Agricultural fields ($16^0$53'08.98" N, $78^0$12'51.3" E).
- The Water sample collected from unlined stream / channel adjacent to Agriculture fields of D. Naga Raju ($16^0$53'47.28" N, $78^0$12'12.24" E).
- Bore well water sample collected at Temple (Mahalaxmi Temple). ($16^0$53'41.43" N, $78^0$11'37.87" E)

Soil Samples:

- The unlined stream / channel soil sample (Upstream of GTN Textile). ($16^0$53'16.57" N, $78^0$12'12.22" E)
- The Soil sample collected from unlined stream / channel, just adjacent to agriculture Land of D. Naga Raju. ($16^0$53'27.57" N, $78^0$12'36.54" E).

8. The analysis reports of samples collected by the TSPCB are as below:

Water Samples:

Point of Sample	**03086** – Upstream of GTN Textile near Vagu water sample collected at Gundlapotlapally (V), Rajapur (M), Mahaboobnagar District.
Point of Sample	**03083**- Downstream of vagu adjacent to Agriculture fields of D. Naga Raju Water sample collected from vagu adjacent to Agriculture fields of D. Naga Raju, Gundlapotlapally (V), Rajapur (M), Mahaboobnagar District.
Point of Sample	**03085** - Open well water sample collected from D. Balaiah's Agricultural Land, Gundlapotlapally (V), Rajapur (M), Mahaboobnagar District. **(Annexure-III).**
Point of Sample	**03082** - Bore well water sample collected from D. Naga Raju's Agricultural fields, Gundlapotlapally (V), Rajapur (M), Mahaboobnagar District. **(Annexure-III).**
Point of Sample	22/03/093 – Finger print analysis of Borewell water of Sri D. Nagarju's agriculture fields **(Annexure-III).**
Point of Sample	22/03/094 - Finger print analysis of open well water of Sri D. Balaiah's Agriculture fields **(Annexure-III).**

Sl. No.	Parameter	Sample No.	CPCB Water Quality Criteria				
		03086	Class-A	Class-B	Class-C	Class-D	Class-E
		Values					
1.	pH	7.46	6.5-8.5	6.5-8.5	6.0-9.0	6.5-8.5	6.0-8.5
2.	Electrical Conductivity (µS/cm)	8030	-	-	-	-	2250 Max
3.	Total Suspended Solids	34	-	-	-	-	-
4.	Total Dissolved Solids	4938	-	-	-	-	-
5.	Dissolved Oxygen	4.8	≥6.0	≥5.0	≥4.0	≥4.0	-
6.	Chemical Oxygen Demand (COD)	35	-	-	-	-	-
7.	BOD 3days at 27°C	1.6	≤2.0	≤3.0	≤3.0	-	-
8.	Total Coliform	8.3	≤50	≤500	≤5000	-	-
9.	Fecal Coliform	1.8	-	-	-	-	-
10.	Free Ammonia	0.036	-	-	-	≤1.2	-
11.	Boron as B	0.08	-	-	-	-	2 Max
12.	Sodium Absorption Ratio	**	-	-	-	-	26 Max
Units:	*All values are expressed in mg/l except pH, Electrical Conductivity, Total Coliform and Fecal Coliform.*						

Class of Water use:

Class-A: Drinking Water Source without conventional treatment but after disinfection.
Class-B: Outdoor bathing (Organized).
Class-C: Drinking water source after conventional treatment and disinfection.
Class-D: Propagation of Wild life and Fisheries.
Class-E: Irrigation, Industrial Cooling, Controlled Waste disposal.
Below Class E: Not meeting A, B, C, D and E criteria.

Sl. No.	Parameter	Sample No.	CPCB Water Quality Criteria				
		03083	Class-A	Class-B	Class-C	Class-D	Class-E
		Values					
1.	pH	7.56	6.5-8.5	6.5-8.5	6.0-9.0	6.5-8.5	6.0-8.5
2.	Electrical Conductivity (µS/cm)	6730	-	-	-	-	2250 Max
3.	Total Suspended Solids	26	-	-	-	-	-

4.	Total Dissolved Solids	3996	-	-	-	-	-
5.	Dissolved Oxygen	4.97	≥6.0	≥5.0	≥4.0	≥4.0	-
6.	Chemical Oxygen Demand (COD)	43	-	-	-	-	-
7.	BOD 3days at 27°C	1.7	≤2.0	≤3.0	≤3.0	-	-
8.	Total Coliform	11	≤50	≤500	≤5000	-	-
9.	Fecal Coliform	2	-	-	-	-	-
10.	Free Ammonia	0.113	-	-	-	≤1.2	-
11.	Boron as B	0.398	-	-	-	-	2 Max
12.	Sodium Absorption Ratio	**	-	-	-	-	26 Max
Units:	*All values are expressed in mg/l except pH, Electrical Conductivity, Total Coliform andFecal Coliform.*						

Class of Water use:

Class-A: Drinking Water Source without conventional treatment but after disinfection.
Class-B: Outdoor bathing (Organized).
Class-C: Drinking water source after conventional treatment and disinfection.
Class-D: Propagation of Wild life and Fisheries.
Class-E: Irrigation, Industrial Cooling, Controlled Waste disposal.
Below Class E: Not meeting A, B, C, D and E criteria.

Sl. No.	Parameter	Sample No.	Drinking water standards IS 10500:2012	
		03085	Max. Permissible Limit	Acceptable Limit
		Values		
1.	pH	7.47	No relaxation	6.5-8.5
2.	Electrical Conductivity	3290	-	-
4.	Total Suspended Solids	410	-	-
5.	Total Dissolved Solids	**1852**	2000	500
6.	Chemical Oxygen Demand (COD)	47	-	-
7.	Turbidity	**170**	5	1
8.	Chlorides	**629**	1000	250
9.	Sulphates	**305**	400	200
10.	Total Hardness(as Ca CO_3)	**1010**	600	200
11.	Ammonia as Total Ammonia-N	**1.68**	No relaxation	0.5
12.	Calcium as Ca^{++}	58	200	75
13.	Magnesium as Mg^{++}	**210**	100	30
14.	Total alkalinity as $CaCO_3$	**325**	600	200
15.	Nitrates as NO_3^-	1.17	No relaxation	45
16.	Fluoride as F^-	0.975	1.5	1.0
17.	Boran as B	0.996	1.0	0.5
18.	Copper as Cu	0.0064	1.5	0.05
19.	Iron as Fe	**4.832**	No relaxation	0.3
20.	Zinc as Zn	0.1094	15	5
21.	Cadmium as Cd	0.0014	No relaxation	0.003
22.	Lead as Pb	**0.0414**	No relaxation	0.01
24.	Nickel as Ni	**0.039**	No relaxation	0.02
25.	Total Chromium as Cr	0.015	No relaxation	0.05

Sample Code	03082			
Sl. No.	Parameter	Sample No.	Drinking water standards IS 10500:2012	
		03082	Max. Permissible Limit	Acceptable Limit
		Values		
1.	pH	6.77	No relaxation	6.5-8.5
2.	Electrical Conductivity	16380	-	-
4.	Total Suspended Solids	440	-	-
5.	Total Dissolved Solids	**10320**	2000	500
6.	Turbidity	**2.06**	5	1
7.	Chlorides	**3584**	1000	250
8.	Sulphates	**3168**	400	200
9.	Chemical Oxygen Demand (COD)	**440**	-	-
10.	BOD 3days at 27°C	**8**	-	-
11.	Total Hardness(as Ca CO_3)	**3675**	600	200
12.	Ammonia as Total Ammonia-N	**2.8**	No relaxation	0.5
13.	Calcium as Ca^{++}	**724**	200	75
14.	Magnesium as Mg^{++}	**453**	100	30
15.	Total alkalinity as $CaCO_3$	**640**	600	200
16.	Nitrates as NO_3^-	5.5	No relaxation	45
17.	Fluoride as F^-	**2.0**	1.5	1.0
19.	Copper as Cu	0.041	1.5	0.05
20.	Iron as Fe	0.134	No relaxation	0.3
21.	Zinc as Zn	0.177	15	5
22.	Cadmium as Cd	**0.021**	No relaxation	0.003
23.	Lead as Pb	0.194	No relaxation	0.01
25.	Nickel as Ni	0.021	No relaxation	0.02
26.	Total Chromium as Cr	0.0186	No relaxation	0.05
27	Boron as B	**1.02**	1.0	0.5
Units:	All values are expressed in mg/ltr, except pH, EC and Turbidity.			

As per the above water samples analysis reports: The following is submitted

- The sample collected **(code: 03086)** from the upstream of the industry in the unlined stream/channel, the values indicates that the water in the stream falls under Class-C as per CPCB water quality criteria i.e., **Class-C: Drinking water source after conventional treatment and disinfection.**
- As per the water collected **(code: 03083)** water collected from the down stream of the unlined stream/channel just adjacent to Sri D. Nagarju agriculture field the values indicates that the water in the stream falls under Class-C as per CPCB water quality criteria i.e., **Class-C: Drinking water source after conventional treatment and disinfection.**
- As per the analysis report at Open well water sample collected **(code: 03085)** from D. Balaiah's Agricultural Land, which is about 100 mtrs distance on the south side of the industry indicates that the pH, TDS, Chlorides, Sulphates, Calcium as Ca^{++}, Total alkalinity as $CaCO_3$, Nitrates as NO_3, Boron as B, Copper as Cu, Zinc as Zn, Cadmium as Cd and Total Chromium as Cr are well within the permissible limits.
- As per the analysis report at Bore well water sample collected **(code: 03082)** from D. Naga Raju's Agricultural fields, indicates that the **TDS, Chlorides, Sulphates, Chemical Oxygen Demand (COD), BOD 3days at 27°C, Total Hardness(as Ca CO_3), Ammonia**

as Total Ammonia-Nm, Ammonia as Total Ammonia-N, Calcium as Ca^{++}, Magnesium as Mg^{++}, Total alkalinity as $CaCO_3$, Fluoride as F^-, Cadmium as Cd and Boron as B are exceeding the prescribed standards.

- As the industry was a textile industry and at present the industry is closed, the committee has sent the water sample of D.Balaiah and D.Nagaraju's open well and Bore well samples for finger print analysis with textile dye and dye intermediates. As per the analysis reports, **(Code: 22/03/093 and 22/03/094)** for textile dye and dye intermediates of borewell and open well of D.Nagaraju & D.Balaiah analyzed by TSPCB, Central laboratory. The analysis reports indicates that there was no evidence of dye and dye intermediates present in the Borewell and openwell samples. Since, the industry i.e., M/s GTN textile industries Ltd was involved in the production of processed yarn 100% cotton and Grey Gassed (Unprocessed) (as per Consent for Operation of TSPCB).
- As per the agriculture department report dt: 10.03.2022 pertaining to water sample collected from Sri D. Nagaraju's land (S/o D. Balaiah) the water is polluted with Bi-carbonates, Chlorides, Calcium, Magnesium and Sodium are more than the requirement in the water and which are hindrance to the growth of agriculture crops under irrigation conditions. **(Annexure-IV)**
- As per the Ground Water Department report dt: 28.03.2022, the TDS value of Sri Balraj Borewell is 11763 mg/L & Sri Balaiah Borewell is 6074 mg/L against standard <2000 mg/L. As per the TSPCB analysis report Sri Naga Raju's Borewell TDS is 10320 mg/L (Standards: 2000 mg/L is Max, permissible Limit & 500 mg/L is Acceptable limit) **(Annexure-V)**

Soil Samples:

Sample Code	**03087:** Upstream of GTN textile near Vagu soil sample (Upstream of GTN Texti Gundlapotlapally (V), Rajapur (M), Mahaboobnagar District. **(Annexure-III).**
Sample Code	**03084:** Downstream of vagu (soil sample) adjacent Agriculture fields of D. Na Raju's, Soil sample collected from Vagu, adjacent agriculture Land of D. Na Gundlapotlapally (V), Rajapur (M), Mahaboobnagar District. **(Annexure-III).**

Parameter (S)	**Ratio**	**Results**
		Sample Code: 03087
Colour	-	Brown
State	-	Solid
pH	(1:5)	7.33
Electrical Conductivity (µS/cm)	(1:5)	7200
Chemical Oxygen Demand (COD) (mg/gr)	(1:5)	40
Copper as Cu	(1:100)	3.2
Zinc as Zn	(1:100)	10.5
Cadmium as Cd	(1:100)	ND
Lead as Pb	(1:100)	9.0
Nickel as Ni	(1:100)	9.5
Total Chromium as Cr	(1:100)	9.3
Note:	All values are expressed in gr/kg, except pH, EC. COD is expressed in mg/gr.	

Parameter (S)	**Ratio**	**Results**
		Sample code: 03084
Colour	-	Brown
State	-	Solid
pH	(1:5)	7.22
Electrical Conductivity (µS/cm)	(1:5)	24670
Chemical Oxygen Demand (COD) (mg/gr)	(1:5)	459
Copper as Cu	(1:100)	7.7

Zinc as Zn	(1:100)	18.1
Cadmium as Cd	(1:100)	ND
Lead as Pb	(1:100)	11.9
Nickel as Ni	(1:100)	13.2
Total Chromium as Cr	(1:100)	16.4
Mercury as Hg	(1:100)	0.00407
Note:	All values are expressed in gr/kg, except pH, EC and COD is expressed in mg/gr.	

As per the above soil samples analysis reports: The following is submitted

- The sample collected (code: 03087 and 03084) from the upstream and downstream indicates that the soil is not hazardous in nature.
- As per the soil analysis reports of agriculture department report dt: 10.03.2022, indicates that Sri Nagaraju's land soil is slightly acidic and it can be managed by applying lime 950 kgs per acre thereby which it will be suitable for agriculture under rain fed condition. **(Annexure-IV)**

6. The compliance status of TORs of the Joint committee is as follows:

a. Whether the allegation of pollution caused on account of discharge of untreated effluents into the agricultural properties has resulted in any damage

- CS: At the time of inspection the industry was not in operation and as per the industry's letter dt: 15.04.2021, the industry was not in operation since 15.04.2021. Further, during inspection there was no discharge from the industry into the unlined stream or agriculture land of the complainant.
- As per the anaylsis reports of TSPCB, the water sample collected from the upstream (code: 03086) and down stream (code: 03083) of the unlined stream, the water quality is falling under Class-C i.e., Drinking water source after conventional treatment and disinfection.
- The water quality in Sri Balaiah's (Father of complainant) open well (code: 03085) indicates that the pH, TDS, Chlorides, Sulphates, Calcium as Ca^{++}, Total alkalinity as $CaCO_3$, Nitrates as NO_3, Boron as B, Copper as Cu, Zinc as Zn, Cadmium as Cd and Total Chromium as Cr are well within the permissible limits.
- The water quality in Sri D. Nagarju bore well (code: 03082) indicates that the **TDS, Chlorides, Sulphates, Chemical Oxygen Demand (COD), BOD 3days at 27°C, Total Hardness(as Ca CO_3), Ammonia as Total Ammonia-Nm, Ammonia as Total Ammonia-N, Calcium as Ca^{++}, Magnesium as Mg^{++}, Total alkalinity as $CaCO_3$, Fluoride as F^-, Cadmium as Cd and Boron as B are exceeding the prescribed standards.**
- As per the finger print analysis reports, (Code: 22/03/093 and 22/03/094) for textile dye and dye intermediates of borewell and open well of D.Nagaraju & D.Balaiah analyzed by TSPCB, Central laboratory. The analysis reports indicates that there was no evidence of dye and dye intermediates present in the Borewell and openwell samples.

- As per the analysis report of ground water department, the TDS value of Sri Nagaraju Borewell is 11763 mg/L & Sri Balaiah Borewell is 6074 mg/L against standard <2000 mg/L. As per the TSPCB analysis report Sri Naga Raju's Borewell TDS is 10320 mg/L (Standards: 2000 mg/L is Max, permissible Limit & 500 mg/L is Acceptable limit)

b. Whether on account of the alleged act, any contamination has been caused to the groundwater as well as soil or the applicant's land affecting its fertility and reduction in yield level and if so, what is the quantum of compensation payable for the applicant on account of such loss of agricultural income.

CS: As per the agriculture department report dt: 10.03.2022, indicates that Sri Nagaraju's land soil is slightly acidic and it can be managed by applying lime 950 kgs per acre thereby which it will be suitable for agriculture under rain fed condition. The sample collected (code: 03087 and 03084) from the upstream and downstream indicates that the soil is not hazardous in nature.

c. If any contamination has been caused to the soil and groundwater, what is the nature of remediation to be carried out and they are directed to assess the compensation for the remediation as well.

- **CS:** As per the soil analysis reports of agriculture department report dt: 10.03.2022, indicates that Sri Nagaraju's land soil is slightly acidic and it can be managed by applying lime 950 kgs per acre thereby which it will be suitable for agriculture under rain fed condition.
- The water quality in Sri D. Nagaraju's Bore well exceeding the permissible standards however a detailed study on Ground water flow with a reputed agency like National Geographical Research Institute (NGRI) may be conducted to ascertain whether the pollution in the Bore well has been caused due to industrial discharge.

d. Whether on account of the alleged polluting activities of the 5th Respondent, any damage is caused to the environment and if so, what is nature of damage caused and assess the compensation for damage caused and its restoration, apart from assessing independent compensation payable to the applicant

CS: As and when the complaints received against the industry i.e., 5th respondent, the Board has taken necessary action like Closure orders and issued directions to the industry for rectification of the same. However, as per the soil analysis reports of agriculture department report dt: 10.03.2022, indicates that Sri Nagaraju's land soil is slightly acidic and it can be managed by applying lime 950 kgs per acre thereby which it will be suitable for agriculture under rain fed condition. However, a more detailed study on ground water flow and soil studies with a reputed agency like NGRI can ascertain the exact damage caused to the ground water and soil by which the damage can be assessed and compensation can be fixed.

e. **If the unit is closed, then suggest the remedial measures for the pollution caused on account of their previous action and past violation which resulted in the alleged contamination of the soil as alleged by the applicant**

CS: The industry has stopped its operation since 15.04.2021. As the industry was a textile industry and at present the industry is closed, the committee has sent the water sample of D.Balaiah and D.Nagaraju's open well and Bore well samples for finger print analysis with textile dye and dye intermediates. As per the analysis reports, **(Code: 22/03/093 and 22/03/094)** for textile dye and dye intermediates of borewell and open well of D.Nagaraju & D.Balaiah analyzed by TSPCB, Central laboratory. The analysis reports indicates that there was no evidence of dye and dye intermediates present in the Borewell and openwell samples. Regarding the soil samples, the agriculture department has stated that the soil is slightly acidic which can be managed by applying 950 kgs of lime per acre under rain fed condition.

Conclusion:

1. As per analysis report of Ground Water Department & TSPCB. As per the Ground Water Department the TDS value of Sri Nagaraju Borewell is 11763 mg/L & Sri Balaiah Borewell is 6074 mg/L against standard <2000 mg/L. As per the TSPCB analysis report Sri Naga Raju's Borewell TDS is 10320 mg/L (Standards: 2000 mg/L is Max, permissible Limit & 500 mg/L is Acceptable limit).
2. As per the agriculture department report dt: 10.03.2022, the bore well water pertaining to water sample collected from Sri D. Nagaraju's land (S/o D. Balaiah) has stated that the water is polluted with Bi-carbonates, Chlorides, Calcium, Magnesium and Sodium are more than the requirement in the water and which are hindrance to the growth of agriculture crops under irrigation conditions.
3. As per the soil analysis reports of agriculture department report dt: 10.03.2022 indicates that Sri Nagaraju's land soil is slightly acidic and it can be managed by applying lime 950 kgs per acre thereby which it will be suitable for agriculture under rain fed condition.
4. A detailed study on ground water flow and soil studies with a reputed agency like NGRI can ascertain the exact damage caused to the ground water and soil by which the damage can be assessed and compensation can be fixed.

Sri. B. Venkatesh,
District Agriculture officer,
Agriculture Dept.,
Mahabubnagar District

Sri. Seetharama Raju,
Additional collector,
Mahabubnagar
Representative of the District Collector, Mahabubnagar

D. Krupanand,
Joint Chief Environmental Engineer,
Representative of the Telangana State Pollution Control Board (TSPCB), Hyderabad

****

(ANNEXURE-I)

(13)

ANNEXURE-I

TELANGANA STATE POLLUTION CONTROL BOARD

Paryavarana Bhavan, A-3, Industrial Estate, Sanathnagar, Hyderabad – 500018
Phone: 040 – 23887500

Lr. No. 4/NGT-Chennai/ TSPCB/Legal/2022-63 **Date: 25-02-2022**

// HON'BLE NGT, CHENNAI – MOST URGENT //

To

The District Collector,
Mahabubnagar District.

The Joint Director of Agriculture,
Mahabubnagar District.

Sir,

Sub: TSPCB -- Legal -- Hon'ble NGT, Chennai – Original Application No. 13 of 2022 filed by Dara Nagaraju, R/o.Mahabubnagar District Vs Union of India & Others – Order dated 03.02.2022 -- Reg.

Ref: 1. OA No. 13 of 2022.
2. Hon'ble NGT, Chennai Order dated 03.02.2022.

Your Attention is invited to the subject and references cited.

It is to submit that an Original Application was filed before the Hon'ble NGT, Chennai by Dara Nagaraju, R/o.Mahabubnagar District against the pollution caused by M/s. GTN Industries Ltd., (Yarn Processing Unit), Gundlapotlapally (V), Balanagar (M), Mahabubnagar District. The copy of the OA is enclosed for kind information.

Respondents:

1. Secretary, MoEF&CC, New Delhi.
2. MS, TSPCB.
3. District Collector, Mahabubnagar District.
4. GM, DIC, Mahabubnagar District.
5. M/s. GTN Industries Ltd., (Yarn Processing Unit), Gundlapotlapally (V), Balanagar (M), Mahabubnagar District.

Prayer:

Prays the Hon'ble Tribunal to

i. Direct the R1 to R4 to take action on R5 for conducting illegal activity with EC and causing pollution, irreparable loss to agriculture, ground water & water bodies;
ii. Direct the R3 to assess the loss caused to the Applicant and similarly situated persons due to illegal discharge of pollutants by R5 for paying compensation;
iii. Direct the District Collector to take appropriate measures for restoring the fertility of agriculture land of applicant and other similarly situated persons by taking the help of agriculture experts etc.,

It is to submit that the applicant filed IA Nos. 24 & 25 of 2022 in OA No. 13 of 2022 seeking exemption from payment of Court Fee payable under the Second proviso to Rule 12 (1) of the National Green Tribunal (Practice and Procedure) Rules, 2011 and seeking amendment of the application incorporating claim for personal compensation of Rs.43,73,750/- respectively.

Contd...2

(14)

It is to further submit that the above IAs came up for hearing before the Hon'ble Tribunal on 03.02.2022 and the extract of the Order is as follows: -

"

ORDER

1. I.A. No.24 of 2022 (SZ) and I.A. No.25 of 2022 (SZ) were filed by the Original Applicant seeking exemption from payment of Court Fee payable under the Second proviso to Rule 12 (1) of the National Green Tribunal (Practice and Procedure) Rules, 2011 and seeking amendment of the application incorporating claim for personal compensation of Rs.43,73,750/- respectively.

2. When we asked the learned counsel for the applicant as to how he will be entitled to claim compensation for 26 years especially when the Limitation Act restricted the period for 3 years and even as per the National Green Tribunal Act, 2010, the limitation was given for 5 years and the amount can only be restricted to that period, the learned counsel submitted this also can be considered after the respondents have entered appearance and file their counter.

.....

10. The District Collector – Mahabubnagar District is directed to enquire the financial status of the Original Applicant and issue Income Certificate by the competent authority to consider as to whether the prayer for Court Fee exemption has to be granted or not as required under Order 33 Rule 1 of the Code of Civil Procedure r/w. second proviso to Rule 12 (1) of the National Green Tribunal (Practice and Procedure) Rules, 2011 while filing their counter affidavit.

11. In order to ascertain the genuineness of the allegations made in the application, we feel it appropriate to appoint a Joint Committee comprising of (i) the District Collector - Mahabubnagar District or his/her nominee not below the rank of Assistant Collector/Sub Divisional Magistrate as deputed by the District Collector, (ii) a Senior Officer from the Telangana State Pollution Control Board and (iii) the Joint Director of Agriculture or his/her nominee as deputed by the Joint Director, Mahabubnagar District to inspect the area in question and submit a factual as well as action taken report, if there is any violation found.

12. The Joint Committee is also directed to ascertain as to

a. Whether the allegation of pollution caused on account of discharge of untreated effluents into the agricultural properties has resulted in any damage,

b. Whether on account of the alleged act, any contamination has been caused to the groundwater as well as soil or the applicant's land affecting its fertility and reduction in yield level and if so, what is the quantum of compensation payable for the applicant on account of such loss of agricultural income

Contd...3

c. If any contamination has been caused to the soil and groundwater, what is the nature of remediation to be carried out and they are directed to assess the compensation for the remediation as well.

d. Whether on account of the alleged polluting activities of the 5th Respondent, any damage is caused to the environment and if so, what is nature of damage caused and assess the compensation for damage caused and its restoration, apart from assessing independent compensation payable to the applicant

e. If the unit is closed, then suggest the remedial measures for the pollution caused on account of their previous action and past violation which resulted in the alleged contamination of the soil as alleged by the applicant.

13. The Telangana State Pollution Control Board will be the nodal agency for co-ordination and also for providing necessary logistics for this purpose.

14. The applicant is directed to serve the set of papers to the Joint Committee members within a week so as to enable them to comply with the direction and file a report without delay.

15. The Joint Committee is directed to submit the report to this Tribunal on or before 08.03.2022 by e-filing in the form of Searchable PDF/OCR Supportable PDF and not in the form of Image PDF along with necessary hardcopies to be produced as per Rules.

16. The Registry is directed to communicate this order to the members of the Joint Committee and also to the official respondents by e-mail for their information and compliance of directions.

17. For return of notice, appearance of parties, filing their independent response and also for consideration of the report, post on 08.03.2022".

The copy of the above Order is placed below for kind perusal.

It is to submit that the Hon'ble NGT vide above Order appointed a Joint Committee comprising of following: -

1) District Collector or nominee, Mahabubnagar District,
2) Senior Officer, TSPCB.
3) Joint Director of Agriculture, Mahabubnagar District or his / her nominee.

The TSPCB is made as Nodal Agency for coordination and also for providing necessary logistics for this purpose.

The Hon'ble NGT directed that the Joint Committee to submit ATR including the following:-

i. to inspect the area and submit a factual as well as Action Taken Report, if there, is any violation found.

Contd...4

(16)

ii. Whether the allegation of pollution caused on account of discharge of untreated effluents into the agricultural properties has resulted in any damage,

iii. Whether any contamination has been caused to the groundwater as well as soil or the applicant's land affecting its fertility and reduction in yield level and if so, what is the quantum of compensation payable for the applicant on account of such loss of agricultural income

iv. If any contamination has been caused to the soil and groundwater, what is the nature of remediation to be carried out and they are directed to assess the compensation for the remediation as well.

v. Whether any damage is caused to the environment by R5 and if so, what is nature of damage caused and assess the compensation for damage caused and its restoration, apart from assessing independent compensation payable to the applicant

vi. If the unit is closed, then suggest the remedial measures for the pollution caused on account of their previous action and past violation which resulted in the alleged contamination of the soil as alleged by the applicant.

vii. **The Committee to file its report before the Hon'ble NGT, Chennai on or before 08.03.2022.**

Sri.D.Krupanand, Joint Chief Environmental Engineer, Zonal Office, Hyderabad [Cell No. 9866776706, e-mail: jcee-zhyd-tspcb@telangana.gov.in] is nominated as representative of TSPCB for the Joint Committee.

It is therefore requested to kindly instruct the concerned to file the independent report by **07.03.2022**, to the Counsel for the State of Telangana at Hon'ble NGT, Chennai (Smt.H.Yasmeen Ali, mail ID: hyasmeenali@gmail.com; yabaali1993@gmail.com; Mobile No. 9840538580, 044-25344868, 044-47193095 / Ms. Renuka, Junior to the Standing Counsel – 6381941938).

The case is posted for hearing on 08.03.2022.

This is submitted for information and necessary action.

Yours faithfully,
Sd/-
MEMBER SECRETARY

Encl: As above.

Copy to:

1. The JCES, Central Lab, Board Office, Hyderabad for information and necessary action.
2. The JCEE, ZO, Hyderabad for information and necessary action.
3. The EE, RO, Hyderabad for information and necessary action.

// T.C.F.B.O //

ENVIRONMENTAL ENGINEER (LEGAL),
TSPCB, HEAD OFFICE, HYD.

File No.Rev/C1/POLN/0002/2022-C-Section

(17)

GOVERNMENT OF TELANGANA
COLLECTORATE :: MAHABUBNAGAR

File No: Rev/C1/POLN/0002/2022-C-Section Dated:26/03/2022

From,
Sri S. Venkata Rao, I.A.S.,
Collector & District Magistrate,
Mahabubnagar District.

To,
1. The Joint Director,
   Agriculture Department
2. The DD Ground Water,
   Mahabubnagar

Sir,

Sub:- **Pollution** - Mahabubnagar District - National Green Tribunal Southern Zone Chennai – OA. No 13/2022 (SZ) & I.A.No. 24 & 25 of 2022 (SZ) - Report called for - Reg.

Ref: - 1. O.A.NO. 13 of 2022 (SZ) & IA. No. 24 &25 of 2022 (SZ) on the file of the NGT, Southern Zone, Chennai.
2. This office Proceeding No. Rev/C1/POLN/0002/2022, Dated: 26.02.2022.
3. Email received from TSPCB, Zonal Office, Hyderabad, dated: 24.03.2022.

** ** **

Adverting to the reference 3rd cited, the addressed entries are instructed to submit the reports of water and soil samples (Joint sampling) regarding the case pertaining to M/s GTN Industries Ltd., Gundlapotlapally Village of Rajapur Mandal of Mahabubnagar District in O.A.No.13 of 2022.

The addressed entries are instructed to submit Joint committee report as called vide ref 2nd cited (Copy enclosed) immediately to Joint Chief Environmental Engineer, TSPCB, Zonal Office, Hyderabad, email id:jcee-zhyd-tspcb@telangana.gov.in with intimation to this office.

Yours faithfully

Rama Rao (rev)

Digitally signed by KOLANUPAKA SEETHA RA (REV)
Date:Sat Mar 26 19:24:37 IST 2022
Reason: Approved

Kolanupaka Seetha
Additional Collector
Mahabubnagar

Copy submitted to Joint Chief Environmental Engineer, TSPCB, Zonal Officer, Hyderabad and the rev department report is submitted for kind perusal.

ANNEXURE - II

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easier, faster

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[redacted]

TSGGDF 35875585

GOVERNMENT OF TELANGANA

REVENUE DEPARTMENT

Application No

IC0222218771427

Date : 26/03/2022

INCOME CERTIFICATE

This is to certify that the annual income from all Sources of Sri/Srimathi/Kumari **DHARA NAGARAJU** S/o / D/o / W/o /F/o /M/o /G/o /H/o **DHARA BALAIAH** of village / Town **Gundlapotlapalle** Door No **2-23** Locality/Landmark **SC COLONY** Mandal **Rajapur** District **MAHABUBNAGAR** Rs. **80000.00** (Rupees **Eighty Thousand** only).The Aadhaar Number of the applicant **XXXXXXXX1392**.

This certificate is issued for the purpose of filing application for sanction of scholarship/fee reimbursement, availment of benefits under any scheme of Government, as requested by the applicant. This certificate will be valid for a period of one year from the date of issue.

Photograph of the applicant

Certified By

TO

Sri/Srimathi/Kumari : DHARA NAGARAJU

S/o / D/o / W/o /F/o /M/o /G/o: DHARA BALAIAH

village / Town : Gundlapotlapalle

Mandal : Rajapur

District : MAHABUBNAGAR

Name : M.BHARATH KUMAR

Designation : NAIB TAHSILDAR

Mandal : Rajapur

District : MAHABUBNAGAR

Certificate Printed Date and Time : 26/03/2022 02:28:22

This is a Digitally Signed Certificate, doesnot require physical signature. And this certificate can be verified at http://ts.meeseva.telangana.gov.in by furnishing the application number mentioned in the certificate.

19

TSGGDF 35875585

GOVERNMENT OF TELANGANA
REVENUE DEPARTMENT

Application No

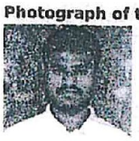
IC022228771427
Date : 26/03/2022

INCOME CERTIFICATE

This is to certify that the annual income from all Sources of Sri/Srimathi/Kumari **DHARA NAGARAJU** S/o / D/o / W/o /F/o /M/o /G/o /H/o **DHARA BALAIAH** of village / Town **Gundlapotlapalle** Door No **2-23** Locality/Landmark **SC COLONY** Mandal **Rajapur** District **MAHABUBNAGAR** Rs. **80000.00** (Rupees **Eighty Thousand** only).The Aadhaar Number of the applicant **XXXXXXXX1392**.

This certificate is issued for the purpose of filing application for sanction of scholarship/fee reimbursement, a availment of benefits under any scheme of Government, as requested by the applicant.This certificate will be valid for a period of one year from the date of issue.

Photograph of the applicant



Certified By

TO
Sri/Srimathi/Kumari : DHARA NAGARAJU
S/o / D/o / W/o /F/o /M/o /G/o: DHARA BALAIAH
village / Town : Gundlapotlapalle
Mandal : Rajapur
District : MAHABUBNAGAR

Name : M BHARATH KUMAR
Designation :NAIB TAHSILDAR

Mandal : Rajapur
District : MAHABUBNAGAR

Certificate Printed Date and Time : 26/03/2022 02:28:22

This is a Digitally Signed Certificate, doesnot require physical signature. And this certificate can be verified at http://ts.meeseva.telangana.gov.in by furnishing the application number mentioned in the certificate.

ఎలక్ట్రానిక్ సేవలను అందించుటకు అధీకృత ప్రతినిధి ఇచ్చు ధృవీకరణ పత్రము

Declaration by the Authorized Agent for Delivering the Electronic Services

(i) ఈ కంప్యూటర్ ముద్రణా ప్రతిలోని సమాచారము అధీకృతమైన కంప్యూటర్ సిస్టమ్స్ నుండి నేను పొందిన అసలైన సమాచారానికి సరియైన నకలు అయి వున్నది.

The computer output in the form of computer printouts attached herewith is the correct representation of its original as contained in the computer systems accessed by me for providing the service.

(ii) ఈ కంప్యూటర్ ముద్రణా ప్రతిలోని సమాచారము నియోగింపబడిన అధీకృతమైన కంప్యూటర్ సిస్టమ్స్ నుండి క్రమబద్ధమైన పద్ధతిలో సేకరింపబడినది.

The information contained in the computer printouts has been produced from the aforesaid computer systems during the period over which the computer was used regularly.

(iii) ఈ కంప్యూటర్ ముద్రణా ప్రతిలోని సమాచారము కంప్యూటర్ సిస్టమ్స్‌లో క్రమమైన పద్ధతిలో నమోదు చేయబడినది.

During the said period, information of the kind contained in the computer printout was regularly recorded by the aforesaid computer systems in the ordinary course of the activities.

(iv) ఈ కంప్యూటర్ ముద్రణా ప్రతిలోని సమాచార సేకరణ సమయంలో కంప్యూటర్ సిస్టమ్స్ సరిగ్గా పనిచేయుచున్నవి మరియు సదరు కంప్యూటర్ సిస్టమ్స్‌లో ఉన్న ఎలక్ట్రానిక్ రికార్డుల యథార్థతను ప్రభావితం చేసే ఏవిధమైన నిర్వహణ సమస్యలు లేవు.

Throughout the material part of the said period, the computer was operating properly, and there have been no such operational problems that affect the accuracy of the electronic record contained in the aforesaid computer systems.

పైన పేర్కొన్న విషయాలు నాకు తెలిసినంత వరకు మరియు నా విశ్వాసం మేరకు సరియైనవి.

The matter stated above is correct to the best of my knowledge and belief.

సంతకము
Signature

SRINIVASA KRISHNA
NRT ZONE
RAJAPUR, Dist. M'nagar

ముద్ర
Seal

(ANNEXURE - III) (21) ANNEXURE-III

తెలంగాణ రాష్ట్రం Telangana State	TELANGANA STATE POLLUTION CONTROL BOARD ZONAL LABORATORY: HYDERABAD ZONE H.No : 1-8-269, Balasamudram, Warangal – 506001 **ISO Certified Laboratory** ISO 9001:2015 (Q-180211R) & ISO-45001:2018 (S-180204R)

ANALYSIS REPORT

Sample Code	:	ZLWGL22-03082
Sample description	:	Agriculture fields of D. Naga Raju, Gundlapotlapally (V), Rajapur (M), Mahaboobnagar District.
Date of Collection	:	04.03.2022.
Date of submission	:	07.03.2022.
Sample Collected & submitted by	:	Zonal Laboratory, Warangal
Point of Sample	:	03082 - Bore well water sample collected from D. Naga raju's Agricultural fields, Gundlapotlapally (V), Rajapur (M), Mahaboobnagar District.

Sl. No.	Parameter	Sample No.	Drinking water standards IS 10500:2012	
		03082	Max. Permissible Limit	Acceptable Limit
		Values		
1.	pH	6.77	No relaxation	6.5-8.5
2.	Electrical Conductivity	16380	-	-
4.	Total Suspended Solids	440	-	-
5.	Total Dissolved Solids	10320	2000	500
6.	Turbidity	2.06	5	1
7.	Chlorides	3584	1000	250
8.	Sulphates	3168	400	200
9.	Chemical Oxygen Demand (COD)	440	-	-
10.	BOD 3days at 27°C	8	-	-
11.	Total Hardness(as Ca CO_3)	3675	600	200
12.	Ammonia as Total Ammonia-N	2.8	No relaxation	0.5
13.	Calcium as Ca^{++}	724	200	75
14.	Magnesium as Mg^{++}	453	100	30
15.	Total alkalinity as $CaCO_3$	640	600	200
16.	Nitrates as NO_3^-	5.5	No relaxation	45
17.	Fluoride as F^-	2.0	1.5	1.0
19.	Copper as Cu	0.041	1.5	0.05
20.	Iron as Fe	0.134	No relaxation	0.3
21.	Zinc as Zn	0.177	15	5
22.	Cadmium as Cd	0.021	No relaxation	0.003
23.	Lead as Pb	0.194	No relaxation	0.01
25.	Nickel as Ni	0.021	No relaxation	0.02
26.	Total Chromium as Cr	0.0186	No relaxation	0.05
27	Boron as B	1.02	1.0	0.5
	Units:	All values are expressed in mg/ltr, except pH, EC and Turbidity.		
	Note:	• Results related to samples as received. • "-" Indicates standard not mentioned in IS10500:1991. • "*" - For agricultural use Boran as B-shall be below 1.0 ppm as per IS 11624-1986 (reaffirmed in 2001).		

SENIOR ENVIRONMENTAL SCIENTIST
Senior Environmental Scientist
T.S. Pollution Control Board,
Zonal Laboratory Hyderabad Zone
WARANGAL-506 001.

(22)

తెలంగాణ రాష్ట్రం Telangana State	**TELANGANA STATE POLLUTION CONTROL BOARD** **ZONAL LABORATORY: HYDERABAD ZONE** H.No : 1-8-269, Balasamudram, Warangal – 506001
	ISO Certified Laboratory ISO 9001:2015 (Q-180211R) & ISO-45001:2018 (S-180204R)

ANALYSIS REPORT

Sample Code	:	ZLWGL22-03083
Sample description	:	Downstream of vagu adjacent to Agriculture fields of D. Naga Raju, Gundlapotlapally (V), Rajapur (M), Mahaboobnagar District.
Date of Collection	:	04.03.2022.
Date of submission	:	07.03.2022.
Sample Collected & Submitted by	:	Zonal Laboratory, Warangal
Point of Sample	:	03083-Water sample collected from vagu adjacent to Agriculture fields of D. Naga Raju, Gundlapotlapally (V), Rajapur (M), Mahaboobnagar District.

Sl. No.	Parameter	Sample No.	CPCB Water Quality Criteria				
		03083	Class-A	Class-B	Class-C	Class-D	Class-E
		Values					
1.	pH	7.56	6.5-8.5	6.5-8.5	6.0-9.0	6.5-8.5	6.0-8.5
2.	Electrical Conductivity (µS/cm)	6730	-	-	-	-	2250 Max
3.	Total Suspended Solids	26	-	-	-	-	-
4.	Total Dissolved Solids	3996	-	-	-	-	-
5.	Dissolved Oxygen	4.97	≥6.0	≥5.0	≥4.0	≥4.0	-
6.	Chemical Oxygen Demand (COD)	43	-	-	-	-	-
7.	BOD 3days at 27°C	1.7	≤2.0	≤3.0	≤3.0	-	-
8.	Total Coliform	11	≤50	≤500	≤5000	-	-
9.	Fecal Coliform	2	-	-	-	-	-
10.	Free Ammonia	0.113	-	-	-	≤1.2	-
11.	Boron as B	0.398	-	-	-	-	2 Max
12.	Sodium Absorption Ratio	**	-	-	-	-	26 Max
Units:	*All values are expressed in mg/l except pH, Electrical Conductivity, Total Coliform andFecal Coliform.*						
Note:	"**"- Parameter is not analyzed due to instrument problem.						

Class of Water use:
Class-A: Drinking Water Source without conventional treatment but after disinfection.
Class-B: Outdoor bathing (Organized).
Class-C: Drinking water source after conventional treatment and disinfection.
Class-D: Propagation of Wild life and Fisheries.
Class-E: Irrigation, Industrial Cooling, Controlled Waste disposal.
Below Class E: Not meeting A, B, C, D and E criteria.

SENIOR ENVIRONMENTAL SCIENTIST

Senior Environmental Scientist
T.S. Pollution Control Board,
Zonal Laboratory Hyderabad Zone
WARANGAL-506 001.

TELANGANA STATE POLLUTION CONTROL BOARD
ZONAL LABORATORY: HYDERABAD ZONE
H.No : 1-8-269, Balasamudram, Warangal – 506001
ISO Certified Laboratory
ISO 9001:2015 (Q-180211R) & ISO-45001:2018 (S-180204R)

ZONAL LABORATORY
ANALYSIS REPORT

Reg. No. WGL/05/TSPCB/ZL/LAB/2022- 03084	Collected by: Zonal Lab, Warangal
Collected on: 04/03/2022	Received on: 07/03/2022
Test method: USEPA, SW846 & APHA 23rd Edition	Quantity of the sample: 500 gm Sample
Issue date: 16.03.2022	Page No.: 1 of 1
Source	Downstream of vagu adjacent Agriculture fields of D. Naga Raju's, Gundlapotlapally (V), Rajapur (M), Mahaboobnagar District.
Sample Code	**Sample details/ Collection Point**
03084	Soil sample collected from Vagu, adjacent agriculture Land of D. Naga Raju Gundlapotlapally (V), Rajapur (M), Mahaboobnagar District.

Parameter (S)	Ratio	Results
		03084
Colour	-	Brown
State	-	Solid
pH	(1:5)	7.22
Electrical Conductivity (µS/cm)	(1:5)	24670
Chemical Oxygen Demand (COD) (mg/gr)	(1:5)	459
Copper as Cu	(1:100)	7.7
Zinc as Zn	(1:100)	18.1
Cadmium as Cd	(1:100)	ND
Lead as Pb	(1:100)	11.9
Nickel as Ni	(1:100)	13.2
Total Chromium as Cr	(1:100)	16.4
Mercury as Hg	(1:100)	0.00407
Note:	All values are expressed in gr/kg, except pH, EC and COD is expressed in mg/gr.	

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Senior Environmental Scientist
T.S. Pollution Control Board,
Zonal Laboratory: Hyderabad Zone
WARANGAL-506 001.

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TELANGANA STATE POLLUTION CONTROL BOARD
ZONAL LABORATORY: HYDERABAD ZONE
H.No : 1-8-269, Balasamudram, Warangal – 506001
ISO Certified Laboratory
ISO 9001:2015 (Q-180211R) & ISO-45001:2018 (S-180204R)

ANALYSIS REPORT

Sample Code	:	ZLWGL22-03085
Sample description	:	Agriculture fields of D. Balaiah's, Gundlapotlapally (V), Rajapur (M), Mahaboobnagar District.
Date of Collection	:	04.03.2022.
Date of submission	:	07.03.2022.
Sample Collected & submitted by	:	Zonal Laboratory, Warangal
Point of Sample	:	03085 - Open well water sample collected from D. Balaiah's Agricultural Land, Gundlapotlapally (V), Rajapur (M), Mahaboobnagar District.

Sl. No.	Parameter	Sample No.	Drinking water standards IS 10500:2012	
		03085	Max. Permissible Limit	Acceptable Limit
		Values		
1.	pH	7.47	No relaxation	6.5-8.5
2.	Electrical Conductivity	3290	-	-
4.	Total Suspended Solids	410	-	-
5.	Total Dissolved Solids	1852	2000	500
6.	Chemical Oxygen Demand (COD)	47	-	-
7.	Turbidity	170	5	1
8.	Chlorides	629	1000	250
9.	Sulphates	305	400	200
10.	Total Hardness(as Ca CO_3)	1010	600	200
11.	Ammonia as Total Ammonia-N	1.68	No relaxation	0.5
12.	Calcium as Ca^{++}	58	200	75
13.	Magnesium as Mg^{++}	210	100	30
14.	Total alkalinity as $CaCO_3$	325	600	200
15.	Nitrates as NO_3^-	1.17	No relaxation	45
16.	Fluoride as F^-	0.975	1.5	1.0
17.	Boran as B	0.996	1.0	0.5
18.	Copper as Cu	0.0064	1.5	0.05
19.	Iron as Fe	4.832	No relaxation	0.3
20.	Zinc as Zn	0.1094	15	5
21.	Cadmium as Cd	0.0014	No relaxation	0.003
22.	Lead as Pb	0.0414	No relaxation	0.01
24.	Nickel as Ni	0.039	No relaxation	0.02
25.	Total Chromium as Cr	0.015	No relaxation	0.05
Units:		All values are expressed in mg/ltr, except pH, EC and Turbidity.		
Note:		• Results related to samples as received. • "-" Indicates standard not mentioned in IS10500:1991. • "*"For agricultural use Boran as B-shall be below 1.0 ppm as per IS 11624-1986 (reaffirmed in 2001).		

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Zonal Laboratory Hyderabad Zone
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(25)

తెలంగాణ రాష్ట్రం Telangana State	**TELANGANA STATE POLLUTION CONTROL BOARD** **ZONAL LABORATORY: HYDERABAD ZONE** H.No : 1-8-269, Balasamudram, Warangal – 506001 **ISO Certified Laboratory** ISO 9001:2015 (Q-180211R) & ISO-45001:2018 (S-180204R)

ANALYSIS REPORT

Sample Code	:	**ZLWGL22- 03086**
Sample description	:	Upstream of GTN textile near Vagu, Gundlapotlapally (V), Rajapur (M), Mahaboobnagar District.
Date of Collection	:	04.03.2022.
Date of submission	:	07.03.2022.
Sample Collected & submitted by	:	Zonal Laboratory, Warangal
Point of Sample	:	**03086** – Upstream of GTN Textile near Vagu water sample collected at Gundlapotlapally (V), Rajapur (M), Mahaboobnagar District.

Sl. No.	Parameter	Sample No.	CPCB Water Quality Criteria				
		03086	Class-A	Class-B	Class-C	Class-D	Class-E
		Values					
1.	pH	7.46	6.5-8.5	6.5-8.5	6.0-9.0	6.5-8.5	6.0-8.5
2.	Electrical Conductivity (µS/cm)	8030	-	-	-	-	2250 Max
3.	Total Suspended Solids	34	-	-	-	-	-
4.	Total Dissolved Solids	4938	-	-	-	-	-
5.	Dissolved Oxygen	4.8	≥6.0	≥5.0	≥4.0	≥4.0	-
6.	Chemical Oxygen Demand (COD)	35	-	-	-	-	-
7.	BOD 3days at 27°C	1.6	≤2.0	≤3.0	≤3.0	-	-
8.	Total Coliform	8.3	≤50	≤500	≤5000	-	-
9.	Fecal Coliform	1.8	-	-	-	-	-
10.	Free Ammonia	0.036	-	-	-	≤1.2	-
11.	Boron as B	0.08	-	-	-	-	2 Max
12.	Sodium Absorption Ratio	**	-	-	-	-	26 Max
Units:	*All values are expressed in mg/l except pH, Electrical Conductivity, Total Coliform and Fecal Coliform.*						
Note:	"**"- Parameter is not analyzed due to instrument problem.						

Class of Water use:
Class-A: Drinking Water Source without conventional treatment but after disinfection.
Class-B: Outdoor bathing (Organized).
Class-C: Drinking water source after conventional treatment and disinfection.
Class-D: Propagation of Wild life and Fisheries.
Class-E: Irrigation, Industrial Cooling, Controlled Waste disposal.
Below Class E: Not meeting A, B, C, D and E criteria.

S. V. S. Murthy
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TELANGANA STATE POLLUTION CONTROL BOARD
ZONAL LABORATORY: HYDERABAD ZONE
H.No : 1-8-269, Balasamudram, Warangal – 506001
ISO Certified Laboratory
ISO 9001:2015 (Q-180211R) & ISO-45001:2018 (S-180204R)

ANALYSIS REPORT

Reg. No. WGL/05/TSPCB/ZL/LAB/2022- 03087	Collected by: Zonal Lab, Warangal
Collected on: 04/03/2022	Received on: 07/03/2022
Test method: USEPA, SW846 & APHA 23rd Edition	Quantity of the sample: 500 gr Sample
Issue date: 16/03/2022	Page No.: 1 of 1

Source	Upstream of GTN textile near Vagu, Gundlapotlapally (V), Rajapur (M), Mahaboobnagar District.
Sample Code	**Sample details/ Collection Point**
03087	,Vagu soil sample (Upstream of GTN Textile) Gundlapotlapally (V), Rajapur (M), Mahaboobnagar District.

Parameter (S)	Ratio	Results
		03087
Colour	-	Brown
State	-	Solid
pH	(1:5)	7.33
Electrical Conductivity (µS/cm)	(1:5)	7200
Chemical Oxygen Demand (COD) (mg/gr)	(1:5)	40
Copper as Cu	(1:100)	3.2
Zinc as Zn	(1:100)	10.5
Cadmium as Cd	(1:100)	ND
Lead as Pb	(1:100)	9.0
Nickel as Ni	(1:100)	9.5
Total Chromium as Cr	(1:100)	9.3
Note:	All values are expressed in gr/kg, except pH, EC. COD is expressed in mg/gr.	

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TELANGANA STATE POLLUTION CONTROL BOARD
ZONAL LABORATORY: HYDERABAD ZONE
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ISO Certified Laboratory
ISO 9001:2015 (Q-180211R) & ISO-45001:2018 (S-180204R)

ANALYSIS REPORT

Sample Code	:	ZLWGL22-03088
Sample description	:	Borewell sample at Temple (Mahalaxmi Temple), Gundlapotlapally (V), Rajapur (M), Mahaboobnagar District.
Date of Collection	:	04.03.2022.
Date of submission	:	07.03.2022.
Sample Collected & submitted by	:	Zonal Laboratory, Warangal
Point of Sample	:	03088 – Bore well water sample collected at Temple (Mahalaxmi Temple) of Gundlapotlapally (V), Rajapur (M), Mahaboobnagar District.

Sl. No.	Parameter	Sample No.	Drinking water standards IS 10500:2012	
		03088	Max. Permissible Limit	Acceptable Limit
		Values		
1.	pH	7.21	No relaxation	6.5-8.5
2.	Electrical Conductivity	1498	-	-
4.	Total Suspended Solids	25	-	-
5.	Total Dissolved Solids	879	2000	500
	Chemical Oxygen Demand (COD)	16	-	-
6.	Turbidity	7.66	5	1
7.	Chlorides	237	1000	250
8.	Sulphates	38	400	200
9.	Total Hardness(as Ca CO_3)	480	600	200
10.	Ammonia as Ammonia-N	NIL	No relaxation	0.5
11.	Calcium as Ca^{++}	88	200	75
12.	Magnesium as Mg^{++}	63	100	30
13.	Total alkalinity as $CaCO_3$	300	600	200
14.	Nitrates as NO_3^-	4.91	No relaxation	45
15.	Fluoride as F^-	0.475	1.5	1.0
16.	Boran as B	0.88	1.0	0.5
17.	Copper as Cu	<0.004	1.5	0.05
18.	Iron as Fe	2.152	No relaxation	0.3
19.	Zinc as Zn	0.0472	15	5
20.	Cadmium as Cd	<0.0028	No relaxation	0.003
21.	Lead as Pb	0.018	No relaxation	0.01
23.	Nickel as Ni	0.019	No relaxation	0.02
24.	Total Chromium as Cr	0.0186	No relaxation	0.05

Units: All values are expressed in mg/ltr, except pH, EC and Turbidity.

Note:
- Results related to samples as received.
- "-" Indicates standard not mentioned in IS10500:1991.
- "*" - For agricultural use Boran as B-shall be below 1.0 ppm as per IS 11624-1986 (reaffirmed in 2001).

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TELANGANA STATE POLLUTION CONTROL BOARD

Paryavarana Bhavan, A-3, Industrial Estate, Sanathnagar, Hyderabad – 500 018
Ph: 040-23887500

CENTRAL LABORATORY

GC-MS Analysis Report

Reg. No. SR/05/TSPCB/HO/R00/LAB/22/03/093-094

Collected on:04/03/2022
Test method: Standard Methods of APHA, 23rd Edition
Issue date: 17/03/2022

Collected by: NGT- Joint Committee
Submitted by: Zonal Lab - Warangal
Received on: 05/03/2022
Quantity of the sample: 1 Ltr. sample each
Page No.: 1 of 1

Source : Borewell and Openwell samples Collected from Gundlapotlapally Village.

Sample code	:	Sample details / collection point
22/03/093	-	Borewell Water of Sri D. Nagaraju's agriculture fields, Gundlapotlapally Village, Rajapur (M), Mahaboobnagar District.
22/03/094	-	Open well water of Sri. D. Baliah's agriculture fields, Gundlapotlapally Village, Rajapur (M), Mahaboobnagar District.

Sample Code: 22/03/093

S. No	Compounds identified
1	No Compound detected.

Sample Code: 22/03/094

S. No	Compounds identified
1	No Compound detected.

Note: Results related to sample as received.

Joint Chief Environmental Scientist

.....End of report.....

(ANNEXURE - IV) (29)

ANNEXURE - IV

GOVERNMENT OF TELANGANA
DEPARTMENT OF AGRICULTURE

From:

Sri.B.Venkatesh, B.Sc.,(Ag)
District Agriculture Officer(FAC),
Mahabubnagar.

To:

The Telangana State Pollution Control Board,
Regional Office: Hyderabad,
4th Floor Podupu Bhavan, Hyderabad
Collectorate Complex N.S.Road,
Hyderabad – 500001.

Lr.No.B1/167/2022, Dt: 14.03.2022.

SIR,

Sub:- TSPCB – Legal – Hon'ble NGT, Chennai – Original application no.13 of 2022 filed by Sri.Dara Nagaraju, R/o.Mahabubnagar Dist Vs Union of India & Others – Order dated:03.2.2022 – submitting information – Reg.

Ref:-1.Telangna State pollution control board Lr No.4/NGT-Chennai/TSPCB/Legal/2022-63, Dt:25.02.2022.
2.This office Memo No. even, Dt:28.02.2022 addressed to ADA @ Jadcherla.
3.ADA @ Jadcherla Lr No.A/RJP/2022, Dt: 10.03.2022.

* * *

I submit enclosed herewith the report which was received from the ADA @ Jadcherla as per the orders of the Telangana State Pollution control Board, against the Sri.Dara Nagaraju, R/o Mahabubnagar district vide reference 1st & 3rd cited.

Submitted for further necessary action.

Yours faithfully,
B. Venk 14/3/22
District Agriculture Officer,
Mahabubnagar.

Enc: (8)

O/c AO

Register Post.

JN
@14-3-2022

DESPATCHED

GOVERNMENT OF TELANGANA
DEPARTMENT OF AGRICULTURE

(30)

From

Assistant Director of Agriculture
(Regular) Jadcherla.

To

District Agriculture Officer
Mahabubnagar

Lr.No:A/RJP/2022, dt: .3.2022

Sir/Madam,

Sub: TSPCB-legal-Hon'ble NGT, Chennai, Submission of enquiry report req-reg.

Ref: 1.Telangana state pollution control board Lr No.4/NGT-Chennai/TSPCB/Legal/2022-63, Dt:25.02.2022
2.JDA M'nagar Memo No: B1/167/2022 Dt: 28.03.2022.

><><

As per the instructions of Joint committee who are instructed on 04/03/2022. Collected soil samples and water samples in the fields of D Balaiah s/o Nagaiah and also adjacent farmers.

As per the joint committee instructions MAO Rajapur, AEO Rangareddy guda cluster jointly collected soil samples randomly in the field of Balaiah area of 2.23 acres and adjacent farmers fields D.Ramulu s/o Nagaiah, K.Ramulu fields and submitted to Assistant director of agriculture soil testing laboratory Jadcherla on 04-03-2022, received results above mentioned soil and water samples on 08/03/2022 from Assistant director of agriculture soil testing laboratory, Jadcherla.

As per results dara Balaiah soil samples showing that slightly acidic as per the recommendations of Assistant director of agriculture soil testing laboratory, Jadcherla the slightly acidic soil reclamated by applying **lime 950kg/acre**. Soil can become suitable for dryland agriculture under rainfed condition.

Adjacent farmer as per soil tested results fields of K.Ramulu field far from D.Balaiah is also slightly acidic, same recommendations applicable for K.Ramulu farmer field.

The soil sample collected from Dara Ramlu field in Between Dara Balaiah and industry results shows that the soil sample is **slightly alkaline**, application of **gypsum 200-250kg/acre** for three years, soil can become normal for cultivation of dryland agriculture crops under rainfed conditions

Where as one soil sample collected on bund of dundubhi vaagu shows that **slightly acidic**.

Water sample collected from D Balaiah borewell water results of Assistant director of agriculture soil testing laboratory Jadcherla water is polluted with **bicarbonates, chlorides, calcium, magnesium and sodium** more than requirement in water which are hindrance to growth of agricultural crops under irrigation condition.

Conclusion:-

As per results of soil samples the farmer Dara Balaiah s/o Nagaiah land is **slightly acidic**. It can be managed by applying **lime 950kg/acre** and it will suitable for dry land agriculture under rainfed condition. As per results water sample of farmer borewell is not suitable for agriculture crops under irrigated conditions.

Submitted for information.

Yours faithfully,

Mandal Agriculture Officer,
Mdl. Rajapur, Dist. Mahabubnagar

Assistant Director of Agriculture (R)
Jadcherla
Dist. Mahabubnagar (T.S)

Encl: 1.Soil sample results (6) copies.
2.Water sample results (1) copies.

సేద్యపు నీటి తరగతులు (31)

దిగుబడుల పై చౌడు నీటి ప్రభావము	దిగుబడుల పై ఉప్పు నీటి ప్రభావము
తరగతి - సి 1 (లవణ సూచిక 0.25కి తక్కువ) ఈ నీరు తక్కువ మోతాదులో చౌడు గుణములను కలిగి ఉన్నందున అన్ని రకముల నేలలకు మరియు అన్ని రకముల పంటల సేద్యమునకు వాడవచ్చును. కాని ఈ నేల తప్పని సరిగా నీరు ఇంకు స్వభావమును కలిగి ఉండవలెను.	**తరగతి - ఎస్ 1 (ఆర్.ఎస్.ఎస్. 10.00 మరియు అంతకు తక్కువ)** ఈ నీరు ఉప్పు (సోడియంను) తక్కువ మోతాదులో కలిగి ఉన్నందున అన్ని పంటల సేద్యమునకు వాడవచ్చును. కాని ఉప్పును తట్టుకొనలేని పంటల సేద్యమునకు మరియు టెంకె కలిగిన పళ్ళతోటల సేద్యమునకు ఉదా:- మామిడి మరియు రేగ్గుం మొదలగున వాటికి వాడినప్పుడు వాటిలో ప్రమాదకరమైన మోతాదులలో ఉప్పు చేరు అవకాశమున్నది
తరగతి - సి2 (లవణ సూచిక 0.25నుండి 0.75వరకు ఈ నీరు మధ్యరకము చౌడు నీరు. ఈ నీటికి సేద్యమునకు వాడుటకు ఆ నేలలు మధ్యరకముగా నీరు ఇంకు స్వభావమును కలిగి వుండవలెను. మరియు చౌడును మధ్యరకముగా తట్టుకొనగల పంటల సేద్యమును ఏ విధమయిన ప్రత్యామ్నాయ పద్ధతులను పాటించకుండా వాడవచ్చును.	**తరగతి - ఎస్ 2 (ఆర్.ఎస్.ఎస్. 10.00 నుంచి 18.00 వరకు)** ఈ నీరు మధ్యతరగతి ఉప్పునీరు అయినందున సేద్యమునకు వాడినప్పుడు బరువు నేలలో లేదీ మురుగునీరు పోవు సదుపాయములేని నేలలో ఉప్పు ప్రభావము దిగుబడుల మీద కనిపించు అవకాశమున్నది. ఇందుకు ప్రత్యామ్నాయముగా ఆ నేల ఎక్కువ మోతాదులో జిప్సమును (సున్నమును) కలిగి ఉండాలి. ఈ నీటిని సేద్యమునకు నీరు ఇంకు గుణము మరియు సేంద్రీయ కర్బనమును ఎక్కువ మోతాదులలో కలిగి వున్న తేలిక నేలల సేద్యమునకు వాడవచ్చును.
తరగతి - సి3 (లవణ సూచిక 0.75 నుండి 2.25 వరకు ఈ నీరు ఎక్కువ మోతాదులో చౌడు గుణములు కలిగి ఉన్నందున నీరు పోవు సదుపాయము లేని నేలల సేద్యమునకు వాడరాదు. మురుగు నీరు పోవుసదుపాయమునకు ఆ నేలకు కల్పించినా, ప్రత్యేక సేద్య పద్ధతులను పాటిస్తు చౌడును తట్టుకొనగలిగిన పంటల సేద్యమునకు మాత్రమే ఈ నీటిని వాడవచ్చును.	**తరగతి - ఎస్ 3(ఆర్.ఎస్.ఎస్. 18.00 నుంచి 26.00 వరకు)** ఎక్కువ మోతాదులో ఉప్పును కలిగిఉన్న నీరు. ఈ నీటిని సేద్యమునకు వాడుట వలన అన్ని రకములైన నేలలలోను ఉప్పును ప్రమాదకరమైన మోతాదులలో మిగుల్చుతుంది (నేలలో) అందువలన ఈ నీటితో సేద్యము చేయుచున్న నేలలకు ప్రత్యేకసేద్య పద్ధతులను పాటిస్తూ ఎక్కువ మోతాదులో సేంద్రియ కర్బనమునకు మరియు సూచించిన మోతాదులలో జిప్సం ఎరువును ఆ నేలకు సమకూర్చ వలసి వుంటుంది.
తరగతి - సి4 (లవణ సూచిక 2.25 నుంచి చౌడు లక్షణములు చాలా ఎక్కువ మోతాదులో కలిగివున్న చౌడునీరు మాములు పరిస్థితుల్లో సేద్యమునకు వాడకూడని నీరు కాని తప్పని సరి పరిస్థితులలో అనగా సేద్యమునకు ఈ నీరు తప్ప వేరె నీరు లేనప్పుడు ముందుగా ఆ నేలకు నీరు ఇంకు స్వభావమును కల్పించుటకు పశువుల సేంద్రీయ ఎరువు = ...+పూడిక మట్టి =........ +జనీద (ఇటుకల బట్టిల నుండి)=..........టండ్లు/ వర్మికంపోస్టు=....................కి.గ్రా॥ /ఎకరాకు లను వాడుతు శాస్త్రీయ పద్ధతులలో మాత్రమే సేద్యమునకు వాడవచ్చును.	**తరగతి - ఎస్ 4(ఆర్.ఎస్.ఎస్.26.00నుంచి)** ఉప్పును (సోడియం) ను అధిక మోతాదులో కలిగి వున్న మరియు సాధారణముగా సేద్యమునకు వాడకూడని నీరు. తప్పనిసరి పరిస్థితులలో ఈ నీటిలో కలిగివున్న ఉప్పు (సోడియం) మోతాదును తగ్గించు ఎరువులతో కూడ (జిప్సంలో) లేదా శాస్త్రీయ సేద్య పద్ధతులలో మాత్రమే వాడవచ్చును.

1. వ్యవసాయ శాఖ, అమెరికా వారిచేత పుస్తకం నెం. 60 చౌడు నేలలను గుర్తించి వాటిని బాగు పరుచుటకు పేజి నెం. 79,80 మరియు 81 నుండి.

2. Guide Line for Soail Based Technologies to optimise Land Productivity in Andhra Pradesh -A. Prasad Rao & Bhupal Raj.

సహాయ వ్యవసాయ సంచాలకులు
Soil Testing Laboratory
JADCHERLA

తెలంగాణ

ప్రభుత్వ వ్యవసాయ శాఖ (32)

భూసార మరియు సేద్యపు నీటి పరీక్షా కేంద్రము

జడ్చర్ల, మహబూబ్‌నగర్ జిల్లా - 509 001

పేరు: D. Naga Raju .... నమూనా సేకరించిన తేది: 09.03.2022

సర్వే నంబరు: .... నేల రకము: ....

గ్రామము: Gundlapotlapally .... సేద్యపు నీటి వనరు: Bore Well

మండలము: Rajapur .... పరిశోధనశాల సంఖ్య: 4

క్రమ సంఖ్య	పరీక్ష పేరు		వుండదగినది	
1	ఉదజని సూచిక (పి. హెచ్.) = 6.22		6.0 నుండి 7.0 వరకు	
2	లవణ సూచిక (ఇ.సి..) = 1.25		0.25 కు తక్కువ	
రుణావేశము (-) కలిగిన యానయానులు / మి. ఈక్వలెంట్లు/లీటరుకు				
1	కార్బోనేట్లు = Absent		1.0 వరకు	
2	బైకార్బోనేట్లు = 10.4		1.0 నుండి 10.00 వరకు	
3	సల్ఫేటులు (గంధకము) = Absent		20.00 వరకు	
4	క్లోరయిడ్లు	వుండదగినవి	మధ్యస్థముగా మంచివి	మంచివి కావు
397.6	మి.గ్రా. / లీ	140 కు తక్కువ	140 నుండి 350 వరకు	350 కు మించి
ధనావేశము (+) కలిగిన క్యాట యానయానులు / మి. ఈక్వలెంట్లు / లీటరుకు				
1	సోడియం (ఉప్పు) = 5.9		40 వరకు	
2	పొటాషియం =		0.02 వరకు	
3	కాల్షియం మరియు	వుండదగినవి	మధ్యస్థముగా మంచివి	సేద్య యోగ్యము కాదు
18.4	మెగ్నీషియం మి.గ్రా./లీ.	1.65 తక్కువ	1.65 మించి3.0 వరకు	3.0 కు మించి
4	సోడియంను స్వీకరించగల నిష్పత్తి (S.A.R.)	= 10.76		
5	నేలపైన మిగిలివున్న సోడియం కార్బోనేట్లు (R.S.C.)	= 8.0		
(2 కు తక్కువ - మంచిది		2 నుండి 4వరకు - మధ్యస్థము	4కు మించి - సేద్యయోగ్యంకాదు)	

తరగతి = C3 S1

వివరణ = క్రింద చూడుము.

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...RNAMENT OF TELANGANA

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కేంద్రము : Jadcherla నమూనా సంఖ్య :

తేది : 05/03/2022

Kucharukanti Romulu తండ్రి పేరు : Pendaiah

సర్వే నెం. 107.

Gundlapotlapally మండలము : Rajapur

జిల్లా మహబూబ్‌నగర్.

1. స్వభావము : CL	తేలిక నేలలు	మధ్యరకపు నేలలు	బరువు నేలలు ✓
2. ఉదజని సూచిక (పి హెచ్) : 6.67	ఆమ్లము	తటస్థము ✓	అల్ప క్షారము మధ్య క్షారము అధిక క్షారము
3. లవణ సూచిక (ఇ.సి) 0.63	సామాన్యం ✓	మొలకెత్తుట కష్టం	పంటలకు హానికరము
4. సేంద్రీయ కర్బనము (ఓ.సి.) : M	తక్కువ	మధ్యస్థము ✓	ఎక్కువ
5. లభ్య నత్రజని కి.గ్రా/ఎ : 105	తక్కువ ✓	మధ్యస్థము	ఎక్కువ
6. లభ్య భాస్వరము కి.గ్రా/ఎ 16.2	తక్కువ	మధ్యస్థము ✓	ఎక్కువ
7. లభ్య పొటాష్ కి.గ్రా/ఎ 675.5	తక్కువ	మధ్యస్థము	ఎక్కువ ✓
8. వేయవలసిన పైరు :	ఋతువు :		

పైరుకు అవసరమైన పోషక పదార్థములు	మోతాదు	స్థానికంగా లభ్యమగు ఎరువులు	మోతాదు
1. నత్రజని (N) కి.గ్రా/ఎ :		1. సేంద్రీయ ఎరువులు ట/ఎ :	
2. భాస్వరము (P) కి.గ్రా/ఎ :		2. యూరియా :	
3. పొటాష్ (K) కి.గ్రా/ఎ		3. డి.ఎ.పి. :	
		4. మ్యూరేట్ ఆఫ్ పొటాష్ :	
		5. అమ్మోనియం సల్ఫేట్ :	
		6. సి.ఎ.ఎన్.	
		7. కాంప్లెక్స్ ఎరువులు :	

చౌడు నేలలు = నీరు పెట్టుట & తీయుట

క్షార నేలలు : జిప్సం ట/ఎ = ఆమ్ల నేలలు : కాల్షియం కార్బోనేట్ (సున్నం పొడి) కి.గ్రా./ఎ =

వాడవలసిన ఎరువు మోతాదు కి./ఎ = (సూచించిన పోషక పదార్థము మోతాదు కి.గ్రా. ఎకరమునకు × 100) / (ఎరువు సంచి మీద సూచించిన పోషక విలువ)

1. నల్లచవుడు (క్షార నేల) లక్షణము కలిగి యున్నందున ఎకరానికి పైన సూచించినట్లుగా జిప్సము వేసి నేల బాగుచేయాలి. మరియు సేంద్రీయ ఎరువులు ఎక్కువగా వేయాలి. లేదా పచ్చిరొట్ట పైరు వేసి నేలతో కలియదున్నాలి.
2. తెల్ల చవుడు (పాల చవుడు) (లవణ పరిమాణము ఎక్కువగా ఉన్న నేలలు) నేలలు – నేలను బాగుగా కలియదున్ని మంచి నీటితో మడులు కట్టి 24 గంటల తర్వాత మురుగు కాలువ ద్వారా నీరుని బయటకు వదలవలెను. ఈవిధముగా 4,5 సార్లు చేసిన యెడల భూమిలో ఉన్న లవణములు నీటిలో కరిగి మామూలు స్థితికి వచ్చును. అంతేగాక – పశువుల ఎరువు, సూటిక మట్టి (టాంక్ సిల్టు)ని వేసినచో నేల స్వభావము చాలా వరకు మారును.
3. ఆమ్ల నేలలు – ఎకరమునకు పైన సూచించిన కిలోగ్రాములు సున్నము వేసి భూమిని బాగుచేసుకొనవలెను. ఈ నేలల్లో తగిన పంటలను మాత్రమే వేయవలెను.

సహాయ వ్యవసాయ సంచాలకులు / Asst. Director of Agriculture
భూసారము పరీక్ష కేంద్రము / Soil Testing Laboratory
జడ్చర్ల – 509 JADCHERLA, మహబూబ్‌నగర్.

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ప్రయోగశాల : Jadcherla   నమూనా సంఖ్య :   తేది : 05/03/2022

రైతు పేరు : D. Ramulu   తండ్రి పేరు : Nagaiah   సర్వే నెం. 71

గ్రామము : Gundlapotlapally   మండలము : Rajapur   జిల్లా మహబూబ్‌నగర్.

5. నేల స్వభావము : CL	తేలిక నేలలు	మధ్యరకపు నేలలు	బరువు నేలలు ✓
6. ఉదజని సూచిక (పి. హెచ్) : 7.76	ఆమ్లము	తటస్థము	అల్ప క్షారము ✓ మధ్య క్షారము అధిక క్షారము
లవణ సూచిక (ఇ.సి) 0.76	సాధారణం ✓	మొలకెత్తుట కష్టం	పంటలకు హానికరము
సేంద్రీయ కర్బనము (ఓ.సి.) : H	తక్కువ	మధ్యస్థము	ఎక్కువ ✓
లభ్య నత్రజని కి.గ్రా/హె : 107	తక్కువ ✓	మధ్యస్థము	ఎక్కువ
లభ్య భాస్వరము కి.గ్రా/హె 11.88	తక్కువ	మధ్యస్థము ✓	ఎక్కువ
7. లభ్య పొటాష్ కి.గ్రా/హె 472.5	తక్కువ	మధ్యస్థము	ఎక్కువ ✓
8. వేయవలసిన పైరు :	ఋతువు :		

పైరుకు అవసరమైన పోషక పదార్థములు	మోతాదు	స్థానికంగా లభ్యమగు ఎరువులు	మోతాదు
1. నత్రజని (N) కి.గ్రా/హె :		1. సేంద్రీయ ఎరువులు టి/హె :	
2. భాస్వరము (P) కి.గ్రా/హె :		2. యూరియా :	
3. పొటాష్ (K) కి.గ్రా/హె :		3. డి.ఏ.పి. :	
		4. మ్యూరేట్ ఆఫ్ పొటాష్ :	
		5. అమ్మోనియం సల్ఫేట్ :	
		6. సి.ఎ.ఎస్.	
		7. కాంప్లెక్స్ ఎరువులు :	

చౌడుబారు నేలలు =	నీరు పెట్టుట & తీయుట
క్షార నేలలు : జిప్సం టి/హె =	ఆమ్ల నేలలు : కాల్షియం కార్బోనేట్ (సున్నం పొడి) కి.గ్రా./హె =

వాడవలసిన ఎరువు మోతాదు కి./హె = (సూచించిన పోషక పదార్థము మోతాదు కి.గ్రా. ఎకరమునకు × 100) / (ఎరువు నందు గల సూచించిన పోషక విలువ)

1. నల్లచవుడు (క్షార నేల) లక్షణము కలిగి యున్నందున ఎకరానికి పైన సూచించినట్లు జిప్సము వేసి నేను బాగుచేయాలి, మరియు సేంద్రీయ ఎరువులు ఎక్కువగా వేయాలి. లేదా పచ్చిరొట్ట పైరు వేసి నేలతో కలియదున్నాలి.
2. తెల్ల చవుడు (పాల చవుడు) (లవణ పరిమాణము ఎక్కువగా ఉన్న నేలలు) నేలలు - నేలను బాగుగా కలియదున్ని మంచి నీటితో మడులు కట్టి 24 గంటల తర్వాత మురుగు కాలువ ద్వారా నీరుని బయటకు వదలవలెను. ఈవిధముగా 4,5 సార్లు చేసిన యెడల భూమిలో ఉన్న లవణములు నీటిలో కరిగి మామూలు స్థితికి వచ్చును. అంతేగాక - పశువుల ఎరువు, పూడిక మట్టి (టాంక్ సిల్ట్)ని వేసినచో నేల స్వభావము చాలా వరకు మారును.
3. ఆమ్ల నేలలు - ఎకరమునకు పైన సూచించిన కిలోగ్రాముల సున్నము వేసి భూమిని బాగుచేసుకొనవలెను. ఈ నేలల్లో తగిన పంటలను మాత్రమే వేయవలెను.

సహాయ వ్యవసాయ సంచాలకులు
భూసార పరీక్షా కేంద్రము / Soil Testing Laboratory
జడ్చర్ల - 509 301, మహబూబ్‌నగర్.
JADCHERLA-509 301

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పరీక్షా కేంద్రము : Jadcherla నమూనా సంఖ్య : తేది : 05/03/2022

రైతు పేరు : Dunmubi Vagy తండ్రి పేరు : సర్వే నెం.

గ్రామము : Gundlapotlapally మండలము : Rajapur జిల్లా మహబూబ్‌నగర్

1. నేల స్వభావము : CL	తేలిక నేలలు	మధ్యరకపు నేలలు	బరువు నేలలు ✓
2. ఉదజని సూచిక (పి. హెచ్) : 5.62	ఆమ్లము ✓	తటస్థము	అల్ప క్షారము మధ్య క్షారము అధిక క్షారము
3. లవణ సూచిక (ఇ.సి) 1.25	సామాన్యం ✓	మొలకెత్తుట కష్టం	పంటలకు హానికరము
4. సేంద్రీయ కర్బనము (ఓ.సి.) : H	తక్కువ	మధ్యస్థము	ఎక్కువ ✓
5. లభ్య నత్రజని కి.గ్రా/ఎ : 97	తక్కువ ✓	మధ్యస్థము	ఎక్కువ
6. లభ్య భాస్వరము కి.గ్రా/ఎ 15.48	తక్కువ	మధ్యస్థము ✓	ఎక్కువ
7. లభ్య పొటాష్ కి.గ్రా/ఎ 329	తక్కువ	మధ్యస్థము	ఎక్కువ ✓
8. వేయవలసిన పైరు :	ఋతువు :		

పైరుకు అవసరమైన పోషక పదార్థములు	మోతాదు	స్థానికంగా లభ్యమగు ఎరువులు	మోతాదు
1. నత్రజని (N) కి.గ్రా/ఎ :		1. సేంద్రీయ ఎరువులు ట/ఎ	
2. భాస్వరము (P) కి.గ్రా/ఎ :		2. యూరియా :	
3. పొటాష్ (K) కి.గ్రా/ఎ		3. డి.ఏ.పి. :	
		4. మ్యూరేట్ ఆఫ్ పొటాష్ :	
		5. అమ్మోనియం సల్ఫేట్ :	
		6. సి.ఏ.ఎన్.	
		7. కాంప్లెక్స్ ఎరువులు :	

కారుచౌడు నేలల = నీరు పెట్టుట & తీయుట

క్షార నేలలు : జిప్సం ట/ఎ = ఆమ్ల నేలలు : కాల్షియం కార్బోనేట్ (సున్నం పొడి) కి.గ్రా./ఎ =

వాడవలసిన ఎరువు మోతాదు కి./ఎ = సూచించిన పోషక పదార్థము మోతాదు కి.గ్రా. ఎకరముకు × 100 / ఎరువు సంచి మీద సూచించిన పోషక విలువ

1. నల్లచవుడు (క్షార నేల) లక్షణము కలిగి యున్నందున ఎకరానికి పైన సూచించినట్లు జిప్సము వేసి చేను బాగుచేయాలి, మరియు సేంద్రీయ ఎరువులు ఎక్కువగా వేయాలి. లేదా పచ్చిరొట్ట పైరు వేసి చేనులో కలియదున్నాలి.
2. తెల్ల చవుడు (పాల చవుడు) (లవణ పరిమాణము ఎక్కువగా ఉన్న నేలలు) నేలలు - నేలను బాగుగా కలియదున్ని మంచి నీటితో మడులు కట్టి 24 గంటల తర్వాత మురుగు కాలువ ద్వారా నీరుని బయటకువదలవలెను. ఈవిధముగా 4,5 సార్లు చేసిన యెడల భూమిలో ఉన్న లవణములు నీటిలో కరిగి మామూలు స్థితికి వచ్చును. అంతేగాక - పశువుల ఎరువు, పూడిక మట్టి (ట్యాంక్ సిల్ట్)ని వేసినచో నేల స్వభావము చాలా వరకు మారును.
3. ఆమ్ల నేలలు - ఎకరమునకు పైన సూచించిన కిలోగ్రాములు సున్నము వేసి భూమిని బాగుచేసుకొనవలెను. ఈ నేలల్లో తగిన పంటలను మాత్రమే వేయవలెను.

సహాయ వ్యవసాయ సంచాలకులు
భూసారము పరీక్షా కేంద్రము Soil Testing Laboratory
జడ్చర్ల - మహబూబ్‌నగర్.

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భూసార పరీక్షా కేంద్రము : Jadcherla నమూనా సంఖ్య : తేది : 05/03/2022

రైతు పేరు : D. Balaiah తండ్రి పేరు : Nagaiah సర్వే నెం. 79

గ్రామము : Gundlapotlapally మండలము : Rajapur జిల్లా మహబూబ్‌నగర్.

1. నేల స్వభావము : CL	తేలిక నేలలు	మధ్యరకపు నేలలు	బరువు నేలలు ✓
2. ఉదజని సూచిక (పి. హెచ్.): 4.96	ఆమ్లము ✓	తటస్థము	అల్ప క్షారము మధ్య క్షారము అధిక క్షారము
3. లవణ సూచిక (ఇ.సి) 0.49	సాధారణం ✓	మొలకెత్తుట కష్టం	పంటలకు హానికరము
4. సేంద్రియ కర్బనము (ఓ.సి.) : H	తక్కువ	మధ్యస్థము	ఎక్కువ ✓
5. లభ్య నత్రజని కి.గ్రా/ఎ : 104	తక్కువ ✓	మధ్యస్థము	ఎక్కువ
6. లభ్య భాస్వరము కి.గ్రా/ఎ 19.08	తక్కువ	మధ్యస్థము ✓	ఎక్కువ
7. లభ్య పొటాష్ కి.గ్రా/ఎ 234.5	తక్కువ	మధ్యస్థము	ఎక్కువ ✓
8. వేయవలసిన పైరు :	ఋతువు :		

పైరుకు అవసరమైన పోషక పదార్థములు	మోతాదు	స్థానికంగా లభ్యమగు ఎరువులు	మోతాదు
1. నత్రజని (N) కి.గ్రా/ఎ :		1. సేంద్రియ ఎరువులు టన్/ఎ	
2. భాస్వరము (P) కి.గ్రా/ఎ :		2. యూరియా :	
3. పొటాష్ (K) కి.గ్రా/ఎ		3. డి.ఎ.పి. :	
		4. మ్యూరేట్ ఆఫ్ పొటాష్ :	
		5. అమ్మోనియం సల్ఫేట్ :	
		6. సి.ఎ.ఎన్.	
		7. కాంప్లెక్స్ ఎరువులు :	

కారుచౌడు నేలలు = నీరు పెట్టుట & తీయుట

క్షార నేలలు : జిప్సం టన్/ఎ = ఆమ్ల నేలలు : కాల్షియం కార్బోనేట్ (సున్నం పొడి) కి.గ్రా./ఎ =

$$\text{వాడవలసిన ఎరువు మోతాదు కి./ఎ} = \frac{\text{సూచించిన పోషక పదార్థము మోతాదు కి.గ్రా. ఎకరమునకు} \times 100}{\text{ఎరువు సంచి మీద సూచించిన పోషక విలువ}}$$

1. నల్లచవుడు (క్షార నేల) లక్షణము కలిగి యున్నందున ఎకరానికి పైన సూచించినట్లుగ జిప్సము వేసి చేను బాగుచేయాలి, మరియు సేంద్రియ ఎరువులు ఎక్కువగా వేయాలి. లేదా పచ్చిరొట్ట పైరు వేసి చేనులో కలియదున్నాలి.
2. తెల్ల చవుడు (పాల చవుడు) (లవణ పరిమాణము ఎక్కువగా ఉన్న నేలలు) నేలలు – నేలను బాగుగా కలియదున్ని మంచి నీటితో ముంచుట కట్టి 24 గంటల తర్వాత మురుగు కాలువ ద్వారా నీరుని బయటకువదలవలెను. ఈవిధముగా 4,5 సార్లు చేసిన యెడల భూమిలో ఉన్న లవణములు నీటిలో కరిగి మామూలు స్థితికి వచ్చును. అంతేగాక – పశువుల ఎరువు, పూడిక మట్టి (టాంక్ సిల్ట్)ని వేసినచో నేల స్వభావము చాలా వరకు మారును.
3. ఆమ్ల నేలలు – ఎకరమునకు పైన సూచించిన కిలోగ్రాములు సున్నము వేసి భూమిని బాగుచేసుకొనవలెను. ఈ నేలల్లో తగిన పంటలను మాత్రమే వేయవలెను.

సహాయ వ్యవసాయ సంచాలకులు
భూసారము పరీక్షా కేంద్రము
జడ్చర్ల - 509 301. మహబూబ్‌నగర్.

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భూసార పరీక్షా కేంద్రము : Jadcherla   నమూనా సంఖ్య :   తేది : 05/03/2022

రైతు పేరు : D.Balaiah   తండ్రి పేరు : Nagaiah   సర్వే నెం. 7-9

గ్రామము : Gundlaputlapally   మండలము : Rajapur   జిల్లా మహబూబ్‌నగర్.

	తేలిక నేలలు	మధ్యరకపు నేలలు	బరువు నేలలు ✓
1. నేల స్వభావము : CL			
2. ఉదజని సూచిక (పి. హెచ్) : 5.03	ఆమ్లము ✓	తటస్థము	అల్ప క్షారము మధ్య క్షారము అధిక క్షారము
3. లవణ సూచిక (ఇ.సి) 0.03	సాధారణం ✓	మొలకెత్తుట కష్టం	పంటలకు హానికరము
4. సేంద్రీయ కర్బనము (ఓ.సి.) : H	తక్కువ	మధ్యస్థము	ఎక్కువ ✓
5. లభ్య నత్రజని కి.గ్రా/ఎ : 110	తక్కువ ✓	మధ్యస్థము	ఎక్కువ
6. లభ్య భాస్వరము కి.గ్రా/ఎ 11.56	తక్కువ	మధ్యస్థము ✓	ఎక్కువ
7. లభ్య పొటాష్ కి.గ్రా/ఎ 105	తక్కువ	మధ్యస్థము ✓	ఎక్కువ
8. వేయవలసిన పైరు :	జింకు :		

పైరుకు అవసరమైన పోషక పదార్థములు	మోతాదు	స్థానికంగా లభ్యమగు ఎరువులు	మోతాదు
1. నత్రజని (N) కి.గ్రా/ఎ :		1. సేంద్రీయ ఎరువులు టన్/ఎ	
2. భాస్వరము (P) కి.గ్రా/ఎ :		2. యూరియా :	
3. పొటాష్ (K) కి.గ్రా/ఎ		3. డి.ఎ.పి. :	
		4. మ్యూరేట్ ఆఫ్ పొటాష్ :	
		5. అమ్మోనియం సల్ఫేట్ :	
		6. సి.ఎ.ఎన్.	
		7. కాంప్లెక్స్ ఎరువులు	

కారుచౌడు నేలల = నీరు పెట్టుట & తీయుట

క్షార నేలలు : జిప్సం టన్/ఎ =   ఆమ్ల నేలలు : కాల్షియం కార్బోనేట్ (సున్నం పొడి) కి.గ్రా./ఎ =

వాడవలసిన ఎరువు మోతాదు కి./ఎ = సూచించిన పోషక పదార్థము మోతాదు కి.గ్రా. ఎకరమునకు × 100 / ఎరువు సంచి మీద సూచించిన పోషక విలువ

1. చల్లచవుడు (క్షార నేల) లక్షణము కలిగి యున్నందున ఎకరానికి పైన సూచించినట్లుగ జిప్సము వేసి చేను బాగుచేయాలి, మరియు సేంద్రీయ ఎరువులు ఎక్కువగా వేయాలి. లేదా పచ్చిరొట్ట పైరు వేసి చేనులో కలియదున్నాలి.
2. తెల్ల చవుడు (పాల చవుడు) (లవణ పరిమాణము ఎక్కువగా ఉన్న నేలలు) నేలలు – నేలను బాగుగా కలియదున్ని మంచి నీటితో మడులు కట్టి 24 గంటల తర్వాత మురుగు కాలువ ద్వారా నీరుని బయటకు వదలవలెను. ఈవిధముగా 4,5 సార్లు చేసిన యెడల భూమిలో ఉన్న లవణములు నీటిలో కరిగి మామూలు స్థితికి వచ్చును. అంతేగాక – పశువుల ఎరువు, పూడిక మట్టి (టాంక్ సిల్ట్)ను వేసినచో నేల స్వభావము చాలా వరకు మారును.
3. ఆమ్ల నేలలు – ఎకరమునకు పైన సూచించిన కిలోగ్రాములు సున్నము వేసి భూమిని బాగుచేసుకొనవలెను. ఈ నేలల్లో తగిన పంటలను మాత్రమే వేయవలెను.

సహాయ వ్యవసాయ సంచాలకులు
భూసారము పరీక్షా కేంద్రము
జడ్చర్ల - 509...

Asst. Director of Agriculture
Soil Testing Laboratory

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DEPARTMENT OF AGRICULTURE
GOVERNAMENT OF TELANGANA

Soil Health Card
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విభాగము: PRIVATE / GENERAL

భూసార పరీక్షా కేంద్రము : Jadcherla నమూనా సంఖ్య : తేది : 05/03/2022

రైతు పేరు : D. Balaiah తండ్రి పేరు : Nagaiah సర్వే నం. 79

గ్రామము Gundlapotlapally మండలము : Rajapur జిల్లా మహబూబ్‌నగర్

1. నేల స్వభావము : CL	తేలిక నేలలు	మధ్యరకపు నేలలు	బరువు నేలలు ✓
2. ఉదజని సూచిక (పి హెచ్) : 5.35	ఆమ్లము ✓	తటస్థము	అల్ప క్షారము మధ్య క్షారము అధిక క్షారము
3. లవణ సూచిక (ఇ.సి) 0.08	సామాన్యం ✓	మొలకెత్తుట కష్టం	పంటలకు హానికరము
4. సేంద్రీయ కర్బనము (ఒ.సి.) : H	తక్కువ	మధ్యస్థము	ఎక్కువ ✓
5. లభ్య నత్రజని కి.గ్రా/ఎ : 102	తక్కువ ✓	మధ్యస్థము	ఎక్కువ
6. లభ్య భాస్వరము కి.గ్రా/ఎ 38.16	తక్కువ	మధ్యస్థము	ఎక్కువ ✓
7. లభ్య పొటాష్ కి.గ్రా/ఎ 234.5	తక్కువ	మధ్యస్థము	ఎక్కువ ✓
8. వేయవలసిన పైరు :	ఋతువు :		

పైరుకు అవసరమైన పోషక పదార్థములు	మోతాదు	స్థానికంగా లభ్యమగు ఎరువులు	మోతాదు
1. నత్రజని (N) కి.గ్రా/ఎ :		1. సేంద్రీయ ఎరువులు ట/ఎ :	
2. భాస్వరము (P) కి.గ్రా/ఎ :		2. యూరియా :	
3. పొటాష్ (K) కి.గ్రా/ఎ		3. డి.ఎ.పి. :	
		4. మ్యూరేట్ ఆఫ్ పొటాష్ :	
		5. అమ్మోనియం సల్ఫేట్ :	
		6. సి.ఎ.న్.	
		7. కాంప్లెక్స్ ఎరువులు :	

చౌడుబారు నేలలు = నీరు పెట్టుట & తీయుట

క్షార నేలలు : జిప్సం ట/ఎ = ఆమ్ల నేలలు : కాల్షియం కార్బోనేట్ (సున్నం పొడి) కి.గ్రా./ఎ =

వాడవలసిన ఎరువు మోతాదు కి./ఎ = సూచించిన పోషక పదార్థము మోతాదు కి.గ్రా. ఎకరమునకు × 100 / ఎరువు నందు గల సూచించిన పోషక విలువ.

1. నల్లచవుడు (క్షార నేల) లక్షణము కలిగి యున్నందున ఎకరానికి పైన సూచించినట్లుగ జిప్సము వేసి దున్ని బాగుచేయాలి, మరియు సేంద్రీయ ఎరువులు ఎక్కువగా వేయాలి. జీలుగ వచ్చిరొట్ట పైరు వేసి నేలలో కలియదున్నాలి.
2. తెల్ల చవుడు (పాల చవుడు) (లవణ పరిమాణము ఎక్కువగా ఉన్న నేలలు) నేలలు – నేలను బాగుగా కలియదున్ని మంచి నీటితో మడులు కట్టి 24 గంటల తర్వాత మురుగు కాలువ ద్వారా నీరును బయటకునడలవలెను. ఈవిధముగా 4,5 సార్లు చేసిన యెడల భూమిలో ఉన్న లవణములు నీటిలో కరిగి మామూలు స్థితికి వచ్చును. అంతేగాక – పశువుల ఎరువు, స్థానిక మట్టి (టాంక్ సిల్ట్) వేసినచో నేల స్వభావము చాలా వరకు మారును.
3. ఆమ్ల నేలలు – ఎకరమునకు పైన సూచించిన కిలోగ్రాముల సున్నము వేసి భూమిని బాగుచేసుకొనవలెను. ఈ నేలల్లో తగిన పంటలను మాత్రమే వేయవలెను.

సహాయ వ్యవసాయ సంచాలకులు
భూసారము మరియు సాగునీటి పరీక్షా కేంద్రము
జడ్చర్ల – 509 301. జిల్లా : మహబూబ్‌నగర్.

Asst. Director of Agriculture,
Soil Testing Laboratory

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Inspection Report of the Agriculture Department

Pertaining to M/s.GTN Industries Limited,

Gundlapotlapally (V), Balanagar (M), Mahabubnagar District.

BRIEF NOTE

1. Whether the allegation of pollution caused on account of discharge of untreated effluents into the agricultural properties has resulted in any damage.

   - During the our visit to GTN Industries Limited, we are not noticed any discharge of untreated effluents in the Agriculture properties because the company all ready closed 1 year back.

2. Whether any contamination has been caused to the groundwater as well as soil or the applicant`s land affecting its fertility and reduction in yield level and if so, what is the quantum of compensation payable for the applicant on account of such loss of agriculture income.
   - When we tested the bore water which in situated in the field. Results show water is not suitable so for cultivation of irrigated crops.
   - Soil sample results shows that the soil is slightly acidic.
   - No crop is sown in yasangi 2021-2022.
   - He is not shown any crop during the yasangi 2021. Hence we are unable to estimate the reduction of yield.

3. If any contamination has been caused to the soil and groundwater, what is the nature of remediation to be carried out any they are directed to assess the compensation for the remediation as well.

   - As per soil testing results the soils are slightly acidic.
   - Soils can be reclamated by application of lime 950kgs of /acre continuous for two seasons for so the vanakalam and yasangi soil can be reclamated and suitable for cultivation of dry land agriculture under rainfed condition.
   - Some of the soil samples shown slightly alakaline these soil can be Reclamated by applying Zypsum 200-25Kg/acre for two seasons vanakalam and yasangi soils can be Reclamated and suitable for cultivation.

14/3/22

District Agriculture Officer,
Mahabubnagar.

(ANNEXURE-V)

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ANNEXURE-V

GOVERNMENT OF TELANGANA
GROUND WATER DEPARTMENT

From

M. Rajender Kumar , M.Sc.,
District Ground Water Officer,
Ground Water Department
Mahabubnagar.

OFFICE OF THE DISTRICT GROUND WATER OFFICER * GROUND WATER DEPT. * MAHABUBNAGAR *

To

The District Collector & Magistrate,
Mahabubnagar.

Lr.No. 3131/Tech/2013/100

Dated: 28/03/2022

Sir,

Sub:- DGWO-GWD- MBNR – Submission of analytical water samples report collected for crop damage and fixing of compensation M/s. GTN Engineering Ltd limited Gundlapotlapalli Village of Balanagar (M)-Reg.

Ref:- District Collector, Procs. No.Rev/C1/POLN/0003/2019-C-Section Dated.26.02.2022

******

Kind attention is invited to the above and I am here with submitting the water sample analytical report of water samples collected in and around in M/s. GTN Engineering Ltd limited Gundlapotlapalli Village of Balanagar of mandal area visited along with the multidisciplinary committee members and the report is here with enclosed for taking further necessary action.

Encl: Report

Yours faithfully

District Ground Water Officer
Ground Water Department
Mahabubnagar.

District Ground Water Officer
Ground Water Dept.
Mahabubnagar Dist. 509001.

Copy Submitted to Joint Chief Environmental Engineer, TSPCB, Zonal Officer, Hyderabad for favour of information.

28/3/22

DISPATCH CLERK
Ground Water Department
Govt. of Telangana
Mahabubnagar Dist.509001

o/c

Received copy
29/3/2022

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GOVERNMENT OF TELANGANA
GROUND WATER DEPARTMENT

Memo. No. 7415 / WQ Level II+ Lab /2021, **Dt:26.03.2022**

Sub:-Water Quality Level II+ Lab - Water Samples analyzed - Water Quality Analytical Data of samples received from DGWO, Mahabubnagar District for the of month March- 2022 Furnished - Regarding.

Ref:- LetterNo.3131/Tech/2013/79,Dt08.03.2022 from the District Ground Water Officer, Mahabubnagar District.

****

Attention of District Ground Water Officer, MahabubnagarDistrict is invited to his letter at the reference cited, wherein 03 noof water samples are received and analysed.Analytical data of the samples is here with enclosed. Further the DGWO is advised to verify the surrounding situation, where the TDS and sulphate are showing very high values.

Encl: Analytical Data.

Sd/-Pandith Madhnure
DIRECTOR

// True copy//

Assistant Director (WA)

To,
The District Ground Water Officer,
Ground Water Department,MahabubnagarDist

Table -2 Location's of High Total Dissolved Solids(TDS)values					
S.No	**Particulars of the Sample Village**	**Particulars of the Sample Mandal**	**Farmer Name/Location**	**Type of well**	**High TDS sample (>2000 mg/L)**
1	Gundla potla pally	Rajapur	Balraj	Borewell	11763
2	Gundla potla pally	Rajapur	Balaiah	Borewell	6074

Table -3 Location's of High Nitrate values					
S.No	**Particulars of the Sample Village**	**Particulars of the Sample Mandal**	**Farmer Name/Location**	**Type of well**	**High Nitrate Samples (> 45 mg/l)**
1	Gundla potla pally	Rajapur	Temple	Borewell	52

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GOVERNMENT OF TELANGANA
GROUND WATER DEPARTMENT

NOTE ON GROUND WATER QUALITY OF MAHABUBNAGAR DISTRICT FOR THE MONTH OF MARCH-2022

District Ground water Officer, Mahabubnagar District has submitted 03 water samples collected from GTN Engineering Ltd ,Gundlapotlapally(V),Rajapur(M) during for the month of March - 2022 for its analysis. The water samples are analyzed and summarized results are given in Table – 1,2,3 details in Annexure -I.

Total Dissolved Solids(TDS)(>2000 mg/L): Out of 03 samples, in 2(67%) samples Total Dissolved solids(TDS) values are above BIS limits(i.e>2000mg/L) and Total Dissolved solid(TDS) of Borewell Gundlapotlapally(V), Rajapur(M) Balraj(Farmer) shows 11763 mg/L is the highest among 2 samples.(Table -2)

Residual Sodium Carbonate (RSC):

All are with in the permissible limits

Fluoride(>1.5 mg/Lit): All are within the BIS limits

Nitrate (>45 mg/Lit): Out of 03 samples, in 01 (33%) sample nitrate concentration is above BIS limits (>45 mg/Lit) and nitrate concentration of Bore Well, Gundlapotlapally(V), Rajapur(M) location at Temple shows 52 mg/.(Table -3 & Annexure-I).

Table-1 The summarized of the results of Water Quality analysis is given below

RESULTS OF WATER QUALITY ANALYSIS OF MAHABUBNAGAR DISTRICT FOR THE MONTH OF MARCH-2022										
S.NO	Type of wells	Total No. of Samples	Total Dissolved Solids(TDS)		Fluoride		Nitrate		RSC	
			No. of Samples Beyond BIS Limits (>2000 mg/L).	% of samples beyond permissible limits of BIS	No. of Samples beyond BIS limits (>1.5 mg/l)	% of samples beyond permissible limits of BIS	No. of Samples beyond BIS limits (>45 mg/l)	% of samples beyond permissible limits of BIS	Unsafe(U.S)	Marginal(M.R)
01	OB Wells	03	02	67	0	0	01	33	0	0
Total		**03**	**02**	**67**	**0**	**0**	**01**	**33**	**0**	**0**

Analytical Data of Water Samples Received from District Ground Water Officer, Mahabubnagar District for the month of March -2022.

Sl.No	Lab. No.	Village	Mandal	Farmer Name /Locationm	Well Type	Geology	Latitude	Longitude	Depth of Water Level (mbgl)	Water samples no"s	Date of Collection of Sample	pH at 25 °C	Sp cond at 25°C mic.Sie / cm.	TDS Calculated mg/lit.	Na+	K+	Ca^{+2}	Mg^{+2}	CO_3^{-2} as $CaCO_3$	HCO_3^{-} as $CaCo_3$	Cl^{-}	SO_4^{-2}	NO_3^{-}	F^{-}	T.H. as $CaCO_3$	SAR	Classification	RSC meq / L	Classification
															mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L				
BIS Permissible limits												6.50 to 8.50		500-2000	No Guidelines	No Guidelines	75-200	30-100	200-600	200-600	250-1000	200-400	45	1.0-1.5	200-600	0-10 (Excellent), 10-18 (Good), 18-27 (Doubtful), above 27 (U.S.)		0-1.25 (P.S.), 1.26-2.5 (M.R), 2.5 above (U.S)	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1	D1121-2636	Gundla potla pally	Rajapur	Balraj	Borewell	Granites	16.89	78.20	7.06	GTN-01	3/4/2022	7.46	18380	11763	2790	8	720	389	0	600	3300	4000	27	0.49	3399	20.81	O.G	-55.99	P.S.
2	D1121-2637	Gundla potla pally	Rajapur	Balaiah	Borewell	Granites	16.88	78.20	8.10	GTN-02	3/4/2022	7.37	9490	6074	1282	8	400	243	0	410	2100	1250	1	0.69	2000	12.46	O.G	-31.79	P.S.
3	D1121-2638	Gundla potla pally	Rajapur	Temple	Borewell	Granites	16.89	78.19	8.95	GTN-03	3/4/2022	7.60	1242	795	76	4	80	58	0	200	220	48	52	0.73	440	1.58	C3S1	-4.80	P.S.

Remarks:1) Out of 3 samples,2 samples are showing above BIS limits of TDS,among them01 sample is showing high value i,e 11763mg/L observed at Gundlapotlapally(V),Rajapur(M)Farmer name is Balraj.

2) Out of 3 samples, 01 samples is showing above BIS limits of Nitrate i,e 52 mg/L observed at Gundlapotlapally(V),Rajapur(M)Farmer/ location at Temple.

3) Samples D1121-2636, D1121 - 2637 are showing abnormal TDS,Calicum ,Magnesium,Chloride, Sulphate and Total Hardness. SAR (Sodium Absorpation Ratio) is out of Graph.

Sd/- Pandith Madhnure
Director

// True copy//

1. The temperature at which pH determined is the temperature of the samples.
2. P.S.-Probably Safe, U.S.-Unsafe, MAR-Marginal (for agriculture use)
3. C - Conductivity, (C1 - Low, C2 - Medium, C3 - High, C4 - Very high), S- Sodium Adsorption Ratio (S1 - Low, S2 - Medium, S3 - High, S4 - Very high)

Assistant Director (WA)

(47)

Nitrates : High levels of nitrate in water can be a result of **runoff or leakage from fertilized soil, wastewater, landfills, animal feedlots, septic systems, or urban drainage**.

TDS : High TDS readings are often caused by sodium, chlorides, and potassium, which have little to no short-term effects on human health. However, other toxic compounds such as lead, arsenic, and nitrate can cause TDS levels to spike.

Sodium and chloride occur naturally in groundwater, but levels can increase from **road salt, water softeners, natural salt deposits, sewage and fertilizers**. High sodium in well water can be a concern for people on low sodium diets.

Chloride in surface and groundwater from both natural and anthropogenic sources, such as run-off containing road de-icing salts, the use of inorganic fertilizers, landfill leachates, septic Page 7 2 tank effluents, animal feeds, industrial effluents, irrigation drainage, and seawater intrusion in coastal areas.

The leaching of potassium fertilizet through the soil can contribute potassium to the groundwater.

Magnesium (Mg^{2+}) Magnesium in groundwater derived from **the decomposition of dolomite, ferromagnesian minerals like olivine, pyroxene, amphiboles and dark colored micas.** In the metamorphic rocks, magnesium occurs in the structure of chlorite, montmorillonite and serpentine.

Sulphates : Point sources include **sewage treatment plants and industrial discharges such as tanneries, pulp mills, and textile mills**. Runoff from fertilized agricultural lands also contributes sulfates to water bodies.

RSC : Generally any source of water in which RSC is higher than 2.5 is not considered suitable for agriculture purpose, and **water < 1.25** is recommended as safe for irrigation purpose. A negative value of RSC reveals that concentration of Ca^{2+} and Mg^{2+} is in excess.

(ANNEXURE - VI)

Photographs

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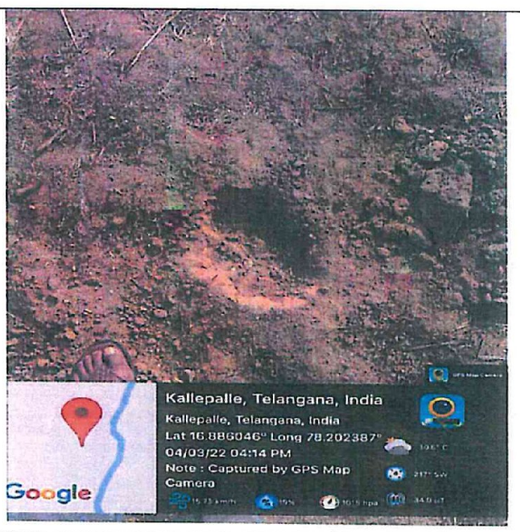
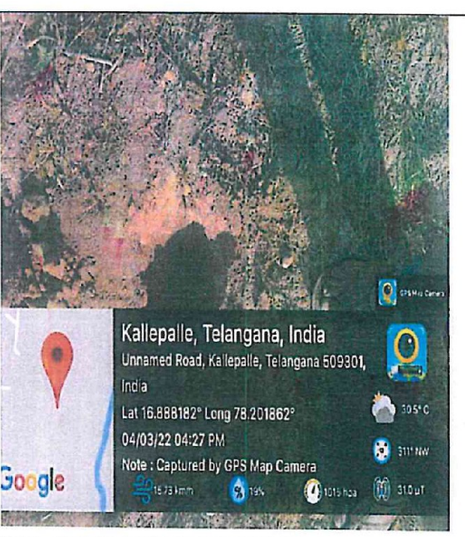
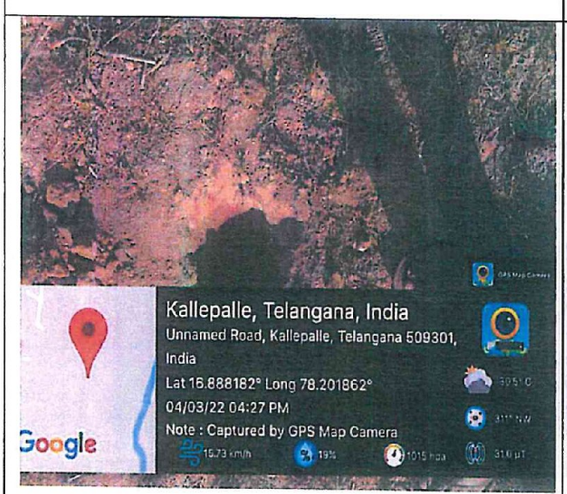
ANNEXURE - VI







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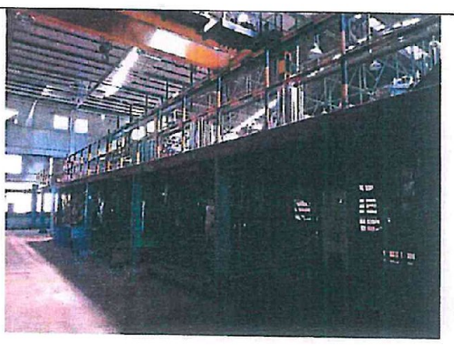

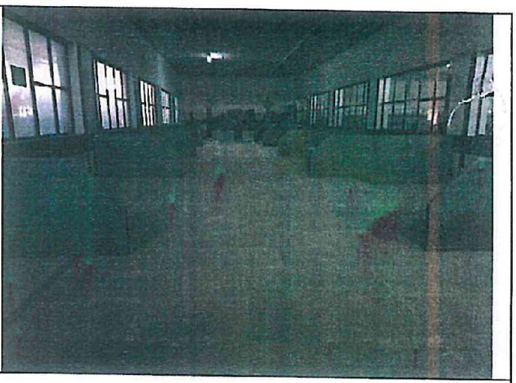

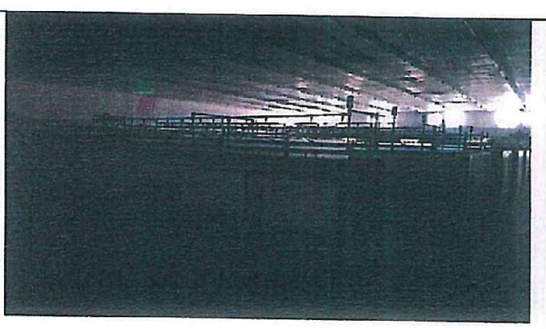

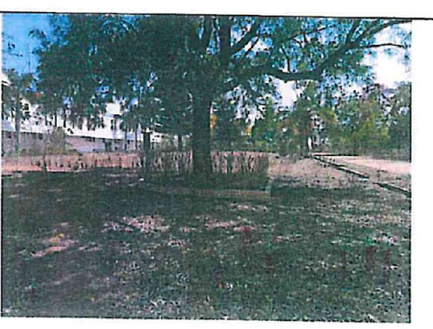

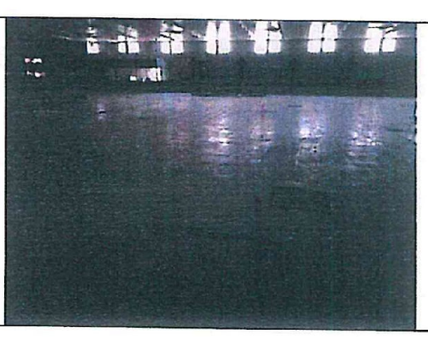

(48)

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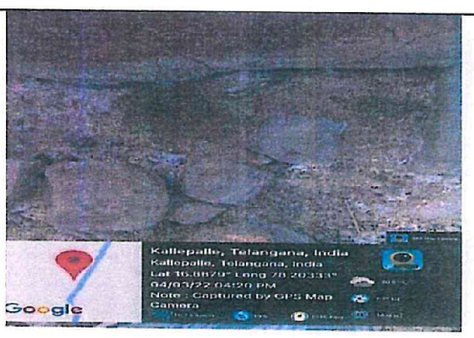
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Kallepalle, Telangana, India
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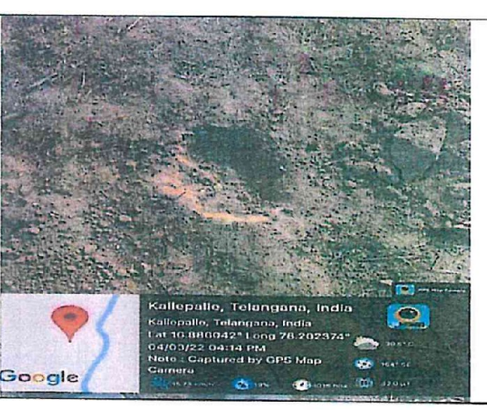
04/03/22 04:00 PM
Note : Captured by GPS Map Camera
Google


Kallepalle, Telangana, India
Kallepalle, Telangana, India
Lat 16.880342° Long 78.202374°
04/03/22 04:14 PM
Note : Captured by GPS Map Camera
Google