Environment Management Plan

The Hon'ble National Green Tribunal in its order dated 03/07/2023 in O.A. No. 202 of 2023- Shri Gaurav Sharma Vs Govt. of National Capital Territory of Delhi & Others noted that precautionary principle of environmental law requires anticipation of adverse impact on environment and mitigation measures to offset the same. This requires preparation of an appropriate environment management Plan covering all sources of pollution in and around the campus of AIIMS. This is part of right of citizens to clean environment and sustainable development Principle. This is also part of fundamental duty under article 51 A of the constitution and obligation of the State under article 48A.

Accordingly considering that Hospital complex being an environmentally sensitive area, an environment management plan for area outside and inside AIIMS has been chalked out duly considering the recommendations made by the Joint Committee.

Sources of pollution that have been considered for redressal includes vehicles, road dust, C&D waste etc. besides other issues of encroachment, need for green belt development etc.

Scope of the Environment Management Plan

The scope of work has been outlined on the basis of the recommendations of the Joint committee and directions of the Hon'ble National Green Tribunal.

Environment Management Plan addresses the following aspects outside of AIIMS:

- 1. Reduction in traffic congestion.
- 2. Remove of encroachments
- 3. Reduction of congestion at gates
- 4. Regulating traffic movement
- 5. Improvement in road conditions
- 6. Management of dust & control of other sources of pollution
- 7. Air quality monitoring and implementation of measures listed under GRAP

The action points/recommendations made by the joint committee covers all above aspects. Accordingly the recommendations have been adopted as EMP for area outside AIIMS.

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Environment Management Plan outside AIIMS

S. No.	Aspect	Issue	Short term measures	Long term measures	Concerned departments
1.	T	A. TF	RAFFIC MANAGEMENT OUTS	IDE AIIMS	organizations
	Traffic Congestion on high traffic volume roads-MG Road and Aurobindo Marg	 Encroachments by hawkers, vendors, shops, etc. Preferred use of Pedestrian crossing available in front of AIIMS by public over Foot over bridge and subway due to encroachment and lack of cleanliness 	1. Removal of encroachments from MG Road and Aurobindo Marg in the stretch up to 500 meters from the periphery of the AIIMS campus. 2. Provision of permanent vending areas in few locations to prevent their spreading into entire area may be made by DDA and NDMC. 3. Subway and foot over bridge outside AIIMS to be free from all encroachment (including squatters). Delhi Traffic Police and AIIMS traffic committee to conduct random drives to promote use of foot over bridge or subway for crossing the busy road	1 Troffic airculati	Delhi Traffic Police, PWD, NDMC, AIIMS Traffic Committee and Delhi Police
		Increase in the number of Vehicles including taxis and auto rickshaws parked outside of AIIMS on Aurobindo marg stretch	Vehicles to be challaned regularly for unauthorised parking in and around AIIMS. Monitoring system to be introduced by concerned agency along with fixing accountability	,	Delhi Traffic Police
& C	Congestion t Gates	Ambulances are parked outside AIIMS gates on Aurobindo marg stretch which causes traffic	distance of at least 500m, to be declared as "Zero Tolerance Zone" Monitoring system to be introduced by concerned	l .	Delhi Traffic Police
		congestion	Ring Road or any other suitable place may be explored by Traffic Police, in consultation	1	

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Shifting of prepaid Booth of TSR situated outside Gate No. 1 of AIIMS Slowing of Slowing down of Speed of Traffic Slowing down of Speed of Traffic Slowing down of Vehicles on ring road near Gate 2 due to encroachments and bust stop location Slowing down of Vehicles along Yusuf Sarai, Gatuam Nagar and condition in certain stretches in Yusuf Sarai, Gatuam Nagar and other surrounding areas also require maintenance of offust is accumulated. Road Condition The service road from Gate No. 2 to Aurobindo Marg is not in good condition and a lot of dust is accumulated. Road Condition The service road from Gate No. 2 to Aurobindo Marg is not in good condition and a lot of dust is accumulated. Road Condition The service road from Gate No. 2 to Aurobindo Marg is not in good condition and a lot of dust is accumulated. Road Condition of Sarai, Gatuam Nagar and other surrounding areas also require maintenance of roads in the surrounding areas also require maintenance of and recarpeted to prevent built up of dust The Rew As in the adjoining of the pripheral parking to peripheral parking t	S. No		Issue	Short term measures	Long term measures	Concerned department
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Slowing of Speed of Traffic Slowing of Speed of Traffic Slowing of Speed of Traffic Slowing down of Speed of Traffic Slowing down of Traffic Slowing down of Vehicles along Yusuf Sarai and Gautam Nagar due to encroachments and bus Sarai and Gautam Nagar due to encroachments The service road from Gate No.2 to Aurobindo Marg is not in good condition in Condition Condition Road Condition Condition Almost all the roads in the surrounding areas also require maintenance of parking On street parking Managar and other encroachments in a distance of 500m around Gate 2 2. Provision of permanent vending areas in few locations to prevent their spreading into entire area may be made by DDA and NDMC. Road Condition in Condition Almost all the roads in the surrounding areas also require maintenance of parking which included two wheelers, four wheelers and small and large trucks and buses in certain stretches became wheelers and small and large trucks and buses in certain stretches became which included two wheelers, four wheelers and small and large trucks and buses in certain stretches became wheelers and small and large trucks and buses in certain stretches became wheelers and small and large trucks and buses in certain stretches became wheelers and small and large trucks and buses in certain stretches became wheelers and small and large trucks and buses in certain stretches. In Removal of vendors, hawkers and other encroachment bused of the encroachment buse of the encr			outside Gate No. 1 of	Traffic Police and NDMC to explore the possibility of shifting the prepaid Booth of TSR situated outside Gate No. 1 of AIIMS in the service lan near Gate No. 2 of AIIMS or other suitable location within	D. e	Traffic Poli NDMC
Road Condition Road Condition Road Condition Road Condition Road Condition Condition Almost all the roads in the surrounding areas had onstreet parking On street parking On street parking Encroachment Road Condition Constreet parking Encroachment Reorganization of Hawkers, vendors, small shops, etc. to designated spaces, removal of abutments into road right of way, especially the BSES transformer The service roads around AIIMS periphery and major roads in Yusuf Sarai, Gautam Nagar and surrounding residential areas (within 500m of AIIMS) need to be repaired and recarpeted to prevent built up of dust The Service roads around AIIMS periphery and major roads in Yusuf Sarai, Gautam Nagar and surrounding residential areas (within 500m of AIIMS) need to be repaired and recarpeted to prevent built up of dust The RW As in the adjoining colonies to issue stickers to only allow residents to park. Designated parking areas to be identified for outsiders Provision of permanent vending areas in few locations to prevent their spreading into entire area may be made by DDA and NDMC. Routine maintenance of road, footpaths, and other paved areas by PWD and NDMC. PWD, NDMC Routine maintenance of road, footpaths, and other paved areas by PWD and NDMC. Routine maintenance of road, footpaths, and other paved areas by PWD and NDMC. Routine maintenance of road, footpaths, and other paved areas by PWD and NDMC. Routine maintenance of road, footpaths, and other paved areas by PWD and NDMC. Routine maintenance of road, footpaths, and other paved areas by PWD, NDMC and NDMC. Routine maintenance of road, footpaths, and other paved areas by PWD and NDMC. Routine maintenance of road, footpaths, and other paved areas by PWD and NDMC. Routine maintenance of road, footpaths, and other paved areas by PWD and NDMC. Routine maintenance of road, footpaths, and other paved areas		Speed of	vehicles on ring road near Gate 2 due to encroachments and bus stop location	1. Removal of vendors, hawkers and other encroachments in a distance of 500m around Gate 2 2. Provision of permanent vending areas in few locations to prevent their spreading into entire area may be made by	f and traffic Police may explore the feasibility of Shifting of Bus stop	Department, Delhi Traffic Police, PWD, NDMC, AIIMS Traffi Committee an
Road Condition Road Condition Road Condition Road Condition On street parking On street parking Encroachme Encroachme Encroachme The service road from Gate No.2 to Aurobindo Marg is not in good condition and a lot of dust is accumulated. Road condition in certain stretches in Yusuf Sarai, Gautam Nagar and other surrounding areas also require maintenance encount of the surrounding areas had onstreet parking which included two wheelers, four wheelers and small and large trucks and buses in certain stretches Encroachme The service roads around AIIMS periphery and major roads in Yusuf Sarai, Gautam Nagar and surrounding residential areas (within 500m of AIIMS) need to be repaired and recarpeted to prevent built up of dust The service roads around AIIMS periphery and major road, footpaths, and other paved areas by PWD and NDMC. NDMC. Routine maintenance of road, footpaths, and other paved areas by PWD and NDMC. PWD, NDMC Road condition in certain stretches in Yusuf Sarai, Gautam Nagar and surrounding residential areas (within 500m of AIIMS) need to be repaired and recarpeted to prevent built up of dust The service roads around AIIMS periphery and major roads in Yusuf Sarai, Gautam Nagar and surrounding residential areas (within 500m of AIIMS) need to be repaired and recarpeted to prevent built up of dust The RW As in the adjoining colonies to issue stickers to only allow residents to park. Designated parking areas to be identified for outsiders Routine maintenance of road, footpaths, and other paved areas by PWD and NDMC. Road condition in certain stretches in Yusuf Sarai, Gautam Nagar and surrounding residential areas (within 500m of AIIMS) need to be repaired and recarpeted to prevent built up of dust The RW As in the adjoining colonies to issue stickers to park. Designated parking areas to be identified for outsiders Road condition in certain stretches in Yusuf Sarai, Gautam Nagar and surrounding areas to be required and recarpeted to prevent built up of dust			Vehicles along Yusuf Sarai and Gautam Naga due to encroachments	Reorganization of Hawkers, vendors, small shops, etc. to designated spaces, removal of abutments into road right of way, especially the BSES	vending areas in few locations to prevent their spreading into entire area may be made by DDA	DDA and NDMC
On street parking which included two wheelers, four wheelers and small and large trucks and buses in certain stretches Almost all the roads in the surrounding areas had onstreet parking which included two wheelers and small and large trucks and buses in certain stretches Almost all the roads in the adjoining colonies to issue stickers to only allow residents to park. Designated parking areas to be identified for outsiders The RW As in the adjoining colonies to issue stickers to only allow residents to park. Designated parking areas to be identified for outsiders Reorganization of peripheral parking to Police, PWD, NDMC and AIIMS Traffic Committee and DDA Encroachme Encroachme Encroachme Encroachment by		Condition	Gate No.2 to Aurobindo Marg is not in good condition and a lot of dust is accumulated. Road condition in certain stretches in Yusuf Sarai, Gautam Nagar and other surrounding areas also	The service roads around AIIMS periphery and major roads in Yusuf Sarai, Gautam Nagar and surrounding residential areas (within 500m of AIIMS) need to be repaired and recarpeted to prevent built up of dust	Routine maintenance of road, footpaths, and other paved areas by PWD and	PWD, NDMC
Almost all the roads in the surrounding areas had onstreet parking which included two wheelers, four wheelers and small and large trucks and buses in certain stretches Almost all the roads in the adjoining colonies to issue stickers to only allow residents to park. Designated parking areas to be identified for outsiders The RW As in the adjoining colonies to issue stickers to only allow residents to park. Designated parking areas to be identified for outsiders Reorganization of peripheral parking to Police, PWD, NDMC and AIIMS Traffic Committee and DDA Encroachme Encroachme Encroachment by	ENC	CROACHME	ENTS ON RIGHT OF WA	Y		
Encroachme Encroachment by	p	On street parking	Almost all the roads in the surrounding areas had onstreet parking which included two wheelers, four wheelers and small and large trucks and buses in	The RW As in the adjoining colonies to issue stickers to only allow residents to park. Designated parking areas to be	peripheral parking to Permanent multilevel parking near Green park	Police, PWD, NDMC and AIIMS Traffic Committee and
1 0	E	ncroachme	Encroachment by		1. Smart streetscaping	

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S. No.	Aspect	Issue	Short term measures	Long term measures	Concerned
10. E	nts	permanent structure			departmen organizatio
	(permanent	such as shops, transformers, large trees which reduce the right of way		can be implemented for the entire stretch from junction of MG road and Aurobindo Marg up to	Police, PW NDMC, DI and Delhi
				Yusuf Sarai market. This would require accommodation, Pharma shops (approximately 60	
			,	in number) and other activities such as fruit shops, general merchants etc.	
	, is			2. Alternate site should be identified for relocation for the	* ,
		Encroachment by		encroachment in other areas.	
		hawkers selling food, miscellaneous goods		Removal and relocation for hawkers.	Delhi Traffic Police, PWD,
r	Encroachme	etc., and organizations distributing food mainly encroaching onto the		small shops, etc. 2. NDMC to work on relocation plan for food	NDMC, DDA and Delhi Police
	temporary)	footpaths		at nearby government sites (DUSIB shelter)	ronce
(C. GREEN R	FI T/DI ANTE ATTION		done at present outside AIIMS.	
1.	D. I.	ELT/PLANTATION OUT No Green Belt presents	SIDE AIIMS		
ot A	utside IIMS	around the AIIMS premises.	NDMC & Forest Department will work in coordination with AIIMS for development of		NDMC, Forest Department, AIIMS
	ISSUES		green belt around the campus.		
4	anagemen	of moone unalaos of 1- o	NDMC to ensure daily lifting f garbage so that there is no		NDMC
Du	ıst N	Many areas surrounding M	Measures as per dust mitigation		NDMC, DPCC
t at	nstructio b	eeing renovated and epaired and require ust	orms have to be followed		, Direct
n si	ILCS	ontrol/management	-	- * *	

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Environment Management Plan addresses the following aspects inside AIIMS:

- 1. Plantations and development of Landscaping
- 2. Waste Management
- 3. Dust Management at Construction Sites and Road Dust
- 4. Control of Emissions from DG Sets
- 5. Device for monitoring Air quality index
- 6. Implementation of GRAP
- 7. Traffic Management inside AIIMS
- 8. Restriction on Walk-in hawkers and sellers inside AIIMS
- 9. HVAC with HEPA filters
- 10. Other initiatives

1. Plantations and Landscaping

- Vegetative cover in AIIMS is mainly composed of trees along the boundary, along roads with shrubs interspersed. Even though the requisite area under landscaping (30% of site) has been fulfilled, the area can still accommodate some trees in the open spaces and spaces released around boundary wall. AIIMS is already in process of planting 10,000 trees and ESD shall identify all such places in the campus, where plantations can be done. Appropriate places will be identified within the campus for the installation of potted plants. Climbers will be raised to prevent heating of surfaces. The boundary walls will have climbers planted along sections where the space is not available for raising trees.
- b. Feasibility of developing vertical gardens will be explored near Masjid Moth hostel buildings and other areas. The Comprehensive Landscape Development plan will be worked upon along with the existing master plan of AIIMS to address the greening of campus along with additional water harvesting, green roofs, etc.

(Action: Aesthetics & Beautification Committee, Project Officer, Master Plan, AIIMS & ESD, AIIMS)

2. Waste Management

- a. Bio-medical waste Management (BMW): BMW is being managed as per BMW Rule, 2016 that includes segregation, collection, storage, transfer and disposal.
- b. Solid waste Management is being managed as per Solid Waste Management Rules, 2016. Regular reporting is being done and uploaded on website in compliance with the said rules.

(Action: Senior Sanitation Officer)

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Effluent and Sewage management: The effluent and sewage generated is being treated through 6 STPs and 4ETPs installed across campus.

(Action: ESD, AIIMS)

3. Dust Management at Construction Sites and Road Dust

a. For buildings that are being constructed/renovated in AIIMS campus, measures for managing/controlling dust have to be ensured in accordance with dust mitigation norms.

(Action-ESD, AIIMS & Other concerned Agencies)

b. Mechanized sweeping both outdoor and indoor is being carried out on regular basis.

(Action: Senior Sanitation Officer)

Road condition will be maintained on regular basis

(Action: ESD, AIIMS)

4. Control of Emissions from DG Sets: The D.G sets in AIIMS comply with regulatory norms. The Retrofitted Emission Control Device (RECD) as per latest directions under Section 12 of the Commission for Air Quality Management in National Capital Region and Adjoining Areas. Act 2021 - Regulations for use of DG sets in NCR for DG sets above 125 KW to less than 800 KW is under process.

(Action-ESD, AIIMS)

5. Device for monitoring Air quality index: The device for monitoring air quality index in the AIIMS campus will be installed as per CPCB/DPCC guidelines.

(Action: ESD)

6. Implementation of GRAP: When Air quality index exceeds the prescribed level, actions listed under the GRAP will be implemented as per the directions of the CAQM.

(Action: ESD & Security)

7. Traffic Management inside AIIMS:

- a. Reducing Vehicular congestion at entry gates:
 - i. Traffic movement is being managed at entry & exit gates.
 - ii. AIIMS will deploy a Quick response team (QRT) to ensure removal/towing of unauthorized vehicle parked within the campus.
 - iii. Security is regularly patrolling and clearing all the vehicles parked at undesignated places in order to control the vehicular congestion across AIIMS.

(Action: Security & Traffic Committee, AIIMS)

b. Parking of vehicles, taxis and auto rickshaws at designated places:

The Security Department regularly clears all internal roads to avoid congestion by ensuring all vehicles are parked in designated parking areas only. Provisioning of Valet parking

facility is being explored. AIIMS shall start Valet Parking on pilot basis in New RAK OPD, RPC and AIIMS emergency.

(Action: Security & Traffic Committee, AIIMS)

- Regulation of vehicular traffic entering AIIMS:
 - i. To regulate unauthorized entry of vehicles, the Security will allow vehicles with verified stickers only.
 - ii. RFID enabled tags for in-house vehicles will be installed soon at various entry points.

(Action: Security & Traffic Committee)

- d. Nature of vehicles:
 - i. Procurement of 200 electric vehicles for transportation of staff and patients-AIIMS will procure 200 electric vehicles for transportation of staff and patients in a phased manner.

(Action: Transport Committee)

ii. As a long term measure, AIIMS also plans to explore ban of all petrol and diesel vehicles within the campus in near future, except for emergency and patient transportation.

(Action: Security & Traffic Committee)

e. Development of Multilevel Car Parking (MLCP): Two multilevel car parkings near gate no 3 and 6 will be developed in the Master Plan of AIIMS, with a capacity to accommodate 880 vehicles

(Action: Project Officer, Master plan, AIIMS)

i. Improvement of signage's for smooth traffic movement:

Additional signage will be installed at strategic places in the campus. These signage's will be meaningful and with appropriate graphics to indicate the entry, exit, one way or two-way, parking location, shuttle service pick and drop off points and arrow to various departments etc. These will be placed at entrance gates such as "No Parking" signage near gate no 1, parking signage near gate no 3 and other strategic locations such as administrative building, between residential area and hospital complex.

(Action: ESD/Traffic Committee AIIMS)

Providing shuttle service

- i. AIIMS is in the process of extending the shuttle services to various major alighting points of public transport such as bus stops and metro stations.
- System of entry and exit of vehicles from designated gates:

- i. Feasibility may be explored for Gate No.1 of AIIMS to be exclusively used for entry on pilot basis
- ii. A graded plan for installation of boom barriers and progressive directional traffic will be developed.
- iii. Both the lanes of exit gate of gate no 2, are being opened during peak hours to avoid vehicular congestion.

(Action: Security & Traffic Committee)

8. Restriction on Walk-in hawkers and sellers inside AIIMS:

The Walk-In hawkers and sellers are prohibited inside the campus. The Security Department will strictly monitor and ensure that no hawkers and sellers enter the campus.

(Action: Security, AIIMS)

9. HVAC with HEPA filters: Are installed at necessary places like Operation Theatres, ICUs, Wards, etc.

10. Other initiatives

In order to address the above issues some pilot studies/ actions were undertaken:

- a) Various meetings were held with concerned stakeholders for implementation and action taken along with uploading minutes of meeting on AIIMS website.
- b) Mobile air monitoring van was installed in the campus for two weeks by DPCC
- c) Meeting was held with Department of Environmental Planning and Transport Planning for development of Integrated plan for traffic management as per existing guidelines/standards
- d) Management of patient services & regulation of footfall of visitors and other attendants of patients:
 - i. AIIMS has already installed and implemented Queue Management Systems, is promoting e-Sanjeevani platform and tele-consultation for follow-up patients.
 - The Slot-wise appointment and token systems have been implemented to reduce the peak ii. of patient flow.
 - AIIMS ensures strict adherence to one-patient one-attendant policy. However, iii. considering the health condition of certain patients an exception has to be made on caseto-case basis.

e) Squatting

- AIIMS has a one-patient-one-attendant policy in place. There is no evidence/instances of i. open defecation.
- ii. Waiting areas with public facilities have been created at multiple sites and the patients and attendants are encouraged to avail waiting area facilities.

The augmentation of existing capacity resting place/temp accommodation is in process. iii.

(Action-Security & ESD AIIMS)

Installation of Pollution Mitigation System f) Filter less technology (pulse radio wave frequency machines) to mitigate both ambient air pollution and fugitive emission is being explored for pilot run.

(Action- ESD AIIMS)