

Status of CEPI Action Plan in Chandrapur District  
on dt.22/01/2015

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**MAHARASHTRA POLLUTION CONTROL BOARD**

## **INTRODUCTION**

- CEPI is an attempt to analytically rank ~~the pollution level in selected industrial clusters~~
- For this, CPCB has selected 88 industrial clusters in country and 8 are from Maharashtra namely: Chandrapur, Dombivali Aurangabad, Navi-Mumbai, Tarapur, Nashik, Chembur and Pimpri-Chinchawad.
- The study is conducted jointly by IIT Delhi and CPCB. The methodology is given by IIT-D and data is given by CPCB.

## FINDINGS OF CPCB REPORT

S r.	Cluster	Air	Water	Land	CEPI	Rank
1	Chandrapur	70.75	67.50	66.50	83.88	4
2	Dombivali	66.00	63.50	57.50	78.41	14
3	Aurangabad	64.75	60.50	59.50	77.44	17
4	Navi Mumbai	61.00	59.00	55.50	73.77	30
5	Tarapur	60.75	56.00	51.25	72.01	36
6	Nashik	55.00	57.50	50.25	69.25	45
7	Chembur	59.75	50.75	46.00	69.19	46
8	Pimpri-Chinchawad	55.25	52.50	46.00	66.06	62

## Background

Environmental decision making is a multidisciplinary and multi-stakeholder process

To make this process more simple and straightforward environmental indicators are used more often in the form of some criteria or index

- o One of such efforts is made by CPCB by formulating a Comprehensive Environmental Performance Index (CEPI) for industrial clusters and recently it was published in December, 2009

## CEPI

### (Comprehensive Environmental Pollution Index)

- Union Ministry of Environment and Forest, Gol had imposed and then extended a moratorium time to time for approval of new industries and **expansion**. Vide Notification of MoEF dated 17 September 2013 Moratorium for Chandrapur Area is still effective.
- Area Under CEPI in Chandrapur District- MIDC Chandrapur, Tadali, Ghugus & Ballarpur

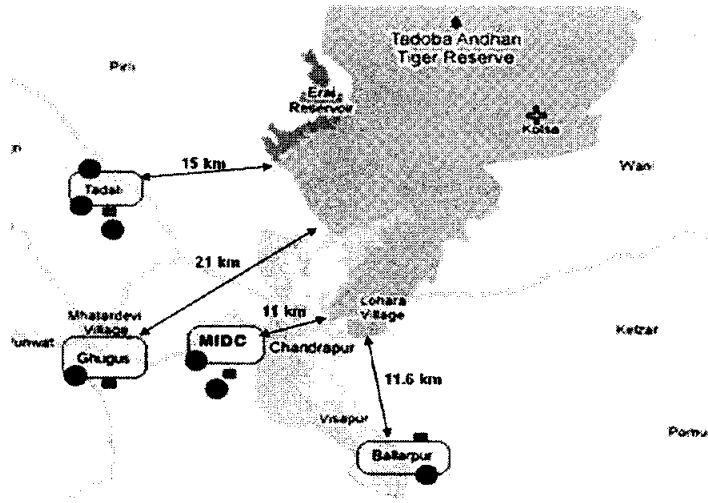
## Introduction

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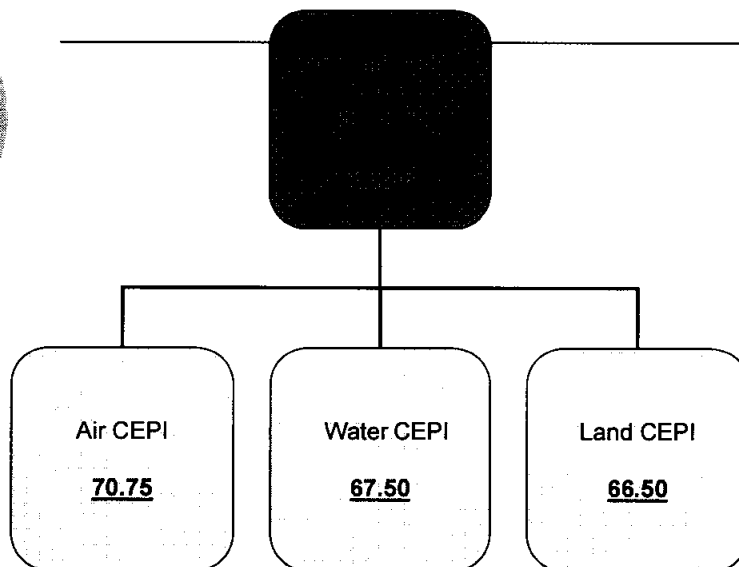
- Chandrapur District of Maharashtra is abundantly endowed with rich flora and fauna, water resources and mineral wealth.
- India's largest thermal power plant, many coal mines, cement and paper factories, huge lime stone deposits are the sources of wealth for the district.
- Wardha is the main and the largest river. Rivers Erai, Andhari, Wainganga and the Painganga are its tributaries.



### Demarcation of geographical boundaries and impact zones



### Total Aggregated Score of Chandrapur CEPI



## Chandrapur Action Plan

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- As per Frame work of Model Action Plan for Critical Polluted Industrial Area given by the CPCB vide letter dated 16 July 2010, MPCB has prepared revised multi stake holders Chandrapur Action Plan and submitted to the Authority.
- Salient Features of the Action Plan.
  - 1) It is multi Stake Holder responsibility.
  - 2) It is framed in two parts i.e short term (one year Period) and Long term action plan.

## Efforts Taken By the Board for implementation of CAP

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- Action plans involves various stakeholders and therefore MPCB taking lead for effective implementation
- Up Graded existing Sub-Regional Office by Regional Office with Regional Laboratory at Chandrapur.
- Formed monitoring committee under the Chairmanship of the District Collector for effective implementation of the Action Plan.
- Member Secretary MPCB has taken sectorial meetings of Thermal Power Plants and coal Washeries for improved enforcement and compliance issued suitable Directions.

- Secretary (Environment), GoM has issued direction u/s 5 of EP Act, 1986 to various stake holders such as, Municipal Council, Chandrapur, District Collector, Chandrapur, RTO Chandrapur, Municipal Council Ballarpur, MIDC and PWD.
- Member Secretary, MPCB has issued direction u/s 33 A of Water (P&CP)Act, 1974 and 31 A of Air (P&CP) Act, 1981 to various industries located in CEPI area of Chandrapur District.
- Board has issued direction to the industry to implement mechanical closed type transportation system for coal/Mine Minerals and organized workshops for Mechanical Closed Trucks.
- MPCB as issued directions to coal Washeries and thermal power plant for compliance of consent condition and CPCB guidelines.

- MPC Board has allotted work order to NEERI/IIT, Mumbai vide letter dated 22/02/2013 for project on "Emission Inventory and air quality model development of industrial city centers in Maharashtra: Framework for air quality management with resources to science based policy and action plan for Chandrapur area".
- 6 nos. of Review Meeting were conducted time to time under the Chairmanship of the Hon'ble Minister (Env), Member Secretary, Collector, Chandrapur respectively.
- Carried monitoring of water, air and voc through third party .
- Strengthen air monitoring wing by deploying MoEF accredited Agency.

## Compliance Status & Achievements of Action Plan

- o ~~As per directions issued, various industries has carried out necessary corrections, up gradation in pollution control Systems.~~
- o Board has denied Consent to operate to polluting unit no.1 of the Chandrapur Thermal Power Plant and directed to up grade pollution Control Systems, to submit Action Plan and obtained Bank guarantee.
- o M/s Bilt Graphics paper Products Lts, Ballarpur has switched over to new Modernize Plan based on Environmental Friendly technology i.e Elementary Chlorine Free (ECF) by scrapping old plant and upgraded Existing Effluent Treatment Plant by introducing MBBR and DAF technology resulting into reduction of pollutants and removal of colour.

- o CEPI score reduces from 83.88 to 81.90 and Chandrapur (MIDC Chandrapur, Tadali, Ghuggus, Ballarpur) ranking at 6<sup>th</sup> place in the country
- o ~~NEERI & IIT Mumbai has carried out Extensive sampling and data analysis and submitted interim report to the Board and study is continue.~~
- o The polluting cluster of Coal Depot which was located at the out skirt of Chandrapur city i.e Padoli is shifted at other location.
- o The Board had constituted a committee in order to frame guidelines to curb pollution due to coal depots and railway siding and the committee has finalized the guidelines.
- o There are 6 sponge iron plants located in Chandrapur District. The solid waste dolo char is generated from the sponge iron manufacturing units. Major sponge iron unit M/s Lloyd Metals has installed and commissioned char beneficiation plant for it's reutilization. Dolochar has calorific value and it is salable.



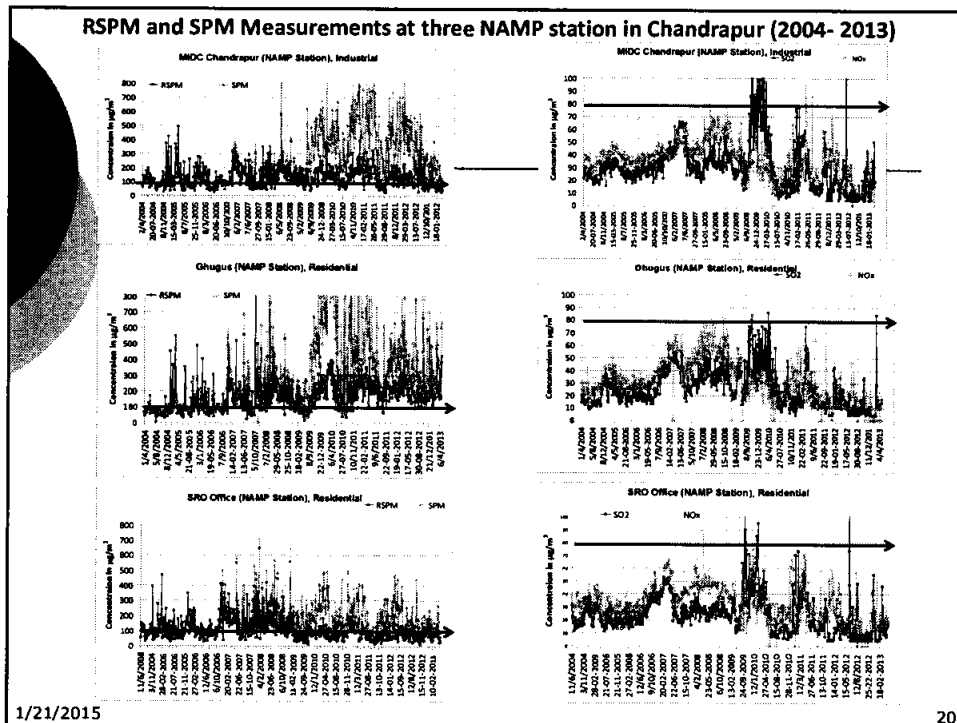
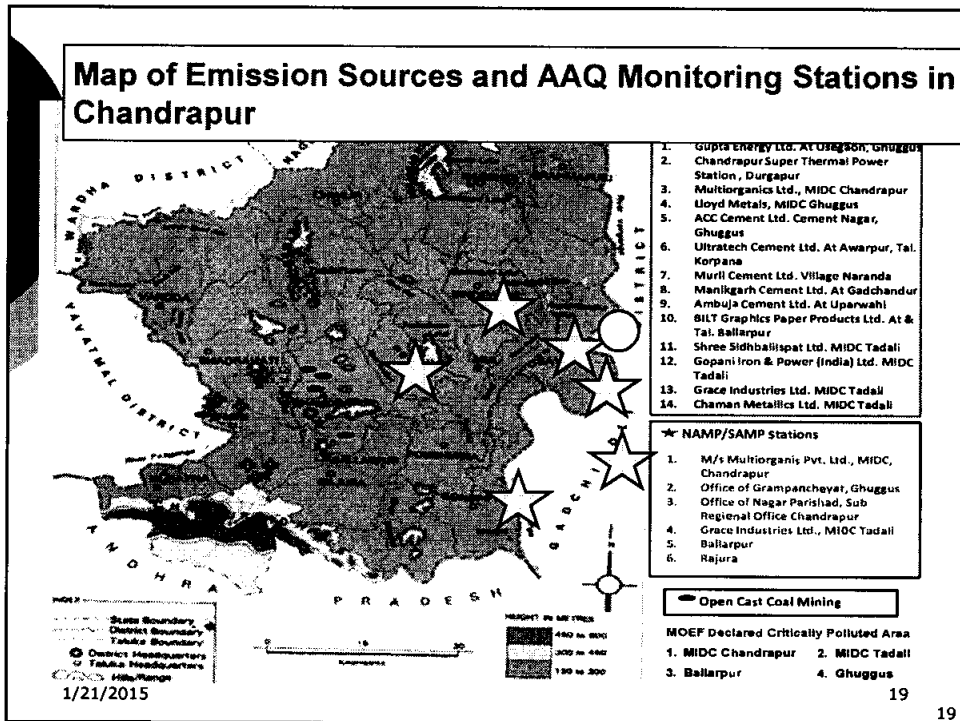
- o The pilot project of ETS (Emission Trading Scheme) for industries is introduced in Chandrapur Region in the collaboration of CPCB, MPCB & Government of Maharashtra. At present 37 nos. stacks of 15 industries have been connected with ETS Server. The work of connection of CAAQM at Industries are also under progress.

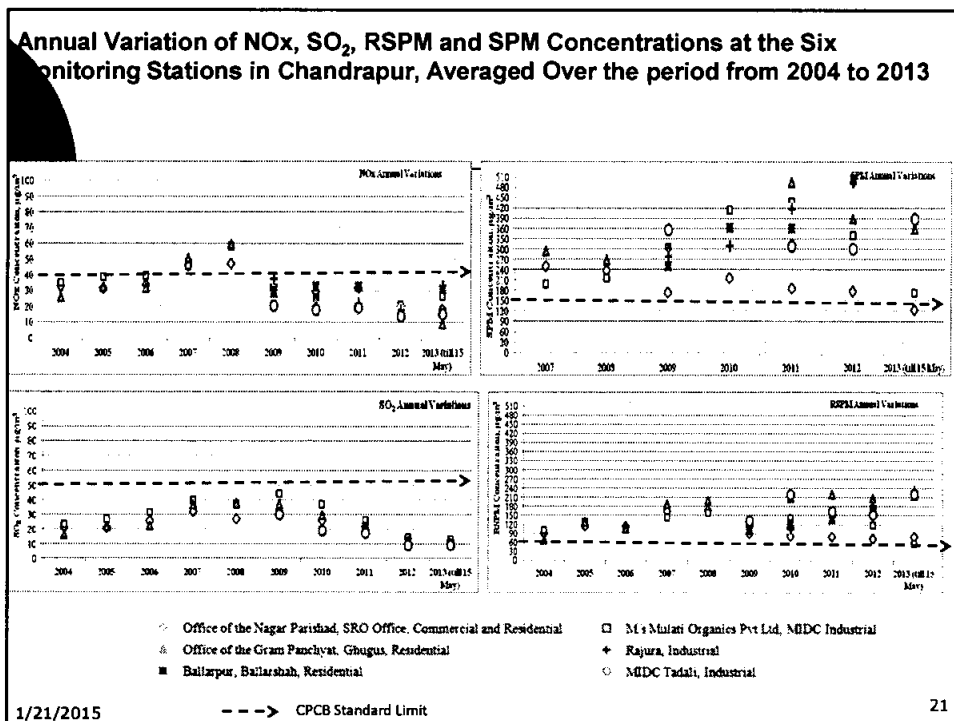
One additional CAAQM station is installed and about to commission at new Udyog Bhawan Building, Chandrapur.

- o As per Directions issued MIDC has undertaken following works at MIDC Tadali Area as below;
  - o 1) Completed Concrete road of 2.4 K.M
  - o 2) The work of asphalt road (2.4 K.M to 5.15 K.M & 5.15 K.M to 5.17 K.M) is in progress and will be completed by March 2015.
  - o 3) The work of construction of gutter is in progress will be completed by March 2015.
  - o 4) Identified 15 acres land at MIDC Tadali area for disposal of solid waste.

**MPCB-IITB-NEERI are working TOGETHER to get the scientific roadmap for sustained improvement in air quality in Chandrapur region :**

1. Decision making for long term sustainable management of air quality in Chandrapur-Wani region in Maharashtra
2. Replicable for other mining and industrial cluster cities
3. **Mitigation efforts can be made only when the key sources and their respective contributions to the receptors of interest are ascertained**





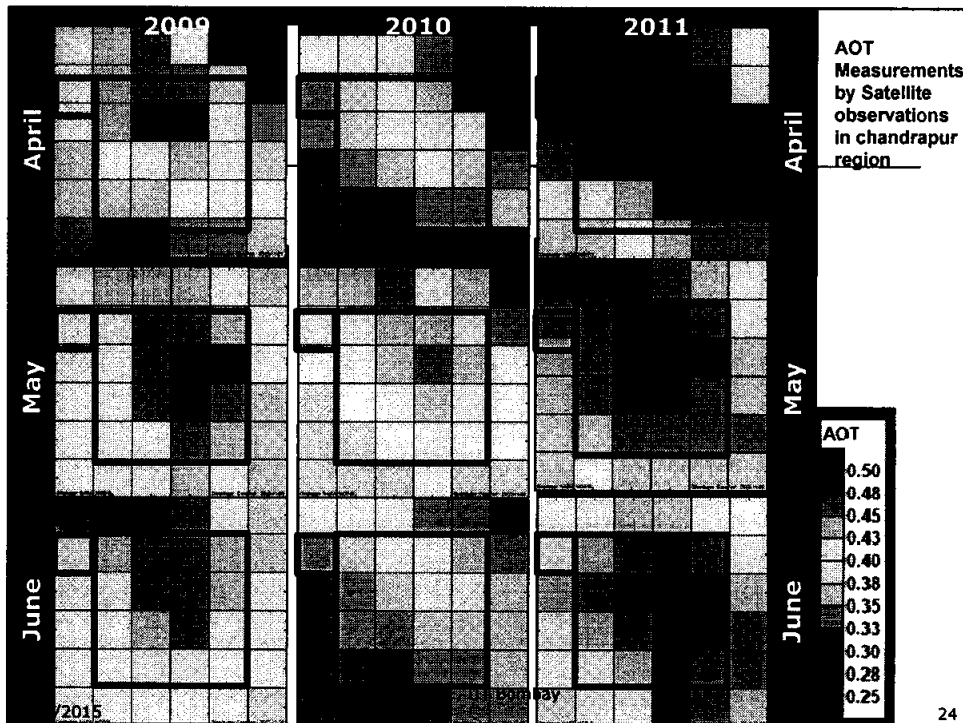
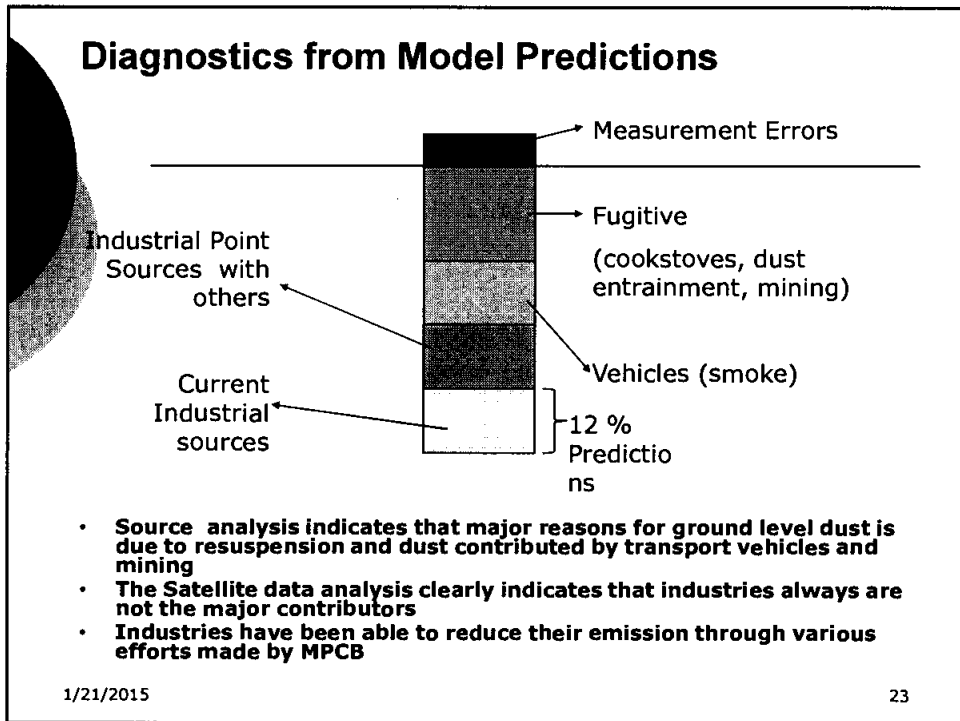
## NO<sub>x</sub> and SO<sub>x</sub> on the decline

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### Particulate Matter Trends are Mixed and Complex

The PM sources and meteorology have been analysed and interpreted through various means and through Satellite

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- The 2010 Shutdown Months Show a clear reduction in satellite images
- However, ground level measurements for these same three month indicate no significant difference
- Thus demonstrating that LOCAL and REGIONAL effects is critical to understand for taking effective steps

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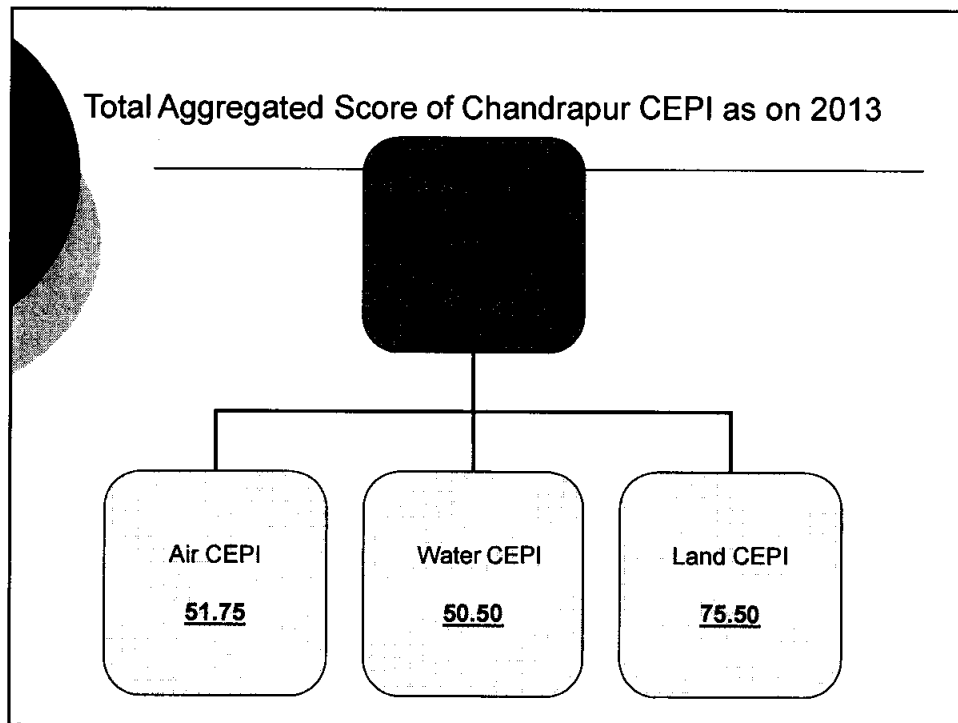
## Action Plan Suggested and its Impact

Study for air quality management in Chandarpur use three-pronged approach which will yield sustained improvement :

1. Sources have been identified using source apportionment and inventory data – specially to understand the component from mining activities which were not known earlier
2. Building a robust interpolation of meteorological data using re-analysis and satellite based data to monitor long term progress
3. Using air dispersion modeling with inputs from the above two, and special attention to ground level fugitive identification and abatement.
4. Especially, mining activities (loading and unloading) need to be controlled for PM control through chemical/polymer sprays
5. Roadside (kerb side) design and dust control from resuspension

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- Air CEPI Score is decreasing from 70.75 to 51.75
  - Water CEPI Score also decreasing from 67.50 to 50.50
  - However Land CEPI Score is increasing from 66.50 to 75.50, it is difficult to understand, may be issues related to Ground Water.
  - CEPI calculation is non-transferent.

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**Thank You**