

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI**

Original Application No. 1363 OF 2024

In the matter of:

Ashish Singh Chandel

Applicant

Vs.

State of Uttar Pradesh

Respondents

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1.	Reply on behalf of Respondent No. 2 i.e, Central Pollution Control Board (CPCB) in O.A No. 1363 of 2024, Ashish Singh Chandel Versus State of Uttar Pradesh in compliance to Hon'ble National Green Tribunal dated 23.12.2024.	
2.	Annexure I: A copy of letter dated 10.02.2025 issued by CPCB to UPPCB.	
3.	Annexure II: A copy of Hon'ble NGT order dated 23.12.2024 in O.A No. 1363 of 2024.	



**Filed by Adv. Rajkumar
On behalf of Central Pollution Control Board**

Place: Delhi

Dated: 24.02.2025

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PRINCIPAL BENCH, NEW DELHI**

Original Application No. 1363 OF 2024

In the matter of:

Ashish Singh Chandel

Applicant

Vs.

State of Uttar Pradesh

Respondent

**REPLY ON BEHALF OF THE RESPONDENT No. 02 i.e. CENTRAL
POLLUTION CONTROL BOARD (CPCB)**

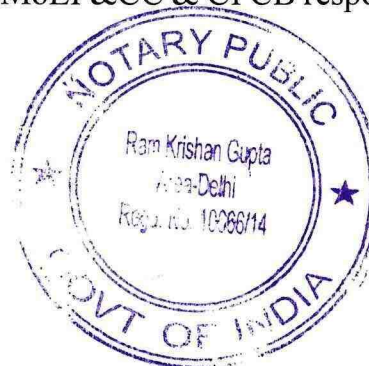
1. That Hon'ble NGT vide Order dated 23.12.2024 and Notice dated 08.01.2024 impleaded the Central Pollution Control Board (hereinafter referred as CPCB) as Respondent no. 02 in the instant matter. Thereby, the reply is made in succeeding paragraphs.
2. That at the outset, the answering respondent denies all claims, contentions, allegations and averments against answering respondent CPCB in the above OA contrary to anything stated or submitted in this reply. Nothing in the OA may be deemed to have been accepted or admitted by the answering Respondent for want of a specific denial, save any averment which has been expressly admitted hereinafter.
3. That, the CPCB is a statutory Board constituted under Section 3 of The Water (Prevention and Control of Pollution) Act, 1974. It performs the functions under The Water (Prevention and Control of Pollution) Act, 1974, The Air (Prevention and control of Pollution) Act, 1981 and The Environment (Protection) Act, 1986.



Background:

4. That the original application is registered on the basis of the letter petition sent by the applicant stated to be a farmer in Village Sapai, Kanpur, Nagar, Uttar Pradesh. The applicant has raised the issue of improper disposal and recycling of Photovoltaic (PV) solar panels. The case of the applicant is that solar panel is utilized for generating energy for irrigation in agricultural fields in his village under the Kusum Yojna since 2019. The applicant has highlighted the gap in the life cycle management of damaged solar panels and has stated that these solar panels cannot be repaired and are required to be discarded as scrapped but there is a lack of proper disposal infrastructure which leads to burying of these panels in the agricultural field or sending them to landfills which adversely affects the soil quality.
5. That the applicant has raised three main issues in the OA those are as under:
 - i. **Limited Scrap Value:** scrap dealers only accept the aluminium, copper and glass components of PV Panels. The remaining materials, including polymers, silicon and other substances, are non-recyclable and must be sent to landfills.
 - ii. **Environmental Hazard of Landfills:** PV panels contain heavy metals like lead and cadmium, which could leach into soil and water causing long-term environmental damage.
 - iii. **No Disposal infrastructure:** There is no established mechanism for the safe disposal or recycling of damaged solar panels in the region.

The Hon'ble NGT has impleaded MoEF&CC & CPCB respondents along with MNRE & UPPCB.



SUBMISSIONS BY THE ANSWERING RESPONDENT

6. That the management of E-Waste in India is presently regulated under E-Waste (Management) Rules, 2022 (hereinafter referred as EWM Rules, 2022) notified under the Environment (Protection) Act, 1986 in suppression of E-Waste (Management) Rules 2016 by Ministry of Environment Forest & Climate Change (hereinafter will be referred as MoEF&CC) vide notification No. GSR 801(E) dated November 02, 2022. These Rules came into force w.e.f. 01-04-2023.
7. That the EWM Rules, 2022 stipulates categorisation of electrical and electronic items under Schedule I, under which Solar panels/cells, solar Photovoltaic panels/cells/modules are categorised as CEEW14. These Rules also stipulates provisions for management of Solar panels/cells, solar Photovoltaic panels/cells/modules.
8. That as per the Rule 12 of EWM Rules, 2022, every manufacturer and producer of solar photo-voltaic modules or panels or cells is required to:-
 - i. ensure registration on the portal;
 - ii. store solar photo-voltaic modules or panels or cells waste generated up to the year 2034- 2035;
 - iii. file annual returns in the prescribed form on the portal on or before the end of the year to which the return relates up to year 2034-2035;
 - iv. ensure that the inventory of solar photo-voltaic modules or panels or cells shall be put in place distinctly on portal.



9. That CPCB has determined the average life of all the 136 nos. of Electronic and Electrical Equipment. The average life of Solar photo-voltaic modules or panels or cells (CEEW14) is 15 years. Hence, any solar modules or panels or cells generated in any year expected to become E-waste after 15 years or when the product has been discarded by the user.
10. That in order to facilitate the implementation of EPR regime by the Producers of E-Waste, CPCB has developed “Framework for generation of EPR Certificate under E-Waste (Management) Rules, 2022”. As per the framework, the EPR certificates will be issued against identified key metals (Iron, Copper, Aluminium & Gold) recycled from E-waste. During initial two years of implementation of EWM Rules, the key Metals for generating EPR certificates are limited to these precious metals Gold (Au), Non-Ferrous Metals [Al and Cu] and Iron [including steel and galvanized iron]. As per the said framework in case of Solar photo-voltaic modules or panels or cells, EPR certificate will be issued against Iron and Aluminium with 1% and 13% as recovery rate.
11. That as mandated under E-Waste (M) Rules, 2022 CPCB has developed an online EPR portal for E-Waste for implementation of EPR regime by the Producers, Manufacturers, Recyclers and Refurbishers. Under the provisions of the said Rules, the entities as above are not allowed to carry out their business without registration on said portal. Also, as per the Rule 12 of the EWM Rules, 2022, every manufacturer and producer of solar photo-voltaic modules or panels or cells also shall ensure registration on the portal.
12. That as on 10.02.2025, there are 7,603 numbers of registered producers on the E-Waste EPR Portal out of which 851 Producers are of solar photo-voltaic modules or panels or cells. 138 producers out of said 851 Producers have storage

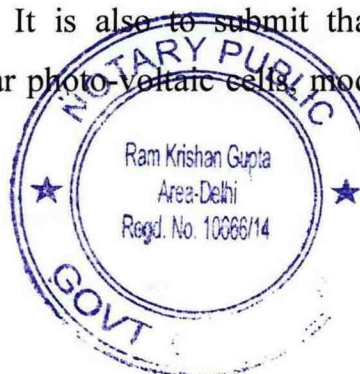


target in FY 2024-25. Also, 322 numbers of E-Waste recyclers are registered on the E-Waste EPR Portal out of which 248 recyclers have applied for recycling of Solar modules/Panels/cells.

As per the information available on the CPCB EPR portal, 1,77,741 MT and 1,63,810 MT of storage target have been given to producers of solar photo-voltaic modules or panels or cells in FY 2023-24 and FY 2024-25 respectively. It is also humbly submitted that for the F.Y. 2023-2024, 552 Producers of solar photo-voltaic modules or panels or cells were registered and required to file AR on or before 31.01.2025. Out of said 552 Producers, 307 Producers have filed AR for the F.Y. 2023-2024. CPCB has sought further information on compliance of E-Waste Management Rules, 2022 with regard to storage requirement for solar photo-voltaic modules or panels or cells vide email dated 10.02.2025 from the Producers to take further action in the matter.

13. That as per information of the portal, currently there are 248 registered recyclers having capabilities of recycling solar photo-voltaic cells, modules or panels. These recyclers have recycled 1,064 MT during FY 2023-24 and 1,057 MT during FY 2024-25 of waste solar photo-voltaic cells, modules or panels.

14. That with regard to the matter of incidence of dumping of waste solar photo-voltaic cells, modules or panels into agricultural fields of Village Sapai, Kanpur, Nagar, Uttar Pradesh, CPCB vide letter dated 10.02.2025 sought information from Uttar Pradesh Pollution Control Board (hereinafter will be referred as UPPCB) on current mechanism for management of Village Sapai, Kanpur, Nagar, Uttar Pradesh followed in Uttar Pradesh. The reply from UPPCB on the matter is still awaited and as the issue raised in the instant matter is important therefore, it is respectfully prayed that the Hon'ble Tribunal may consider the response filed by UPPCB for adjudication. It is also to submit that since Producers are required to store the waste solar photo-voltaic cells, modules or



panels till 2034-2035, they are required to collect and store such waste solar photo-voltaic cells, modules or panels in an environmentally sound manner.

Copy of CPCB letter dated 10.02.2025 is given at **Annexure I**.

15. That the answering Respondent No. 2 CPCB craves the leave of this Hon'ble Tribunal to file additional reply, if so need or directed.
16. That, in the light of the above submissions, it is most respectfully submitted that the answering respondent CPCB shall abide by the order (s) and/or direction(s) passed by this Hon'ble Tribunal in the instant case.



(Youthika)

Scientist 'E'

Central Pollution Control Board



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In the matter of:

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AFFIDAVIT

I, **Youthika** working as Scientist 'E' in Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi, the Respondent No. 2 in the above matter, do hereby solemnly affirm, declare on oath and state as under:-

1. That I, the deponent herein is well conversant with the facts and circumstances of the present case on the basis of the information derived from the official records, thereby the accompanying reply/ response is made on behalf of the Respondent CPCB.
2. That the accompanying reply/ response may be read part and parcel of the present affidavit.
3. That the accompanying reply/response has been drafted and filed under my instructions and authority the contents thereof are true and correct on the basis of the record maintained during ordinary course of business of CPCB and available records and documents and the contents of the same are read over and explained to me and are not repeated herein for the sake of brevity.



Youthika
DEPONENT

यूथिका / Youthika
वैज्ञानिक 'ई' / Scientist 'E'
केंद्रीय प्रदूषण नियंत्रण बोर्ड
Central Pollution Control Board
(पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार)
(M/o Environment, Forest & Climate Change, Govt. of India)
परिवेश भवन, पूर्वी अर्जुन नगर, दिल्ली-110032
Parivesh Bhawan, East Arjun Nagar, Delhi-110032

VERIFICATION

Verified at New Delhi on this day of ~~24 FEB 2025~~ that the contents of the above reply are correct and true on the basis of the records of the case as mentioned in the day-to-day affairs of the CPCB. Nothing has been concealed therefrom or mis-stated.

Signature

DEPONENT

यूनिफा / Younika
वैज्ञानिक 'ई' / Scientist 'E'
केंद्रीय प्रदूषण नियंत्रण बोर्ड
Central Pollution Control Board
(पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार)
(M/o Environment, Forest & Climate Change, Govt. of India)
परिवेश भवन, पूर्वी अर्जुन नगर, दिल्ली-110032
Parivesh Bhawan, East Arjun Nagar, Delhi-110032

24 FEB 2025



ATTESTED

Signature
NOTARY
DELHI (INDIA)



केन्द्रीय प्रदूषण नियंत्रण बोर्ड
CENTRAL POLLUTION CONTROL BOARD
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार.
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE, GOVT. OF INDIA.

By Speed Post & email

File No.:CM-13011/8/2025-LAW-HO-CPCB-HO

Date: 10th February, 2025

To,
Member Secretary,
Uttar Pradesh Pollution Control Board,
Building.No.TC-12V Vibhuti Khand,
Gomti Nagar, Lucknow-226 010

Subject: Action Taken report in the matter regarding the improper disposal and recycling of Photovoltaic (PV) solar panels - reg.

Sir,

This has reference to the Original Application No. 1363/2024 Ashish Singh Chandel Versus State of Uttar Pradesh, based on the letter petition of the applicant related to the improper disposal and recycling of Photovoltaic (PV) solar panels. In the said matter, the applicant has raised concern regarding the burying of waste solar panels in the agriculture field or sending them to landfills in an unscientific manner because of lack in recycling infrastructure. The applicant has also mentioned about the utilization of solar panels for irrigation in agricultural fields in his village namely Village Sapai, Kanpur Nagar, Uttar Pradesh under Kusum Yojna since 2019 which leads to disposal of waste solar panels into the landfills or agricultural fields.

Above matter was reviewed by Hon'ble NGT and an order dated 23.12.2024 (enclosed) was passed wherein the implementation of E-Waste (Management) Rules, 2022 (EW(M) Rules, 2022) were referred.

In view of above, since the management of solar panels comes under the purview of EW(M) Rules, 2022 and as SPCBs/PCCs have been given mandate to monitor the compliance of said rules, it is requested to provide the details of management (generation and its recycling) of waste solar panels / cells / modules in Uttar Pradesh State and also provide the action taken, if any on disposal of waste solar panels in agricultural field or landfills. Since the matter is listed on 25.02.2025, it is requested to kindly provide the desired information on or before 17.02.2025 so that CPCB can apprise the Hon'ble Tribunal about the subject matter.

The above information may kindly be forwarded through email at wm3.cpcb@gov.in and youthika.cpcb@nic.in.

(Youthika)

AD & DH- WM III Division
CPCB

Copy to:

1. Regional Directorate CPCB, Lucknow : For follow-up with UPPCB, please.

‘परिवेश भवन’ पूर्वी अर्जुन नगर, दिल्ली - 110032.

Parivesh Bhawan, East Arjun Nagar, Delhi - 110 032.

दूरभाष /Tel : 43102030, 22305792, वेबसाइट/Website: www.cpcb.nic.in

Item No. 04

Court No. 1

**BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI**

Original Application No. 1363/2024

Ashish Singh Chandel

Applicant

Versus

State of Uttar Pradesh

Respondent

Date of hearing: 23.12.2024

**CORAM: HON'BLE MR. JUSTICE PRAKASH SHRIVASTAVA, CHAIRPERSON
HON'BLE DR. A. SENTHIL VEL, EXPERT MEMBER**

Applicant: Mr. Ashish Singh Chandel, Applicant in Person (Through VC)

ORDER

1. This original application is registered on the basis of the letter petition sent by the applicant stated to be a farmer in Village Sapai, Kanpur, Nagar, Uttar Pradesh.
2. The applicant has raised the issue of improper disposal and recycling of Photovoltaic (PV) solar panels.
3. The case of the applicant is that solar panel is utilized for generating energy for irrigation in agricultural fields in his village under the Kusum Yojna since 2019. The applicant has highlighted the gap in the life cycle management of damaged solar panels and has stated that these solar panels cannot be repaired and are required to be discarded as scrapped but there is a lack of proper disposal infrastructure which leads to burying of these panels in the agricultural field or sending them to landfills which adversely affects the soil quality.

4. The applicant has raised three main issues which are as under:
- (i) Limited Scrap Value: scrap dealers only accept the aluminium, copper and glass components of PV Panels. The remaining materials, including polymers, silicon and other substances, are non-recyclable and must be sent to landfills.
 - (ii) Environmental Hazard of Landfills: PV panels contain heavy metals like lead and cadmium, which could leach into soil and water causing long-term environmental damage.
 - (iii) No Disposal infrastructure: There is no established mechanism for the safe disposal or recycling of damaged solar panels in the region.
5. The letter petition raises substantial issues relating to compliance of environmental norms, especially, the implementation of the provisions of E-Waste (Management) Rules, 2022. Hence, we implead the following as respondents in the matter:
- (1) Respondent no.1- MoEF&CC through Secretary;
 - (2) Respondent no.2- Central Pollution Control Board (CPCB)through Member Secretary;
 - (3) Respondent no.3- Uttar Pradesh Pollution Control Board (UPPCB) through Member Secretary;
 - (4) Respondent no.4-RO, MoEF&CC Lucknow.
 - (5) Respondent no.5-Ministry of New Renewable Energy through Secretary.
6. Issue notice to the respondents. Applicant is directed to serve the respondents. Additionally, the office is also directed to send notice to the above respondents for filing their reply/response by way of affidavit at least one week before the next date of hearing.

7. We also find that a similar issue with respect to e-waste management is pending in EA No.04/2024-Shailesh Singh v. State of Uttar Pradesh & Ors.

8. List along with EA No.04/2024 on 10.02.2025.

Prakash Shrivastava, CP

Dr. A. Senthil Vel, EM

December 23, 2024
Original Application No. 1363/2024
JG..