

Subject:-“AMBIENT AIR QUALITY NEAR MORMUGAO PORT AND VASCO DA GAMA TOWN.”

Unstarred LAQ No.004 tabled by Shri. Aleixo Lourenco, MLA to be answered on 08/08/2025.

QUESTIONS

004. WILL the Minister for Environment & Climate Change be pleased to state:

(a) The number and locations of all CAAQMS Ambient Air Quality (AAQ) monitoring stations operated by the Goa State Pollution Control Board (GSPCB) near the Mormugao Port Area and Vasco Da Gama Town;

(b) Furnish AAQ data recorded by each of these stations over the last three years, including the levels of PM2.5 and PM10, SO₂, NO_x and any other monitored pollutants;

(c) Whether the Air Quality in the vicinity of Mormugao Port and Vasco Da Gama Town has improved or worsened over the last three years when compared to NAAQS based on the data furnished in clause a & b above;

ANSWER

By Shri. Aleixo Sequeira, Hon'ble Minister for Environment & Climate change.

Sir,

CAAQMS is installed by MPT, Adani & SWPL respectively. Boards operate two manual stations at Baina and Vasco under NAMP and one source station within the Port area i.e near MPT fire brigade station.

Data is attached at **Annexure 'A' colly.**

The air quality index (AQI) at Mormugao Port and Vasco town data indicates that

FY	MPT	Vasco	Baina
2022-23	74%	76%	92%
2023-24	76%	85%	74%
2024-25	68%	72%	79%

In year 2023-2024, there is a decrease in AQI % (Good to Satisfactory) at Baina which attributes to construction of flyover work in the vicinity. Further which there is slight increase of AQI % (Good to Satisfactory) can be attributed to completion of the road for the year 2024-2025.

At MPT and Vasco the AQI % which has decreased AQI (Good to Satisfactory) in FY 2024-2025 may be attributed to construction and digging activity executed by PWD and GED for laying of cables.

Coal cover shed (Dome) has been constructed and completed in February 2025

Further, it is seen from April 2025 to June 2025 the AQI at all 3 stations found to be Good to Satisfactory. Refer **Annexure 'B'**.

(d)The primary sources of air pollution that have been identified as contributing to the air quality levels in this area;

Board has carried out Particulate Source Apportionment study of air quality at Vasco through IIT Mumbai in the year 2021. As per the said report the primary source of air pollutants are 1) Vehicular emission 2) Marine aerosol 3) Road dust 4) Port related activities and Biomass burning.

	Most likely source (s)	% contribution	
		PM _{2.5}	PM ₁₀
Factor 1	Vehicular emission	20.5	21.4
Factor 2	Marine aerosols	29.6	23.3
Factor 3	Port related activities and Biomass burning	23.1	29
Factor 4	Road dust	26.8	26.3

Refer **Annexure 'C'** attached .

(e)The specific measures and actions taken in the last three years to mitigate pollution from the identified sources with action plan to ensure that the air quality in the area is consistently maintained within the prescribed safe limits?

The GSPCB has imposed the following conditions in the consent to operate for coal handling units located in the Port area:-

- a. The unit shall ensure that machinery and equipment operated for handling of cargo shall be done by skilled persons so that the cargo spillage is avoided and generally the ship gears only are used for cargo.
- b. The Unit shall ensure that the cargo is fully covered during transportation through barges.
- c. Unit shall ensure that the during loading/unloading operation of dry bulk cargo, necessary dust suppression system to the extent feasible would be taken up on barges to make the cargo wet so as to reduce the flow of particle carried away with wind. The cargo will be dropped from the lowest possible height within the hatches of ship/barges which will help to control the air pollution if any within the permissible limits.
- d. The facility should obtain Environmental Clearance for the mooring dolphins 4, 5 and 6.
- e. Cargo handling operations can be carried out at wind velocities upto 8 m/s. and all materials handling operations should be stopped at wind speed beyond 8 m/s.
- f. Operation at Mooring Dolphin may be carried out at either Mooring Dolphin3 or Mooring Dolphin 2 to ensure that particles do not reach city due to dispersion.

- g. Cargo handling operations can be carried out at release height of the material between 2m to 3m.
- h. Moisture content of material should be kept on higher (minimum 10%) side to ensure suppression of particles.
- i. Water sprinkling and mist cannon has to be used to control dust pollution
- j. The unit shall provide tarpaulin sheet in between the vessel and barge to prevent spillage in the sea.
- k. The unit has to carryout Ambient Air Quality Monitoring from Ministry of Environment, Forests and Climate Change approved laboratory at MPT premises, Sada area and Khariwada area during cola/coke handling and data has to be submitted to the Board.
- 1. The unit has to carry out water sediment monitoring from Ministry of Environment, Forests and Climate Change approved laboratory near the mooring dolphin during coal/coke handling and data to be submitted to Board.
- m. If cargo is dispatched by Wagons then all the wagons should be properly covered by Tarpaulin & tied neatly in order to avoid spillage during transport. The unit should also study on the aspects of having a mechanized system for closing the wagons and submit a action plan for the same.
- n. Unit has to install additional stationary water

sprinklers near the wagon loading area and should be operated during loading and unloading operation.

o. MPT should share the weather forecast data to the handlers at the port immediately on receipt.

p. Cargo-related operations at the MPT berths is permitted upto a wind-speed of 30 kms. / hr. with the strict-adherence to the following conditions:

* Normal operations permitted upto a wind-speed of 28 km./hr. (i.e. Beaufort scale - 04).

*Precautionary measures should be in place with proportionate scaling-down Operations when the wind speed exceeds 28 km/hr. (i.e. Beaufort scale -05)

*All operations should stop at wind speed of 30 km/h except for break bulk cargo and liquid cargo

*Unit should intensify Water sprinkling at 25 Km/h wind speed

q. unit shall install vertical garden and maintain the same wherever possible within the port and periphery

r. MPT has to provide additional water tankers and water sprinklers for dust suppression. MPT has to provide additional staff for controlling dust suppression, Water sprinkling has to be carried out throughout all the three shift and each area of handling.

s. Dedicated track along the stacking plot has to be

made/demarcated along with stacking plot area to control the truck movement and avoid movement. haphazard /random

- t. Stationary water sprinklers installed within port area have to be made operational for effective water sprinkling and dust suppression
- u. Dust sweeping machine has to be operated on entire paved area of the berth no. 10/11, internal road and berth/jetty area. Additional dust sweeping machine has to be procured and to be operated in all three shifts. Also additional manpower has to be deputed for road sweeping/cleaning within the port area.
- v. Wind breaker wall of 12 meters has to be maintained near the fishing jetty towards city side.
- w. Hoppers have be provided at the berth/jetty to load the trucks or provide mechanism to stop multiple handling of ore. Also mechanized loading and unloading system to be installed for unloading of cargo directly into stacking plot area
- x. Unit has to ensure that the online CAAQMS system is calibrated, operated continuously and connected to Boards server. y. Unit has to install standby wind monitoring system at the berth area
- z. Road cleaning/sweeping activity in the outside the premise transportation route in city has to be carried out on daily basis.

The Board conducts inspections on regular

intervals to verify compliance to consent conditions and with regards to complaints received by the Board.