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## SUPREME COURT

**1. Supreme Court restrained 82 large sand mine lease holders in the State of Rajasthan** from carrying out mining of sand and bajri in the state with immediate effect. The court ordered that all the 82 mining lease/quarry holders from carrying out mining of sand and bajri unless a scientific replenishment study is completed and the matter is fully and dispassionately considered by the Union ministry of environment, forest and climate change and an environmental clearance is granted or rejected." The apex court also directed the Chief Secretary to file an affidavit over the allegation that the state of Rajasthan is complicit with the miners/quarry holders and sand and bajri is being mined with impunity. The reply had to be filed within four weeks. The court noted, "We are horrified with what is happening in the State of Rajasthan with regard to bajri and sand mining/quarrying. For several months, if not years, without any environmental clearance and without any scientific replenishment study, unabated mining is going on by 82 parties before us." In a damning comment on the Centre and the state the court said, "It is quite obvious that the Ministry of Environment, Forest and Climate Change is not concerned about the degradation of the environment in Rajasthan and what is even worse is that the State of Rajasthan is totally unconcerned about it. The apex court in an earlier order had stated that river beds need to be protected against illegal mining and that rules need to be framed to regulate mining. It was also made mandatory that all licenses to excavate soft sand from river basins should be given only after a due permission is obtained from ministry of environment and forests (Source: Internet dt. 13.11.17) Again on dt. 8.1.18, SC heard the matter on the plea that 10 ECs have already been issued, but the Court was not satisfied. The Lordship wanted study on scientific replenishment of sand. Further, it is learnt that stake holders have engaged CMPDI for this study and they have already submitted reports. Court also inquired from the State how const. is done in other countries and whether there is substitute of natural sand.

**2. SC has directed on dt. 13.10.17 that contributions to the DMF are required to be made by the holder of a mining lease or a prospecting licence-cum-mining lease in the case of minerals other than coal, lignite and sand for stowing with effect from 17th September, 2015 when the rates were prescribed by the Central Government and not from dt. 12.1.15.**

## MINISTRY OF MINES

**1. DRAFT NATIONAL MINERAL POLICY (NMP), 2018-** Centre has asked all stakeholders to send their comments to mines ministry by February 9 on this draft policy. The Central Government on dt. 10.1.18, issued the draft National Mineral Policy (NMP), 2018, wherein it is stated that a "long term export policy for the mineral sector" is the need of the hour as it will provide "stability" and "incentive" for bringing investments in "large scale commercial mining" activities.

To develop mining as a stand-alone industry, substantial investment is required. Assurances on export of minerals will be a key factor for investment decisions particularly on foreign direct investment (FDI) in the sector. The export policy should be based on a clear long term strategy," the draft NMP stated. The Central government is also likely to grant **INDUSTRY** status to mining sector because currently only those mining projects which have a substantial component of mining machinery, equipment and buildings are being financed by financial institutions. "Steps shall be taken to facilitate financing of mine development and also exploration being integral to the mining project for which efforts shall be made to grant mining the status of industry," the draft NMP added.

## 2. AUCTION OF MINE BLOCKS

After an aggressive phase of bidding for mineral blocks earlier, realism has set in and there is moderation now. Replying to a question on the issue of high bids, Mines Secretary said: "There is always time of euphoria and there is always a time of realism. So, the realism has set in...on the whole, the bids are now moderating." Kumar was speaking to reporters on the sidelines of Mining Summit 2017, organised by industry body CII. "JSW bid very aggressively for the blocks in Karnataka. We talked to them and they said that they will save on transportation. And, therefore, they don't mind bidding high," he said. "Perhaps the earlier bids would also be workable if the bidders have factored in the local requirement and the local setting," he said. JSW Steel had won five iron ore mines in Karnataka with an estimated reserve of 111 million tonnes in auction held earlier.

"When something starts up you have euphoria about it and then realism sets in. The percentage of revenue sharing which we are seeing in the auction in the mineral sector has been coming down. And say, on limestone it is now around 25-30 per cent, and which is a fair take for the state," Kumar said. The Mines Ministry, which has already auctioned 12 mineral blocks so far in the ongoing fiscal, expects that more than a dozen mines will go under the hammer in the remaining part of 2017-18.

"This year we have already auctioned out successfully 12 mines. With the amendment to the auction rules coming in by November-end or within November we expect that certainly more than 12 will be auctioned. Because the states are waiting for the amendment to be notified," Kumar said (Source: TOI dt. 6.11.17)

**3. The Ministry has amended Mineral (Auction) Rules, 2015** on dt.30.11.17. A good no. of provisions have been amended along with the two schedules. The notification runs in 6 pages.

**4.** It is learnt that the GOI is planning to bring out [mining policy on mineral sand](#) soon. For this purpose they have enlisted help of consultant namely WAPCOS.

### MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

1. The GOI has published draft rules on dt. 18.12.17 to invite suggestions for increasing the area limit of State bodies ( category B mines) for giving Environmental clearance. 60 days' time limit has been given for submission of suggestions ( Editor: This step is further likely to reduce time period in disposal of proposals of stake holders)

2. The GOI has allowed the permission granted for minor mineral leases under Forest land to be co-terminous with the lease period with 6 conditions as envisaged in circular No. F. No. 11-51/2015-FC dt. 30.11.17. The main condition is that the Net Present value shall be realized by State Govt in 2 yrs time in 2 equal installments.

### DIRECTORATE GENERAL OF MINES SAFETY

1. DGMS informed the gathering in a programme in Udaipur, that the Home Ministry has made it mandatory that before a magazine license for storage of explosives is issued , consent of DGMS would be essential (Source: Dainik Bhaskar dt. 14.11.17)

2. Now 4 offices of DGMS, namely Ajmer, Udaipur, Gwalior and Ghaziabad have jurisdiction over different districts of Rajasthan. Bharatpur and Alwar distts are regulated by Ghaziabad region and Kota, Bundi, Jhalawar and Dholpur distts come under Gwalior region. Also Udaipur region regulates 8 distts of Rajasthan, 9 of

### From Editor's Desk

Supreme Court restrained, 82 large sand mine lease holders in the State of Rajasthan from carrying out mining of sand and bajri in the state. Court has asked for scientific replenishment study of the areas. Central Govt has now uploaded the Draft National Mineral Policy, 2018. One of the main feature of the policy is that the Central government is likely to grant INDUSTRY status to mining sector. The MOEFCC has published draft rules to invite suggestions for increasing the area limit of State bodies (category B mines) for giving Environmental clearance. The State Govt of Raj. has amended rule 51 of MMCR, 2017 under chapter Grant of Permit. With this amendment now, Govt works contractors can obtain Short term permits for excavation of Sand/Bajri from Khatedari lands. DMG Raj. is going ahead with auction of small leases for minor mineral. In Pakistan, women would be driving dumpers.

This newsletter has covered these topics and other news including short note on sand. I hope the reader would find it interesting.



Y C Gupta

M.P. and 3 of Gujarat, in all 20 distts.

3. Two Mines Safety weeks were organized by Udaipur region in Nov.,17. One, for opencast mines and other, for underground mines. The Safety week for underground mines was a joint one for whole of Rajasthan. In the year 2016, DGMS recd. more than 50 % statutory returns on line. The Directorate urge the mine owners to file on line returns only. Permissions from DGMS can also be sought online. DGMS in turn would communicate online.

4. Besides safety in mines, Udaipur region of DGMS gave serious emphasis on silicosis. They conducted 52 camps in the current year to increase awareness and for medical check-up of mine workers. Almost 1500 workers were screened for silicosis and X Rays taken. These X Rays have been sent to Dhanbad for examination by medical Board. However the general observation which came out, is large no. of workers are suffering from this disease and the incidence may be 6-10%. Dry drilling is main culprit. The mine owners are urged to stop dry drilling all together

### INDIAN BUREAU OF MINES

Ajmer regional office of IBM which covers whole of Rajasthan would conduct final day function of MEMC week on dt. 13.1.18. The host is Shree Cements.

### STATE GOVT OF RAJASTHAN, MINES DEPTT

The State Govt vide Notification dt. 28.12.17, has amended MMCR, 2017 rule 51 under chapter Grant of Permit. With this amendment now, Govt works contractors can obtain Short term permits for excavation of Sand/Bajri from Khatedari lands. Works here includes all the work undertaken by Govt , semi Govt, Local body, Panchayati Raj. Institutions, or organization aided or funded by the Govt.

### DEPTT OF MINES & GEOLOGY, RAJASTHAN

1. The Deptt had issued NIT for auction of 574 plots for minor mineral. During last 4 months more than 50% has already been auctioned for minerals such as Granite, Sand Stone, Limestone

(Dimensional), Red ochre, China clay, dolomite, gypsum silica sand and Masonry Stone. Good bids were recd. in most of the cases. But where bids were more than 10 times of royalty, such bids were rejected( It is estimated that those bidders were not serious ones and may have some other intension to participate in auction bid) As per the MMCR, total cost of mineral is computed as 10 times of royalty so upper limit has been fixed as such. Any person would not be able to sell his mineral in the market if he pays such high amount to State Govt alone. Already 45 highest bids have been cancelled and 30 are in the process of cancellation. Most of the plots are of size up to 5 hect.

2. In respect of major mineral ( limestone) the Deptt had auctioned 4 blocks out of which letter of intent has been issued in relation to 3 cases after the bidders have deposited the required sum. And one case has gone in litigation. Further to this, it is planned to auction 4 more blocks.

3. The system of e rawanna (it may be called e transit pass) has been introduced in Rajasthan which is mobile based. From mines to registered weigh bridge, temporary rawanna is issued ( to issue such rawanna does not require internet connection) which is converted to regular rawanna at registered weigh bridges . One good thing of the system is that the State Govt is immediately collecting royally on the dispatches and no outstanding amount remains.

4. The Departmental team which went to check illegal mining of Sand in Sawaimadhapur distt. was assaulted with wooden sticks, they faced stone pelting, damaged their vehicle, snatched mobiles and tear off the papers etc. Police registered case against the assaulters (Source: Rajasthan Patrika dt. 25.11.17)

### TOP TEN DEEPEST MINES IN THE WORLD

Eight of the ten deepest mines in the world reside in a particular region of South Africa( for Gold), while the remaining two - Kidd Creek and Creighton - are both located in Ontario, Canada. Profile of one of the gold mine is given below:

Mponeng Gold Mine AngloGold Ashanti's Mponeng gold mine, located south-west of Johannesburg in South Africa, is currently the deepest mine in the world. The operating depth at Mponeng mine ranged from between 2.4km to more than 3.9km below the surface by the end of 2012. Ongoing expansions have resulted in deeper digging at Mponeng, pushing the record to beyond the four kilometre mark. The ore reserve at Mponeng stood at 13.7 million ounces (Moz) as of December 2012. The mine produced 405,000oz of gold in 2012. It is currently undergoing expansion to extend the mine life beyond 2040. Mponeng extracts the Ventersdorp Contact Reef (VCR) of the West Wits region of South Africa. The deep underground mine employs a sequential grid **mining method**. The shaft-sinking process at Mponeng began in 1981. The gold plant complex and the shafts were commissioned in 1986.



### Kidd Creek Copper and Zinc Mine

The Kidd Creek copper / zinc mine, located 27km north of Timmins in Ontario, Canada, is the eighth deepest mine and the deepest base metal mine in the world. The mining depth at Kidd Creek extends up to 2,927m beneath the surface. The mine is owned and operated by Xstrata, which acquired it from Falconbridge in 2006. Kidd Creek was discovered in 1963 and witnessed the start of open pit operation in 1966. Underground production started in 1972. The mine is operated with three shafts. The mining method used is blasthole stoping with cemented backfill. The ore is sent to the Kidd Creek Metallurgical Division at Hoyle, located 27km south-east of the mine for processing. The mine produces more than 7,000t a day. A \$111m extension project called Mine D Phase 2 was completed in December 2011, which is expected to extend the mine's life up to 2018. The Mine D project extended Kidd Creek below the shaft No 3. Creighton Mine Creighton, an underground nickel mine located in the City of Greater Sudbury, Ontario, Canada, is the tenth deepest mine in the world. It is also the world's deepest nickel mine, with its mining depth extending up to 2.5km. The mine is owned and operated by Vale. The mine was discovered in 1991. The first production from the Creighton open pit started in 1901. Underground operation commenced in 1906. Current mining methods include shrinkage mining and mechanised undercut-and-fill mining. The large-diameter blasthole method combined with vertical retreat mining has also been introduced recently. Extracted ore is crushed underground and sent by rail to the Clarabelle Mill for processing. The mine produced 797,000t of ore grading 1.80% copper and 1.84% nickel in 2012. Exploration drilling carried out at Creighton in 2007 confirmed mineralisation at depth. The Creighton Deep exploration Project is believed to have almost doubled the proven and probable reserve to 32Mt grading 1.9% to 2.2% nickel and two percent to 2.3% copper.



## WORLD'S OLDEST FIRE IS BURNING U/G FOR 6000 YRS

If you've heard of underground coal fires, then you've probably heard of the one raging under the abandoned town of Centralia, Pennsylvania, since 1962. Fifty-two years is a long time—and a lot of coal—but that's barely a blink compared to Burning Mountain in Australia, which has been ablaze for 6,000 years. Coal seam fires are incredibly common, as it happens, and thousands of them are now burning underground across the world. A coal seam some 700 miles south of Australia's Burning Mountain caught fire a month ago, spewing poisonous gases and prompting intense firefighting efforts. Once an subterranean coal seam fire gets out of hand—as in Centralia, as in Burning Mountain—it's nearly impossible to put out. The coal seam fire at Hazelwell Mine in Australia, which firefighters have been trying to put out for over a month. At Burning Mountain, also known as Mount Wingen, sulfur-tinged smoke is the only hint of a massive coal seam burning 70 feet under the ground. Heat and toxic gases from the fire have left it rocky and jagged in parts, and the land has caved in. How the mountain was first set ablaze is a mystery. It could have been a lightning strike, forest fire, spontaneous combustion, or even aboriginal burning practices could even have been the initial spark. Most of us experience combustion, a chemical process where a fuel combines with oxygen to produce... At Germany's Brennender Berg—literally "Burning Mountain" in German—the coal has been on fire since 1688. Legend has it a shepherd set the initial blaze, but spontaneous combustion may be a more likely cause. It's with human intervention that coal seam fires have really caught on, so to speak, in the past century. Mining exposes coal to oxygen, and coal, as we know, burns very, very easily. With plenty of fuel and oxygen, a small spark can ignite a blaze that grows to cover miles and miles. China, with its thousands of small-scale mines, and India, with its crumbling old and large mines, have the most serious underground fire problems.

The burning coal releases potentially toxic elements like arsenic, fluorine, and selenium into the air. The American West is also smoldering with underground fires in abandoned coal mines. They melt snow in the winter, set grass fires in the summer, and spew



poisonous elements all year around. One energy company actually wants to set more of the coal ablaze, "mining" it by capturing the gas emitted from the burning coal. Out in Wyoming, an energy company is getting creative about extracting coal from deep below the... Even more remarkably, ancient subterranean fires shaped the very landscape of the West. "Much of the landscape of the American West—its mesas and escarpments—is the result of vast, ancient coal fires," writes Kevin Krajick in *Smithsonian Magazine*. "Those conflagrations formed 'clinker'—a hard mass of fused stony matter. Surfaces formed in this way resist erosion far better than adjacent unfired ones, leaving clinker outcrops." Long before we began excavating coal to burn in our factories, coal seams have been hidden rivers of underground flame—usually dormant but occasionally destructive. Poking holes in the ground with mines has only awakened the fiery potential of coal.

## COAL MINISTRY

**1. BID RIGGING:** CCI slaps Rs 12cr fine on coal transportation cos. The Competition Commission imposed nearly Rs 12 crore penalty on 10 coal and sand transportation entities for rigging bids for tenders floated by a Coal India Ltd subsidiary. The companies and their office bearers have also been directed to "cease and desist" from anti-competitive practices. After a detailed investigation on a complaint filed by Western Coalfields, the regulator found that these entities indulged in bid rigging. Western Coalfields moved the Competition Commission of India (CCI) after they quoted identical bids at higher rates for four tenders floated for coal and sand transportation. The regulator has imposed a penalty totalling little over Rs 11.8 crore on the 10 entities as well as on eight office bearers for rigging bids, according to a 71-page order. These entities are: SSV Coal Carriers Pvt Ltd, Bimal Kumar Khandelwal, Pravin Transport, Khandelwal Transport, Khandelwal Earth Movers, Khanduja Coal Transport Co, Punya Coal Road Lines, B Himmatlal Agrawal, Punjab Transport Co and Avaneesh Logistics Pvt Ltd. "Infringing anti-competitive conduct of the OPs (Opposite Parties) is bid-rigging in the tenders floated by the Informant for transportation," the regulator said. The penalties for each of the 10 entities and related officials amount to 4 per cent of their average income in the last three financial years. "The impugned tenders were for procurement of transportation services by a public utility in connection with its mining operation. The importance of services procured under public procurement needs hardly any emphasis," the watchdog said. Further, the CCI said it is also not oblivious of Western Coalfield's practice of dividing the tender work amongst bidders who give identical price quote. "The Commission noted that such conduct in public procurement besides defeating the tendering process, has

an adverse impact on the process of competition resulting in deprivation of efficient outcomes that would have followed otherwise," an official release said citing the CCI order. In July 2015, the CCI had ordered a probe by its investigation arm Director General (DG) and the report was submitted in January 2016 wherein it was concluded that the entities had indulged in bid rigging. Besides, the DG had found eight officials also responsible for the anti-competitive conduct of these entities (Source: Indian Express dt. 15.9.17)

2. Coal India has decided to shift to a pricing system under which customers would be billed on the basis of exact energy content per kilogram of coal in every consignment that is sold to them. The new system would be effective from April 1, 2018. At present, prices of coal is fixed for a range of energy content values in coal which is typically a band based pricing system. Customers pay a certain price per tonne if the heat content lies within these predefined ranges (Source: Internet dt. 9.1.18)

### **BLOOD BANK AT TATA COMPANIES**

There is a blood bank inside the Tata Motors premises in Jamshedpur (there are Blood Banks in other plants as well). This rule is also applied in Tata Steel too. If you donate a bottle of blood, not only you are given off for that day, but you can also avail an extra leave within 7 days of donating the blood. Employees use it to extend their holidays. So, there is no shortage of leaves ever!!! Needless to say, Tata loses several man-hours through this policy. Once, while having a conversation with the employees of the company, Ratan Tata was asked a question (by a senior official), "People take undue advantage of the policy. We lose several man-hours due to this. The blood is replenished within 24 hours, you know. Why to give that extra holiday within 7 days of donating blood." Ratan Tata smiled. He always does. And then came a calm reply. "Encouragement is something I don't need to teach you. Only a few people donate because they want to. Talking about man-hours, we may be losing some man-hours doing that, but have you ever thought of the number of man-hours that get added to the person's life who receives that blood in the time of necessity? I am ready to sacrifice some of our man-hours for the better good of humanity." Ratan Tata is really inspiring Person and everyone should learn a lot with this.

### **CEMENT DEMAND SET TO BE MUTED IN FY18, MAY PICK UP NEXT FISCAL**

The lingering sand shortages and slowdown in real estate activities will leave cement companies with a muted volume growth in the current financial year ending in March, while the next fiscal year may see demand picking up steam with around 5 per cent growth, says a report.

On the demand front, based on the current trends, cement demand is expected to show a very thin growth of 1-2 per cent in FY18 and show a modest recovery only from the March quarter, rating agency Icria said. "A pick-up in affordable and rural housing segments and infrastructure, including roads and irrigation projects, is likely to improve cement demand to grow 4-5 per cent in FY19. However, capacity overhang and moderate demand will continue to keep capacity utilisation levels between 60 and 65 per cent over the medium-term," it said.

Cement demand remained weak in the first seven months of the

year due to sand shortage, slowdown in real estate activities, drought (in Southern states) and transitional issues related to the rollout of the Real Estate Regulatory Authority Act and goods and services tax, the report said.

The report also warned that higher prices of pet coke, coal and diesel could put pressure on margins and debt metrics of cement companies in the coming quarters.

Cement companies have experienced rising energy and freight costs on the back of higher pet coke, coal and diesel prices in the first half of the fiscal 2018, it said, adding most of the large cement companies (barring the South-based ones) passed on the rising costs. "Pet coke prices rose around 32 per cent in the first half. This, along with a 44 per cent jump in coal prices resulted in higher power and fuel expenses in H1 and the 7 per cent spike in diesel prices lead to higher freight cost for companies. All these put pressure on the operating profit (Source: Indian Express dt. 4.1.18)

### **ODISHA COLLECTS RS 8200 CRORE PENALTY FROM MINING LESSEES**

The state government could only collect around Rs 8,200 crore as penalty from the mining lease holders against the demand of Rs 17,576 crore. Dt. 31.12.17 was the deadline to collect the penalty imposed by the Supreme Court against 152 iron ore and manganese lessees for illegal mining. The penalty was imposed by the apex court on August 2, as mining operation, in these blocks, was carried out without forest and environment clearances, beyond permitted area and in excess of what had been allowed. The court had asked the state government to recover the amount by December 31. The state government had issued demand notices to the leaseholders accordingly. It had warned to suspend mining operation if they would fail to submit the amount. Though the state government is yet to come out with official figure regarding recovery of collection of penalty, figures collected from various mining circles stated that highest Rs. 4318 crore has been collected against demand of Rs 12,222 crore under Joda circle till the last reports came in (Source: Indian Express dt. 1.1.18)

### **HINDUSTAN ZINC LIMITED**

They have published a book on Metal-Science, detailing the history of metal mining in Rajasthan, system of mining adopted by old miners, tools employed, metal extraction from ore, silver production from 17th Century to 21st century etc (Source: Dainik Bhaskar dt. 28.11.17)

### **MINING ENGINEERS' ASSOCIATION OF INDIA, RAJASTHAN CHAPTER, UDAIPUR**

1. The Chapter celebrated mining day on dt. 1.11.17 at Udaipur.
2. Blood donation camp was organized in association with other organizations on dt. 25.11.17 at Udaipur.
3. Organizing Technical Talk on recent burning issue and crisis on the topic "Sand Mining in Rajasthan" on 18th January, 2018 in CTAE, Udaipur. There would be 2 speakers (a) Shri D.S. Maru, Director, Deptt. of Mines and Geology, Govt. of Rajasthan, Udaipur and (b) Y.C. Gupta, Editor of this News Letter.

## CRISIS OF SAND AVAILABILITY IN THE COUNTRY

A few High courts have ordered closure of Sand mining in certain rivers as unchecked excavations have been done in the rivers with shovels and excavators. As a result big pits have been formed in river bed which has led to fall in water table and villagers are suffering very badly. Every State in the Country is facing shortage of Sand. Recently, SC also stopped mining in Rajasthan ( Full news elsewhere in this newsletter).Here is brief details of Court's order in relation to a few States and action taken by the State Govts:

1. The Uttarakhand high court on dt.13.4.17 banned mining across the state for four months while directing the Government to form a "high level committee" to recommend guidelines to stop illegal mining and reclaim mined areas. The order stopped mining in interstate rivers such as Ganga, Yamuna, Gaula, Kosi, Dabka and Kali and also nearly 100 seasonal rivers and rivulets on foothills of the state apart from forest areas leading to an estimated loss of Rs150-200 crore. Hearing a Public Interest Litigation (PIL), the court also asked the committee to probe on how illegal mining was continuing in the state, its impact on local ecology and come up with guidelines to stop it. It also wanted the committee to recommend a plan to reclaim the mined areas which normally turn into a waste-land.
2. Madurai bench of the Madras High Court stepped up yet again to stop sand mining on the Tiruchi-Karur belt of the river
3. The Madhya Pradesh government has ordered a total ban on sand mining from Narmada river until a committee can arrive at a recommendation of how much sand can be safely mined without harming the river.
4. The Kerala government has decided to impose a total ban on sand mining from six rivers while allowing restricted sand extraction in five rivers for the next three years. The Government's decision was based on the report of river bank mapping and sand river auditing conducted as per rules stipulated in the Kerala River Bank Protection and Regulation of Removal of Sand Rules. Sand mining has been banned in Neyyar, Vamanapuram, Kallada, Kuttiyadi, Kabani and Chandragiri rivers, as according to the sand auditing report, "total quantity of sand above the summer water level in these rivers is estimated as nil. "Regulated sand mining will be allowed in Chaliyar, Pampa, Kadalundy, Ithikkara and Periyar rivers. Revenue department has fixed the quantity of sand that could be extracted from each of these rivers in the next three years as per the report.The sand river auditing report, conducted by different agencies, was compiled by the Departments of Environmental Sciences, Aquatic Biology and Fisheries and University of Kerala. Extraction of sand would be allowed only in a phased manner and mineable sand quantity would be revised based on a subsequent sand audit (Source: Hindu dt. 4.1.08)

5. The Department of mines and geology (DMG), has banned sand extraction in Camurlim and Colvale zones off River Chapora until further orders. A public notice to this effect was issued by Director of mines and geology,Goa.
6. After noticing rampant mining in River Tawi, and failure of the various Jammu & Kashmir State Government agencies, J&K HC on December 20, 2016 directed the State Government to file a status report on or before December 21 2016 highlighting the steps taken to enforce the directions, whereby mining had been banned from River Tawi.
7. The NGT on February 25, 2016 directed the Odisha State Government to cancel all sand mining permits in the Brahmani Riverbed in Jajpur district. Restraining Tehsildar from issuing any temporary or permanent mining permit without ECs, the Tribunal directed him to take appropriate action against the violators involved in sand mining.
8. CBI on orders from Allahabad High court is enquiring regarding illegal sand mining in 5 districts of UP.
9. Tamil Nadu Govt has decided to stop private marketing of sand from yr. 2018.
10. Telangana Govt allowed bullock carts and tractors to carry sand free of royalty for local use.

### ADVERTISEMENT RATES

**The MEAL, Rajasthan Chapter, Udaipur in its Executive Committee meeting decided the rates for multi colour advertisement in its bimonthly News Letter as under:**

- (i) Advertisement- front page- Rs. 60,000/- for six issues of the year and Rs. 10,000/- for one issue.
- (ii) Advertisement- Back page- Rs. 50, 000/- for six issues of the year and Rs. 8000/- for one issue.
- (iii) Full page inside for six issues in a year- Rs. 30,000/- and Rs. 5000/- for one issue.
- (iv) Half page inside for six issues in a year - Rs. 15,000/- and Rs. 3000/- for one issue.

Story is same all over the country. The problem is, availability of sand is very poor in the country compared to our demand. Data would be hard to come from State Govts as sand is considered low value mineral and no assessment of reserves is hardly carried out ( except Kerala) as it appears from internet.

**Editor:** I would not be wrong to say that in Rajasthan, more than 50% sand is coming from places which are not running rivers. Means it comes from flood plains and old river, nalla etc so the availability is reducing each day.

### INITIATIVE BY MINES MINISTRY

Mines Ministry has taken initiative and called meetings of State Govt representatives on dt. 2.6.17 and 16.6.17 to discuss the issue, where in the agenda is, "although rules for EC clearance has been liberalized even then illegal mining has not stopped".

## **UNITED NATIONS ENVIRONMENT PROGRAMME**

( UNEP) document of MARCH 2014 says “Sand, rarer than one thinks” .Further it says “Sand and gravel are mined world-wide and account for the largest volume of solid material extracted globally. Formed by erosive processes over thousands of years (John, 2009), they are now being extracted at a rate far greater than their renewal. Furthermore, the volume being extracted is having a major impact on rivers, deltas and coastal and marine ecosystems, results in loss of land through river or coastal erosion, lowering of the water table and decreases in the amount of sediment supply. Despite the colossal quantities of sand and gravel being used, our increasing dependence on them and the significant impact that their extraction has on the environment, this issue has been mostly ignored by policy makers and remains largely unknown by the general public.

### **WHY IS THIS ISSUE IMPORTANT?**

Globally, between 47 and 59 billion tonnes of material is mined every year (Steinberger et al., 2010), of which sand and gravel, hereafter known as aggregates, account for both the largest share (from 68% to 85%) and the fastest extraction increase”

### **WHAT IS THE SOLUTION**

Use recycled construction material and manufactured sand

### **STATUS OF RECYCLED CONSTRUCTION MATERIAL IN THE WORLD**

From Wikipedia, position of recycled construction material in US and UK is given below:

In US the Construction Materials Recycling Association indicates that there are 325 million tonnes of recoverable construction and demolition materials produced annually.

### **RECYCLED AGGREGATE PRODUCTION IN UK**

Recycled aggregate in the UK is defined as aggregate resulting from the processing of inorganic material previously used in construction. To ensure the aggregate is inert, it is manufactured from material tested and characterised under European Waste Codes. In 2008, 210 million tonnes of aggregate were produced in UK of which 67 million tonnes was recycled product, according to the Quarry Products Association (QPA).[6] The Waste and Resource Action Programme (WRAP)[7] has produced a Quality Protocol for the regulated production of recycled aggregates.[8] The recycled aggregate is delivered with documentation that states it has been produced using a quality assured system for the manufacturing process to ensure an aggregate that conforms to the relevant European standards.”

### **STATUS OF RECYCLED CONSTRUCTION MATERIAL IN INDIA**

Huge quantity of old construction material is produced in India. Municipalities have laws to segregate it and use but except in North Delhi no municipality is using it (Internet says so) With respect to North Delhi the web site says “Recycling of construction waste- In the past few months, efforts are on to

increase the plant's production, as well as set up more facilities to reduce the amount of waste dumped at landfills.

### **RECYCLING BY MCD**

The erstwhile unified Municipal Corporation of Delhi (MCD) had started the plant in 2009, with Infrastructure Leasing & Financial Services (IL&FS) operating the 10-acre site at Burari at Jahangirpuri in North Delhi. With near-constant buzz of construction activity across the Capital, 5,000 tonnes of waste is produced by building, demolition and land-clearing activities every day. Though the plant was set up with 500 tonnes per day (TPD) capacity, it has more than doubled today”“They are processing 1,200 TPD of waste currently. The Delhi Pollution Control Committee gave permission for expanding to 2,000 TPD,” said IL&FS vice-president (operations) Sanjay Singh. As of now, most of the C&D waste produced in Delhi ends up being dumped along the Yamuna or in the Ridge area. Making recycling difficult, it is usually mixed with municipal solid waste. The IL&FS facility gets mixed C&D waste from 28 designated points in three zones of the North Corporation, which pays for transportation. The civic body collects and transports the waste to the plant from the remaining of the areas. Once at the plant, the waste is segregated into big concrete pieces, mixed C&D waste as per size and unrecyclable materials like plastic and wood, which are sent to a waste-to-energy plant in Okhla. The plant uses manual segregation for bigger plastic pieces as well as a magnetic separator for metallic objects. The waste is crushed, washed and used to make ready-mix concrete, kerb stones, cement bricks, pavement blocks, hollow bricks and manufactured sand. Over the years, Mr. Singh said, the process has been tinkered with as the amount of sand in the mixed waste has increased.”

### **STATUS OF MANUFACTURED SAND IN INDIA**

No data is available of prod. & use of M Sand. However on the internet under heading “QUORA” following is available:

1. Superintending Engineer (2017-present) Answered Dec 18, 2016 Yes. The Manufactured sand is in use due to many reasons in Mohanpura and Kundaliya Dam Projects District- Raigad ,MP Under Progress WRD, Govt of MP- Contractors Dilip Build Con, Bhopal Madhya Pradesh Mahantesh Dalal
2. Pursuing M tech in structures. Yes of course, Now a days it's very difficult to meet the demands of construction field & also it requires many years to form. Because of this the cost of the natural sand has increased a lot. So artificial sand has been started using in many parts of the country. Pune-Mumbai Expressway was completely built using artificial sand.
3. Yes. It is available as crusher sand and granulated slag or slag sand. Crusher sand is manufactured by crushing rocks to the fineness of sand. Slag sand is made from the slag obtained in the steel industry. Both are good as they satisfy the basic properties of sand- particle size, inert nature.

4. Yes to some extent. Natural river sand is getting scarce at many localities. It's used where suitable stone is abundantly available and river sand need to be brought from far locations. Some state governments have thought of making mandatory use of crushed stone in place of river sand at least (for Government projects) for ecological reasons but somehow could not succeed.

5. Yes ...generally we add some natural sand too...like mix ratio 1(natural sand):3(M-sand) being best for us. We used complete natural sand and our area filled with salt water ...so didn't give good result so basically mixing would be recommended.

6. Yes..in the states like Maharashtra they use artificial sand by grinding boulders and basalt.

**WHAT A PRIVATE COMPANY FROM BANGALORE SAYS:**

Invested Rs. 140 Crores for State Of The Art Project at Perindesam. 500 TPH plant caters to the requirement of sand for concrete and plaster. Invested Rs. 100 Crores in two 300 TPH plants in Hosur. Strong Market Presence with 27% Market share in Bangalore. They use weathered granite.

**OTHER INFORMATION ON M SAND:**

1. One of the paper presented in the MEAI seminar at Udaipur in Yr 2017 advocated that Granite slurry generated at the gang saw factories can be used as sand.

2. One of the web page says that in Maharashtra M sand is much cheaper to natural sand but in other places it may not be true. When natural sand is cheaper why someone will go to other product?

3. The extent of use of recycled material is self-evident in US as they even have an Association named "Construction Materials Recycling Association"

4. Internet has details of good number of M sand crushers manufactures

**NEWS FROM PAKISTAN**

In a first in the country's history, Thari women will be employed to drive dumper trucks at the Thar coalfields. The Sindh Engro Coal Mining Company (SECMC) has reportedly received an overwhelming response for their Female Dump Truck



Driver Programme, which the company introduced near the town of Islamkot in Thar. After a screening process, 35 women have already been shortlisted for different tests in the first phase. The women have been inducted, but will formally begun their employment only after they complete one year of training. They will then be moved into a regular job, where they will receive "all basic facilities", SECMC said. "I know it was a difficult decision, but my husband encouraged me to go for it and that's why I am here," Sawitri, a female candidate who came for the interview, said. Sawitri, 25, is a new mother. She is optimistic about getting selected for the job. Ganga, another hopeful from Nangarparkar, was of the view that women can do everything. "Thari women are very hard working. When they can already do stone-breaking for under-construction roads, 60 tonne dump trucks should not give them much trouble," she said (Source : Dainik Bhaskar dt. 1.10.17 and internet)

**WORDLY WISE** – The industrial stomach cannot live without coal; Industry is a carbonivorous animal and must have its proper food - Jules Verne

**Calendar of events**

9-11 Feb, 2018 –Seminar on Advancement in Mining of Oil and Solid Fuels, Organized by MEAI Raj Chapter, Jaipur at Jaipur. Contact : Shri P C Bakliwal, Secretary e mail- pc\_bakliwal@yahoo.co.in and meaijpr2010@gmail.com

14-17 Feb, 2018 International Conference-cum-Exhibition Mining Today - 2018, to be jointly conducted by Government of Telangana and MEAI. Contact: Secretary General, at email: meai1957@gmail.com Website: www.meai.org

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