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**Justice D.P. Singh**  
Former Judge Allahabad High Court  
Chairman,  
Eastern UP River and Water Reservoirs Monitoring  
Committee  
(Constituted by National Green Tribunal  
Principal Bench, New Delhi Dtd. 03.10.18  
in OA No. 116/2014)



Environment Directorate , UP  
Khand-1, Gomti Nagar  
Lucknow -226010  
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Ref: No. 408/UPSWMMC-2019

Date: 31 July 2019

Pending report of Solid Waste Management

**In Re: Nagar Nigam, Agra**

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1. UP Solid Waste Management Monitoring Committee was constituted by the orders of Hon'ble NGT dated 12.10.2018 passed in OA No. 606 of 2018 in the matter of Compliance of Municipal Waste Management Rules, 2016 in pursuance of the order passed in OA No. 306/2016 (Social Action for Forest and Environment (SAFE) vs Union of India &Ors) & M.A. No. 380/2017(D. K. Joshi Vs. Chief Secretary of U.P. &Ors.). The UPSWMMC was mandated by NGT to function for a period of six months that was completed and communicated vide letter संख्या -17/2019/एनओ जीओ टीओ-261/55-पर्या-2-2019-44(रिट)/2016 on 15<sup>th</sup> July 2019. UPSWMMC has further been extended for a period of one month to complete all pending matters.

2. A team of officials from Central Pollution Control Board (CPCB), Regional Directorate, Lucknow, Regional Office, Uttar Pradesh Pollution Control Board (UPPCB), Agra, UP Jal Nigam & Agra Nagar Nigam visited and inspected the **Municipal Solid Waste Treatment, Storage & Disposal Facility (MSWTSDF) at Kuberpur, Agra, U. P.** on **04.07.2019** for verification of compliance of Municipal Solid Waste management Rules 2016, Construction and Demolition Waste Management Rules 2016, Biomedical Waste Management Rules 2016 and Plastic Waste Management Rules 2016. Chairman of Monitoring Committee, Justice DP Singh accompanied the team and observed their inspection and performance.

**FACTS**

3. The MSWTSDF, located at Kuberpur, Agra (Lat. 27.221 N & Long. 78.115 E), is presently **unlined and unscientific disposal site** situated in low lying area. During visit, it is reported that **approx. 6,00,000 MT of legacy waste is dumped at site whereas 750 MT/day of solid waste is generally received by the facility from entire municipality area of Agra.** Presently total area of

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dumping site is around 65 acres. **Out of 65 acres, 27 acres is already covered by dumped municipal solid waste.** This facility is presently used as dumping site and no processing of solid waste is done. However, **a 20 TPD processing facility exists** for making bio-compost from waste (mainly organic waste such as waste from kitchen, park and temple). This 20 TPD facility has separate collection system and **operated by M/s Indian Agro Organic Pvt. Ltd.**

**Observations by Joint Inspection Team and Violations under SWM Rules 2016**

4. The solid waste (only kitchen, park & temple waste) dumpsite treatment facility of 20TPD capacity is engaged in collection, transportation, treatment and disposal & Packaging of Bio-Compost. The facility has not provided any logbook for amount of waste received and processed. During visit, the team observed that **Kuberpur, Agra dumpsite does not have any treatment facility available for Municipal Solid Waste.** As reported average **700 to 750 tons mixed MSW is being dumped at the site on daily basis.** The facility has applied for the consents under Water & Air Acts and Hazardous Waste Authorization from SPCB. Agra Nagar Nigam has not yet received the sanctioned amount from Rajya Mission Nideshak (Swaccha Bharat Mission Urban) Govt. of Uttar Pradesh for developing site at Kuberpur for MSWTSDF. During visit the team observed huge amount of legacy waste (approx. 6 lakh tons as per Agra Nagar Nigam) accumulated over a period of time at dumpsite. **An agreement has taken place between Agra Nagar Nigam & M/s Spaak Bresson Pvt. Ltd for processing/treatment of legacy waste dumped (6 Lakh tons & MSW (750TPD).** Presently 20 TPD operated by M/s Indian Agro Organic Pvt. Ltd. The team observed that decomposition of organic waste being dumped leads to formation of methane, which often burns and with continuous emission of smoke/ poisonous gases and fine particulate matter. The condition of existing landfill site at Kuberpur is pitiable and has become potential source of environmental hazard due to burning of mixed MSW & plastic waste contributing to air pollution (Bio-aerosols), leachate discharges contaminating soil & underground water etc. The Nagar Nigam and operating agency shall ensure quick response to treat the waste in the processing facility, wherein energy generation including power & biogas is necessary element. The existing site does not have proper leachate management system and it may affect the groundwater of nearby area adversely. There is movement of large no. of truck, tractor and other vehicle carrying MSW on dusty roads resulting in re-suspension of dust and thus causing air pollution, beside vehicle exhaust emissions. Agra Nagar Nigam and Facility operator shall include complete relevant details, the quantity of MSW to be handled, utilization/safe disposal of various products generated, area & Infrastructure requirements for the present situation and also keeping in the future requirements. The team noticed that waste received at site was not segregated. It reveals that segregation at source is not in practice. Open space solid waste dumping on permeable surface may possibility contaminate the ground water.

Workers engaged at site were not provided necessary safety kits (i.e., shoes, goggles and Helmets etc). The operator should provide safety kits to all workers and ensure that worker should use the safety kits during working hours. The facility operator has not developed green belt areas on the dumpsite. Agra Nagar Nigam & Facility shall be directed to maintain the record of Municipal Solid Waste generation and disposal at the dumpsite area.

5. During a Monitoring Committee meeting, the following report was provided on compliance of SWM Rules 2016 in district Agra –

Proforma - 5

Compliance Status of Solid Waste Management Rules, 2016

Regional Office	District	Local Body	Door to Door Collection of Waste Practiced			Whether Segregation Practiced		Whether Waste Processing Facilities Functional						Whether Legacy Waste Site Existing				Whether Local Body has Obtained from Authorisation from UPPCB	Action Taken by UPPCB	
			Yes	No	If Yes Mention %	Yes	No	Waste Disposal Facility		Material Recovery Facility		Sanitary Landfill		Yes	No	If Yes, Quantum of Waste	Any Proposal to treat Legacy Waste			
								Yes	No	Yes	No	Yes	No				Yes			No
			4	5	6	7	8	9	10	11	12	12	14	15	16	17	18			19
Agra	Agra	Agra Nagar Nigam	Yes		80	No		No	No				Yes		8 Lakh MT	Yes		No	Direction dt. 08.06.2018	
Agra	Agra	Agra Cantonment Board	Yes		60	No		No	No				Yes		50000 MT	Yes		No	Direction dt. 08.06.2018	
Agra	Agra	Bah Nagar Palika	Yes		50	No		No	No		No		Yes				No	No	Direction dt. 08.06.2018	
Agra	Agra	Fatehpur Sikari Nagar Palika	Yes		50	No		No	No		No		Yes				No	No	Direction dt. 08.06.2018	
Agra	Agra	Achhnera, Nagar Palika Parishad	Yes		20	No		No	No		No		Yes				No	No	Direction dt. 08.06.2018	
Agra	Agra	Shamsabad, Nagar Palika Parishad	Yes		50	No		No	No		No		Yes				No	No	Direction dt. 08.06.2018	
Agra	Agra	Etmadpur, Nagar Palika	Yes		50	No		No	No		No		Yes				No	No	Direction dt. 08.06.2018	
Agra	Agra	Fatehabad, Nagar Palika	Yes		50	No		No	No		No		Yes				No	No	Direction dt. 08.06.2018	
Agra	Agra	Dayalbagh, Nagar Panchayat	Yes		60	No		No	No		No		Yes				No	No	Direction dt. 08.06.2018	
Agra	Agra	Swarnibagh, Nagar Panchayat	Yes		60	No		No	No		No		Yes				No	No	Direction dt. 08.06.2018	
Agra	Agra	Jagner, Nagar Panchayat	Yes		30	No		No	No		No		Yes				No	No	Direction dt. 08.06.2018	
Agra	Agra	Kheragarh, Nagar Panchayat	Yes		20	No		No	No		No		Yes				No	No	Direction dt. 08.06.2018	
Agra	Agra	Kirawali, Nagar Panchayat	Yes		20	No		No	No		No		Yes				No	No	Direction dt. 08.06.2018	
Agra	Agra	Pinnhat, Nagar Panchayat	Yes		50	No		No	No		No		Yes				No	No	Direction dt. 08.06.2018	

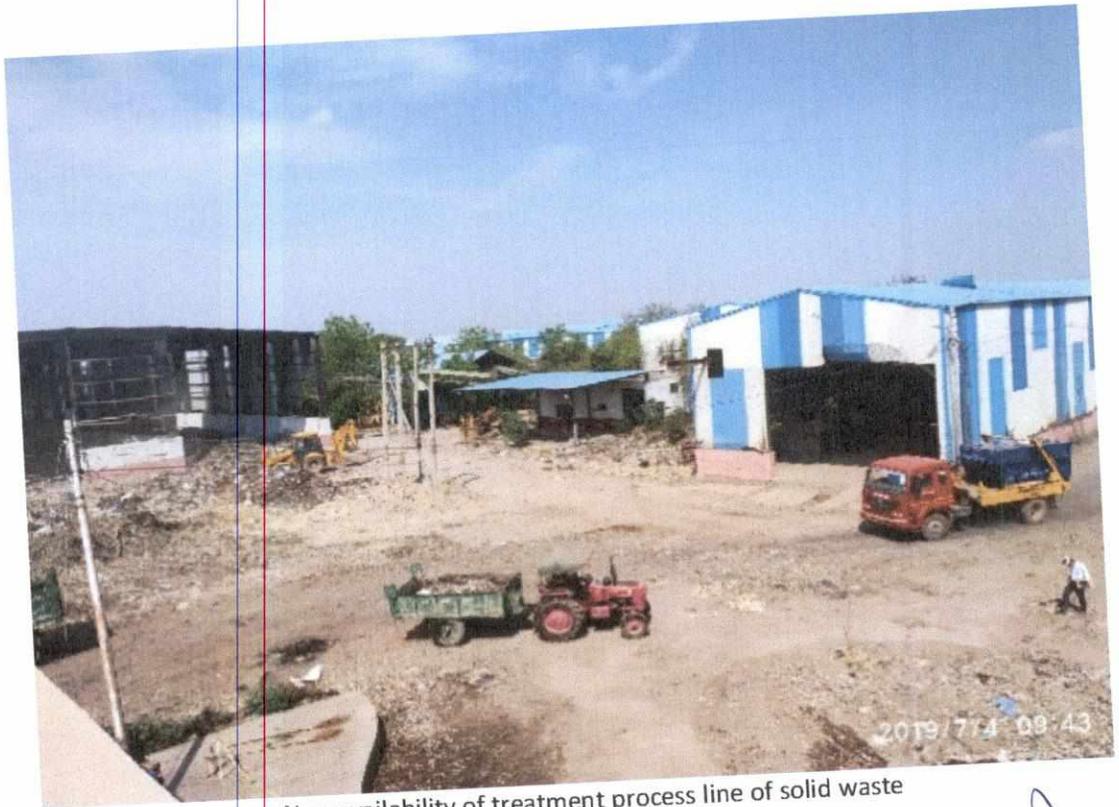
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R.C.

6. Certain photographs taken at the spot inspection of the Municipal Solid Waste Treatment, Storage and Disposal Facility at Agra speaks volumes about the condition of the disposal facility –



Entrance of MSWTSDF at Agra



Non availability of treatment process line of solid waste

A handwritten signature in blue ink, consisting of stylized, overlapping loops.



Legacy waste



Only Kitchen, Park & Temple flowers Solid waste processing unit to Bio compost

*Handwritten signature or initials*



Kitchen, Park & flowers Bio-compost



Packaging of Bio-compost unit



Installation of solid waste processing units

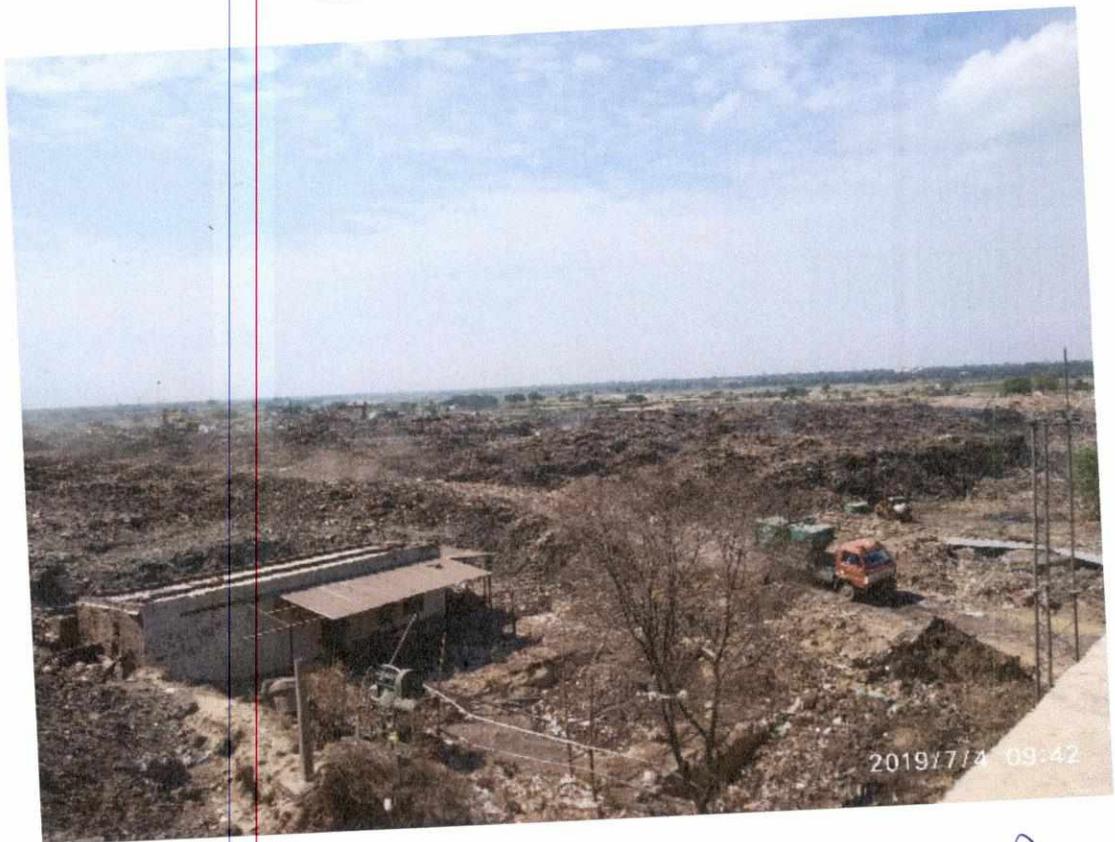


Defunct solid waste treatment facility

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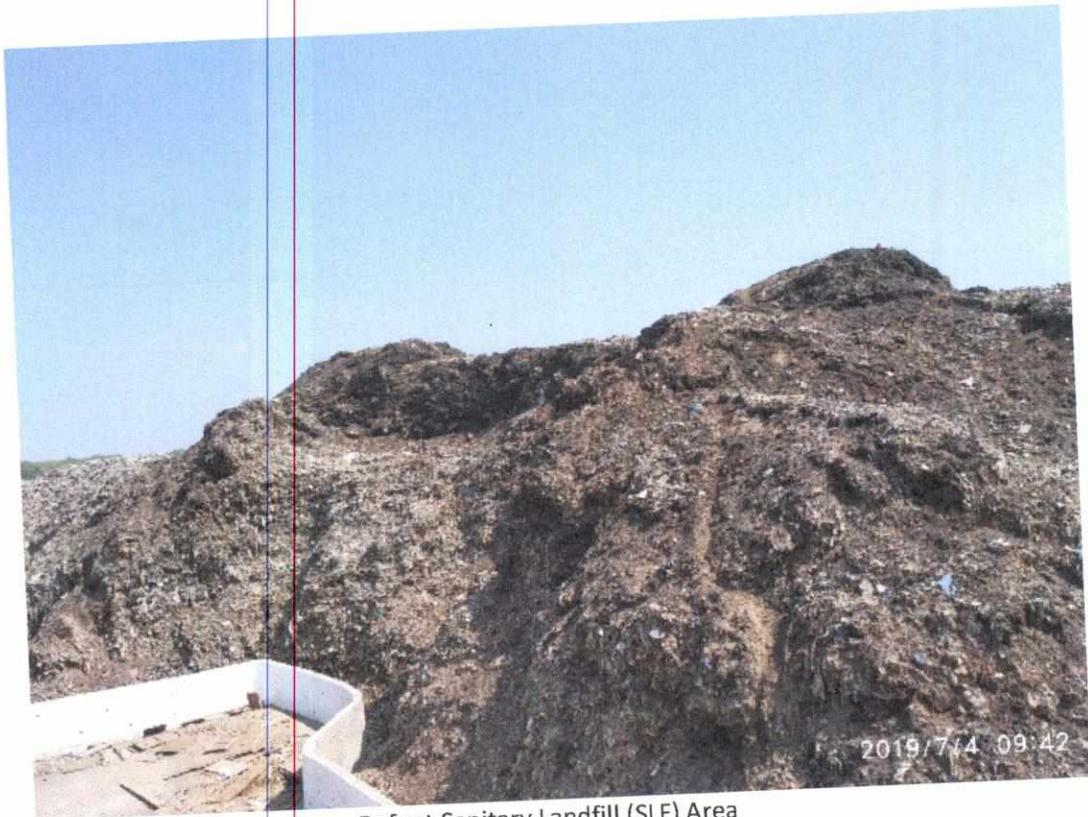


Defunct solid waste Windrows facility



Solid waste dumpsite area

*MM*



Defunt Sanitary Landfill (SLF) Area



Self fire burn of Solid waste Dumpsite

*Handwritten signature or initials*

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Recommendations by Joint Inspection Team of CPCB and UPPCB

7. Agra Nagar Nigam and facility operator should ensure speedy installation of solid waste process unit, vehicles and other equipment as the Agra dumpsite does not have any treatment facility available for Municipal Solid Waste and reported average 700 to 750 tons mixed MSW is being dumped at the site on daily basis. Nagar Nigam Agra should take initiatives on priority basis to obtain the valid consent from state pollution control board. Agra Nagar Nigam has not yet received the sanctioned amount from Rajya Mission Nideshak (Swaccha Bharat Mission Urban) Govt. of Uttar Pradesh for developing site at Kuberpur for MSWTSDF. In view of huge amount of legacy waste existing at the proposed site, proposal for disposal/treatment of this waste should strictly comply with the provision of Solid Waste Management Rules, 2016. Agra Nagar Nigam & facility operator shall ensure reduction of emission of methane generated from the MSW legacy waste as well as due to continuous burning of plastics and other combustible waste. The condition of existing landfill site at Kuberpur is pitiable and has become potential source of environmental hazard due to burning of mixed MSW & plastic waste contributing to air pollution (Bio-aerosols), leachate discharges contaminating soil & underground water etc. Nagar Nigam and operating agency shall ensure quickly response to treat the waste in the processing facility, wherein energy generation including power & biogas is necessary element. The existing site does not have proper leachate management system and it may affect the groundwater of nearby area adversely. Therefore, it is desired that the facility should develop and implement an effective leachate management system as per the provision of Solid Waste Management Rules, 2016. The Nagar Nigam and Facility operator shall ensure proper maintenance of these vehicles and arrangement of water sprinkling system for the control of dust suspension. Agra Nagar Nigam & Facility operator shall ensure protection of environment and take steps to reduce health hazards due to existing landfill/ dumping practice and ensure proper processing and disposal of MSW as per Solid Waste management Rule, 2016. Agra Nagar Nigam and Facility operator shall include complete relevant details, the quantity of MSW to be handled, utilization/safe disposal of various products generated, area & Infrastructure requirements for the present situation and also keeping in the future requirements. Facility operator/Nagar Nigam should develop proper collection system to segregate waste at source. The MSWTSDF should strictly comply with the provision of Solid Waste Management Rules, 2016. The operator/ Nagar Nigam should ensure the overburden dumping site be impermeable/lined. The operator should provide safety kits to all workers and ensure that worker should use the safety kits during working hours. The facility operator shall ensure that Green belt should be developed in 33% of the total project land area. Agra Nagar Nigam & Facility shall be directed to maintain the record of Municipal Solid Waste generation and disposal at the dumpsite area. Keeping in view of the legacy waste & municipal solid waste

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dumping, without segregation, no processing and inadequate sanitary landfill and operating without consent, Agra Nagar Nigam may be levied a penalty in the form of Environmental Compensation of suitable amount.

8. The matter of Solid Waste Management in Agra was taken up in the meeting of the Monitoring Committee dated 08.07.2019 and the relevant portion of Minutes of Meeting are reproduced below –

**"Item No. 23 (Any other matter with the permission of Chair)"**

(3) During visit to Agra, more than 8 lac tones legacy solid waste was found stored at Kuberpur landfill site. The legacy waste at this site is further multiplying day by day on account of dumping of MSW, for the reason that the total generation of solid waste in Agra is about 712 MT per day and its disposal is only 150 MT. There seems to be utter failure on the part of Nagar Nigam Agra to dispose of day to day solid waste. The reason assigned by the Municipal Commissioner is a decision taken by the Ministry of Environment, Forest and Climate Change with regard to Taj Trapezium Zone (TTZ) on 08.09.2016 to maintain status quo. The decisions taken in the meeting with respect to TTZ is as under:

"After detailed discussion, the following decisions were taken:

- (i) Submission of short-term and long-term plans for ensuring better AQM in TTZ and UJP Government.
- (ii) Intensive monitoring of industrial pollution & enforcement of specific standards by UPPCB.
- (iii) UPPCB/TTZA to confirm that no industry is functioning without the approval of UPPCB/TTZA.
- (iv) Implementation of ban on the open burning of stubble/agricultural residues/MSW by TTZA and UPPCB.
- (v) Implementation of cleaner fuels (CNG, LPG, PNG, battery etc) and stricter enforcement of Pollution under Control certificate for control of vehicular pollution by UP Government.
- (vi) Enforcing standards for existing DG sets for mitigation of pollution and restriction on installation of new DG sets by UPPCB and TTZA.

- (vii) Ensuring supply of LPG in poor households for replacing wood/cow dung burning by UP Government.
- (viii) To take effective steps for suppression of road dust by UPPCB, UP Government and TTZA.
- (ix) Extensive Tree plantation in TTZ area by UP Government.
- (x) Promotion of electric crematoria by UP Government.
- (xi) Ad-hoc moratorium on the expansion and setting up of new industry (except white category) to control air pollution by TTZA.
- (xii) Generation of awareness and education among the people in TTZ by UP Government."

The opinion of the Municipal Commissioner that in view of the above order of status quo to maintain moratorium, no new processing plant can be installed at Kuberpur dumping site, which at the face of record, does not seem to be correct for the reason that the decision of the Government of India is with regard to new industries. In the meeting at Agra, it was stated by the Municipal Commissioner that Kuberpur site falls in red category, hence no mechanical device could be installed. This statement of the Municipal Commissioner, at the face of record, seems to be not correct for the reason that the moratorium is for the industries, and not for renovation or change of mechanical device through new incumbent to process the solid waste at Kuberpur.

Further attention has been invited to an order dated 22.03.2018 passed by the Hon'ble Supreme Court in Writ Petition(Civil) No. 13381/1984, M.C. Mehta versus Union of India and others, the relevant portion of which is reproduced as under:

"A Project Committee has also been constituted for this purpose. The details of the constitution of the Project Committee should be informed to Mr. M.C. Mehta, who is the petitioner in person along with the terms of reference, etc. Mr. Mehta may give his suggestions to learned counsel for the State of Uttar Pradesh in case any modifications or suggestions need to be made.

It is stated by learned counsel for the State of Uttar Pradesh that the first draft of the vision document will take about four months. Until then, there will be a status quo in the Taj Trapezium Zone (TTZ)."

At the face of record, the order (supra) of the Hon'ble Supreme Court does not cover any developmental work at Kuberpur site where legacy waste is multiplying day by day and is becoming hazardous to the citizens of Agra causing air pollution as well as pollution in groundwater by seepage. We have also been informed that often burning of solid waste at Kuberpur site takes place, polluting the entire area of the locality. This is a serious matter and shall also affect the life of Taj Mahal, moratorium of Shahjahan and Mumtaz. There appears to be no hurdle in the way of Nagar Nigam, Agra to remove the legacy waste/MSW at Kuberpur site.

The next hurdle as pointed out by the Municipal Commissioner, Agra is yet an order of the Hon'ble Supreme Court dt 22.02.2019 passed on an application moved by the Municipal Corporation itself, which is reproduced below:

"Agra Nagar Nigam is an urban local body seeking permission of this Court to set up Waste to Energy Plant at the Kuberpur landfill site at Agra through the Project Proponent.

Before granting such permission, we think that this matter needs to be examined by experts. We accordingly request the National Environmental Engineering Research Institute (NEERI), Nagpur and the Central Pollution Control Board (CPCB) to look into the matter and after considering the proposal of the Agra Pollution Control Board and jointly inspecting the site, suggest whether this Waste to Energy Plant would help in reducing toxicity in the air and soil or would increase it or/and would also recommend whether this plant should be set up at this site or any other suitable site. They shall both visit the site and submit a joint report within a period of six weeks from today."

Here again, prima facie the Municipal Corporation appears to have taken an incorrect decision to move an application in the Supreme Court for clarification or vacation of status quo order. Once it was clear that the order passed by the Ministry of Environment T.T.Z does not cover the Kuberpur dumping site, there was no reason to move any application for clarification before the Hon'ble Supreme Court where the matter is pending. The copy of application has not been placed before us. However, a plain reading of the order of the Hon'ble Supreme Court goes to show that the matter was not correctly placed before the Hon'ble Supreme Court pointing out that Kuberpur dumping site is a legacy waste dumping site and already a processing plant was installed there but later on it became non-operational and required to be changed by another contractor, hence it was not a new venture or decision. However, it appears that the Hon'ble Supreme Court has not granted any stay nor did it restrain the Nagar Nigam to process the legacy waste at Kuberpur site,

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which is seriously affecting the environment because of deposition of MSW at the site everyday.

We hope and trust that the Nagar Nigam, Agra shall proceed, as early as possible, for disposal of legacy waste/MSW as well as current one.

Let the Municipal Commissioner, Agra be informed accordingly."

**Ambient Air Monitoring Report**



**REGIONAL OFFICE  
U.P. POLLUTION CONTROL BOARD, AGRA.**

**Ambient Air Monitoring Report**

S.No	Location of Sampling points	Date of Sample Collection	Date of Sample Analysis	Observation (mg/Nm <sup>3</sup> )			
				PM <sub>10</sub>	SPM	SO <sub>2</sub>	NO <sub>x</sub>
1.	Rokadia Hanuman Mandir Near NH2 Crossing, Nunihai, Agra	12.07.2019	13.07.2019	252.33	682.0	6.1	26.0

**Standards:-24 hours**

- 1. SO<sub>2</sub> - 80 µg/m<sup>3</sup>
- 2. NO<sub>2</sub> - 80 µg/m<sup>3</sup>
- 3. PM 10 - 100 µg/m<sup>3</sup>

*DM*  
*13/07/2019*  
Scientific Assistant

*MS*  
*15/7/19*  
Assistant Scientific Officer

*PS*  
*15/7/19*  
Regional Officer

*MS*

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9. People living in the vicinity residing around 5 kms from dumping site may suffer with physical ailments. The ambient air monitoring report taken at the dumpsite over a period of 24 hours shows that PM10 is 253.33 and SPM is 682.0 ug/m<sup>3</sup> as opposed to 100 ug/m<sup>3</sup>.

**PM10 can disturb the mucous secretion in the respiration system, cause breathing problems and increase the susceptibility to infections of the respiratory tract.** The finer a particle is, the deeper it can penetrate the human body via the pulmonary tract. The finest particles can even reach the cardiovascular system. The presence of polycyclic aromatic hydrocarbons (PAH) in some dust particles does, amongst others, promote the development of lung cancer. Other toxic substances found in particulate matter can, after deposition in the lungs, spread further in the (human) body via the vascular and/or lymphatic system. The risk of experiencing a heart attack also increases by exposure to high peak concentrations of particulate matter. Ultrafine particles (UFP or PM0.1) penetrate further into the lungs than larger particles, have a larger surface area per volume and can reach the vascular system directly. The World Health Organisation (WHO) postulates that short exposure to high concentrations of particulate matter (short term exposure) may have following effects: inflammation of lung tissue, effects on the respiratory tract, detrimental effects on the cardiovascular system, an increase in the use of medication, hospitalisation and mortality. People with respiratory diseases, such as asthma, chronic obstructive pulmonary disease (COPD), heart problems, but also elderly people and children are considered risk groups. Also, long term exposure to lower concentrations of particulate matter may cause negative health effects (long term effects). The WHO poses there is an increased risk for respiratory diseases and decreased life expectancy as a consequence of cardiopulmonary (heart and lungs) mortality and probably also as a consequence of lung cancer. These effects are more pronounced in elderly people, children or persons with heart, immunity or respiratory afflictions. **"WHO Air Quality Guidelines" estimate that reducing annual average fine particulate matter concentrations from levels of 35 µg/m<sup>3</sup>, common in many developing cities, to the WHO guideline level of 10 µg/m<sup>3</sup>, could reduce air pollution-related deaths by around 15%.** However, even in the European Union, where PM concentrations in many cities do comply with Guideline levels, it is estimated that average life expectancy is 8.6 months lower than it would otherwise be, due to PM exposures from human sources. We, in the state are falling way behind in following the environmental norms set by international standards around the world by causing the pollution to go on, marked by an inattentive and negligent approach towards such grim issues.

**STATUTORY DUTY OF NAGAR NIGAM UNDER UTTAR PRADESH MUNICIPAL CORPORATION ACT 1959** (hereinafter referred to as 'Act')



10. Under the **Uttar Pradesh Municipal Corporation Act 1959**, it is the statutory duty of Nagar Nigam to keep the city clean. A.21 being the fundamental right, it is for the State Government to ensure that because of lack of funds within the Nagar Nigam Agra, the citizens may not suffer on account of environmental pollution. In the present case, at the face of record, Nagar Nigams of the State of UP appear to not be discharging their statutory obligations for decades now, resulting in environmental hazards and causing various diseases to the citizens of the city.

**Section 115** deals with the duties of the Corporation, in the present case Nagar Nigam Agra. For convenience, the section is reproduced as under –

**"115. Discretionary duties of Corporation.** - *The Corporation may, in its discretion, provide from time to time, either wholly or partly, for all or any of the following matters, namely:*

- (i) the organization, maintenance or management of institutions including lunatic asylums, leper homes, orphanages and rescue homes for women, within or without the City for the care of persons who are infirm, sick or incurable; or for the care and training of blind, deaf, mute or otherwise disabled persons or of handicapped children;*
- (ii) the provision of milk to expectant or nursing mothers or infants or schools children;*
- (iii) swimming pools, public wash houses, bathing places and other institutions designed for the improvement and construction of bathing ghats on river banks;*
- (iv) dairies or farms within or without the City for the supply, distribution and processing of milk or milk products for the benefit of the residents of the City;*
- (v) the construction and maintenance in public streets or places of drinking fountains or drinking sheds or stand-posts for human beings and water troughs for animals;*
- (vi) encouraging music and other fine arts and providing music in public place or places of public resort;*
- (vii) making grants to educational and cultural institutions situated within and outside the City;*
- (viii) the provision of [ \* \* \* ] 50 recreation grounds, installing statues and beautifying the City;*
- (ix) the holding of exhibitions, athletics or games;*
- (x) the regulation of lodging houses, camping grounds and rest-houses in the City;*
- (xi) the construction, establishment and maintenance of theatres, resthouses and other public buildings;*

(xii) the organization or maintenance, in times of scarcity, of shops or stalls for the sale of necessities of life;

(xiii) the building or purchase and maintenance of dwellings for Corporation officers and servants;

(xiv) the grant of loans for building purposes to Corporation servants on such terms and subject to such conditions as may be prescribed by the Corporation;

(xv) any other measures for the welfare of Corporation servants or any class of them;

(xvi) with the State Government's previous sanction, the purchase of any undertaking for the supply of electrical energy or gas or the starting or subsidizing of any such undertaking which may be in the general interest of the public;

(xvii) with the State Government's previous sanction the construction, purchase, organization, maintenance or management of tramways, trackless trams or motor transport facilities for the conveyance of the public or goods within or without the City;

(xviii) the furtherance of educational objects other than those mentioned in clause

(xxv) of Section 114 and making grants to educational institutions within or without the City;

(xix) the establishment and maintenance or the aiding of libraries, museums and art galleries, botanical or zoological collections and the purchase or construction of buildings therefore;

(xx) construction, establishment, maintenance or contributions to the maintenance of baths, bathing ghats, washing places, tanks, wells, dams and other works of public utility; .

(xxi) the construction or maintenance of infirmaries or hospitals for animals;

(xxii) the destruction of birds or animals causing a nuisance or of vermin, and the confinement or destruction of stray or ownerless dogs;

(xxiii) contributions towards any public fund raised for the relief of human suffering within the City or for the public welfare;

(xxiv) presentation of civic addresses and holding of civic receptions;

(xxv) the acquisition and maintenance of grazing grounds and the establishment and maintenance of a breeding stud;

(xxvi) grant of loans or other facilities to any persons, society or institution interested in the provision of dwellings or the execution of house schemes;

(xxvii) the provision of poor relief;

(xxviii) the building or purchase and maintenance of gaushalas and of sanitary stables of horses, ponies or cattle used in hackney carriages or cart;

(xxix) surveys of buildings or lands; (xxx) relief measures to meet any calamity affecting the public in the City;

(xxxi) the adoption of any measure likely to promote the public safety, health or convenience than a measure specified in Section 114 or in the other clauses of this section;

(xxxii) subject to the provision in the budget, the making of a contribution towards any public ceremony or entertainment in the City;

(xxxiii) the establishment and maintenance of tourist bureau;

(xxxiv) the establishment and maintenance of a press and workshop for Corporation work as also for undertaking private work on charges in spare time;

(xxxv) making arrangement for preparation of compost manure from nightsoil and rubbish;

(xxxvi) taking measures to promote trade and industry and establishing a Corporation bank;

(xxxvii) establishing Labour Welfare Centres for its employees and subsidizing the activities of any association, union or club of such employees by grant or loan for its general advancement;

(xxxviii) organizing or contributing to municipal board unions;

(xxxix) making provision for removal of social disabilities of Scheduled Castes and Backward Classes;

(xl) taking measures for the control and relief of beggary;

(xli) with the previous sanction of the State Government the setting up and maintenance of a Corporation police force for taking over and discharging such police duties and in such manner as may be prescribed;

(xlii) with previous sanction of the State Government, the undertaking of any commercial duty providing or promoting amenity or employment or removing unemployment;

(xliii) the doing of anything whereupon expenditure is declared by the State Government or by the Corporation with the sanction of the State Government to be an appropriate charge on the Corporation fund: Provided that the State Government may in respect of any Corporation or all Corporations by notification in the official Gazette declare any of the functions mentioned in this

section to be a duty of the Corporation or all Corporations and thereupon the provisions of this Act shall apply thereto as if it had been a duty imposed by Section 114."

11. Section 117 provides how authorities or Corporations shall function, in the present case Nagar Nigam Agra. For convenience, S.117 is reproduced as under –

"117. Functions of Corporation authorities. - (1) Except as otherwise expressly provided in the Act, the municipal administration of the City shall vest in the Corporation.

[(1-A) Except as otherwise expressly provided in this Act, every Ward Committee shall be vested, on behalf of the Corporation in relation to the area for which it has been constituted, with such powers and functions as may be prescribed by rules.]

(2) Except as otherwise expressly provided in this Act the Executive Committee shall be vested, for and on behalf of the Corporation, with the superintendence of the municipal administration of the City.

(3) The Development Committee shall perform the functions and have the powers mentioned in Chapter XIV.

(4) The functions and powers of a Committee appointed under clause (e) of Section 5 shall be such as may be assigned to it by the Corporation with the previous sanction of the State Government.

(5) [Subject to the general control and direction of the Mayor, and wherever it is hereinafter expressly so directed, to the sanction of the Corporation] or of the Executive Committee, as the case may be, and subject to all other restrictions, limitations and conditions imposed by or under this Act, the executive power for the purposes of carrying out the provisions of this Act shall be vested in the Municipal Commissioner who shall also perform all the duties and exercise, all the powers specifically imposed or conferred on him.

(6) Without prejudice to the generality of the provisions of sub-section (5), the Municipal Commissioner shall also –

(a) subject to the provisions of this Act and the rules made thereunder, prescribe the duties of and exercise supervision and control over the acts and proceedings of all Corporation officers and servants other than the Mukhya Nagar LekhaParikshak and the Corporation officers and servants immediately subordinate to him and dispose of all questions relating to the service of the said officers and servants and privileges and allowances;

(b) in any emergency take such immediate action for the service or safety of the public or the protection of the property of the Corporation as the emergency shall require notwithstanding that

such action cannot be taken under this Act without the sanction, approval or authority of some other municipal authority or of the State Government:

Provided that the Municipal Commissioner shall report forthwith to the Executive Committee and to the Corporation the action taken by him and the reasons for taking the same and the amount of cost, if any, incurred or likely to be incurred in consequence of such action not already covered by a budget grant:

Provided further that the Municipal Commissioner shall not exercise his powers under this clause if the expenditure likely to be incurred over and above the budget grant in taking the particular action will-

(a) exceed Rs. 10,000 or, where the Mayor concurs in the taking of that action, Rs. 20,000; or

(b) together with any expenditure over and above the budget grant already incurred under this clause in the financial year, exceed Rs. 50,000, or, where the Mayor concurs in the taking of that action, Rs. 1,00,000."

12. According to **Section 120**, it is for the Municipal Commissioner to exercise powers and perform duties of corporation under the law. For convenience, S. 120 is reproduced hereunder –

**"120. Municipal Commissioner to exercise powers and perform duties of Corporation under other laws.** - (1) Any powers, duties and functions conferred or imposed upon or vested in the Corporation by any other law for the time being in force, shall subject to the provisions of such law and to such restrictions, limitations and conditions as the Corporation may imposed, be exercised, performed or discharged by the Municipal Commissioner. (2) The Municipal Commissioner may, subject to any rules in that behalf, by order in writing of which a copy shall be placed before the Executive Committee for information empower any Corporation Officer other than the Mukhya Nagar Lekha Parikshak to exercise, perform or discharge any such power, duty or function under the control of the Municipal Commissioner and subject to his revision and to such conditions and limitations, if any, as he may think fit to impose."

13. **Chapter 25** of the Act deals with power of the Municipal Commissioner for scavenging and cleansing of streets, removal of refuse, collection of excrementitious polluted matter. It shall be appropriate to reproduce Section 388 and Section 389 as under –

**" 388. Provision may be made by Municipal Commissioner for collection, etc., of excrementitious and polluted matter. –**

(1) The Municipal Commissioner may give public notice of his intention to provide in such portion of the City as he may specify, for the collection, removal and disposal by Corporation agency, of all excrementitious and polluted matter from privies, urinals, and cess-pools, and thereupon it shall be the duty of the Municipal Commissioner to take measures for the daily collection, removal and disposal of such matter from all premises situated in such portion of the City.

(2) In any such portion as is mentioned in sub-section (1) and in any premises, wherever situated, in which there is a water-closet or privy connected with a Corporation drain, it shall not be lawful, except with the written permission of the Municipal Commissioner, for any person who is not employed by or on behalf of the Municipal Commissioner to discharge any of the duties of scavengers.

**389. Special sanitary arrangements at certain places. –**

(1) The Municipal Commissioner may make such special arrangements, as he considers adequate for maintaining sanitation in the vicinity of any temple, math, mosque, tomb or any place of religious worship or instruction or entertainment to which large numbers of persons resort on particular occasions or in any place which is used for holding fairs, festivals or other public gatherings.

(2) The Municipal Commissioner may require any person having control over any such place as aforesaid to pay to the Corporation such contribution towards the cost of the special measures taken under sub-section (1) as the Executive Committee may from time to time fix, and such person shall be bound to pay the same out of the funds relating to such place."

There appears to be no room of doubt that Nagar Nigam Agra has failed to discharge its statutory duty provided under Section 25 and Section 26 of the Act to provide hygienic conditions to the citizens. In consequence thereof, they may suffer from a variety of diseases.

**OFFENCE**

14. Nagar Nigam Agra has not developed any scientific landfill system for disposal of MSW. It has not ensured processing of Municipal Solid Waste (MSW), Plastic Waste, C& D Waste and Horticulture Waste lying in accordance with the Rules and is indiscriminately dumped at both the dumpsite of Agra (supra).The State and Nagar Nigam has yet not developed sufficient infrastructure to process such huge quantity of unsegregated solid waste into either Refused Derived fuel (RDF) or bio-compost.

15. The relevant provisions with regard to solid waste management and processing from the SWM Rules 2016 are reproduced below –

**“ 15. Duties and responsibilities of local authorities and village Panchayats of census towns and urban agglomerations.-**The local authorities and Panchayats shall,-

- (a) prepare a solid waste management plan as per state policy and strategy on solid waste management within six months from the date of notification of state policy and strategy and submit a copy to respective departments of State Government or Union territory Administration or agency authorised by the State Government or Union territory Administration;
- (b) arrange for door to door collection of segregated solid waste from all households including slums and informal settlements, commercial, institutional and other non residential premises. From multi-storage buildings, large commercial complexes, malls, housing complexes, etc., this may be collected from the entry gate or any other designated location;
- (c) establish a system to recognise organisations of waste pickers or informal waste collectors and promote and establish a system for integration of these authorised waste-pickers and waste collectors to facilitate their participation in solid waste management including door to door collection of waste;
- (d) facilitate formation of Self Help Groups, provide identity cards and thereafter encourage integration in solid waste management including door to door collection of waste;
- (e) frame bye-laws incorporating the provisions of these rules within one year from the date of notification of these rules and ensure timely implementation;
- (f) prescribe from time to time user fee as deemed appropriate and collect the fee from the waste generators on its own or through authorised agency;
- (g) direct waste generators not to litter i.e throw or dispose of any waste such as paper, water bottles, liquor bottles, soft drink cans, tetra packs, fruit peel, wrappers, etc., or burn or burry waste on streets, open public spaces, drains, waste bodies and to segregate the waste at source as prescribed under these rules and hand over the segregated waste to authorised the waste pickers or waste collectors authorised by the local body;
- (h) setup material recovery facilities or secondary storage facilities with sufficient space for sorting of recyclable materials to enable informal or authorised waste pickers and waste collectors to separate recyclables from the waste and provide easy access to waste pickers and recyclers for collection of segregated recyclable waste such as paper, plastic, metal, glass, textile from the source of generation or from material recovery facilities; Bins for storage of bio-degradable wastes shall be

- Painted green, those for storage of recyclable wastes shall be printed white and those for storage of other wastes shall be printed black;
- (i) establish waste deposition centres for domestic hazardous waste and give direction for waste generators to deposit domestic hazardous wastes at this centre for its safe disposal. Such facility shall be established in a city or town in a manner that one centre is set up for the area of twenty square kilometers or part thereof and notify the timings of receiving domestic hazardous waste at such centres;
  - (j) ensure safe storage and transportation of the domestic hazardous waste to the hazardous waste disposal facility or as may be directed by the State Pollution Control Board or the Pollution Control Committee;
  - (k) direct street sweepers not to burn tree leaves collected from street sweeping and store them separately and handover to the waste collectors or agency authorised by local body;
  - (l) provide training on solid waste management to waste-pickers and waste collectors;
  - (m) collect waste from vegetable, fruit, flower, meat, poultry and fish market on day to day basis and promote setting up of decentralised compost plant or bio-methanation plant at suitable locations in the markets or in the vicinity of markets ensuring hygienic conditions;
  - (n) collect separately waste from sweeping of streets, lanes and by-lanes daily, or on alternate days or twice a week depending on the density of population, commercial activity and local situation;
  - (o) set up covered secondary storage facility for temporary storage of street sweepings and silt removed from surface drains in cases where direct collection of such waste into transport vehicles is not convenient. Waste so collected shall be collected and disposed of at regular intervals as decided by the local body;
  - (p) collect horticulture, parks and garden waste separately and process in the parks and gardens, as far as possible;
  - (q) transport segregated bio-degradable waste to the processing facilities like compost plant, bio-methanation plant or any such facility. Preference shall be given for on site processing of such waste;
  - (r) transport non-bio-degradable waste to the respective processing facility or material recovery facilities or secondary storage facility;
  - (s) transport construction and demolition waste as per the provisions of the Construction and Demolition Waste management Rules, 2016;

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(t) involve communities in waste management and promotion of home composting, bio-gas generation, decentralised processing of waste at community level subject to control of odour and maintenance of hygienic conditions around the facility;

(u) phase out the use of chemical fertilizer in two years and use compost in all parks, gardens maintained by the local body and wherever possible in other places under its jurisdiction. Incentives may be provided to recycling initiatives by informal waste recycling sector.

(v) facilitate construction, operation and maintenance of solid waste processing facilities and associated infrastructure on their own or with private sector participation or through any agency for optimum utilisation of various components of solid waste adopting suitable technology including the following technologies and adhering to the guidelines issued by the Ministry of Urban Development from time to time and standards prescribed by the Central Pollution Control Board. Preference shall be given to decentralised processing to minimize transportation cost and environmental impacts such as- a) bio-methanation, microbial composting, vermi-composting, anaerobic digestion or any other appropriate processing for bio-stabilisation of biodegradable wastes; b) waste to energy processes including refused derived fuel for combustible fraction of waste or supply as feedstock to solid waste based power plants or cement kilns;

(w) undertake on their own or through any other agency construction, operation and maintenance of sanitary landfill and associated infrastructure as per Schedule 1 for disposal of residual wastes in a manner prescribed under these rules;

(x) make adequate provision of funds for capital investments as well as operation and maintenance of solid waste management services in the annual budget ensuring that funds for discretionary functions of the local body have been allocated only after meeting the requirement of necessary funds for solid waste management and other obligatory functions of the local body as per these rules;

(y) make an application in Form-I for grant of authorisation for setting up waste processing, treatment or disposal facility, if the volume of waste is exceeding five metric tones per day including sanitary landfills from the State Pollution Control Board or the Pollution Control Committee, as the case may be;

(z) submit application for renewal of authorisation at least sixty days before the expiry of the validity of authorisation;

(za) prepare and submit annual report in Form IV on or before the 30th April of the succeeding year to the Commissioner or Director, Municipal Administration or designated Officer;

(zb) the annual report shall then be sent to the Secretary -in-Charge of the State Urban Development Department or village panchayat or rural development department and to the respective State Pollution Control Board or Pollution Control Committee by the 31st May of every year;

(zc) educate workers including contract workers and supervisors for door to door collection of segregated waste and transporting the unmixed waste during primary and secondary transportation to processing or disposal facility;

(zd) ensure that the operator of a facility provides personal protection equipment including uniform, fluorescent jacket, hand gloves, raincoats, appropriate foot wear and masks to all workers handling solid waste and the same are used by the workforce;

(ze) ensure that provisions for setting up of centers for collection, segregation and storage of segregated wastes, are incorporated in building plan while granting approval of building plan of a group housing society or market complex; and

(zf) frame bye-laws and prescribe criteria for levying of spot fine for persons who litters or fails to comply with the provisions of these rules and delegate powers to officers or local bodies to levy spot fines as per the bye laws framed; and

(zg) create public awareness through information, education and communication campaign and educate the waste generators on the following; namely:-

(i) not to litter;

(ii) minimise generation of waste;

(iii) reuse the waste to the extent possible;

(iv) practice segregation of waste into bio-degradable, non-biodegradable (recyclable and combustible), sanitary waste and domestic hazardous wastes at source;

(v) practice home composting, vermi-composting, bio-gas generation or community level composting;

(vi) wrap securely used sanitary waste as and when generated in the pouches provided by the brand owners or a suitable wrapping as prescribed by the local body and place the same in the bin meant for non-biodegradable waste;

(vii) storage of segregated waste at source in different bins;

(viii) handover segregated waste to waste pickers, waste collectors, recyclers or waste collection agencies; and

(ix) pay monthly user fee or charges to waste collectors or local bodies or any other person authorised by the local body for sustainability of solid waste management.

(zh) stop land filling or dumping of mixed waste soon after the timeline as specified in rule 23 for setting up and operationalisation of sanitary landfill is over;

(zi) allow only the non-usable, non-recyclable, non-biodegradable, non-combustible and non-reactive inert waste and pre-processing rejects and residues from waste processing facilities to go to sanitary landfill and the sanitary landfill sites shall meet the specifications as given in Schedule-I, however, every effort shall be made to recycle or reuse the rejects to achieve the desired objective of zero waste going to landfill;

(zj) investigate and analyse all old open dumpsites and existing operational dumpsites for their potential of biomining and bio-remediation and wheresoever feasible, take necessary actions to bio-mine or bio-remediate the sites;

(zk) in absence of the potential of bio-mining and bio-remediation of dumpsite, it shall be scientifically capped as per landfill capping norms to prevent further damage to the environment.

**14. Duties of Central Pollution Control Board.-The Central Pollution Control Board shall, -**

(a) co-ordinate with the State Pollution Control Boards and the Pollution Control Committees for implementation of these rules and adherence to the prescribed standards by local authorities;

(b) formulate the standards for ground water, ambient air, noise pollution, leachate in respect of all solid waste processing and disposal facilities;

(c) review environmental standards and norms prescribed for solid waste processing facilities or treatment technologies and update them as and when required;

(d) review through State Pollution Control Boards or Pollution Control Committees, at least once in a year, the implementation of prescribed environmental standards for solid waste processing facilities or treatment technologies and compile the data monitored by them;

(e) review the proposals of State Pollution Control Boards or Pollution Control Committees on use of any new technologies for processing, recycling and treatment of solid waste and prescribe performance standards, emission norms for the same within 6 months;

**(f) monitor through State Pollution Control Boards or Pollution Control Committees the implementation of these rules by local bodies;**

*(g) prepare an annual report on implementation of these rules on the basis of reports received from State Pollution Control Boards and Committees and submit to the Ministry of Environment, Forest and Climate Change and the report shall also be put in public domain;*

**(h) publish guidelines for maintaining buffer zone restricting any residential, commercial or any other construction activity from the outer boundary of the waste processing and disposal facilities for different sizes of facilities handling more than five tons per day of solid waste;**

*(i) publish guidelines, from time to time, on environmental aspects of processing and disposal of solid waste to enable local bodies to comply with the provisions of these rules; and*

*(j) provide guidance to States or Union territories on inter-state movement of waste.*

**16. Duties of State Pollution Control Board or Pollution Control Committee.-** (1) The State Pollution Control Board or Pollution Control Committee shall,-

**(a) enforce these rules in their State through local bodies in their respective jurisdiction and review implementation of these rules at least twice a year in close coordination with concerned Directorate of Municipal Administration or Secretary-in-charge of State Urban Development Department;**

**(b) monitor environmental standards and adherence to conditions as specified under the Schedule I and Schedule II for waste processing and disposal sites;**

*(c) examine the proposal for authorisation and make such inquiries as deemed fit, after the receipt of the application for the same in Form I from the local body or any other agency authorised by the local body;*

*(d) while examining the proposal for authorisation, the requirement of consents under respective enactments and views of other agencies like the State Urban Development Department, the Town and Country Planning Department, District Planning Committee or Metropolitan Area Planning Committee, as may be applicable, Airport or Airbase Authority, the Ground Water Board, Railways, power distribution companies, highway department and other relevant agencies shall be taken into consideration and they shall be given four weeks time to give their views, if any; (e) issue authorisation within a period of sixty days in Form II to the local body or an operator of a facility or any other agency authorised by local body stipulating compliance criteria and environmental standards as specified in Schedules I and II including other conditions, as may be necessary; (f)*

synchronise the validity of said authorisation with the validity of the consents; (g) suspend or cancel the authorization issued under clause (a) any time, if the local body or operator of the facility fails to operate the facility as per the conditions stipulated:

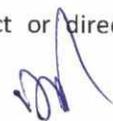
provided that no such authorization shall be suspended or cancelled without giving notice to the local body or operator, as the case may be; and (h) on receipt of application for renewal, renew the authorisation for next five years, after examining every application on merit and subject to the condition that the operator of the facility has fulfilled all the provisions of the rules, standards or conditions specified in the authorisation, consents or environment clearance.

**22. Time frame for implementation.**- Necessary infrastructure for implementation of these rules shall be created by the local bodies and other concerned authorities, as the case may be, on their own, by directly or engaging agencies within the time frame specified below:

Sl. No.	Activity	Time limit from the date of notification of rules
1.	identification of suitable sites for setting up solid waste processing facilities	1 year
2.	identification of suitable sites for setting up common regional sanitary landfill facilities for suitable clusters of local authorities under 0.5 million population and for setting up common regional sanitary landfill facilities or stand alone sanitary landfill facilities by all local authorities having a population of 0.5 million or more .	1 year
3.	procurement of suitable sites for setting up solid waste processing facility and sanitary landfill facilities.	2 years
4.	<b>enforcing waste generators to practice segregation of bio degradable, recyclable, combustible, sanitary waste domestic hazardous and inert solid wastes at source.</b>	<b>2 years</b>
5.	<b>Ensure door to door collection of segregated waste and its transportation in covered vehicles to processing or disposal facilities.</b>	<b>2 years</b>
6.	<b>ensure separate storage, collection and</b>	<b>2 years</b>

	<i>transportation of construction and demolition wastes</i>	
7.	<i>setting up solid waste processing facilities by all local bodies having 100000 or more population</i>	<i>2 years</i>
8.	<i>Setting up solid waste processing facilities by local bodies and census towns below 100000 population.</i>	<i>3 years</i>
9.	<i>setting up common or standalone sanitary landfills by or for all local bodies having 0.5 million or more population for the disposal of only such residual wastes from the processing facilities as well as untreatable inert wastes as permitted under the Rules</i>	<i>3 years</i>
10.	<i>setting up common or regional sanitary landfills by all local bodies and census towns under 0.5 million population for the disposal of permitted waste under the rules</i>	<i>3years</i>
11.	<i>Bio-remediation or capping of old and abandoned dump sites</i>	<i>5years</i>

17. **Section 3 of Environment (Protection) Act, 1986 Act** confers power on the Central Government to take all such measures as it deems necessary or expedient for the purpose of protecting and improving the quality of the environment and preventing, controlling and abating environmental pollution. 'Environment' includes water, air and land and the inter-relationship which exists among and between water, air and land and human beings, other living creatures, plants, micro-organism and property. (vide Section 2(a) of the Environment (Protection) Act, 1986). Under **Section 3 (2) (iv)** of the said Act the Central Government may lay down standards for emission or discharge of environmental pollutants from various sources whatsoever. Notwithstanding anything contained in any other law but subject to the provisions of the Environment (Protection) Act 1986, the Central Government may under **Section 5** of the Act, in the exercise of its powers and performance of its functions under that Act issue directions in writing to any person, officer or authority and such authority is bound to comply with such directions. The power to issue directions under the said section includes the power to direct the closure, prohibition or regulation of any industry, operation or process or stoppage or regulation of the supply of electricity or water or any other service. **Section 15** of the said Act contains provisions relating to penalties that may be imposed for the contravention of any of the provisions of the said Act or directions issued



thereunder. **Section 7** of the Environment Protection Act 1986 places a principal prohibition on harming the environment by stating that no person carrying any activity should emit or discharge environmental pollutants in excess of the prescribed standards. **Section 9** of the Act states that if any event takes place which harms the environment through any foreseen or unforeseen event, the person responsible for the harm is duty bound to prevent or alleviate the pollutant, discharged as a result of such event. The person is also obliged to inform the proper authorities about the event which may harm the environment. **In said present case, it is the duty of Nagar Nigam Agra to have ensured proper segregation, processing, transportation and disposal of municipal solid waste.**

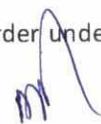
18. We do not feel that in any way, the commission and omission the part of Nagar Nigam Agra may be justified in permitting extreme pollution to be caused in the city of Agra on account of gross mismanagement of solid/biomedical/plastic waste. **Section 17 of the Environment (Protection) Act 1986** contains the provision under which the officers can be held responsible for damaging the environment. Section 17 of the Act is reproduced as under:

***"17. Offences by Government Departments.-** (1) Where an offence under this Act has been committed by any Department of Government, the Head of the Department shall be deemed to be guilty of the offence and shall be liable to be proceeded against and punished accordingly:*

*Provided that nothing contained in this section shall render such Head of the Department liable to any punishment if he proves that the offence was committed without his knowledge or that he exercised all due diligence to prevent the commission of such offence.*

*(2) Notwithstanding anything contained in sub-section (1), where an offence under this Act has been committed by a Department of Government and it is proved that the offence has been committed with the consent or connivance of, or is attributable to any neglect on the part of, any officer, other than the Head of the Department, such officer shall also be deemed to be guilty of that offence and shall be liable to be proceeded against and punished accordingly."*

19. It has been held in R. vs Patel (Rajesh), (1995) RTR 421 that whosoever facilitates the commission of a crime/offence, may be held responsible and be punished according to law. In one another case R. vs Stratton, The Times, January 15, 1988, it was held that facilitating the commission of an offence under the law may properly be subject to a forfeiture order under the relevant



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statutory provision. Since the aforesaid act of UPPCB is a criminal offence, it may be held responsible under the provisions of criminal law.

20. In the present case, since Nagar Nigam Agra has acted as a facilitator to pollute the city and the environment, it may be held responsible for violation of statutory provisions of the Environment (Protection) Act 1986 and rules framed thereunder. There is no escape from the conclusion that the Nagar Nigam Agra had turned a blind eye to the situation of waste management in the city for decades that has resulted in a disastrous situation.

21. It is the settled proposition of law that the definition of fact does not restrict a fact to something which can be exhibited as material object. The account of Advocate Commissioner in his report, in the present case, the report of CPCB pointing out the commission and omission on the part of Nagar Nigam Agra may be held to be admissible, leading to discovery of relevant fact, and accordingly, the Nagar Nigam Agra may be punished under environmental law.

The Hon'ble Supreme Court in the case reported in (2009) 2 SCC 147, UP Pollution Control Board vs Dr Bhupendra Kumar Modi has observed as under:

*"Courts cannot afford to deal lightly with cases involving pollution of air and water. The message must go to all concerned persons whether small or big that the courts will share the parliamentary concern and legislative intent of the Act to check the escalating pollution level and restore the balance of our environment. Those who discharge noxious polluting effluents into streams, rivers or any other water bodies which inflicts on the public health at large, should be dealt with strictly de hors to the technical objections. Since escalating pollution level of our environment affects on the life and health of human beings as well as animals, the courts should not deal with the prosecution for offences under the pollution and environmental Acts in a causal or routine manner."*

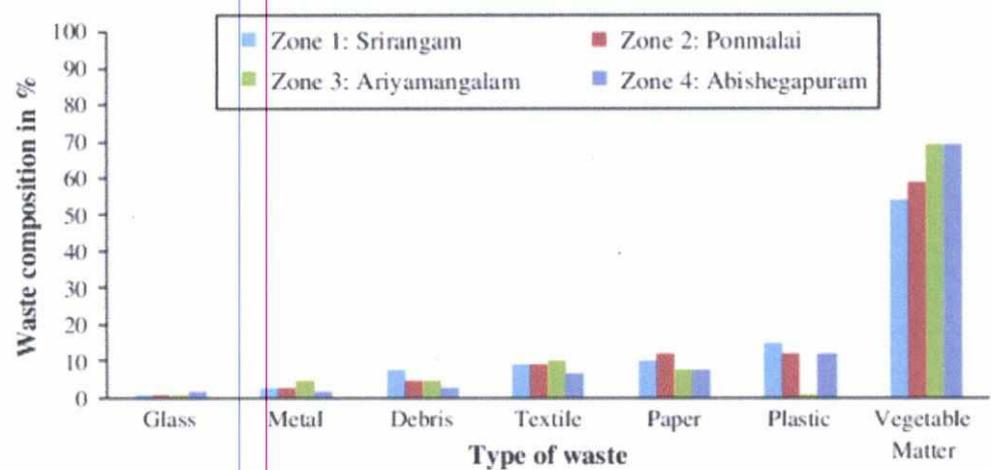
#### **SOLID WASTE POLLUTION: A CONCERN FOR THE ENVIRONMENT**

22. Scientific studies of site investigations of various dumping yards have demonstrated various hazards that are associated with the waste dump sites, e.g. surface water contamination, ground water contamination, bad smell or odour, release of greenhouse gases, accidental hazard caused by fire, slope instability, loss of vegetation, soil contamination and bird-hit etc. These problems are due to lack of leachate collection and treatment, liners are not provided, shortage of cover and poor site design or no design. There is a need for the engineered barriers, rehabilitation and closure of waste dump sites. Precipitation that infiltrates the solid wastes disposed on land mixes with the liquids already trapped in the crevices of the waste and leach compounds from the solid waste. The

leachate thus formed contains dissolved inorganic and organic solutes. In course of time, the leachate formed diffuses into the soil and changes the physicochemical characteristics of water. Leachate from a solid waste disposal site is generally found to contain major elements like calcium, magnesium, potassium, nitrogen and ammonia, trace metals like iron, copper, manganese, chromium nickel, lead and organic compounds like phenols, polyaromatic hydrocarbons, acetone, benzene, toluene etc. The concentration of these in the leachate and water depends on the composition of wastes. Some of the pollutants may be adsorbed on to the soil media during the flow of leachate through the soil. Areas near landfills have a greater possibility of groundwater contamination because of the potential pollution source of leachate originating from the nearby dumping site. Such contamination of groundwater results in a substantial risk to local groundwater resource user and to the natural environment. The impact of landfill leachate on the surface and groundwater has given rise to a number of studies in recent years and gained major importance due to drastic increase in population. There are many approaches that can be used to assess the groundwater and surface water contamination. It can be assessed either by the experimental determination of the impurities or their estimation through mathematical modelling. Once groundwater becomes contaminated, full restoration of its quality is very difficult and even impossible in some cases. Municipal landfill leachate is highly concentrated complex effluent which contains dissolved organic matters; inorganic compounds such as ammonium, calcium, magnesium, sodium, potassium, iron, sulphates, chlorides and heavy metals such as cadmium, chromium, copper, lead, zinc, nickel; and xenobiotic organic substances. It is therefore necessary to check the quality of ground water at regular time intervals to study the danger of its possible contamination which may cause water-borne diseases to human population. The determination of physical & chemical parameters of water samples which also dictate various other life processes should be taken as an environmentally viable study.

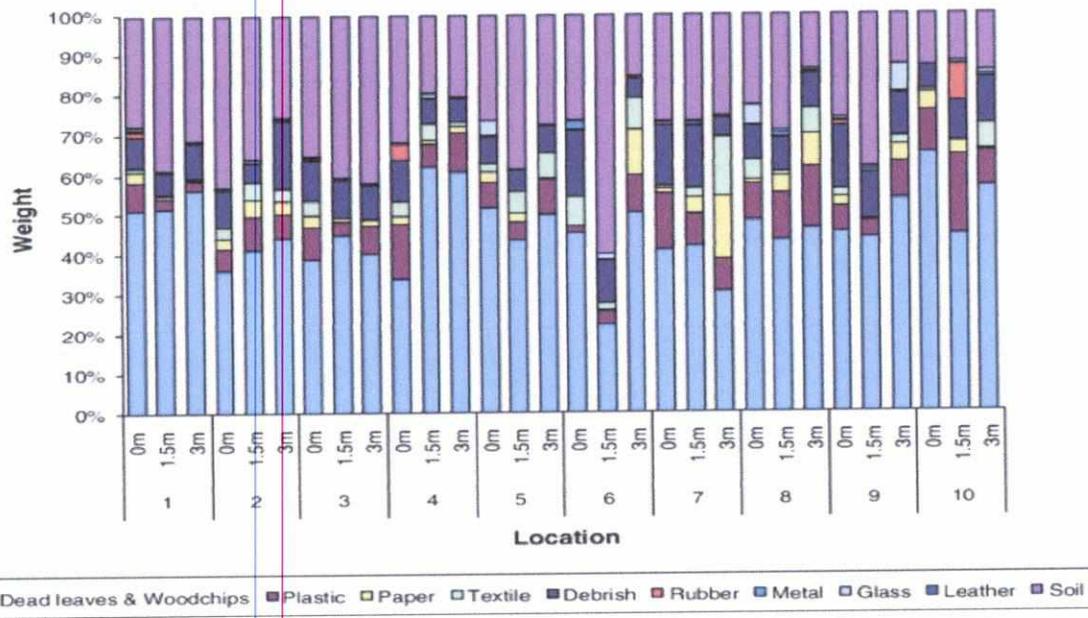
23. In a scientific study of "Assessment of heavy metal contamination in soil due to leachate migration from an open dumping site" the mean of fresh waste composition for the different zones within the Trichy Corporation was compared. "It was observed that the percentage of paper, textiles, plastic, debris, metals, glass, and vegetable waste are in the ranges of 8-10, 7-10, 1-15, 3-8, 2-5, 1-2, and 54-69 %, respectively. Vegetable waste is relatively high (54-69 %), as vegetable and meat wastes from market are transported to this open dumping site without any segregation for reuse. The share of glass (1-2 %) is considerable, mainly consisting of disposable (not refillable) bottles. The result from the fresh solid waste composition study shows that samples from the open dump site contained about 90-95 % combustible materials such as paper, textile, debris, plastic wastes. The non-combustible fraction such as metals and glass is about 1-5 %. The results were compared with

solid waste composition reported by other researchers. Mohan and Gandhimathi (2009) reported that the MSW composition from Perungudi dumping site (Chennai City, Tamil Nadu) contained about 60–70 % combustible materials such as textile, leaves, plastics, food waste, etc., with an average of 65 %. The non-combustible fraction such as metals and glass was about 30–40 % with an average of 35 %. The solid waste composition in most Asian countries is highly biodegradable, mainly composed of an organic fraction with high moisture content (Visvanathan et al. 2004). Kurian et al. (2012) revealed that the biodegradable waste was high when compared to non-biodegradable waste in MSW composition at Chennai city. The findings from other studies indicated that the composition of MSW is site-specific and based on nature of waste and source location.



The composition of solid waste from old dumping area shows a significant variation at all depths and locations. It was observed that the dead leaves and wood chips and soil were 40–60 and 15–40 %, respectively. The plastic and paper composition was 8–15 and 0.5–15 %, respectively. Debris waste composition was 5–18 %. Leather, glass, rubber, and metal composition was relatively less when compared to other type of wastes. From the composition results it was found that the combustible waste composition was high when compared to non-combustible wastes.

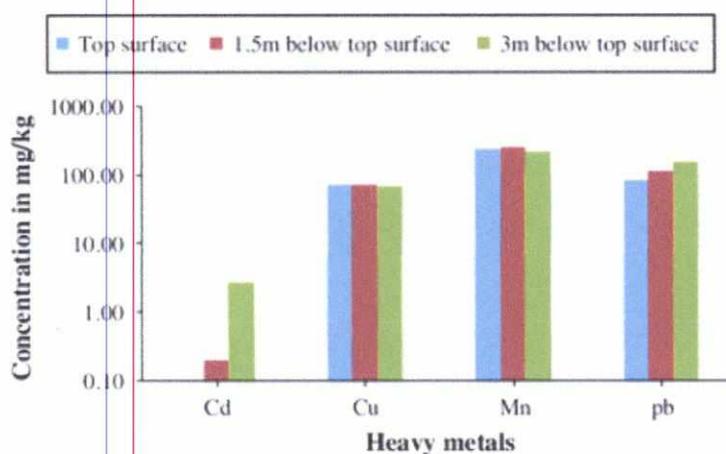
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In the study the significant variation of leachate quality among the collection locations presented showed wide variation in the concentration of leachate parameters within the dumping site. This is mainly due to the nature of solid waste dumped in that particular location. It can be observed that the leachate sample possesses very high concentration of chemical parameters except pH. All the collected leachate samples were amber-colored and alkaline with pH range of 7.28–8.47. This may be attributed to the decrease in the concentration of free volatile acids due to anaerobic decomposition, as fatty acids can be partially ionized and contribute to higher pH values. Alkaline pH is normally encountered at landfills, 10 years after disposal (El-Fadel et al. 2002). Since the pH of every sample was observed below 8.3 except one sample, the alkalinity of each sample might have been due to bicarbonate; a large amount of mineral species are also expected to exist in the leachate as the bicarbonate form (Seo et al. 2007). The relatively high value of electrical conductivity (45,350  $\mu$  mho/cm) indicates the presence of dissolved inorganic materials in the samples. The concentration of TDS also fluctuates widely from 16,360 to 34,920 mg/l. The range of COD varies from 26,880 to 45,120 mg/l and the BOD ranges between 1,050 and 3,750 mg/l. It is commonly known that organics in leachate are characterized by different biodegradability. A measure of biodegradability is BOD5/COD ratio (Kulikowska and Klimiuk 2008). The BOD5/COD ratio (0.04 to 0.09) less than 0.1 indicate that the solid waste reached the methanogenic phase. The determined chloride concentration varies between 1,996 and 6,997.5 mg/l. Chloride is a non-degradable conservative parameter and the change in its concentration is commonly used to assess the variation of leachate dilution (Bilgili et al. 2007). The results with relatively high pH, alkalinity, and chloride concentration

in all the leachate samples analyzed confirm the methanogenic condition of the dumpsite. The range of calcium and magnesium parameters is on the higher side (1,068–2,268 mg/l; 319.2–1,152 mg/l). The presence of magnesium in the leachate is due to the disposal of construction waste along with MSW (Al-Yaqout and Hamoda 2003). The iron (Fe) concentration varies ranging from 1.28 to 8.51 mg/l, except the sample locations two and three. The Fe concentration in the leachate sample indicates that Fe and steel scrap are also dumped in the landfill. The dark brown color of the leachate is mainly attributed to the oxidation of ferrous to ferric form and the formation of ferric hydroxide colloids and complexes with fulvic/humic substance (Chu et al. 1994).

From the physicochemical characteristics of the soil sample, it was observed that the presence of high value of pH, alkalinity, chloride and iron concentration in the soil samples (BH: three and four) nearby dumping site suggested that the soil samples were contaminated by leachate migration from open dumping site. The average variation of heavy metal concentration in the old solid waste samples was assessed. Based on results of depth wise variation of heavy metal concentration, it is concluded that the heavy metal concentrations present in the solid waste samples depends on site conditions as well as conditions prevailing in the sampling locations. Based on the average concentration, the heavy metal concentration in the collected solid waste sample was found in the following order: Mn > Cu > Pb > Cd.



#### Remedial measures

From the physicochemical characteristics and heavy metal concentration present in the leachate and soil samples, it is claimed that Ariyamangalam open dumping site is going to cause environmental problems in both short and long term and this site should be renewed. Hence, the active dumping site should be closed by a proper control with liner provision. In the capped dumping site (landfill) there is a provision for leachate collection system and gas monitoring system (Allen 2001). The provision of liner in the landfill protects the surrounding environment including soil, groundwater and surface

water by containing leachate generated within the landfill, controlling ingress of ground water and assisting in the control of the migration of landfill gas (Koerner and Soong 2000). Hence, the leachate migration through soil and obnoxious odor can be avoided. Integrated solid waste management system for this open dumping has to be time-honored and new sanitary landfill site has to be constructed (Banar et al. 2007, 2009). This resolution keeps away from groundwater contamination due to the disposal of municipal solid wastes.

#### Conclusions

The indiscriminate disposal of MSW without covering is considered a dangerous practice in integrated waste management at the global level. The fresh solid waste composition study shows that samples from the open dump site contained about 90–95 % combustible materials and non-combustible fraction is about 1–5 %. The composition of existing solid waste from old dumping area shows a significant variation at all depths and locations. It was observed that the dead leaves and wood chips and soil were 40–60 and 15–40 %, respectively. The plastic and paper composition was 8–15 and 0.5–15 %, respectively. Debris waste composition was 5–18 %. The physicochemical characteristic of leachate shows that the range of COD varies from 26,880 to 45,120 mg/l and the BOD<sub>5</sub>/COD ratio was less than 0.1. Hence, the characterization of leachate confirms the methanogenic condition of the dumpsite. Based on the average concentration, the heavy metal components in the old solid waste, leachate and soil were found in the following orders: Mn > Cu > Pb > Cd; Pb > Mn > Cu > Cd; Mn > Pb > Cu > Cd. The presence of heavy metals (Pb, Cu, Mn, and Cd) in soil sample indicates that there is appreciable contamination of the soil by leachate migration. This is indicated that the migration and distribution of the contaminants species are still localized and not diffused with a wide area. However, these pollutant species continuously migrate and percolate through the soil strata and after certain period of time might contaminate the groundwater system if no action is taken to prevent this phenomenon.”<sup>1</sup>

#### **IN A NUTSHELL**

24. It has been observed that Solid Waste Management and its Disposal (MSWTSDf) located at Kuberpur, Agra, it is reported that approx. 6,00,000 MT of legacy waste is dumped at site whereas 750 MT/day of solid waste is generally received by facility from entire municipality area of Agra. The solid waste (only kitchen, park & temple waste) dumpsite treatment facility of 20TPD capacity is engaged in collection, transportation, treatment and disposal & Packaging of Bio-Compost. This 20 TPD facility has separate collection system and operated by M/s Indian Agro Organic Pvt. Ltd. Agra

<sup>1</sup>Assessment of heavy metal contamination in soil due to leachate migration from an open dumping site: Applied Water Science March 2013, Volume 3, Issue 1, pp 193–205.

dumpsite does not have any treatment facility available for Municipal Solid Waste. An agreement has taken place between Agra Nagar Nigam & M/s Spaak Bresson Pvt. Ltd for processing/treatment of legacy waste dumped. However, Agra Nagar Nigam has yet not yet received the sanctioned amount from Rajya Mission Nideshak (Swaccha Bharat Mission Urban) Govt. of Uttar Pradesh for developing site at Kuberpur for MSWTSDF. The team observed that decomposition of organic waste being dumped leads to formation of methane, which often burns and with continuous emission of smoke/ poisonous gases and fine particulate matter. The existing site does not have proper leachate management system and it may affect the groundwater of nearby area adversely. The condition of existing landfill site at Kuberpur is pathetic and has become potential source of environmental hazard due to burning of mixed MSW & plastic waste contributing to air pollution (Bio-aerosols), leachate discharges contaminating soil & underground water etc. Open space solid waste dumping on permeable surface may possibility contaminate the ground water. Movement of large no. of truck, tractor and other vehicle carrying MSW on the dusty roads results into re-suspension of dust and thus causing air pollution, beside vehicle exhaust emissions. The team noticed that waste received at site was not segregated. It reveals that segregation at source is not in practice. Workers engaged at site were not provided PPE. The facility operator has not developed green belt areas on the dumpsite. Keeping in view of the legacy waste & municipal solid waste dumping, without segregation, no processing and inadequate sanitary landfill and operating without consent, Agra Nagar Nigam may be levied a penalty in the form of Environmental Compensation as per the Polluter Pays Principle.

#### Assessment of Environment Compensation

Thus, on the face of record, **Nagar Nigam Agra** has been violating environmental norms and are liable to be saddled with environmental compensation. Keeping in view, Rule 22 of SWM Rules 2016 and 2 years' time frame for implementation (for enforcing *door to door collection of segregated waste and its transportation in covered vehicles to processing or disposal facilities, ensure separate storage, collection and transportation of construction and demolition wastes, setting up solid waste processing facilities by all local bodies having 100000 or more population*) and 3 years' time frame for implementation ( to ensure *setting up solid waste processing facilities by local bodies and census towns below 100000 population, setting up common or standalone sanitary landfills by or for all local bodies having 0.5 million or more population for the disposal of only such residual wastes from the processing facilities as well as untreatable inert wastes as permitted under the Rules and setting up common or regional sanitary landfills by all local bodies and census towns under 0.5 million population for the disposal of permitted waste under the rules*), the environment compensation is assessed on **Nagar Nigam Agra** from 1 May 2018, that is,

after the lapse of the moratorium period of 2 years from date of notification of SWM Rules, 8<sup>th</sup> April 2016 @ Rs. 25,000 per day till the date of inspection on **04.07.2019** for a period of total 429 days. Environmental Compensation assessed is Rs. 1,07,25,000 (Rs. One crore seven lakhs and twenty-five thousand).

#### PROPOSALS/RECOMMENDATIONS

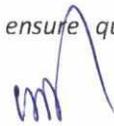
25. Open municipal solid waste dumping and accretion of legacy waste at Municipal Solid Waste Treatment, Storage & Disposal Facility (MSWTSDF) Kuberpur, Agra, U.P. is causing serious air pollution as well as groundwater and surface water contamination in the absence of scientific waste processing, leachate and gas collection system, landfill lining, bioremediation etc. In view of above, it has become a health hazard for the people of the locality residing next to the waste processing facilities and dumpsites/landfill sites and requires to be dealt with firm deterrent punishment. In the present case, **Nagar Nigam Agrais** accountable on account of non-compliance of statutory mandate. It is liable for punitive action within four corners of law. Hence on account of commission and omission, we propose to award environmental compensation under the Polluter Pays Principle.

Accordingly, we recommend as under:

1. Nagar Nigam Agra be directed to pay environmental compensation to the tune of Rs. 1,07,25,000 (Rs. One crore seven lakhs and twenty-five thousand) which may be used to provide safe hygienic conditions in the city of Agra. The deficiency of fund, if any, on justifiable ground may be provided to Nagar Nigam Agra by the State Government.
2. Nagar Nigam Agra be directed to facilitate and ensure that legacy waste is cleared within a stipulated time period of six months beginning from 1 September 2019, through bioremediation, failing which they may further pay environmental compensation at the rate of Rs. 20,000 per day starting from 1 March 2020 till such time that the waste is not cleared.
3. Nagar Nigam Agra be directed to ensure with immediate effect that there is no burning of municipal solid waste at the dumpsites (supra).
4. A team of CPCB and UPPCB be constituted and directed to ensure monitoring of the proposals/recommendations and orders of NGT. In case of non-compliance penalise and prosecute those accountable and recommend paying further environmental compensation.
5. All formalities under law keeping shall be completed, subject to aforesaid compliance and keeping in view the observations made by scientists of CPCB and UPPCB in their joint inspection report dated 24<sup>th</sup> July 2019 (supra) that are reproduced below-

**“Observations & Recommendations:**

1. The solid waste (only kitchen, park & temple waste) dumpsite treatment facility of 20TPD capacity is engaged in collection, transportation, treatment and disposal & Packaging of Bio-Compost.
2. The facility has not provided any logbook for amount of waste received and processed.
3. During visit, the team observed that Kuberpur, Agra dumpsite does not have any treatment facility available for Municipal Solid Waste. As reported average 700 to 750 tons mixed MSW is being dumped at the site on daily basis. The Agra Nagar Nigam and facility operator should ensure quick installation of solid waste process unit, vehicles and other equipment.
4. The facility has applied for the consents under Water & Air Acts and Hazardous Waste Authorization from SPCB. The Nagar Nigam Agra should take initiatives on priority basis to obtain the valid consent from state pollution control board.
5. Agra Nagar Nigam has not yet received the sanctioned amount from Rajya Mission Nideshak (Swaccha Bharat Mission Shahri) Govt. of Uttar Pradesh for developing site at Kuberpur for MSWTSDf.
6. During visit the team observed huge amount of legacy waste (Approx. 6 lakh tons as per Agra Nagar Nigam) accumulated over a period of time at dumpsite. In view of huge amount of legacy waste existing at the proposed site, proposal for disposal/treatment of this waste should strictly comply with the provision of Solid Waste Management Rules, 2016.
7. An agreement has taken place between Agra Nagar Nigam & M/s Spaak Bresson Pvt. Ltd for processing/treatment of legacy waste dumped (6 Lakh tons & MSW (750TPD). Presently 20 TPD operated by M/s Indian Agro Organic Pvt. Ltd.
8. The team observed that decomposition of organic waste being dumped leads to formation of methane, which often burns and with continuous emission of smoke/ poisonous gases and fine particulate matter. The Agra Nagar Nigam & Facility operator shall ensure reduction of emission of methane generated from the MSW legacy waste as well as due to continuous burning of plastics and other combustible waste.
9. The condition of existing landfill site at Kuberpur is pathetic and has become potential source of environmental hazard due to burning of mixed MSW & plastic waste contributing to air pollution (Bio-aerosols), leachate discharges contaminating soil & underground water etc. The Nagar Nigam and operating agency shall ensure quickly



response to treat the waste in the processing facility, wherein energy generation including power & biogas is necessary element.

10. The existing site does not have proper leachate management system and it may affect the groundwater of nearby area adversely. Therefore, it is desired that the facility should develop and implement an effective leachate management system as per the provision of Solid Waste Management Rules, 2016.

11. There is movement of large no. of truck, tractor and other vehicle carrying MSW on the dusty roads results into re-suspension of dust and thus causing air pollution, beside vehicle exhaust emissions. The Nagar Nigam and Facility operator shall ensure proper maintenance of these vehicles and arrangement of water sprinkling system for the control of dust suspension.

12. Agra Nagar Nigam & Facility operator shall ensure protection of environment and take steps to reduce health hazards due to existing landfill/ dumping practice and ensure proper processing and disposal of MSW as per Solid Waste management Rule, 2016.

13. Agra Nagar Nigam and Facility operator shall include complete relevant details, the quantity of MSW to be handled, utilization/safe disposal of various products generated, area & Infrastructure requirements for the present situation and also keeping in the future requirements.

14. The team noticed that waste received at site was not segregated. It reveals that segregation at source is not in practice. The Facility operator/Nagar Nigam should develop proper collection system to segregate waste at source. The MSWTSDF should strictly comply with the provision of Solid Waste Management Rules, 2016.

15. Open space solid waste dumping on permeable surface may possibility contaminate the ground water. The operator/ Nagar Nigam should ensure the overburden dumping site be impermeable/lined.

16. Workers engaged at site were not provided necessary safety kits (i.e., shoes, goggles and Helmets etc). The operator should provide safety kits to all workers and ensure that worker should use the safety kits during working hours.

17. The facility operator has not developed green belt areas on the dumpsite. The facility operator shall ensure that Green belt should be developed in 33% of the total project land area.

18. The Agra Nagar Nigam & Facility shall be directed to maintain the record of Municipal Solid Waste generation and disposal at the dumpsite area.

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19. Keeping in view of the legacy waste & municipal solid waste dumping, without segregation, no processing and inadequate sanitary landfill and operating without consent, Agra Nagar Nigam may be levied a penalty in the form of Environmental Compensation of suitable amount."

Let the recommendation be complied with within a period of six months beginning 1 September 2019 failing which Nagar Nigam ~~Agra~~ will pay Rs. 20,000 perday starting from 1 March 2020.

6. Proposal/Recommendation is subject to any other order or direction passed by NGT.

Let the report be forwarded to NGT forthwith.



**(Justice D.P.Singh)**  
Chairman  
Eastern UP Rivers and Water Reservoirs  
Monitoring Committee

**Date:** 31 July 2019

**Encls:** 1. Inspection Report of CPCB and UPPCB dated 24 July 2019