

**BEFORE THE NATIONAL GREEN TRIBUNAL, EASTERN ZONE
BENCH, KOLKATA**

ORIGINAL APPLICATION NO. 133/2024/EZ

(Earlier O.A. No. 511/2024/PB)

IN THE MATTER OF:

News Item titled "No crops, no brides: how rising seas are killing India's coastal villages" appearing in The Guardian dated 11.03.2024.

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Respondent No.8

Through



Gigi C. George Advocate

Standing Counsel (UOI)

Place : New Delhi

Ch. No. 457, Lawyers Block, DHC, New Delhi

Date : 25.02.2025

Gigicgeorge.adv42@yahoo.in,

M-9810625315

BEFORE THE NATIONAL GREEN TRIBUNAL, EASTERN ZONE
BENCH, KOLKATA

ORIGINAL APPLICATION NO. 133/2024/EZ

25 FEB 2025

(Earlier O.A. No. 511/2024/PB)

IN THE MATTER OF:

News Item titled "No crops, no brides: how rising seas are killing India's coastal villages" appearing in The Guardian dated 11.03.2024.

COUNTER AFFIDAVIT ON BEHALF OF RESPONDENT NO. 8 CENTRAL
GROUND WATER BOARD, BHUBANESWAR, ODISHA

Most Respectfully Showeth:

I, Bikram Kumar Sahoo, Working as Head of Office in Central Ground Water Board having office at Bhubaneswar, the deponent herein do hereby solemnly affirm and state on oath as under: -

1. That I am competent to swear the present counter affidavit on behalf of Central Ground Water Board, Bhubaneswar, Odisha and I am aware of the facts and circumstances of the case based on record.
2. That, I have perused the contents of the above captioned O.A. and I am duly authorized to depose by way of the present affidavit.
3. That the Instant Original Application no. 133/2024/EZ (Earlier O.A No. 511/2024/PB) registered *Suo-motu* on the basis of the news item titled "No Crops, No Brides: How Rising Seas Are Killing India's Coastal Villages," as



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published in *The Guardian* on 11.03.2024 before the Hon'ble Tribunal, and thereafter the matter was transferred to the Eastern Bench of the Tribunal at Kolkata and has now been re-numbered as Original Application No.133/2024/EZ.

4. That Hon'ble Tribunal, Eastern Bench has passed the order dated 10.01.2025 with following observation:

"Ms. Rashmi Singhee, learned Counsel appearing (in Virtual Mode) for the Respondent Nos.1 and 4, prays for and is granted further three weeks time for filing counter affidavit.

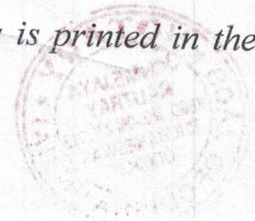
2. Considering the Inspection Report filed by the Odisha State Pollution Control Board, we are of the view that the Central Ground Water Board, Bhubaneswar, Odisha is a necessary party to the present proceedings. We, therefore, direct the Central Ground Water Board, Bhubaneswar be impleaded in the array of Respondents as the Respondent No.8.

3. Issue notice to the newly added Respondent No.8, returnable within four weeks.

4. The Respondent No.8, Central Ground Water Board, Bhubaneswar shall file its counter affidavit within four weeks

5. No one has appeared on behalf of the Respondent Nos.5, State Disaster Management Authority although the name of Mr. Sonak Mishra is printed in the cause list.

6. No one is present on behalf of the Respondent Nos.6 and 7, State Coastal Zone Management Authority and Department of Environment, Government of Odisha although the name of Mr. Sailaza Nandan Das is printed in the cause list.



Pooja K. Kumar Sahas

7. We, therefore direct the copy of this order be communicated to the Law Secretary, Government of Odisha to take appropriate action immediately and engage some Counsel to represent the State Respondents to ensure that the case is not decided ex parte viz a viz the State Government.

8. List on 03.03.2025."

5. That the Hon'ble Tribunal vide its order dated 10.01.2025 impleaded answering respondent as Respondent No. 8 i.e. the Central Ground Water Board and issued notice and directed to answering respondent to submit counter affidavit.
6. That it is submitted that in compliance with the aforesaid order, a team of officials, comprising Smt. Chirashree Mohanty (Scientist-D), Sh. Sanjay Kumar Naik (Scientist-C), and Sh. B. N. Dehury ACH, conducted a field survey on 05.02.2025.
7. That the survey covered the coastal villages of Udayakani, Tandahar, Singharpal, and Katakana, which are located approximately 2 to 3 kilometers from the Bay of Bengal. The team interacted with the local population to gather relevant field data. It was observed that the Kadua River flows through the northern part of the study area and discharges into the sea at a location approximately 1.5 kilometers South-East of Tandahar village. Furthermore, the primary crops cultivated in the region include rice, pulses, vegetables, and betel, which are predominantly rain-fed.
8. That it is submitted that during the survey, groundwater levels were measured, and water samples were collected from various abstraction points, including dug wells, hand pumps, tube wells, and surface water bodies in and around Udayakani and Tandahar villages.



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9. That total of 11 water samples were collected, including 3 from surface water bodies (stagnant water in farmland, Kadua River, and a pond in Tandahar village) along with groundwater from dug wells, hand pumps and tube well to assess the water level and water quality of the samples. The area is having alluvial formations consisting of unconsolidated sand, pebble silt and clay. It is a part of the Mahanadi Delta system. The water level measured from Dug wells ranges from 1 to 2 m bgl (meter below ground level).
10. That it is further submitted that the water level data shows that the water table is just 0.5 m above msl (mean sea level). A total of 08 ground water samples were collected from hand pumps /dug wells in and around Udaykani and Tandahar villages and are analyzed for various chemical constituents. In addition to these 3 samples collected from different water bodies, Kadua River and pond. The test results reveal the Na-Cl dominant in groundwater samples.
11. That all groundwater as well as surface water samples are moderately to strongly affected by saline water due to high Na/Cl and Cl/HCO₃ values. The high TDS and high chloride values make the groundwater undrinkable at Katakani (HP) and Udaykani (DW) whereas the remaining groundwater samples collected from different dug wells and hand pumps are potable
12. That the test results further confirmed the absence of nitrate and fluoride contamination in the groundwater samples.
13. That the water sample from the Kadua River was found to be unsuitable for drinking due to excessive concentrations of TDS, total hardness (TH), chloride (Cl), magnesium (Mg), and sulfate (SO₄). Consequently, the Kadua River water cannot be considered as an alternative source for drinking or irrigation purposes.

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- 14. That based on irrigation water quality indices, the collected samples were determined to be unsuitable for agricultural irrigation due to high sodium content. The groundwater level data obtained from shallow tube wells and dug wells indicated that the water level is maintained between 1 to 2 meters above MSL,
- 15. That this indicates the floating nature of the phreatic fresh water aquifer up to a depth of 10 m as revealed from the fresh water zone tapped by dug wells except at Udaykani dug well which has been found mixed with saline water because of heavy pumping since many years. Whereas the shallow hand pumps nearby this dug well in Udaykani village is having potable water which has been recently constructed.
- 16. That it is submitted that the field study findings indicate that the freshwater zone is limited to a depth of 10 meters below ground level. It is imperative that groundwater extraction in the region be conducted cautiously, utilizing only dug wells or hand pumps. The use of energized extraction methods should be strictly prohibited to prevent seawater intrusion caused by the up-coning effect of saline water present at greater depths.
- 17. That it is submitted that excessive groundwater pumping could alter the hydraulic gradient, which should be avoided to prevent seawater ingress, as the aquifer is in direct hydraulic continuity with the sea.
- 18. That the answering respondent will file additional/further reply as and when directed by this Hon'ble Tribunal.

Paikram Kumar Sahoo

Paikram Kumar Sahoo
DEPONENT 25/02/25



The above named deponent(s) being duly identified by Sri..... Advocate, Bhubaneswar.

Appears before me at..... on oath the..... are true to the best of his / her / their knowledge and belief

Deponent(s) Notary, Bhubaneswar

25 FEB 2025
4 PM

JANMEJAYA RAUTRAY
NOTARY GOVT. OF ODISHA
BHUBANESWAR
REGD. NO. CN-56/2012
MO. No. - 9337121273



Verification

Verified at Bhubaneswar on 25/02/25 the contents of the above paragraphs which are true to my own knowledge and/or are in the nature of legal submissions which I believe to be true and no material has been suppressed herewith.

Poikram Kumar Sahoo.
DEPONENT 25/02/25

JANMELAYA P.UTRAYA
NOTARY PUBLIC
REGD. NO. 11-2815013
PHO. NO. - 252112123

5 FEB 2025
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V A K A L A T N A M A

BEFORE THE NATIONAL GREEN TRIBUNAL, KOLKATA/EZ

Original Application/Appeal No. 133/2024

News Item titled "No crops, no brides: how rising seas are killing India's coastal villages" appearing in The Guardian dated 11.03.2024.

On behalf of **Respondent Nos. 8**

Know all men by these presents that by Vakalatnama I/We appoint the Advocates noted below or any of them my/our lawful Advocate or Advocates for filing above matter for appearing in conducting and arguing the same, for depositing or withdrawing any money in connection therewith for moving the Court in any matter connected therewith, for preparing the paper book in the case and for putting in papers petitions etc. on my/our behalf for filing taking back any documents for withdrawing suits or appeals or petitions with permission to institute fresh suits etc. For signing and filing petitions of compromise in connections with said matter and for taking copies of paper form the Record and I/We further say that any act, done by my/one said Advocate or Advocates or by any of them after accepting this Vakalatnama, shall be considered as my/our true and lawful act.

And I/we further hereby agree and undertake to pay the said Advocates his or their fees are settled and all others sums that may be necessary to carry out the requisition of the Court and otherwise to enable the said Advocates to conduct properly. Failing which the said Advocates after notice to me/us will be liberty to withdraw form the further conduct to the case.

IN WITNESS WHERE OF I/We sign and execute this Vakalatnama on this the.....23rd.....day on...February...2025

NAME OF ADVOCATE

Gigi C George, Adv

Standing Counsel

Ch. No.336, Lawyers Chamber Block,

Saket District Court, New Delhi

Also at Ch.457, Block-1

Delhi High Court, New Delhi

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CLIENT

Bikram Kumar Sahas.