

BEFORE THE NATIONAL GREEN TRIBUNAL SOUTHERN ZONE,
CHENNAI

ORIGINAL APPLICATION NO. 103 OF 2022 (SZ)

IN THE MATTER OF:

Dr. Lubna Sarwath,
Telangana

...Applicant(s)

Versus

State Of Telangana,
Rep by its Chief Secretary
Hyderabad & Ors

...Respondent(s)

REPORT OF THE IRRIGATION AND CAD DEPARTMENT (6TH
RESPONDENT)

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Place: Chennai

Date: 06.07.2026



Mrs. H. Yasmeen Ali,
Counsel for the 6th Respondent.

/

**REPORT OF SUBMITTED ON BEHALF OF THE IRRIGATION DEPARTMENT, RANGA
REDDY DISTRICT, TELANGANA IN COMPLIANCE WITH THE ORDER DATED
15.04.2026 PASSED BY THE HON'BLE NATIONAL GREEN TRIBUNAL, SOUTHERN
ZONE, CHENNAI IN O.A. No.103 OF 2022 (SZ) FILED BY DR. LUBNA SARWATH, VS
STATE OF TELANGANA, REP BY ITS CHIEF SECRETARY, HYDERABAD AND
OTHERS.**

It is to submit that Dr. Lubna Sarwath, Telangana, has file an application before the Hon'ble National Green, Tribunal, Chennai with O.A. No. 103 of 2022 (SZ) and the Hon'ble National Green Tribunal, Southern Zone, Chennai, vide its Order dated 15.04.2026 in O.A. No.103 of 2022 (SZ), implemented the following:

1. It is stated that the Hyderabad Disaster Response and Asset Protection Agency, Telangana was established for various acts, including removal of lake encroachments in coordination with GHMC, other local bodies, HMDA, the Irrigation Department, the Revenue Department, etc.
2. In the above Original Application, we are concerned only with Osman Sagar and Himayat Sagar. The allegation is that both the lakes are allowed to be encroached, resulting in shrinkage of the water spread area.
3. As HYDRAA was established after the filing of the Original Application, it will be appropriate to know the status of these two lakes and the action taken by HYDRAA.
4. Hence, we direct the Irrigation Department to file an appropriate report in this regard along with the original memoirs and cadastral map prior to 1950 and the recent one that is said to have been uploaded on the website.
5. Post the matter on 07.07.2026 for final hearing.


Executive Engineer,
Irrigation Division No.1,
Hyderabad.

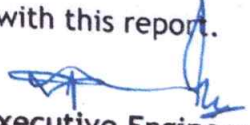
Case details:

The issue was regarding illegal encroachment in Osman Sagar and Himayath Sagar Lakes, Gandipet Mandal, Ranga Reddy District.

The Hon'ble National Green Tribunal, Southern Zone, Chennai, Order dated 15.04.2026, directed the Irrigation & CAD Department to file an appropriate report in respect of Osman Sagar and Himayat Sagar Reservoirs together with the original memoirs, the cadastral map prepared prior to the year 1950 and the recent cadastral map stated to have been uploaded on the website. Accordingly, the records presently available with the Irrigation & CAD Department have been examined and the following report is submitted in compliance with the directions issued by the Hon'ble Tribunal.

It is to submit that, the report has been prepared on the basis of the records presently available with the Irrigation & CAD Department and the earlier departmental communications submitted to the Government in connection with the present Original Application.

Osman Sagar Reservoir, situated at Gandipet Village, Gandipet Mandal, Rangareddy District, bearing Lake ID No.2907, is one of the major drinking water reservoirs serving Hyderabad City. As per the records available in this office, the Preliminary Notification in respect of the reservoir was issued on 30.12.2019, with FTL area (6039 acres) whereas the Final Notification has not yet been issued. The latest Full Tank Level (FTL) Map and the latest Cadastral Map of Osman Sagar Reservoir were prepared under the Survey of Lakes in Extended HMDA Area during the year 2019 and are available in the records of this office. The survey records available with this office indicate that the Full Tank Level (FTL) Map and the Cadastral Map prepared under the Survey of Lakes in Extended HMDA Area form part of the records presently maintained by this office. Copies of the said records are enclosed along with this report.



Executive Engineer,
Irrigation Division No.1,
Hyderabad.

In compliance with the specific directions in paragraph 4 in the Order of Hon'ble National Green Tribunal, Southern Zone, Chennai, dated 15.04.2026, the Original Descriptive Memoirs relating to Osman Sagar Reservoir and Himayat Sagar Reservoir available in the records of this office are here with enclosed along with this report. The Descriptive Memoirs indicate that Osman Sagar Reservoir was constructed across River Musi near Gandipet village consequent to the devastating floods of the year 1908. The construction commenced during the year 1909 and was completed during the year 1920 with the primary objectives of flood moderation and supply of drinking water to Hyderabad and Secunderabad. The Descriptive Memoirs contain the historical background of the reservoir together with engineering particulars relating to the Full Tank Level, storage capacity, catchment area, rainfall and yield particulars, spillway arrangements and other hydraulic details. Likewise, the Descriptive Memoirs relating to Himayat Sagar Reservoir indicate that the reservoir was constructed across River Esa during the year 1927 and has since been serving as an important drinking water source for Hyderabad City. The said Descriptive Memoirs constitute the historical engineering records available in this office relating to the respective reservoirs and are produced before the Hon'ble Tribunal.

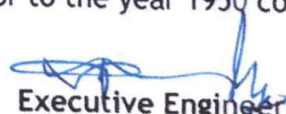
The Irrigation & CAD Department had earlier submitted remarks to the Government in Original Application No 103 of 2022 (SZ) through Chief Engineer (I), Hyderabad to Engineer-in-Chief (General), vide Letter No. CE(I)/Hyd/DCE/OT1/AEE3/NGT/O.A.No.103 of 2022 (SZ)/2022/1987, dated 11.01.2023, which were subsequently forwarded to the Government by the Engineer-in-Chief (General), Irrigation & CAD Department vide Letter No. ENC(G)/CE/SE(P&M)/DCE(MI)/DEE3/AEE2/NGT O.A.No.103 of 2022, dated 08.02.2023


Executive Engineer,
Irrigation Division No.1,
Hyderabad.

and were further communicated to the Government vide U.O. Note No.1122/PC/2023, dated 21.02.2023. In the said departmental communications, it was informed that Osman Sagar and Himayat Sagar Reservoirs are drinking water reservoirs serving Hyderabad City and that the operation and maintenance of the said reservoirs, including regulation of water supply and maintenance of the Full Tank Level (FTL) records, are presently under the jurisdiction of the Hyderabad Metropolitan Water Supply & Sewerage Board (HMWSSB).

It is further submitted that, the Full Tank Level Maps of these reservoirs have been finalized by the HMWSSB, Hyderabad. A Lake Police Station has also been established at Osman Sagar for safeguarding the reservoir and reporting instances of encroachments and other illegal activities to the concerned authorities. Further, under Government programmes such as Mission Kakatiya, fencing works have been undertaken by the Irrigation & CAD Department along certain stretches of the reservoir boundary, wherever sanctioned, with the objective of protecting the Full Tank Level limits from encroachments. The present report is therefore confined to the records presently available with the Irrigation & CAD Department and is submitted in continuation of the above departmental communications.

In compliance with the directions in the Order of Hon'ble National Green Tribunal, Southern Zone, Chennai, dated 15.04.2026, the records presently available have been carefully verified. The Original Descriptive Memoirs relating to Osman Sagar Reservoir and Himayat Sagar Reservoir, the latest Full Tank Level Map and the latest Cadastral Map of Osman Sagar Reservoir available in the departmental records are enclosed along with this report. However, despite verification of the records presently maintained by the HMWSSB, Department, the cadastral map prepared prior to the year 1950 could

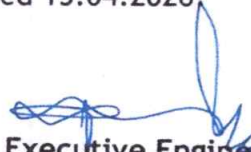

Executive Engineer,
Irrigation Division No.1,
Hyderabad.

not be traced. Accordingly, the latest cadastral map available in the records is herewith enclosed.

The present report has been prepared in compliance with the directions of the Hon'ble Tribunal, on the basis of the records presently available with the Irrigation & CAD Department and the earlier departmental communications furnished in connection with O.A. No.103 of 2022 (SZ).,

It is to submit that, as per paragraph 3 in the Order of Hon'ble National Green Tribunal, Southern Zone, Chennai, dated 15.04.2026, the information regarding the action taken by HYDRAA, is maintained by the concerned HYDRAA authorities.

In view of the foregoing facts and the records available with the Irrigation & CAD Department, the above report together with the enclosed documents is respectfully submitted before the Hon'ble National Green Tribunal, Chennai, in compliance with the Order dated 15.04.2026.



**Executive Engineer,
Irrigation Division No.1,
Hyderabad.**

DESCRIPTIVE MEMOIRS

Name of source : OSMAN SAGAR:
Location - LAT: 17-22-35

LONG: 78-19-0

Sl.No: 46

Group No: 10/II-6

Minor Basin: ~~MUSI~~

Sub-Basin : MUSI.

Major Basin: ~~Chinn~~

Situation :

Village :

HYDERABAD CITY.

Distance and Direction from village : 19 KM towards west.

Taluq :

Hyderabad west.

District :

Hyderabad.

Nature of source.

Kind of source

Type of source

: Storage/~~Diverston~~/Lift/Tank.

: Restored/Unrestored.

(a) : ~~Railway affecting~~/Not Railway affecting.

Classification of source

(b) : ~~Isolated~~ Upper/Intermediate/Lower.

Names of Upper sources

: Pedda cheroo, Chilkoor, Sunnam Katwa, etc.,

Names of Lower sources

: Uppal anicut.

DESCRIPTION : BRIEF REPORT & HISTORY

This reservoir is constructed across Musi river near Gandipet village about 19 KM from Hyderabad city. This was taken up for construction in 1908^{AD}, after flood devastation. This reservoir is completed in 1920^{AD} at a cost Rs. 541 Lakhs. This is a flood control and water supply reservoir to the twin cities of Hyderabad and Secunderabad. It is supplying 29.50 M.G. Water per day to the City.

The length of composite dam is 2900 ft. (882.93 Mtrs) and of masonry dam is 3400 ft (1036.20 Mts.) . The total length of the dam is 6300 ft (1920.24mtrs.) The full tank level at is +550.164 Mtrs. permanent storage level is 544.677 Mtrs. (1737.00) (1805.00)

A natural bywash 1690' long (515.11 mt) is provided with a crest of 550.164 Mtrs. Flood gates are also provided with sill level as follows:

- 1) Flood gates ~~sill level~~ +15V of 1.83mtrx3.05mt sill+540.715 Mtr.
- 2) Open vents 15 vents of 1.22x0.91 " +546.656 Mtr.
- 3) Open vents 15 vents of 1.83 mtrx1.07 mt + 545.592 Mtr.

BENCH MARKS :

- 1.
2. Capacity of at F.T.L : 1075.8 Mft or 304.75 Mcum. ^{As per design -}
 Water spread at F.T.L : 14.60 Sq.M or 37.91 Sq.M. ^{upper of water}
 Percentage of capacity to total yield : 100% ^{file of water}
 Percentage of available yield to total yield : 100% ^{Division.}
 Available yield : 2990.65 Mft or 84.535 Mcum.
 No. of fillings : 1
 Duty : —

IR R I G A T I O N :

Particulars:	Abi:	Tabi:	Dafasin:	Total :
	Ac. G.	Ac. G.	Ac. G.	
Settled ayacut :				
Average Irrigation for 10 years :				

actual utilisation :
 Villages benefitted: water supply source for twin cities of Hyderabad and Secunderabad.
 Left Flank (1)
 (2)
 (3)
 Right Flank (1)
 (2)
 (3)

Component works:

a) B U I L D :

Length in Mts.	Top	Side Slopes		Revetment of thickness :			
		Back:	Rear:	From:	Ch:	To:	Ch:
95.01 Mt.	18'	1 1/2:1	2:1				
or	or						
6300 ft.	5.49 Mt.						

No revetment being composite dam and masonry dam.

HYDROLOGY:

Catchment area

Free	: 246.00	Sq.M.	637.14	Sq.M.
Intercepted	: 39.00	"	101.01	"
T o t a l	: 285.00	"	738.15	"

TABLE OF RAINFALL AND YIELD

Sl. No.	Influencing Rain gauge station.	CATCHMENT AREA IN SQ.KM			Av. Annual R.F.	Av. monsoon R.F.	N. of C.A.	Yield per Sq.M.	Total yield.
		Free:	Intercepted	Total. Equivalent:					
1	2	3	4	5	6	7	8	9	10
1. Osman-sagar.		246.00 Sq.M.	39.00 Sq.M.	285.00 Sq.M.	—	30.00	24.65"		2369.292 Mcft.
		As calculated.							
1. Osman-sagar.		246.00 Sq.M.	39.00 Sq.M.	285.00 Sq.M.	251.57 Sq.M.	31.62 or 30.31	26.35 or 24.65"	24V.11.888 or 1/2 G.	2990.66 Mcft. or 84.675 Mcum.
or		637.14 Sq.M.	101.01 Sq.M.	738.15 Sq.M.	651.57 Sq.M.	66.93 Cu.	0.1298 Mcum. per Sq. Km.		

Supplementation as per details below :

Supplementary C.A. :

Total yield & Off-take :

Capacity of Feeder Channel :

No. of days of supply :

Supplementation :

Total available yield : 2990.66 Mcft or 2990.66 Mcum.

=====									
Sill level:	F.T.L:	M.W.L:	T.R.L:	T.B.L:	Top width of bund :	Side slopes Bed. Rear.	Maximum height from sill.	from lowest bed.	
535.534	550.164	551.686	552.297	5.49	M 1/2:1	2:1	74.14 Mtr.	or 112 ft.	
Mt.	Mt.	Mt.	Mt.	or 182ft.					
or 1805ft.									

SLUICES:

Sl No:	Chainage in MT.	Type:	Sill level:	Size of vent:	Type & size of barrel:	Control ling arrangements:	Irriga- tion in acres:
N.A.	Lower sluice	555.554 mt.	0.91x1.52 mt.	0.838 mt. Ø	Ø 1 pipe	S.G. shut-ter.	10. Irriga- tion.
					or 35" Ø 0.1. pipe.		

c) SURPLUS ARRANGEMENTS:

Formula adopted	:	Ryve's	Estimated discharge.
Values of Co-efficient	:	0.50, 100	
M.F.D.	:	27,000 cusecs or 764.10 cum/sec.	
Discharge from Feeder	:		
Total M.F.D.	:	27,000 cusecs or 764.10 cum/sec. as provided 92,100 cusecs or 2606.43 cum/sec.	
No. of tanks in upstream	:	45 Nos. in this group.	
Location & Details of surplus arrangements	:		
Sl No:	Type weir:	Situa- tion:	Chainage: Length in MT. Head of disc- harge: Total disc- harge: <u>APPROX:</u> Width: Type: Lev :

POP/ R/F			
1. Flood Gates.	Centre	15 Nos of 1.83x3.05 Mt. }	2606.43 cum/sec.
2. Open vents.	"	15 Nos. 1.22x0.91 }	"
" "	"	15 Nos. of 1.83x1.07 mt. }	92,100 cusecs.
1. S.W. R/F.		515.11 mt. }	
d) FEEDER CHANNEL:		1690 ft or 515.11 mt. }	

Source of Feeder or 1.52 Mt.
 Type of Diversion structure:
 Length of Feeder
 Off-take level
 Capacity of Feeder
 Bed width
 F.S.D.

TYPE OF MASONRY WORKS OF FEEDER CHANNEL

Sl No:	Location :	Type of work:	Size:	Level:	Particular of sill.
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a) DISTRIBUTION SYSTEM :f) IRRIGATION CHANNEL :

Sl No:	Flank:	Off-take level:	Length:	Bed width:	F.S.D:	Bed fall:	Disch- arge:	Irriga- tion:
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1. L.F.

2. R.F.

Nil

NO. & TYPE OF CROSS DRAINAGE & MASONRY WORKS

Sl No:	Type:	Location:	Size:	Level of sill
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Nil

ii) Distributories : (If any) Details to be furnished same as for Irrigation channels:

Sl No:	Flank:	Off-take level:	Length in MT:	Bed width:	F.S.D:	Bed fall:	Disc- harge:	Irriga- tion:
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1. L.F.

2. R.F.

Nil

SUPERVISOR:

K. R. Reddy
 ASSISTANT ENGINEER:
 ASSISTANT ENGINEER, P.W.D.
 Irrigation Memoirs Sub-Division No. 1
 HYDERABAD.

B. V. Rao
 EXECUTIVE ENGINEER:
 5.9.51

11

1

DESCRIPTIVE MEMOIRS

Name of source : HIMAYATSAGAR
Location - LAT : 17°-19'-40"
LONG : 78°-22'-10"
Situation :
Village :
Distance and Direction from village :
Taluk :
District :

Sl.No: 57
Group No: R-10/I-7
Minor Basin: ---
Sub-Basin : MUSI.
Major Basin: KRISHNA:

Hyderabad city.
10 M. in S/W.
Hyderabad west.
Hyderabad.

Nature of source : Storage/Diversion/Lift/Tank. *Reservoir*
Kind of source : Restored/ ~~Unrestored~~.
Type of source (a) : Railway-affecting/Not Railway affecting.
Classification of source (b) : Isolated/Upper/Intermediate/Lower.
Names of Upper sources : Pondpally choru & Khami choru.
Names of Lower sources : *cut across road.*

DESCRIPTION : BRIEF REPORT & HISTORY

This reservoir is constructed by P.W.D. across Lasu river in 1927 for Rs. 93 lakhs. Previously this reservoir, besides water supply was also an irrigation source. But now it is used only for water supply purpose of Hyderabad city, Engineering research lab and for Agriculture College, Hyderabad. A road passes over the bund, condition of reservoir is fair.

HYDROLOGY:Catchment area
Free

: AS per gfd records. Sq.

Intercepted

: 256.00 Sq.M. 608.94 Sq.M.

Total

: -239.09 - - - 519.51
: 505.00 or 1302.95 - - -TABLE OF RAINFALL AND YIELD

Influc- No. gauge station.	Catchment Area in Sq.Km Free: Inter- cepted	Total. Equi- val- ent:	av. Annual R.F.	av. mon- soon R.F.	N. of Yie- C. u. ld per Sq.Ml.	To yield.
1	2	3	4	5	6	7

Assyat 265
No. gauge station. 239 Sq.M. 505 300.74 - 24.70 11.700 3512.24 Acft.
No. 1 as per calculations. as yield figures, rain fall not available in records of 99.396 Acft.
No. 2 as per calculations. as yield figures, rain fall not available in records of 99.396 Acft.

Supplementation as per
details below

Supplementary C. u.

Total yield & Off-take

Capacity of Feeder Chan-
nel

No. of days of supply

Supplementation

Total available yield

5512.24 Acft or 99.396 Acft.

Sill F.T.L: M.W.L: T.R.L: T.B.L: Top wid- Side sloped Maxia
level: th of Bed. Rear. height
bund : from
sill.

1753.00' 1782.00'

or 1772.00' or 543.754 Mts.

or 540.105 Mts.

1783.00'

or 543.458 Mts.

1 1/2:1 - 2:4-

From F.T.L.

251c.

111 66-

7.61

33.85

Elevation = 1753.5'

Storage level.

Sill level = 528.21 M
or 1733.76 ft.

Sl No: Chainage in MT. Type: Sill level: Size of vent: Type & size of barrel: Controlling arrangement: Irrigation in acres:

F.A. Barrel.

1755
or
528.220

2V. of.

525

2 V. of.

1.52 mtr.

Coron gear
ing shutter. NIL

c) SURPLUS ARRANGEMENTS:

Formula adopted

Ryve's

Values of Co-efficient

M.F.D.

650

(water works div. old file record.)

Discharge from Feeder

41,223 cusecs

Total M.F.D.

41,223 cusecs 1155.50 cum/sec.

No. of tanks in upstream

56 in this group.

Location & Details of surplus arrangements

Sl No: Type weir: Situation: Chainage: Length in MT. Head of disc- harge: Total disc- harge: Apron: Width: Type: Lev

FOF/ R/F

1. Flood gates. 17 Nos. 15220

2. J.O.P. +1772

3. F.O.P. +1774

d) FEEDER CHANNEL:

Source of Feeder

11220 C/S
or 115.5 cum/sec.

Type of Diversion structure:

Length of Feeder

Off-take level

NIL

Capacity of Feeder

Bed width

F.S.D.

TYPE OF MASONRY WORKS OF FEEDER CHANNEL

Sl No: Location: Type of work: Size: Level: Particular of sill.

BENCH MARKS :

1. _____

2. Capacity of at F.T.L : 6.423 Mft or 131.91 Mft .
 at permanent storage level 133 Mft .
 Water spread at F.T.L : 11.3 Sq. Mts or 29.27 Sq. Mts .
 or permanent storage level.
 Percentage of capacity to total yield : 7.03 Sq. Mts 100%
 Percentage of available yield to total yield : _____ 100%
 Available yield : _____ or 3512.24 Mft .
 No. of fillings : _____ or 99.396 Mft .
 Duty : _____ 1 filling.

IRRIGATION :

Particulars:	Abi:	Tabi:	Dafasin:	Total :
	Ac. G.	Ac. G.	Ac. G.	

Settled ayacut : _____

average Irrigation for 10 years : _____

For water supply purpose of Hyderabad and for agricultural college.

actual utilisation : _____

Villages benefitted:

Left Flank (1)
 (2)
 (3)
 Right Flank (1)
 (2)
 (3)

Component works:

a) BUND :

Length in M.T.	Top width:	Side Slopes	Revetment of thickness :			
			From:	Ch:	To:	Ch:

74 chs. 1/2" 2x1
 or 112.75 H. Ch.
 length of masonry dam... 500 ft.
 in concrete dam.

e) DISTRIBUTION SYSTEM :f) IRRIGATION CHANNEL :

Flank:	Off-take level:	Length:	Bed width:	F.S.D:	Bed fall:	Disch-arge:	Irriga-tion:

L.F.

R.F.

NO. & TYPE OF CROSS DRAINAGE & MASONRY WORKS

Type:	Location:	Size:	Level of sill

) Distributories : (If any) Details to be furnished same as for Irrigation channels:

Flank:	Off-take level:	Length in MT:	Bed width:	F.S.D:	Bed fall:	Disc-harge:	Irriga-tion:

L.F.

R.F.

SUPERVISOR:

K.S. / 10/06/11
 ASSISTANT ENGINEER,
 Irrigation Division,
 BANGALORE.

EXECUTIVE ENGINEER:

