

We are gladdened to present to the stakeholders MPCB's 24th edition of E-bulletin as we continue to series. This E-bulletin is an attempt to give you a brief insight into the latest happenings in the field in terms of various new initiatives undertaken, awareness programs being carried out by MPCB and introduce the reader to the breakthrough research which is being done in this field.

In this edition of the E-Bulletin, we present to you the highlights of the event 'Sumangalam Panchamahabhuta Lokotsav and Maharashtra Pollution Control Board's participation in the same. The event was held at Shri Kshetra Siddhagiri Math, Kolhapur from 20th-26th Feb 2023.

*We hope this E bulletin is very much valuable, informative and helpful for the readers. And we will also greet your suggestion & feedback for betterment of our future E-bulletins.* 

# Sumangalam PANCHABHAUTIK LOKOTSAV

Sumangalam - Developing Sustainable Life on the basis of Five Elements History and culture in India resembling sustainable development in integration with Panchmahabhutas (5 elements)

t is often true that mankind fails to uncover the truth underlying science & technology. The principle of nature that taught humans every aspect of life when discovered by him was termed as technology through science. A different perspective of the discoveries of science that had been interpreted by humans was to make life comfortable and easy that in-fact, have only served to make life FASTER, no matter whether its transportation, communication, energy or any other development.

Editorial

Ironically, ancient (vedic) science which had humans in harmony with nature has been transformed into modern one impacting every bit of human life & making it dependent solely on energy & technology all depleting natural resources & who knows what would come next as featuring the fastest era of life!!! But the more we make life faster, the lesser time we have for it to be enjoyed and we end up being stressed, exhausted and vulnerable to all these developments.

Maharashtra Pollution Control Board, Kalpataru Point, Opp. PVR Cinema, Sion Circle, Mumbai-400 022. Website: http://mpcb.gov.in; E mail: ebulletin@mpcb.gov.in; Tele: 022-24020781/24014701/24010437

## The five

elements of Panchamahabhuta i.e. space, air, fire, water, and earth have a key role in our lives, since our bodies are composed of these mahabhutas (elements). All matter is considered fluid. with the balance of component elements constantly shifting. However, Lifestyle of the omnivorous human beings has been impacted by these elements from the day of its presence on earth. But these terms may also find synonyms in the 21st century & been translated into the more sophisticated elements of life that are reflected as amenities for survival of life. These are Food we derive from Earth through Agriculture, Water we require for drinking, Air we breathe, Shelter derived from Akasha & Energy that refers to Fire. These resemblances or linkages needs to be well understood and to be cared for by the 21st century humans in order to create an environment that utilizes those resources of nature in harmony of its availability for the present and to conserve it for the future.

The most amazing fact of the so-called developed world is that we, the mankind, the civilized are now trying to understand & retrieve back the ancient Vedic Punchmahabhuta in its original form and recently, a number of seminars and conferences are being conducted all over India on the theme of Panchmahabhuta. Shri Kshetra Siddhagiri Math has been a part of this campaign since its inception and as such is determined to fulfil its obligations. Accordingly, Matha decided and organised a grand folk festival (Lokotsav) in the Matha premises in Kanheri, Kolhapur during 20th – 26th February 2023. This festival was designed in such a way that the common man becomes not only aware but also active in adherence to the concept of Panchmahabhuta i.e. very much visible in the traditional lifestyle of India.

ollowing were the three goals of the Matha of holding this folk festival: (1) Extensive Research and documentation of the traditions and practices of India (esp. of Rural India) in all possible media formats including books, magazines, albums, paintings, drawings, films, and three-dimensional models. (2) To acquaint the modern youth with the traditional knowledge systems of India. (3) To make the traditional (rural) society aware of scientific thinking and relevant contemporary modern technologies.

Department of Environment & Climate Change, Government of Maharashtra and Maharashtra Pollution Control Board successfully contributed in the "Sumangalam- Panchmahabhuta Lokotsav 2023" Event Organized by Shri Kshetra Siddhagiri Mahasansthan from 20-26 February 2023 at Siddhagiri Math, Kaneri, Kolhapur, wherein various efforts taken by the Department of Environment & CC, GoM & Maharashtra Pollution Control Board and were represented based on the concept of Panchmahabhuta where each of the element including, Jal, Vayu, Agni, Akash and Prithvi was considered. The stall was designed and represented in such a way in terms of all these elements were represented considering and co-relating functioning of both these departments in terms of regulatory and innovative involvement and promotive steps and implementations that are supported by these departments & through various realistic solutions. The design of stall was sustainable and various nature-based elements were used. Electricity Supplied to this Exhibition Stall is From 5KWh Solar PV installed onsite, thereby making it a "Carbon Neutral Exhibition Stall."

The stall represented the elements of Panchmahabhuta through various demonstration projects that are invented / initiated / supported by the MPC Board and Department of Environment & CC, GoM



The stall was inaugurated by Hon'ble Chief Minister of Maharashtra; Shri. Eknath Shinde, Hon'ble Deputy Chief Minister of Maharashtra; Shri. Devendra Fadnavis, Hon'ble Cabinet Minister-Maharashtra; Shri. Deepak Kesarkar and Hon'ble H.H. Adrushya Kadsiddheshwar Swamiji, a sole trustee of the Siddhagiri Math and Siddhagiri Gurukul Foundation (SGF).





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The design and theme of the stall represented by MPCB and DoE, GoM was based on Prime Minister Narendra Modi's 'Mission LiFE' (Lifestyle for Environment), a new initiative for sustainable and healthy lifestyle emphasized on making the fight against climate change democratic with the contribution of everyone in per own capacity and listed climate change and global warming as the main challenges before the world and mankind.





t also advocated a circular economy where the concept of "reduce, reuse, and recycle" can help in striking a balance between development, economic growth, and sustainability, and this will ultimately result in harmony with nature, inclusive of Pachtatva Agni, Jal, Aakash, Prithvi, and Vayu.





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he concept of "Carbon Neutral Stall" was achieved by incorporating the thought of offsetting the generated carbon dioxide during the event (which was computed by carrying out survey of each person and activities involved including travel, fuel and material used etc.) by undertaking the carbon offset principle strategy of Solar energy (power donation for 20 years @ 5Kw Solar panels) and mass tree plantation (+200 tress) continuously for 3 years as presented below;

#### HOW WILL WE ACHIEVE A CARBON NEUTRAL STALL

5KW Solar + 200 Trees @ 5.9kg/Year/Tree Offset principles

Inventorize using Survey Questions to Each person / Activity involved Create Activity Chart for Energy, Travel, Waste, Fuel, Materials Used etc. Compute Carbon Footprint for Pre, During & Post Event using Indian Emission Factors Analyze C-Footprint Understanding Major Contribution Strategize offset using Solar & Trees combination Perineal Donation of Solar Power for 20 years & Trees for 3 years

> TOTAL EMISSIONS (INDIA)=3,156 MTCO<sub>2e</sub>/YEAR

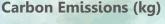
TOTAL CALCULATED EMISSIONS (MAHARASHTRA) = 262 MTCO<sub>2e</sub>/YEAR [SHARE = 8.3%]

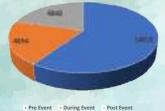
Total Carbon Offset during 7 days of Event Using Solar = 340kgs Using 200 Trees = 22.6kgs [@ 5.9kg/ Young Tree / Year] Expected Carbon Saving during 20 years of Solar PV life = 1,45,800kgs of CO2 Estimated Carbon Absorbed during 3



## **Resources and Waste**

Resource Type		Quantity	UoM
Manpower		84	Nos.
Electricity		2266	KWh
Transport		47291	Km
Fuel Used		151C.S~~1	
	Diesel	4462.8	Lit.
	Petrol	192.46	Lit.
Meals		936	Nos.
Wastewater		28.815	M3
Solid Waste		141	Kg
Stationary		0.01335	Ton
Material			Ton
	Acrylic	4.4	m2
	Metals	1.65	tonne
Plastics (PVC, PTE, wire Stadies etc)		0.000275	tonne
Wood (LCA) (Plywood etc)		0.22	tonne





Estimated Carbon Emissions from Stall =

Approximately 23,520kgs of CO 2

Estimated carbon offset = 1,49,340kg of CO<sub>2</sub> Against 23,520kg of CO<sub>2</sub>

inally, the efforts were also recognised by the Hon'ble Chief Minister of Maharashtra; Shri. Eknath Shinde, Hon'ble Deputy Chief Minister of Maharashtra; Shri. Devendra Fadnavis and a certificate of recognition to create a carbon neutral exhibition stall was presented to Maharashtra Pollution Control Board as a token of appreciation for their immense contribution toward achievement of sustainability.

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