

FACT SHEET in O.A. No. 776/2018, Ramchandra Chaurasia Vs State of Jharkhand in light of Hon'ble NGT order dated 11.09.2019, O.A. No. 23/2017(EZ), Syed Arhad Nasar Vs Union of India & Oths. and O.A No. 373/2019, Pradeep Kumar Singh Vs state of Jharkhand

1. In-light of Hon'ble NGT order dated 11.09.2019, 4 member Committee had been constituted by the NGT. The Committee consists of the following members -

- **Ministry of Environment, Forest and Climate Change.**
Shri Rajeev Ranjan, Scientist 'D'.
- **Central Pollution Control Board.**
Dr.(Mrs) Rita Saha, Scientist 'C'
- **Jharkhand State Pollution Control Board.**
Shri Ravindra Prasad, RO, Dumka
- **Member for SEIAA/SEAC.**
Dr. B.K.Tiwari, Member SEAC

The said Committee made a random visit to the crushing and mining units on **10/10/2019** and **11/10/2019** and submitted the report on **31.10.2019** to Jharkhand State Pollution Control Board (JSPCB). The copy of the report is annexed as **Annexure 1**.

2. The Committee has visited 21 nos. of Stone Crushing Units and 11 nos. of stone mining units and found lapses of various Environmental Control Measures. JSPCB, vide letter no. **B- 1331 dated 31.10.2019** and letter no. **B- 1332 dated 31.10.2019** has issued Show Cause Notice to all the defaulting mining and crushing units respectively to appear on **05.11.2019** & **06.11.2019** and environmental compensation have been imposed on the defaulting units.
3. **As per records provided, 402 stone mines out of which 212 have valid mining lease and 282 are non-operational (as per DSR) in**

whole of Sahibganj District. As per the records provided by Department of Mines & Geology, Govt. of Jharkhand 272 nos. of Stock license has been granted in whole of Sahibganj District (Annexure 2).

4. As per the records available with JSPCB, **111 nos.** stone mining units have applied for the grant of CTO out of which **CTO has been granted to 87 units and 14 nos. of CTO has being rejected and 10 nos. are pending for consideration and grant of CTO.** The test reports are annexed as **Annexure 3.**
5. As per the records available with JSPCB, **508 nos. stone crusher units** have applied for the grant of CTO out of which CTO has been **granted to 445 nos. and 24 nos. of CTO has being rejected while 39 nos. are pending for consideration and the grant of CTO.** The test reports are annexed as **Annexure 4.**
6. JSPCB vide **notification no. B-20, dated 30.08.2018** has directed those units with production capacity more than **500 TPD**, shall install online **PM₁₀ analyzer** with connectivity to JSPCB server. The units shall install online **PM₁₀ analyzer by 31.12.2019.** This would give a reliable data for PM10 around the units. Units who will not confer to the standards would be closed down. The photocopy of the sample reports is annexed as **Annexure 5. Approx. 50 nos. of such units will be established in the District of Sahibganj which will be a good number to evaluate the Air Quality Status.**
7. The Inspection Committee constituted in light of Hon'ble NGT O.A. No. 776/2018 has reported, the value of RSPM was **482.50 microg/m³** when the RDS was installed within the premises of the **Crusher unit** (or within 40 meters) and at the time of sampling the unit was under operation and continuous power cut was reported but as per the **Environmental Protection Rules, 1986 Notification No. G.S.R 801(E) DATED 31.12.1993 For Quantitative Std. for SPM** (measured within Forty meters (40 meters) from a controlled

- isolated as well as from a unit located as well as from a unit located in a cluster should be less than 600mg/Nm³.(**Annexure 6**)
8. Regional Officer, Dumka had carried out the Air Quality Monitoring of Barharwa, Mahadevganj, Mirzachowki & Sakarigali Blocks of District Sahebganj and the copy of the reports is annexed as **Annexure 7**.
 9. Further, in compliance of order of Hon'ble NGT a Special Inspection Drive was launched by JSPCB in Sahebganj district. During, the drive Regional Officer, Dumka along with the team had inspected **293 nos.** of Stone Crushing Units and Stone Mining Units between **11.11.2019 till 17.11.2019**. The team found some lapses of various Environmental Control Measures and Show Cause Notice was issued for hearing on **15.11.2019, 16.11.2019 & 18.11.2019** at JSPCB, HQ, Ranchi.
 10. 196 units have been imposed interim environmental compensation for lapses in environmental compliances. A sum of **Rs. 6,33,57,000** has been imposed by JSPCB on **the Stone Mines and Stone Crusher units** out of which **Rs. 2,36,25,000** was imposed on **55 nos. of Stone Mines** and **Rs. 3,97,32,000** was imposed on **141 nos. of Stone Crushers.** (**Annexure 8**)
 11. The **District Mining Officer, Sahibganj, vide letter no. 1509, dated 14.11.2019** has informed that the District Task Force of which Regional Officer, JSPCB Dumka is also a member has **demolished and lodge F.I.R against 34 nos. of illegal crusher units** found in operation as per the inspection done on **05.05.2018** and has also **sealed, demolished and lodge F.I.R against 107 nos. of illegal crusher units** where the **dealers** have been indulged in illegal storage, processing and dispatch of minerals. The mining dept. has **sealed, demolished and lodge F.I.R against 70 nos. of illegal processing units (Stone Crushers)** where the **dealers** have indulged in illegal storage, processing and dispatch of minerals as

per the inspection done on **09.02.2018** and the list is annexed as **Annexure 9**.

12. The mining dept. has sealed, demolished and lodge F.I.R against **47 nos. of illegal processing units (Stone Crushers)** where the **dealers** have been indulged in illegal storage, processing and dispatch of minerals as per the inspection done on **January'2019** and the list is annexed as **Annexure 10**.
13. The maps prepared by Jharkhand Space Application Center (JSAC) in consultation with JSPCB depicting the distribution of Stone mines & crushers in major Blocks, details of Panchyat-wise population distribution and land-use land-cover map of Sahibganj District are enclosed as **Annexure 11**.
14. CTOs have been granted to those units who have satisfactorily complied Environmental Norms & where Ambient Air Quality Report (AAQR) was found within the limit (**Annexure 3 & 4**). The JSPCB is committed to enforce Environmental Compliances on all Stone Mine & Crusher units in the State of Jharkhand.

Rajeev
13/11/2019
(Rajeev Lochan Bakshi)
Member Secretary

Joint Inspection Report

OA No. 776/2018

This has reference to the direction of Hon'ble NGT, order of OA No. 776/2018 dated 06.09.2019 in the Case of Ramchandra Chaurasia Vs State of Jharkhand, the issue was earlier taken up in O.A No. 23/2017(EZ), Syed Arshad Nasar Vs Union of India & Ors. A committee was constituted by the NGT which is given below.

- **Ministry of Environment, Forest and Climate Change**
Shri Rajeev Ranjan, Scientist-'D'
- **Central Pollution Control Board**
Dr (Mrs) Rita Saha, Scientist-'D'
- **Jharkhand State Pollution Control Board**
Shri Ravindra Prasad, RO, Dumka
- **Member from SEIAA/SEAC**
Dr. B K Tiwari, Member SEAC

As per the existence of Stone Mines and Stone Crushing units in the Sahebganj District, Jharkhand, the NGT directed the above committee to visit the area. Accordingly committee made a random visit to the Crushing units and the Mining units, the detail of the inspected Crushing and Mining units are depicted below:

Crushing Units Inspected:

Sl No. & Date of Inspection	Area of the Units	Name of the Unit	Lat/Long
1. 10/10/19	Borna, Sahebganj	Shiv Shakti Stone Works & Mines	24 ⁰ 49' 21" N 87 ⁰ 43' 21" E
2. 10/10/19	Borna, Sahebganj	Borna Stone Crusher & Mines	24 ⁰ 49' 31" N 87 ⁰ 43' 19" E
3. 10/10/19	Borna, Sahebganj	Deo Black Stone Works & Crushers	24 ⁰ 49' 59" N 87 ⁰ 43' 17" E
4. 10/10/19	Borna, Sahebganj	Neha Stone Works	24 ⁰ 49' 23" N 87 ⁰ 43' 25" E
5. 11/10/19	Gudwa, Sakrigali, Sahebganj	Prakash Chandra Yadav Stone Crusher #1	25 ⁰ 13' 51" N 87 ⁰ 43' 14" E
6. 11/10/19	Gudwa, Sakrigali, Sahebganj	Mineral India Crusher	25 ⁰ 13' 51" N 87 ⁰ 43' 19" E
7. 11/10/19	Gudwa, Sakrigali, Sahebganj	Prakash Chandra Yadav Stone Crusher #2	25 ⁰ 13' 51" N 87 ⁰ 43' 29" E
8. 11/10/19	Gudwa, Sakrigali, Sahebganj	Shetla Stone Works	25 ⁰ 19' 39" N 87 ⁰ 43' 27" E
9. 11/10/19	Gudwa, Sakrigali, Sahebganj	Lalan Singh Crusher	25 ⁰ 23' 27" N 87 ⁰ 43' 21" E

10.	11/10/19	Gudwa, Sakrigali, Sahebganj	Ganesh Tiwari Crusher	25° 29' 23" N 87° 43' 21" E
11.	11/10/19	Gudwa, Sakrigali, Sahebganj	Gowardhan Yadav Crusher	25° 29' 33" N 87° 43' 29" E
12.	11/10/19	Gudwa, Sakrigali, Sahebganj	Kishore Kumar Stone Crusher	25° 30' 23" N 87° 45' 29" E
13.	11/10/19	Gudwa, Sakrigali, Sahebganj	Mohan Singh Stone works	25° 14' 16" N 87° 43' 16" E
14.	11/10/19	Gudwa, Sakrigali, Sahebganj	Harinder Yadav Stone Works	25° 17' 26" N 87° 37' 53" E
15.	11/10/19	Mahadevganj, Sahebganj	Yash Raj Black Stone Works	25° 14' 26" N 87° 34' 53" E
16.	11/10/19	Mahadevganj, Sahebganj	Arjun Black Stone Works	25° 14' 23" N 87° 34' 59" E
17.	11/10/19	Mahadevganj, Sahebganj	BPY Infra Build	25° 14' 33" N 87° 34' 29" E
18.	11/10/19	Mahadevganj, Sahebganj	Ascent Infra Build	25° 14' 53" N 87° 33' 29" E
19.	11/10/19	Mahadevganj, Sahebganj	Rajeev Ranjan Stone Works	25° 14' 17" N 87° 34' 33" E
20.	11/10/19	Mahadevganj, Sahebganj	MaaAmba Stone Crushers	25° 14' 09" N 87° 34' 37" E

Detail of Mining units inspected:

SI No. & Date	Area	Name of the Unit	Lat/ Long
1. 10/10/19	Borna, Sahebganj	Borna Mines	24° 49' 31" N 87° 43' 19" E
2. 10/10/19	Borna, Sahebganj	Deo Black Stone Mines	24° 49' 59" N 87° 43' 17" E
3. 10/10/19	Borna, Sahebganj	MdAbdurRazzak Mines	24° 49' 23" N 87° 43' 29" E
4. 11/10/19	Gudwa, Sakrigali, Sahebganj	Bajrangwalee Stone Mines	25° 14' 32" N 87° 43' 33" E
5. 11/10/19	Gudwa, Sakrigali, Sahebganj	Mineral India Mines	25° 14' 43" N 87° 43' 39" E
6. 11/10/19	Gudwa, Sakrigali, Sahebganj	Hill Movement Mines	25° 14' 35" N 87° 43' 41" E
7. 11/10/19	Mahadevganj, Sahebganj	Demba Mines	25° 14' 37" N 87° 43' 41" E
8. 11/10/19	Mahadevganj, Sahebganj	Bikash Stone Works	25° 14' 39" N 87° 43' 43" E
9. 11/10/19	Mahadevganj, Sahebganj	MaaAmba Stone Works Mines	25° 14' 38" N 87° 43' 45" E

10.	11/10/19	Mahadevganj, Sahebganj	Mahabir Eng. Construction Pvt Ltd.	25° 14' 47" N 87°43' 49" E
11.	10/10/19	Borna, Sahebganj	Md Abdur Razzak Mine	24° 49' 23" N 87°43' 29" E

Major Physical Observation of the above stated individual crusher unit is detailed below:

Shiv Shakti Crusher:

- The unit was provided CTO which has the validity up to March,2021
- The unit was under operation during the time of visit. It was infested with dust in the operating zone(see photos 1,2,3,4&5). Unit has very few Sprinklers inside the operating system which is unsatisfactory.
- There were no water spray arrangements in the hopper. Neither any spraying compound was found in the sieving or transfer area in the crusher unit.
- The water tanker was present in the unit but utilization is very scanty (see photo 11).
- Wind breaking wall was not erected in the periphery of the unit. However, on one side of the premises the OB of the mines were kept at a certain height and reported it as a wind breaking wall which is an un-appropriate method(see photo 3 & 6).
- Green belt developed in the periphery of the premises was found unsatisfactory. Some plants were found in the periphery as reflected in the photograph annexed (see photo 8),which is too scanty as per EC/CTO condition.
- Water harvesting system was not observed inside the crushing unit.
- No paved roads seen inside the premises.
- The unit has DG set but there is no vertical stack installed as per Central Pollution Control Board norms.
- The workers are not provided with PPE which is mandatory.
- The Committee members installed RDS (Respirable Dust Sampler) for the collection of particulate matter inside the premises at the time of operation of the crushing unit but at many times there was failure of the Crushing system for many reasons which may be intentionally done by owners.Even though the unit was in operation but operated without full load. However, the result of the RSPM found is 482.50 µg/m³. (Test Report Annexed)

Apart from this, in the Borna Mouza,Deo Black Stone crushing unit, Neha Stone crushing Unit, Borna Stone crushing Unit and crusher of M/s Asraful Haque were also inspected and found in non operational state(see photos 13,14,21,23,24,25,26&29).

In all the above units CTO & EC condition were not complied, like absence of 'Wind Breaking Wall', negligible or unsatisfactory 'Green Belt' along the Periphery, absence of 'Internal PuccaRoads', no water tanker in the premises, no water spraying arrangement of fixed type were observed except at Deo Black Stone crushers.

Due to absence of the Project authorities no relevant papers were available in the site. No air quality measuring instrument could be installed since the units were non operational.

M/s Prakash Chandra Yadav Stone Crushing Units has three units in single premises, in which two units are found non operational, details given above in the table. However, Prakash Chandra Yadav Crushing Unit#1 details are as below:

- There was huge dust emission inside the Crushing Unit. (see photos 43,44 & 45)
- The unit has spraying pipelines as well as sprinkler but the spraying was ineffective in dust suppression.
- The water/mist canon (see photo 42) was also observed but it was found non operational.
- There was huge stock of stone fines, small chips inside the Crushing area which makes the inside atmosphere unhealthy.
- No boundary wall was constructed
- Installation of thin metal sheets in some restricted areas were observed, which was to acts as a protection for the large dumps and small stone fines as reflected in the (see photo 34), but it was not satisfactory protection.
- There are many non-operating crushing units installed on the top of the hill under the management which is very dangerous for the surroundings(see photo 35,42&43).
- Very scanty green belt observed in the periphery which could be seen in the project area.
- The unit has no fixed water sprinkling system in and around the crushing unit and around loading and transfer zone also. However, one tanker was observed sprinkling water inside the unit(see photo 35) which would not be sufficient since the area was quite large.
- The unit has no catch drain, siltation pond around the large dumps or near the stone fines which has every chance during rain for carrying the silt to the nearby low land areas, which has reservoir or pond beneath the dump area as reflected in the photograph annexed(see photo 46).
- The large slope of dumps of stone fines were so steep. As a result, the damage to the life and property may happen at any time (see photo 33).
- The unit has neither water reservoir nor rain water harvesting system to recharge the surrounding area.
- The committee installed RDS sampler for the measurement of RSPM and the observed value is $495.5 \mu\text{g}/\text{m}^3$. (Test report Annexed)

M/s Shetla Stone Works:

- The unit has negligible dust emission inside the premises.
- The raw material that was fed into the hopper was wet.
- Various water spraying arrangement in the different points of the crusher like transfer unit in the moving belts etc.were provided (see photo 48).
- Proper boundary wall was observed in the unit as reflected in the photograph annexed(see photo 47).
- Plantation was observed in the periphery of the unit(see photo 47).
- Water tanker was observed inside the premises, sprinkling water in and around the project area.

- However, there was neither rain water harvesting system observed nor any ground water recharge provision.
- The unit was devoid of any paved road.
- The workers in the unit were wearing dust masks & helmet (see photo 49).

Apart from M/s P.C. Yadav crushing units and M/s Shetla Stone works in the **Gudwa Mauza**, other stone crushers like M/s Lalan Singh Crusher, M/s Ganesh Tiwari Crusher, M/s Gowardhan Yadav Crusher, M/s Kishore Kumar Stone Crusher, Mohan Singh Stone works, Harinder Yadav Stone Works were inspected (see photo 50) and it was found that all these crushing units were non operational. Physically the team can infer that the CTO and EC condition are not complying in these units like “absence of wind breaking wall, unsatisfactory green belt in the periphery of the unit, no internal paved road, absence of water tanker inside the premises, no stand alone sprinkler observed in and around the crushing machinery”. As the units were non- operational, so no relevant papers were available in/at the premises of the units. **Also the committee could not install any dust measuring instrument inside the premises due to their non operational status.**

The physical detail of the mines visited by the inspecting team of the two mauzas is furnished below. The mauzas are Borna Mauza and Gudwa Mauza.

The Borna Stone Mines of M/s Shiv Shakti Stone Works :

- During the time of inspection, mine was non operational.
- No machine or man power was deployed in the mines.
- Physically it is reflected that mining was not done in a scientific and systematic manner(see photo 9 & 10).
- No proper bench formation was done in the mines(see photo 9 & 10).
- Due to non operational status, no document or mine plan was made available to the committee members.
- Some pillar was erected around the mine.
- No approach pucca road was found inside the mines for the movement of the vehicle.
- Green belt of 7.5 meter was not developed in the mine periphery.
- Top soil dump was not observed.
- No catch drain was observed
- OB dump of the mines was transferred to the periphery of the stone crusher unit which is not permissible.

Apart from **Shiv Shakti Stone Mines**, other stone mines of the Borna area were also visited, which were found in the non operational condition and the following observations were observed in the mines which are furnished below:

- Mines were found to be left in abandoned condition (see photo 12, 15, & 16).
- In most of non operational inspected mines it was found that the CTO and EC condition were not followed.
- The committee did not see proper bench formation in these mines reflected in the photographs annexed(see photo 12, 15, 16, 22, 27, 28).
- OB dump was deposited in the non mine lease areas(see photo 3 &6).

- None of the units have the catch drain, siltation pond, retaining wall, pucca roads, non availability of water tankers in the mine premises
- As all the mines were left non operational and abandoned, question of CTO and EC availability to the inspecting team was not possible.

The inspecting team visited the **Demba** area and inspected few mines in the area, which is mentioned in the above table. The detailed observations given below are for mine in the premises of M/s Yash Raj black stone works :

- Mine was non operational.
- No bench formation was seen.
- Bench slopes were significantly steep which was more than 70 to 80 degree angle, which is dangerous for man and machinery when the unit will be functional(see photo 53 & 55).
- Small low lying area was seen which acted as some storage of rain water but it was not satisfactory (see photo 55).
- No big sump was visible.
- Stand alone sprinkler was not noticed for sprinkling of water for roads and plants.
- OB dump was scattered here and there.
- Large dump of raw fines in the mines premises were observed.
- No catch drains or retaining wall observed.
- Large dump of stone fines could be observed as shown in the photo 52.
- Some plantation was done in the mine area but the green belt development was not satisfactory(see photo 56).
- Mine pillars were also not observed.
- No pucca approach road observed in the mine area.

M/s Bikash Stone Works:

- This mine is located in the midst of Demba Hills. The mine was non operational.
- In the mining area no man power or supervisor or machines observed inside the mines.
- No proper bench formation done. The faces of the mining or the high wall have become more than 30 to 40 meters in height (see photo 63 & 64).
- Unscientific and unsystematic mining is being done.
- Very little water is being noticed in the lower portion of the mine which seems to act as a sump.
- No green belt was observed.
- Approach road was not made pucca.
- The mine faces have become very steep and dangerous due to height and steepness.
- Some OB dump observed just behind the mine on the hill. (see photo 65).
- No catch drain, siltation pond, retaining wall around the OB dump observed.
- As the mine was non- operational and the CTO and EC could not be obtained.

M/s MaaAmba Stone Works:

- The mine was found non operational.
- Some benches in overburden and ore could be observed. But they were not of proper height & width (see photo 66).
- Unscientific and unsystematic mining is being done.
- Large volume of water was stored in the mine in the sump(see photo 66 & 68).
- OB material was seen dump in the sump (see photo 68).
- Some plantation is being done on one side of the mine(see photo 67).
- Top soil dump could not be observed.
- Pucca approach road was not observed in the mine.
- Fixed water sprinkling system was absent.
- As the mine was closed, no paper from the mine could be obtained.

Note: It is pertinent to mention that at many places there were no crusher/mine officials/staff to explain. At such places name of the crusher & their owners were known with the help of District Mining officer, Sahibganj and officials of JSPCB, RO Dumka.

Recommendations of the Committee:

1. All the Stone Crushing and stone Mines units in the area must take adequate Pollution Control Measures to comply with the environmental norms for protection of Environment.
2. Identification of illegal units of mines and stone crushers – Many of the mine and stone crusher owners are not displaying any landmark like name plates on the entry of their units. It seems this is a deliberate attempt. The administration should ensure that company name and address must be displayed near the units. In this process, illegal units will be identified.
3. Illegal Stone Crushers should be stopped immediately to stop the crushing anti social activities causing menace to the society and the extant ecosystem and other sensitive flora and fauna from the area nearby due to heavy dust pollution from the crushing cluster units.
4. Water spraying by manual/ semi manual method with mobile tankers, taps in base of the conveyors only seen. Mobile tankers spray process needs to be further strengthened by increasing the frequency of spray as well as proper spraying arrangements. On site spraying with mist system needs to be arranged in the campus. Fixed water sprinkling system in crushing units, stock yard, loading and transfer zone has to be made. In the hopper water spraying system should be installed.
5. Plantation of local species is in few numbers around the crusher units. A large numbers of tree species need to be planted on a regular basis with replacement of dead plants.
 - a) Rain water harvesting system is rarely seen.
 - b) Covered wall around the crusher units rarely found.
 - c) In these 3 days of site visit, the committee thoroughly studied 21 stone crushers only. In case of all other crusher units i.e. rest 386 units as reported by Member Secretary JSPCB in all probability apprehend to have at least similar situation. The committee advised JSPCB representative that as a part of their regular activities they must collect similar data of remaining other crushing units and submit the report with all data ready for the future information.
6. Regular mass awareness programme must be designed in the area especially for crusher and mining owners/supervisors and workers.

7. Legal mines must adhere to the norms/guidelines of the Mines Act/Directorate General of Mine safety.
8. Illegal Crushers and mines need to be closed immediately.
9. State Pollution Control Board should cancel the CTO, if the conditions are not complied.
10. Inspected Crushing Units has no wind breaking walls except one or two. The walls of the individual Crushers may be erected immediately.
11. None of the Crushers has 'Paved Roads' for the movement of Vehicles. Immediate Implementation of Paved Roads inside the Crushing units cluster required.
12. All the Crushers must implement the system of dust catchers in their running system.
13. Plantation in the periphery must be given immediate attention for the mining unit.
14. Proper benches with height & width as prescribed in their approved mine plan must be made. District Mining Officer may make efforts to develop model mines in 4-5 areas of Sahibganj district where mining is practiced/ done as per approved mine plan. Then other mines should be encouraged to follow the model mines.
15. O/B from mines should be strictly dumped in the mine lease area. Catch drains, siltation ponds, retaining wall around O/B dump must be made as soon as possible. At the O/B dumps grassing and vegetation must be done.
16. Top soil should not be thrown. Instead they should be dumped/stored on a place as given in Mine Plan. Later top soil can be used for plantation activities or for mine rehabilitation purpose. Catch drain around top soil dump should also be made.
17. Provision of storage of rainwater/sump must be made in all mines.
18. Fixed water sprinkling system should be installed at dusty places in the mine lease area. A log book should be maintained by all mines mentioning running hours, kilometer reading, maintenance time, idle time etc. of mobile water tankers used in mines. Log book should be signed daily by statutory mining personnel, mate/ overman, etc.
19. The Unit which are non complaint with environmental norms need to be closed, till they take pollution control measures.
20. Immediate steps for monitoring of Air Quality in big Crusher Units with production capacity more than 500TPD through online certified PM10 analyzers with onsite display and its connectivity with JSPCB server be implemented.
21. PM10 analyzer at clusters of 10 or more than 10 small Stone Crusher Units in Cluster be implemented by JSPCB.
22. To make the DMO more vigilant to identify the legal units capacity of District mining officer in terms of qualified manpower under him must be increased.

Summary of the Crushing unit inspected

Name of crusher units	Water spraying system			Haul Road		Dump/ Stock yard	Covered Wall	Drainage Catch drainage,/sump/ drains	Plantation	Remarks
	Vehicular spray	Water tap near conveyor	Spray system as mist	Katcha	Pucca					
1.Shiv Shakti Stone Works	Partially Complied.Noteffective	Crude method .not effective.	Not complied.	YES	Nil	YES , but dumped in the periphery of the crushing unit	no	Little silted catch drain.no siltation ponds, retaining wall around OB dumps.	Very scant	Compliance status poor
2.Borna	nil	nil	nil	yes	nil	Yes	no	Some catch drain	negligible	Compliance

Name of crusher units	Water spraying system			Haul Road		Dump/ Stock yard	Covered Wall	Drainage Catch drainage,/sump/ drains	Plantation	Remarks
	Vehicular spray	Water tap near conveyer	Spray system as mist	Katcha	Pucca					
stone Crusher								made.Siltation ponds nil.		status poor
3.Deo Black Stone Works & Crushers	nil	Partially complied.	nil	Yes	nil	Yes	no	Nil	Very scant	Compliance status poor
4.Neha Stone Works	nil	nil	nil	yes	nil	yes	Wall present in one side	nil	nil	Compliance status poor
5. Crusher of M/s Asraful Haque	nil	nil	nil	yes	nil	Yes	no	Catch drain at some places but needs desiltation. Siltation pond nil	Scanty	Compliance status poor
6. Prakash Chandra Yadav Stone Crusher #1	Yes	Crude method . not effective	Nil	Yes	Nil	Yes, Large	Nil	Nil	Very Scanty	Compliance status poor
7.Mineral India Crusher	No	Nil	Nil	Yes	Nil	Yes	Nil	Nil	Very Scanty	Compliance statuspoor
8. Prakash Chandra Yadav Stone Crusher #2	No	Nil	Nil	Yes	Nil	Yes	Nil	Nil	Very Scanty	Compliance statuspoor
9. Shetla Stone Works	Yes	Yes	Nil	Yes	Nil	Yes	Yes	Nil	Satisfactory	Efforts made for compliance
10. Lalan Singh Crusher	No	No	Nil	Yes	Nil	Yes, Small	Nil	Nil	Nil	Compliance statuspoor
11. Ganesh Tiwari Crusher	No	No	Nil	Yes	Nil	Yes, Small	Nil	Nil	Nil	Compliance statuspoor
12. Gowardhan Yadav Crusher	No	No	Nil	Yes	Nil	Yes, Small	Nil	Nil	Nil	Compliance statuspoor
13. Kishore Kumar Stone Crusher	No	No	Nil	Yes	Nil	Yes, Small	Nil	Nil	Nil	Compliance status very poor
14. Mohan Singh Stone works	No	No	Nil	Yes	Nil	Yes, Small	Nil	Nil	Nil	Compliance status very poor
15. Harinder Yadav Stone Works	No	No	Nil	Yes	Nil	Yes, Small	One side wall present.	Nil	Nil	Compliance statuspoor
16. Yash Raj Black Stone Works	No	No	Nil	Yes	Nil	Yes, Small	Yes	Nil	Moderate	Partially Complied
17. Arjun Black Stone Works	No	No	Nil	Yes	Nil	Yes	Yes	Nil	Moderate	Compliance status Poor, Non operational

Name of crusher units	Water spraying system			Haul Road		Dump/ Stock yard	Covered Wall	Drainage Catch drainage,/sump/ drains	Plantation	Remarks
	Vehicular spray	Water tap near conveyor	Spray system as mist	Katcha	Pucca					
18. BPY Infra Build	No	No	Nil	Yes	Nil	Yes	Yes	Nil	Moderate	Compliance status Poor, Non operational
19. Ascent Infra Build	Nil	Nil	Nil	Yes	No	Yes	No	No	No	Compliance status Poor, Non operational
20. Rajeev Ranjan Stone Works	Nil	Yes	Nil	Yes	No	Yes	Yes	No	Yes	Partially complied but Non operational
21. MaaAmba Stone Crushers	Nil	Nil	Nil	Yes	No	Yes	No	No	Very Scanty	Compliance status Poor, Non operational

Summary of the Mining unit inspected

Name of mines	Water spraying system			Haul Road		Systematic & Scientific mining	OB Dump/ Stock yard	Sump/Water Storage	Drainage Catch drainage/ Siltation Pond	Plantation	Remarks
	Vehicular spray	Water tap near conveyor	Spray system as mist	Katcha	Pucca						
1. Shiv Shakti Stone Mines - 1	Yes	NA	NA	Yes	No	No	Yes	Compliance status Poor, Non operational	Silted Catch Drains at some places	Very Scanty	Compliance status Poor, Non operational
2. Shiv Shakti Stone Mines - 2	No	NA	NA	Yes	No	No	No	Yes	Nil	Not Found	Compliance status Poor, Non operational
3. Borna Mines	No	NA	NA	Yes	No	No	Yes	Yes	Catch Drains at some places. Siltation Pond Nil	Very Scanty	Compliance status Poor, Non operational
4. Deo Black Stone Mines	No	NA	NA	Yes	No	No	Yes	Yes	Catch Drain Nil Siltation Pond Nil	Scanty	Compliance status Poor, Non operational
5. Md Abdur Razzak Mines	No	NA	NA	Yes	No	No	No	Yes	Catch Drain Nil Siltation Pond Nil	Scanty	Compliance status Poor, Non operational
6. Mines of M/s Asraful Haque	No	NA	NA	Yes	No	No	Yes	Yes	Catch drain at some places but needs disiltation. Siltation pond nil.	Scanty	Partially complied. Non operational
7. Bajrangwalee Stone Mines	Yes	NA	NA	Yes	No	No	Yes	Yes	Catch Drains at some	Moderate	Partially complied.

Name of mines	Water spraying system			Haul Road		Systematic & Scientific mining	OB Dump/ Stock yard	Sump/Water Storage	Drainage Catch drainage/ Siltation Pond	Plantation	Remarks
	Vehicular spray	Water tap near conveyor	Spray system as mist	Katcha	Pucca						
									places Siltation Pond Nil		
8 Mineral India Mines	Yes	NA	NA	Yes	No	No	Yes	Yes	Catch Drains at some places Siltation Pond Nil	Moderate	Partially complied
9 Hill Movement Mines	Yes	NA	NA	Yes	No	No	Yes	Yes	Catch Drains at some places Siltation Pond Nil	Moderate	Partially complied
10 Demba Mines	No	NA	NA	Yes	No	No	Fine stone dust dump	Yes	Catch Drains nil Siltation Pond Nil	scarcely	Compliance status Poor, Non operational
11 Bikash Stone Works	No	NA	NA	Yes	No	No	Yes	Yes but very little water	Catch Drains nil Siltation Pond Nil	nil	Compliance status Poor, Non operational
12 Maa Amba Stone Works Mines	No	NA	NA	Yes	No	No	No	Yes	Catch Drains nil Siltation Pond Nil	Moderate	Compliance status Poor, Non operational
13 Mahabir Eng. Construction Pvt Ltd.	No	NA	NA	Yes	No	No	no	Yes	Catch Drains nil Siltation Pond Nil	Moderate	Compliance status Poor, Non operational

❖ As per the NGT order, the committee should undertake Carrying Capacity Assessment, Ambient Air Quality Assessment and effectiveness of Pollution Control Devices of the stone mining and stone crushing units apart from any other relevant study.

Note:

Regarding Carrying Capacity Assessment, Ambient Air Quality Assessment and effectiveness of Pollution Control Devices is a study of one year to arrive at a certain conclusion. This in-depth study requires 'Secondary Data Base' of at least last five years and one 'Primary Data Base' to arrive at a meaningful conclusion through 'Time Series' analysis. Already in the World Bank project - National Ganga River Basin Authority (NGRBA) a project on industrial monitoring and assessment is given to Jadavpur University. Considering the gravity, similar study may be awarded to Department of Environmental Engineering, Jadavpur University or any other reputed Institute.

Dr. BK Tewary
24/10/19

Dr. BK Tewary
Member SEIAA

Ravindra Prasad
24/10/19

Ravindra Prasad
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Rajeev Ranjan
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RO Ranchi, MoEF&CC

Rita Saha
30.10.19

Rita Saha, Scientist-'D'
CPCB, ERD, Kolkata



Photo 1 & 2 :Photo of dust emissions in the crusher unit of M/s Shiv Shakti stone works



Photo3: Photo of overburden material on one side of the crusher unit of M/s Shiv Shakti stone works



Photo4 : Photo of water sprinkling by a pipe. Dust emissions can be seen



Photo 5:Photo of dust layers on a tree near the of crusher unit of M/s Shiv Shakti stone works.



Photo 6:Photo of silted catch drains on one side OB dump adjacent to crusher of M/s Shiv Shakti stone works.



Photo7:Photo of dust emissions at hopper while raw materials unloading.



Photo 8:Photo of some plantation/trees at crusher of M/s Shiv Shakti stone works.



Photo9& 10:Photo of unsystematic mining with no benches/improper benches in the mines of Borna stone Mines of M/s Shiv Shakti stone works. Water accumulation in the lower portion can be seen.

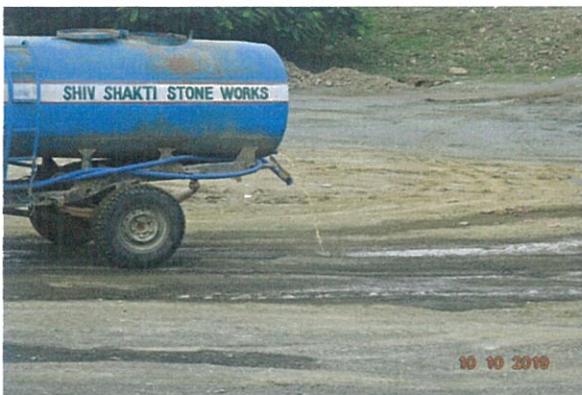


Photo11:Photo of water sprinkling by water tanker in crusher area of M/s Shiv Shakti stone works.



Photo 12 :Photo of unsystematic mining with no benches/improper benches in 2nd mines of Borna stone Mines of M/s Shiv Shakti stone works.



Photo 13: Photo of stone crusher unit with water tank and pipes of Borna stone crusher.



Photo 14: Photo of improper catch drains and siltation ponds around the stone dust fines dump area.



Photo 15& 16: Photo of unsystematic mining with improper bench formation. Mining in the midst of Borna hills.



Photo 17& 18: Photo of some catch drains around the OB dump of mines near Borna stone crusher. Siltation ponds and retaining wall around the OB dump not made.



Photo 19: Photo of an abandoned mines in Borna area. No fencing around the mine periphery was done.

Photo 20: Photo of another abandoned mines. No fencing around the mine periphery done.

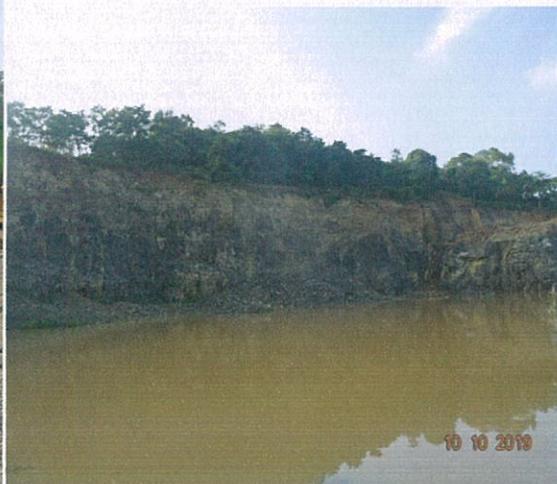


Photo21: Photo of crusher unit, stone fines dumps and OB dump of Deo Blackstone crushers and mines

Photo22 : Photo of unsystematic mining with no benches/improper benches of Deo Blackstone mines.



Photo 23& 24: Photo of some water spraying arrangements at Deo Blackstone crushers.



Photo 25: Photo of crusher unit of Neha stone works in Borna area



Photo26 : Photo of brick wall in Neha stone crushers in Borna area.



Photo 27:Photo of mines of M/s Abdur Razzak in Borna.



Photo 28:Photo of M/s Asraful Haque mines in Borna area.Bench formation not done. Waterlogged.



Photo 29:Photo of some plantation at the periphery of M/s Asraful Haque stone crushers



Photo30: Photo of OB material thrown near the road . At the extreme end is a school.

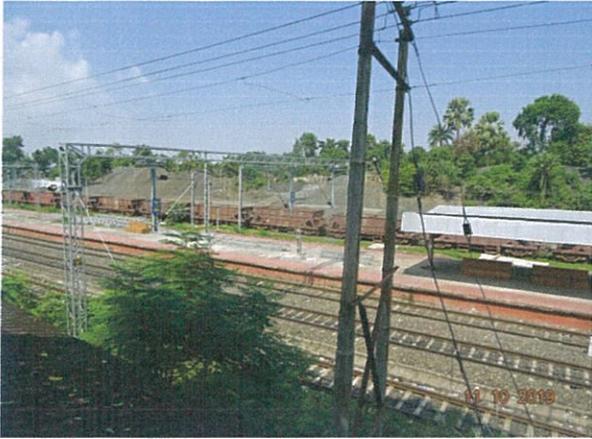


Photo31:Photo of stone chips heaps at the Sakrigali railway station.

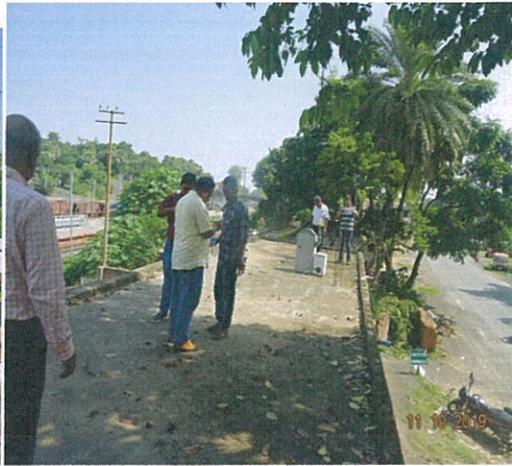


Photo32:Photo of particulate matter measuring Instrument near the Sakrigali railway station.



Photo33:Photo of stone fines dump with steep angle of slope at M/s P.C Yadav crusher.



Photo 34:Photo of thin metal retaining Structure at toe of dumps.



Photo35:Photo of water tanker at M/s P.C Yadav Crusher



Photo36:Photo of improper benches at M/s Bajrangwalee stone mines.

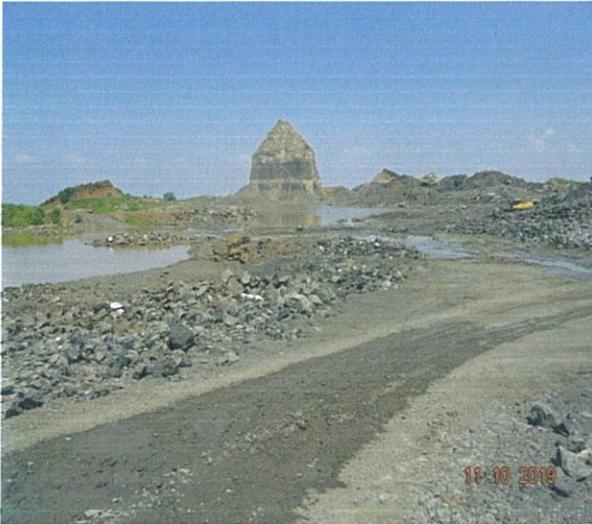


Photo37:Photo of unsystematic and unscientific mining done for a hillock.Such mining poses dangers to men and material(near to M/s Mineral India Mines)



Photo 38: Photo of sump in the mines of M/s Bajrangwalee stone mines



Photo39:Photo of improper & dangerous bench formation in M/s Bajrangwalee stone mines



Photo40:Photo of water tanker sprinkling water in M/s Bajrangwalee stone mines

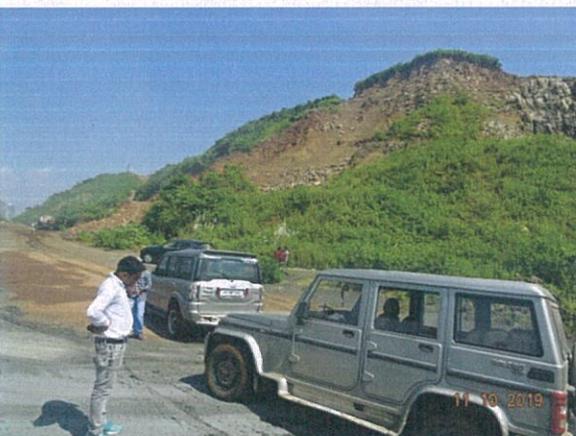


Photo41: Photo of OB dump at the sides of the hill M/s Bajrangwalee stone mines



Photo42:Photo of water/mist canon at M/s Prakash Chandra Yadav stone crushers.



Photo 43& 44: Photo of dust emissions at M/s Prakash Chandra Yadav stone crushers.



Photo 45: Photo of dust emissions at M/s Prakash Chandra Yadav stone crushers.



Photo 46: Photo of a water reservoir near the of M/s Prakash Chandra Yadav stone crushers.



Photo 47: Photo of wall and plantations at crusher unit of M/s Shetla stone works



Photo 48: Photo of water spraying arrangements in crusher unit of M/s Shetla stone works



Photo49:Photo of dust masks and helmets provided to workers at M/s Shetla stone works



Photo50: Photo of non operational crushing units in the Gudwamauza



Photo51: Photo of crusher units of M/s Yashraj blackstone works

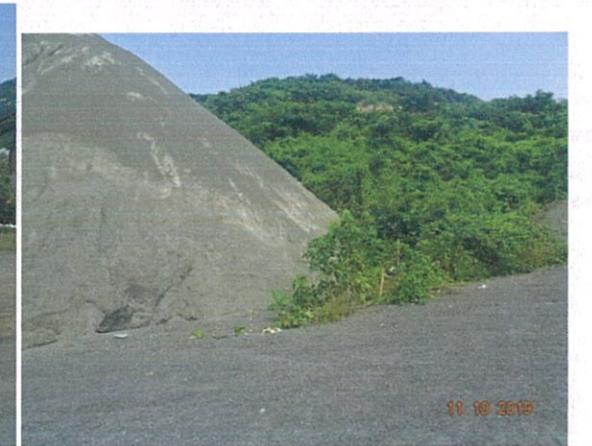


Photo52:Photo of Large stone fine dump just besides the green belt with no catch drains/ retaining wall.

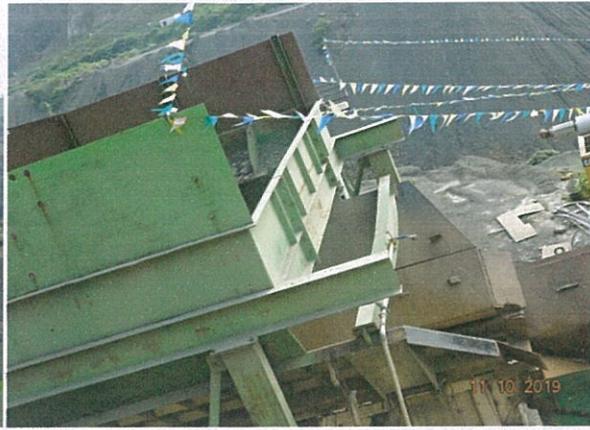


Photo53:Photo of Demba Mines in premises of M/s Yash Raj Black stone works. Improper Benches can be seen.

Photo54: Photo of a spray arrangement below hopper of M/s Yash Raj Black stone works.



Photo55:Photo of some water in the lower portion of the Demba mines.

Photo56:Photo of some plantations at the Demba Mines.



Photo57 &58:Photo of crushing unit of Ascent InfraBuild. Behind OB dumps of stone mines of different owners are heaped on the hills without any catch drains,retaining walls.



Photo59:Photo of metal sheet wall structure at Stone crushing unit of M/s Rajeev Ranjan stone works.



Photo 60:Photo of some plantations in one side of the crushing unit of M/s Rajeev Ranjan stone works.



Photo61:Photo of water spraying arrangements in crushing unit of M/s Rajeev Ranjan stone works



Photo62:Photo of crushing unit of M/s Ma Amba stone crushers.



Photo63&64:Photo of unsystematic mining and improper benches in mine of M/s Bikash stone works.



Photo65:Photo of OB dumps on the hills near the mines of M/s Bikash stone works



Photo66:Photo of benches and water in mines of M/s MaaAmba stone works



Photo67:Photo of some plantations in the mines periphery of M/s MaaAmba stone works.



Photo68 :Photo of water in the sump and some backfilling in mines ofM/s MaaAmba stone works



Photo69:Photo of benches of mines of M/s Mahabir Engg. Construction Pvt. Ltd.