



**MINISTÈRE  
DE L'ÉCONOMIE,  
DES FINANCES  
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**REVUE DE PRESSE SECTORIELLE**

**ENERGIE ET DEVELOPPEMENT DURABLE**

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## En bref

### Infrastructures

- Pour faciliter le déploiement de la 5G le gouvernement envisage d'imposer l'installation d'infrastructures de communication dans les bâtiments.
- MG Motor India et Bharat Petroleum créent un partenariat pour développer les infrastructures de recharge de véhicules électriques.
- L'entreprise publique NHLML et l'Himachal Pradesh signent un accord pour la construction de 7 téléphériques.

### Ferroviaire

- Le premier projet de TGV en Inde reliant Ahmedabad à Bombay prend du retard, dû notamment à des différends politiques entre Delhi et le Maharashtra.
- N. Modi pose la première pierre de l'extension de l'usine de production de locomotives de Indian Railways à Dahod, dans le Gujarat.
- La privatisation du ferroviaire en Inde n'est pas à l'ordre du jour mais certains exemples montrent que le secteur privé pourrait avoir une part plus importante dans le futur.

### Développement et transports urbains

- En période de covid, des mesures ciblées pour renforcer les transports en commun ou les logements semblent plus importantes que des plans à long terme.
- La Cour suprême indienne estime que le développement de « colonies » illégales est une menace pour les villes et que les gouvernements des Etats doivent agir à leur encontre.

### Énergies fossiles et biocarburants

- Rencontre entre le Brésil et l'Inde pour aborder les sujets d'importation de pétrole et la coopération sur les biocarburants.
- Le gouvernement central lance un appel à projets pour développer la production d'éthanol en Inde via des prêts à taux subventionnés.

- L'Inde annule certains trains de passagers pour augmenter le transport de charbon vers les centrales électriques et limiter les coupures de courant qui frappe le pays.


#### Electricité et énergies renouvelables

- Le développement lent des panneaux solaires en toiture est une des principales causes de la non atteinte des objectifs indiens en terme d'énergies renouvelables.
- La transition du charbon vers les énergies renouvelables doit prendre en compte les emplois liés à cette énergie fossile.

#### Mobilités électriques

- Les nouvelles technologies et les politiques publiques préparent la transformation à venir des mobilités.
- Le projet de « battery swap policy » laisse encore plusieurs zones d'ombre à résoudre pour permettre de développer cette filière.
- Les nombreux cas de scooters électriques prenant feu provoquent la méfiance des consommateurs.

#### Environnement et qualité de l'air

- Les décharges à ciel ouvert, émettrices de gaz inflammables, représentent un vrai danger pour les villes indiennes.
  - La pollution à Delhi en cette période de l'année pourrait être aussi dangereuse qu'en hiver.
  - Les délits environnementaux doivent être pris plus au sérieux et plus sanctionnés.
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# Revue de presse

## 1. Infrastructure

5G rollout: Govt looks to mandate in-building solutions for installing telecom infrastructure

*Mint, 16/04/2022*

The government is planning to mandate the installation of telecom infrastructure inside housing projects and premises in view of the upcoming 5G rollout.

According to the draft right of way guidelines issued by the department of telecom, the move will be implemented by making changes in the national building code and model building by-laws.

"In-Building Solutions (IBS) for laying cables or installing telecom infrastructure shall be made mandatory inside the housing projects and premises," the draft RoW guidelines said.

The guidelines by the department for the establishment of telecommunications infrastructure across the country have been issued to amend old norms and finetune the rules to suit the requirement of the 5G network rollout.

This is so because telecom operators will need to install 5G sites closer to the ground as the signals transmitted for the service will move at a very high speed but cover shorter distances.

Unlike 2G, 3G and 4G, the access points for 5G have to be closer to the devices.

Due to this, the draft proposes to do away with an application fee and compensation for using street furniture like electric poles, traffic lights, billboards etc established by any person or entity over the immovable property of any local or government authority, for installing small cells and optical fibre cable required to connect small cells.

The entity rolling out telecom infrastructure "shall not require any permission from the authority for establishing telecommunications infrastructure over any private property falling under the jurisdiction of the authority," it said.

The draft also proposes to waive fees on the installation of telecom infrastructure on central government buildings and structures.

The previous RoW guidelines were released in 2016 but it took a long time for most of the states to comply with the norms. Some states have still not adopted the old guidelines.

*MG Motor India partners with BPCL to bolster EV charging infrastructure*

*The Economic Times, 25/04/2022*

Automaker MG Motor India on Monday said it has partnered with Bharat Petroleum Corporation Ltds (BPCL) to bolster EV charging infrastructure across the country. The partnership with BPCL will add momentum to EV adoption by expanding opportunities for intercity travel as the two entities will install EV chargers across

highways and within cities, the automaker said in a statement.

With BPCL's vast customer reach and operations and MG's strides in the EV space, the two entities can combine expertise to strategically identify charging sites, garner consumer insights, devise loyalty programs, and create technology to manage charging systems, it added.

"Our partnership with BPCL is yet another step to strengthening the EV charging infrastructure in India to energise and enhance customer confidence in EVs" MG Motor India President and Managing Director Rajeev Chaba said.

BPCL's strong presence and vast network in India will ensure that existing and prospective customers across the country have convenient access to charging solutions, he added

"We aim to further expand the opportunities of charging an EV and educate consumers on the environmental benefits of the same," Chaba noted.

Commenting on the initiative, BPCL Chairman and Managing Director Arun Kumar Singh, said sustainable consumption is the present and future, as the country moves into the era of mass electric mobility.

"As we herald the phase of rapid energy transition to electric mobility, BPCL is at the forefront of addressing the three big anxieties amongst electric vehicle owners (range anxiety, time anxiety, and discovery anxiety) in order to build consumer confidence for the accelerated adoption of electric vehicles in the country," he added.

BPCL is setting up fast charging corridors across major highways in the country, inter-connecting major cities, and economic centres, and will have a network of 7,000 conveniently located fast charging stations in the country in the next 2-3 years, Singh said.

These fast charging stations will come with a host of customer amenities viz, hygienic washrooms, refreshments, microATMs, etc, he added.

"This era calls for strategic cross-industry collaboration to reach new and important milestones in the EV charging ecosystem and at BPCL, we are excited to expand our ambit and create positive synergies with innovative brands like MG Motor India to usher in the era of best-in-class EV charging solutions," Singh stated.

MG Motor India had recently announced a new venture, "MG Charge". Under this initiative, the carmaker is slated to install 1,000 AC fast chargers at residential localities across India.

The connected AC charging stations will cater to the residents and visitors of these societies for their EV charging needs, operating round the clock.

MoU signed between NHLML and State Government for construction of Ropeways in Himachal Pradesh under the Parvatmala Yojana, 7 ropeway projects of length 57.1km at cost of Rs 3,232 Crore to be constructed in the State

*PIB Delhi, 26/04/2022*



Under the leadership of Prime Minister Shri Narendra Modi to improve the First and Last Mile Connectivity through Ropeways, Union Minister for Road transport and Highways Shri Nitin Gadkari along with Chief Minister of Himachal Pradesh Shri Jai Ram Thakur, MoS Shri V. K. Singh witnessed the signing of MoU between NHLML (National Highways Logistics Management Limited) and State Government of Himachal Pradesh for construction of Ropeways in Himachal Pradesh under the ambitious Parvatmala Yojana. They also reviewed the ongoing developmental projects in the State. Senior government officials were also present at the occasion.

This is a significant MoU which will facilitate a unique, eco-friendly, scenic and seamless travel experience for tourists. By leveraging world class technology, 7 ropeway projects of total length 57.1km at total cost of Rs 3,232 Crore will be constructed in the State.

They are:

1. Palampur Thatri – Chhunja Glacier of length 13.5km with a cost of Rs. 605 Crore.
2. Shirgul Mahadev Temple to Chudhar ( District – Sirmour) of length 8 km with a cost of Rs. 250 Crore.
3. Lunhu – Bandla (District – Bilaspur) of length 3 km with a cost of Rs. 150 Crore.
4. Himani to Chamunda (District – Kangra) of length 6.5 km with a cost of Rs. 289 Crore.
5. Bijli Mahadev Temple (District - Kullu) of length 3.2 km with a cost of Rs. 200 Crore.
6. Bharmour to Bharmani Mata Temple of length 2.5 km with a cost of Rs. 120 Crore.

7. Killar to Sacch Pass (District – Chamba) of length 20.4 km with a cost of Rs. 1618 Crore.

## 2. Ferroviaire

When will Indian's first bullet train be on track?

*Business Line, 25/04/2022*

**Political wrangling between the BJP-led govt and its former alliance Shiv Sena has delayed the project**

While 89 per cent of the land required for the execution of India's first High-Speed Rail Corridor between Mumbai and Ahmedabad is completed and 13 of the total 27 contract packages have been allocated, the execution of the project seems a distant dream.

The government of India sanctioned the first High-Speed Rail Corridor between Mumbai and Ahmedabad in December 2015 with technical and financial assistance from the government of Japan.

According to the Ministry of Railways all statutory clearances relating to wildlife, the coastal regulation zone (CRZ), and the forest clearance have been obtained for the Mumbai-Ahmedabad High-Speed Rail (MAHSR) project. Out of the total land requirement, about 1,396 hectares are required of which 1,248 hectares has been acquired.

The project is divided into 27 contract packages including Training Institute at Vadodara. At present, 13 packages have been awarded, three are under evaluation, and notice inviting tender (NIT) has been

invited for two packages, according to the Ministry.

### Project execution

Out of the total 352 km length of the project located in Gujarat and Dadra and Nagar Haveli, civil works in 352 km length have started in different phases from December 2020 onwards.

"The land acquisition and rehabilitation activities for the project are being done in accordance with the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (RFCTLARR) Act, 2013 and relevant amendment and Government Resolutions (GR) of the respective State governments," the Ministry told Lok Sabha early this month.

The cost of the MAHSR Project is ₹1,08,000 crore as of 2015. The Union government has blamed the Maharashtra government for the delay in land acquisition, especially in Maharashtra which has further delayed the finalisation of contracts. The adverse impact of Covid-19 has delayed the execution of the MAHSR project.

The government says that the anticipated increase in cost and time can be fully ascertained only after completion of land acquisition, finalisation of all contracts, and associated timelines. As per the memorandum of understanding (MoU), the government of Japan will provide a loan of 81 per cent at the maximum of the project cost.

### Political wrangling

The political wrangling between the BJP-led union government and its former alliance Shiv Sena has delayed the project. Shiv Sena Chief and Maharashtra Chief Minister Uddhav Thackeray and his new alliance partners Congress and the Nationalist Congress Party (NCP) have shown no urgency to speed up the project work. The Maharashtra government has questioned the utility of the project terming it as a "white elephant".

State government sources said that the Maharashtra government is not keen on moving ahead with the project as the majority of the leaders feel that the project will not benefit the State in any way and there is no need to connect Mumbai to Ahmedabad via bullet train.

Make in India boost: PM lays foundation stone for upgradation of Indian Railways Dahod workshop to loco manufacturing unit

*Financial Express, 02/05/2022*

Prime Minister has laid the foundation stone for manufacturing 9000 HP Electric Locomotives at the Production Unit in Dahod recently. It is the first Indian Railways locomotive production unit in the state of Gujarat. The upgradation cost of Dahod workshop to the manufacturing unit is around Rs 20,000 crore, according to a statement issued by the Railway Ministry. Established in the year 1926 for periodic overhaul of steam locomotives, Gujarat's Dahod workshop will be upgraded to Indian Railways' electric locomotive manufacturing unit with infrastructural improvements. The project will provide direct and indirect employment opportunities to over 10,000 people.

According to the Railway Ministry, locomotives of 9000 HP capacity will be built in this loco manufacturing unit with a haulage capacity of 4500 tonnes of load. The maximum speed of these locomotives will be up to 120 km per hour. The 9000 HP locomotives will be equipped with an automatic train protection system 'Kavach'.

PM Modi said Dahod will contribute to the government's 'Make in India' campaign as Rs 20,000 crore worth of 9000 Horse Power Electric Locomotives is coming up at Dahod's Production Unit. The PM recalled how Dahod's railway area was dying when he used to visit the servant quarters in the area long ago. PM Modi said he took the pledge to revive the Indian Railways set up in the area and expressed happiness when that dream is being realized.

According to him, this huge investment will offer new opportunities to the youth of area. The Indian Railways network is getting upgraded in all aspects and manufacturing of such advanced locomotives is an indication of India's prowess, he noted. In foreign countries, the demand for electric locomotive is increasing. PM Modi believes Dahod will play a crucial role in meeting this demand. Now, India is one of the few nations in the world that manufactures powerful locomotive of 9000 HP, the PM added.

Is there an other track to Railway privatisation

*Business Line, 20/04/2022*

**The initiatives thus far have been half-hearted. Now there seems to be a move towards privatising its production units**

Speaking at the 20th all-India conference of the Bharatiya Railway Mazdoor Sangh (BRMS) in Chennai on April 9, the Minister for Railways, Ashwini Vaishnaw, said that the government had no plans to privatise the Railways. He did, however, stress on the need for the Railways to adopt latest technology to meet the aspirations of the passengers, and that indigenous technology, like the contribution of Integral Coach Factory (ICF) to Vande Bharat Express, should take the sector forward.

Reiteration by the government that privatisation of the Railways was not on the agenda is nothing new. There's a need, however, to look at what is not stated explicitly and analyse the signals that emanate from the announcements in recent years.

The Railways launched an ambitious plan to privatise 5 per cent of Mail/Express trains in 12 clusters with a view to inducting modern technology and improving travel experience. It projected an investment of approximately ₹30,000 crore by the private sector.

Tenders were called, but the response from prospective bidders was poor as the Railway Board failed to gauge the concerns raised by them. The project is as good as shelved as nothing has been heard about its revival for nearly a year now.

In November last year, the Railways sought participation from State governments, private players, and public sector undertakings to operate around 150 tourism-focussed trains. The announcement said



that old ICF coaches would be offered to the prospective players, which would need to be refurbished and then operated. Nothing has been heard since, and in any case the project does not seem to be viable except for a handful of trains.

### Freight segment

As for the freight segment, private container trains have been operational since 2006 in a limited way but large-scale penetration of private freight trains has not happened. This is partly due to the presence of the Railways' own CONCOR, which remains a market leader, and its reluctance to provide a level-playing field to private operators.

There have been other initiatives as well to bring private players into freight business, like the largely successful transportation of automobiles in privately-owned special-purpose wagons and the more than a hundred privately-owned rakes to carry steel coils, bulk cement, fly ash, alumina, etc. But in these also the thrust has remained half-hearted.

The Railways has been talking of fast-tracking the process of auctioning routes in the yet-to-be-completed dedicated freight corridors (DFCs) to private operators to run freight trains. But even this is not likely in the near future, as it would need establishment of many inter-modal depots and depend on the Railways' progress in exploiting the true potential of DFCs in terms of permissible speeds and loads, and upgradation of feeder routes. And, more importantly, the Railways' willingness to look at the prospective private players as partners and not as competitors is key.

### Production units

So, does this lacklustre movement towards operation of private trains, and the latest assertion by the minister that privatisation of railways was not on the cards, hide a strategy? We have been hearing of the plans of corporatisation of the Railways' production units (PUs), its manufacturing factories which employ 40,000 employees; three units, ICF/Chennai, RCF/Kapurthala and MCF/Lalgunj, for coaches, three units, CLW/Chittaranjan, BLW/Varanasi and PLW/Patiala, for locomotives and RWF/Bangalore, for wheels.

In 2019, on reelection, the government floated the idea of hiving off these PUs and bring them under one entity, a corporation tentatively called Indian Railways Rolling Stock Company, as part of its 100-day action plan. It also talked of beginning the corporatisation process with pilot implementation at MCF. The move appears to have been put on the backburner.

But the track record of the government in this area isn't poor. It has succeeded in corporatising Ordnance factories, with all 41 of them converted into seven Defence Public Sector Undertakings. Besides, the PPP model was successfully implemented earlier for manufacture and operation of locomotives with Alstom and GE (now Wabtec) at Madhepura and Marhowrah.

Another significant signal is the news that surfaced in March this year that the Railways was set to float a large tender of around ₹25,000 crore for the procurement of 200 equivalents of Train 18/Vande Bharat trains to be built largely in private factories in India. This came after the Budget announcement that 400 Vande Bharat trains



would be introduced in three years, which was met with scepticism as the Railways had not been able to make even the third train after the first two were introduced in 2018-19.

In this context, exploiting the non-Railway manufacturing capacities in the country, what with four such factories in place and at least two under construction, would be a welcome move.

Is the Railways silently moving towards privatisation of manufacturing units, by encouraging the private sector and downsizing its PUs gradually? Silently, because such a big-ticket strategy is better not stated explicitly given the sentiments and politics involved in depriving a thriving government sector. Things will become clearer in the coming years and the developments would be watched keenly.

### 3. Développement et transports urbains

Urban planning need small, not paradigm, shift

*BusinessLine, 16/04/2022*

**Whether it is mass transport or public housing, incremental steps taken in tandem with States can make a difference**

Given that this was the second successive year of the Covid pandemic, and urban areas were the worst hit, there were a lot of expectations from this year's Budget for cities. There is a growing recognition of mega cities' importance for the economy as well as that of middle and third tier cities and towns.

However, for this to happen, urban planning cannot continue with a business-as-usual approach. As part of a paradigm change, five academic institutions in various regions of the country are to be identified and developed as centres of excellence with a corpus of ₹250 crore each. The creation of a "high-level committee of reputed urban planners, urban economists and institutions .. to make recommendations on urban sector policies, capacity building, planning, implementation and governance" was emphasised.

These are noteworthy initiatives and are consistent with the long-term approach needed for a sector whose importance is increasing for the economy. However even after more than a couple of months since the policy pronouncement, there is no news on the initiatives.

India-centric approach

Given their importance in creating jobs in cities, urban mass transport projects like the metro rail are commendable, with a focus on Indian requirements. This is welcome as we understand that ideas of the West are not suitable for us, and we need a desi jugalbandi.

However, there is no widely accepted notion of India-centric planning which is conducive for a good quality of living. The desi jugalbandi should not be used to reject all ideas from the West as they could have favourable effects on our quality of living. With its focus on mass transport systems in cities, it is not clear how the public will be incentivised to use them in the post-pandemic world. Mere investment in mass transport will not persuade commuters who are now inclined towards personal modes of

transport. Rather the emphasis on electric vehicles and battery swapping is a strategy that will work with personal transport.

What is also not clear is how our cities get to the next point of a “paradigm change” from their current state of poor service delivery, congestion, pollution and inadequate liveability. If we were to take basic sanitation such as access to toilet facilities even in the most urbanised State, Tamil Nadu, for instance, as of 2011, the extent of open defecation in slums was 23 per cent. In Karnataka, which has higher urbanisation than the all India average, this was 25 per cent. These factors should alarm us as these are services denied to the urban poor. But the Budget was silent about such basic services.

In past research, we found that the urban poor in Bengaluru and Chennai did not vote in the most recent municipal elections, when they were beneficiaries of government programmes, which reflected the poor implementation of these programmes. With respect to public housing for the masses, in this Budget, 80 lakh houses are planned to be built for the identified eligible beneficiaries of the PM Awas Yojana, both rural and urban, with ₹48,000 crore being allocated for this purpose.

The affordability of housing is determined by a variety of factors that do not depend merely on financial allocation. Housing should be made more affordable by relaxing regulations pertaining to the floor area ratio/floor space index, land use conversion restrictions and numerous bureaucratic red tape procedures to be completed by developers.

The introduction of programmes and allocations instead of relaxing red tape and

regulations to free up the supply of housing is tantamount to replacing the market with administrative solutions.

Given that urban development is a State subject, it is welcome that the Finance Minister offered support to the States for urban capacity building, as they need help. The ‘modernisation of building by-laws,’ town planning schemes (TPS), and transit-oriented development (TOD) are all welcome initiatives. Hopefully, these reforms persuade people to live and work closer to mass transit systems. A study of the Delhi metro found that the metro had increased women’s labour force participation rates significantly.

A paradigmatic, long-term change is advocated towards urban development rather than a piece meal approach. However, as Charles Lindblom pointed out in his Science of Muddling Through, a sound policy is incremental. An incremental policy has higher likelihood of making a significant impact on lives in a pandemic era.

The more ‘paradigmatic’ or radical the policy pronouncements are, the more things tend to remain the same due to the resistance to change.

In addition to the paradigm change, immediate benefits are necessary in the form of infrastructure and basic services for our cities which are still reeling from the pandemic to protect both lives and livelihoods.

Both in war and pandemics, cities are important and need to be protected.

Mushrooming of illegal colonies across country is menace to urban development

*The Economic Times, 25/04/2022*

Observing that mushrooming of illegal colonies across the country is a menace to urban development, the Supreme Court Monday said there is a need for a comprehensive action plan by state governments to prevent these illegal colonies from coming up.

A bench of Justices L Nageswara Rao and B R Gavai appointed senior advocate Gopal Sankaranarayanan as amicus curiae in the matter and asked him to suggest what can be done by the government to stop illegal colonies.

"Mushrooming of illegal colonies in all these cities in this country, the consequences are so drastic. We have seen floods in Hyderabad and Kerala, all this is because of irregular colonies.

"Unless there is some comprehensive action plan by the state governments so as to prevent these colonies from coming up, take these relevant officers to task for allowing these colonies, and thereafter one of the suggestions is to stop the registration so that people do not claim equities. We will have to find some way of making state governments act on this. This is a menace to urban development," the bench said.

The top court directed that the entire records be furnished to the amicus who will submit his suggestions within two weeks.

"Amicus is permitted to prepare a questionnaire and circulate it to the states and union territories. List after three weeks," the bench said.

At the outset, advocate Sravan Kumar, appearing for the petitioner, submitted that a large number of unregular establishments are made to be regular which leads to unregulated development.

"Floods are coming due to irregular constructions. There needs to be a regular proper development, even the Environment Ministry says that there has to be approval," he said.

The apex court was hearing a petition filed by social worker Juvvadi Sagar Rao alleging that Telangana, Tamil Nadu, and Andhra Pradesh governments have been implementing regularisation of illegal layouts in their respective states.

The petition alleged that state governments are regularising the illegal act committed by the real estate mafia with the help of government officials in the respondent states.

The plea contended that the states have witnessed severe urban flooding, unregulated growth, traffic jams, shortage in drainage systems, etc which have caused irreparable loss to the public and private properties besides loss of life.

"But the authorities ignored the serious disasters faced by them due to unregulated urban growth in the Respondent State. The authorities again issued Notifications for the regularization of illegal layouts and unauthorised colonies.

"This is a gross violation of rule of law, building rules, etc. The act of respondents will encourage illegal layouts and discourage the citizens who have followed the rule of law. The state of Telangana, particularly



Hyderabad city and Warangal has faced severe flooding due to unplanned development," the plea said.

#### 4. Energies fossiles et biocarburants

India interested in sourcing crude oil from Brazil under special long term contracts

*Business Line, 22/04/2022*

**Petroleum Minister Hardeep Singh Puri and Brazil's Energy Minister discuss on cooperation between the two countries in energy, bioenergy, biofuels**

India, which imports 85 per cent of its crude oil requirements, is interested in sourcing the commodity from Brazil under long term special contracts as both the nations explore avenues to further expand their mutually beneficial trade relationship, a joint statement by India and Brazil said on Thursday.

The joint statement is on the meeting between the Minister of Petroleum and Natural Gas (MoPNG) Hardeep Singh Puri and Brazil's Minister of Mines and Energy Bento Albuquerque on cooperation between the two countries in energy, bioenergy and biofuels.

Albuquerque is on an official visit to India at the invitation of Puri. The Brazilian Minister was accompanied by a delegation of private sector leaders of the biofuels and automotive sectors, MoPNG said in a statement.

#### More bilateral investments encouraged

"The two sides recognised the importance of the robust investment in the Brazilian oil and gas sector made by Indian companies and reaffirmed their commitment to safeguard existing investments while encouraging further bilateral investments," MoPNG said.

"The two sides highlighted the importance of bilateral trade in oil and its by-products, and expressed their willingness to expand this mutually beneficial trade. The Indian side expressed interest in sourcing crude oil under long term special contracts" it added. Both the leaders reviewed the existing bilateral cooperation across the entire spectrum of the energy sector and committed to enhancing the beneficial partnership between the countries, and in this context expressed satisfaction at the important role bilateral energy cooperation plays in deepening strategic partnership.

#### Various activities reviewed

Besides, India and Brazil also acknowledged the immense potential for collaboration between the two nations to scale up international production, and the use of sustainable bioenergy and biofuels as an important vertical of the global transition to a low carbon future.

In this context, they agreed on the importance of strengthening bilateral cooperation in bioenergy. To this end, the two sides agreed to work towards developing an Indian-Brazil Alliance for Bioenergy and Biofuels.

The two Ministers also reviewed the long list of bilateral and international activities and initiatives undertaken in the biofuels sectors

in recent years, including the exchange of technical visits, the two editions of the Brazil-India Ethanol Talks, the Symposium on Aviation Biofuels, the launching of the joint working group on bioenergy cooperation, a roundtable on India-Brazil Collaboration in Biofuels in the automobile sector, etc.

"They also noted bilateral coordination within G-20 on Climate and Energy, BRICS Energy Ministerial, Biofuture Platform, Clean Energy Ministerial, Mission Innovation initiative and IBSA joint Working Group on energy, and the work carried out in the context of the United Nations High-Level Dialogue on Energy," the Ministry noted.

Govt opens 6-month window for sugar mills to submit ethanol proposals

The Economic Times, 22/04/2022

The Centre on Friday said it has opened a six-month window till October for sugar mills to submit fresh proposals to avail loans at a subsidised interest rate for setting up new distilleries or expanding the existing facilities for augmenting first-generation ethanol capacity in the country. To ensure that only serious project proponents are issued in-principle approval by the Union Food Ministry, a window has been opened for fresh applications from those project proponents who have acquired land for projects and obtained environmental clearance, it said.

"The six months window has been opened from April 21 to October 22," an official spokesperson told PTI.

According to the Food Ministry, the decision will facilitate sugar mills to set up

new distilleries or expand their existing distilleries and thereby help in diverting excess sugarcane/sugar to ethanol.

"New grain-based distilleries would come up in deficit states like north-eastern states, southern states like Tamil Nadu, Andhra Pradesh, Telangana and states like Bihar, Madhya Pradesh etc. This would help in the distributed production of ethanol," the ministry said in a statement.

The government is implementing a scheme since 2018 to offer soft loans to sugar mills and distilleries with an aim to increase ethanol output and its supply under Ethanol Blended with Petrol (EBP) Programme, especially during the surplus season and thereby improving the liquidity position of the sugar mills enabling them to clear cane price arrears of the farmers.

Under this scheme, the government is extending financial assistance in the form of interest subvention at 6 per cent annum or 50 per cent of the rate of interest charged by banks, whichever is lower, on the loans to be extended by banks for five years including one-year moratorium.

Ethanol capacity is being enhanced in order to reduce the country's dependence on imported fossil fuels, save foreign exchange on account of crude oil import bills and reduce air pollution.

The government has fixed a target of 10 per cent blending of fuel-grade ethanol with petrol by 2022 and 20 per cent by 2025.

"...ethanol production capacities are required to be enhanced to about 1700 crore litre to achieve 20 per cent blending by 2025. Opening of window would help in

augmentation of ethanol production capacities," the ministry said.

At present, the country has a total ethanol production capacity of 849 crore litre, which includes 569 crore litres of molasses-based distilleries and 280 crore litres of grain-based distilleries, it added. There has been an eight-time increase in the production of fuel-grade ethanol and its supply to oil marketing companies (OMCs) from 2013-14 to 2020-21. In 2020-21, it had touched a high of 302.30 crore litre, thereby achieving 8.10 per cent blending. In the current 2021-22 year, 158 crore litres of ethanol have been blended with petrol till April 17, thereby achieving 9.77 per cent blending.

It is expected that a 10 per cent blending target will be achieved in 2021-22, it added.

India cancels some passenger trains to make way for coal to avoid power crises

*Mint, 25/04/2022*

To avoid full-blown power crises, India has canceled some passenger trains to enable faster movement of coal carriages as the country struggles to restock depleting inventories at power plants.

Currently, many regions in India have witnessed long hours of blackouts, while some industries are trimming their output due to shortage in fossil fuel - which has created a threat to the economy's revival from the pandemic-led slump.

Also, concerns about a further spike in inflation are escalating during the time when the Indian government is struggling to rein in high energy prices due to Russia's invasion of

Ukraine. Globally, many countries suffered higher prices in oil, energy, and even consumer products due to supply shortages arising from the Russia - Ukraine war.

Gaurav Krishna Bansal, an executive director at Indian Railways told Bloomberg that the measure is temporary and passenger services will be restored as soon as the situation normalizes.

Bansal stated that the Railways is trying to minimize the time it takes to move coal to power plants.

As per the report, Indian Railways seek to add 100,000 more wagons to its fleet to meet the growing demand. Also, they are constructing dedicated freight corridors to deliver goods faster.

Notably, India's coal reserves at power plants have dropped by nearly 17% since the start of April and are barely able to be a third of the required levels.

Also, electricity demand spiked as temperatures have risen in many parts of India, prompting the weather department to issue heat-wave warnings.

It needs to be noted that India's average temperature reached almost 92 degrees Fahrenheit (33 degrees Celsius) in March - which is the highest on record for the month since authorities started collecting the data in 1901.



## 5. Electricité et énergies renouvelables

The rooftop eclipse on india's solar ambitions

*Mint, 20/04/2022*

In 2015, a year after it came to power, the BJP-led government set a target of 100 GW (gigawatt) of solar energy capacity by 2022, a five-fold increase. By 2021, India had installed only 50.5 GW, according to Bridge to India, a renewable energy consultancy. The big drag is a sub-segment called 'solar rooftop'—panels mounted on top of commercial, industrial and residential buildings.

Of the 100 GW, 60 GW was to come from utility-scale solar plants, which stood at 41.7 GW, or 70% of the target, by 2021. The rest was to come from solar rooftop, which has managed only 8.9 GW, or 22% of its target. This sub-segment added just 1.4 GW in 2020 and 2.2 GW in 2021.

The deficits matter in the context of India's solar vision. Solar is the key driver in India's move towards green energy, and to cut its CO2 emissions intensity to 33-35% of its 2005 levels, as per the Paris agreement. More solar in its power portfolio would also help address the air pollution problem: India has 63 of the world's 100 most polluted cities, according to IQAir.

One reason why India has struggled to achieve its solar targets is what Crisil Research terms an "unstable policy environment". "This is evident in the growing incoherence between the policy thrust on renewable energy on the one hand and the actual action by implementation agencies like the Solar Corporation of India (SECI) and

state distribution companies on the other," it said in a 2019 report.

### Regional differences

These issues show up in varying progress levels recorded by states. About 35% of the installed capacity in solar rooftop is from just the top three states, and around 50% comes from the top five. Geographical advantages only partly explain the differences. For example, Jammu and Kashmir and Andhra Pradesh are among the top five states in solar potential, according to the National Institute of Solar Energy (NISE). But neither features in the top five by installed capacity in the commercial and industrial segments, for which state-wise data is available.

Similarly, Tamil Nadu is among the top five by installed capacity, but has lower solar potential, as per the NISE ranking. In these two segments, Maharashtra, Gujarat and Rajasthan have each added over 200 MW of solar rooftop. Gujarat has also made significant progress in the residential segment, after it introduced a 20-40% subsidy on the cost of rooftop solar systems for small installations (up to 10 kW).

### Speed breakers

In the last two years, the residential segment, and not the commercial and industrial segments, has driven new capacity in solar rooftop. According to Bridge to India, the share of residential in new capacity increased from 11% in 2017 to 34% in 2021. It was slow to pick up primarily due to a lack of awareness. While that has been addressed to some extent, there are other barriers.

One barrier is 'net metering', which lets consumers use the solar power they generate and be billed only for the additional power they draw from the grid. In 2021, the Centre introduced guidelines to lower the rooftop threshold for net metering to 500 kW in 2021, and several states followed suit. This made solar rooftop less attractive, especially to large and medium industrial consumers. A basic customs duty on imported solar cells and modules, which came into effect this month, also impacted the economics of solar projects whose implementation got delayed by the pandemic.

### Global race

Although India is likely to miss its 2022 target, it might still achieve its broader green ambitions, and also the goal of solar power. For example, the basic customs duty was imposed to encourage domestic manufacturing of solar cells and modules, currently being imported primarily from China.

Demand for solar cells and modules is picking up globally. Bloomberg New Energy Finance expects global solar capacity to increase from 183 GW in 2021 to 252 GW in 2025 and 334 GW in 2030. China has been leading the race in solar: from just 4 GW of solar rooftop capacity in 2016, it expanded to 19.4 GW in 2017 and to 27.3 GW in 2021, according to Rystad Energy, a research firm. The key to India's success in this domain will be in aligning its policies to intent, while building its manufacturing base.

Strong skill action plan needed to transition from coal to renewable energy

*The Times of India, 15/04/2022*

NEW DELHI: For a smooth transition from conventional to clean fuel-based energy generation, it is imperative to protect the interests of coal mine workers through a holistic approach, according to a report made in collaboration by EY, SED Fund and Ficci.

Titled 'Skill action plan to fuel transition from coal to renewable energy in India', the report suggested formulating a skill action plan to address economic vulnerabilities. India has been consistently working at a global level to reduce emission intensity to attain the net-zero target for 2070.

The report highlighted the need for climate change as one of the biggest challenges ever faced by mankind.

"Never in the history of mankind have we been posed with a challenge of this magnitude and significance. Our actions to address this issue will impact the lives of billions along with our continued existence on the planet," it said.

While the power sector is one of the most diversified ones in the world, thermal power generation by coal accounts for approximately 62% of the total generation capacity.

Speaking on report, partner and leader of power & utilities at EY India Somesh Kumar said: "In the light of India's commitments to the environment, the country is now gearing up for the transition from coal-based energy mix to renewable energy-based mix. While

the 'just transition' theme in the Indian context is an evolving one, it is of utmost importance to plan this evolution in a strategic manner to have a smooth transition, especially for the workforce involved across the value chains of these fossil fuels."

### Economic impact of climate change

The report further noted that the economic impact of climate change is expected to be trillions of dollars which includes the cost of adaptation, loss of infrastructure. Apart from the economic loss, there will be a loss of millions of lives along with priceless ecosystems and species.

It is also expected that most of the impact will be faced by the most poor and vulnerable communities who contribute the least towards carbon emissions.

Climate-related risks to health, livelihoods, food security, water supply, human security, and economic growth are disproportionately higher for indigenous peoples, and local communities dependent on agricultural or coastal livelihoods.

Amit Vatsyayan, partner and leader (social & skills sector) government and public sector, EY India said: "Skills and entrepreneurship development will play a key role in the 'just transition' of coal mine workers as the transition materializes. It will enable economic diversification of coal dependent areas and also attract investments to these regions. Only when the interests of the poorest and most economically vulnerable are protected, the transition may be termed as just transition."

### Impact of the shift on workforce

Coal mines create over 7.25 lakh direct jobs and many more indirect jobs. With old coal plants and mines shutting down, thousands of coal mine workers are at risk of disruption in livelihood in the five states – West Bengal, Madhya Pradesh, Chhattisgarh, Jharkhand, and Maharashtra.

Most of them are blue-collared workers who need to be upskilled with the newer skills of the hour. Apart from the direct workers, the entire economy of mining districts revolves around coal-related activities, and communities have relied on it for generations.

### India's power generation mix

The EY report further stated that while thermal energy (coal) remained the dominated source of power generation, the country's generation mix witnessed a transition from conventional generation to clean fuel-based energy generation.

In 2019, the total energy generation stood at over 1,579 billion units. Since 2014, the energy generated from fossil fuel based has grown with a five-year CAGR of 3.45%, while the renewable energy-based energy generation has increased at a five-year CAGR of 18.77%.

As the shift from thermal to the renewable source of energy takes place, the report states that demand for energy will increase leading to the dependence on coal also expected to rise further in the coming years. Therefore, a dual challenge lies ahead of India — reducing its greenhouse gas emissions and managing the workforce associated with the thermal sector.



However, almost 50% of the mines in India are hugely unprofitable and may soon face shutdown, thereby impacting the livelihood of workers.

Emphasising on the need for a 'just transition', Vipul Tuli, chairman Ficci Power Committee & CEO-South Asia, Sembcorp Industries said: "The shift away from coal will have far reaching implications for the country. The action plan and cost of reskilling, redeploying and rehabilitating workers from the coal sector assumes importance at a national and multilateral level as part of India's just energy transition.

## 6. Mobilités électriques

The stage has been set for a transformation of mobility

*Mint, 29/04/2022*

Over the last decade, the mobility sector has seen exponential growth. Since 1970, the growth of the global mobility industry has quadrupled, out-performing global gross domestic product growth. Today, driven by technology, digitization and sustainability, the mobility sector is undergoing a rapid transformation.

When it comes to technological advances, the global automotive industry has been disruptive beyond imagination. Shifting gears with changing consumer preferences, the industry is racing into a future of electric vehicles (EVs), connected cars, sensors and new business models like mobility-as-a-service. Non-service businesses are busy transforming vehicle build and design.

New mobility solutions are a precursor to innovation in the automotive industry. Automakers are now attempting to innovate by developing owned mobility solutions and experimenting with progressive business models. Technological advances like 'vehicular fog computing' are bringing the reality of autonomous vehicles closer. The mobility space has been enriched with technologies for cyber security and the use of radars, lidars and simulation.

Trends in the auto industry are guided by technology. A move from conventional manufacturing to state-of-the-art design and manufacturing ecosystems is underway, with growing collaborations and emerging startups in the software space. There is a sharp rise in initiatives to transform the conventional internal combustion engine (ICE) auto industry into a technologically sophisticated one. One such initiative by component manufacturers to accelerate efforts on EVs and automation is the establishment of a centre of excellence at the IIT-Delhi campus in Sonipat, Haryana, while another one, with IIT-Bombay, is set to be announced shortly. These aim to give a fillip to industry-academia collaboration.

Integrated mobility solutions have been emerging to address consumer challenges. Convenience is a key factor in today's hyper-connected world, where easy-to-use, automated and digitized options are preferred. Anticipating market trends and exploring the consumer viability of business models require analysing consumer preferences with the help of telematics. These tracking tools help a business become more agile and also identify and scale new opportunities.

Global CO2 regulations have pushed the industry to be agile in adopting the latest innovations. There is a shift towards sustainable development to slow down climate change. To minimize dependence on fossil fuels and reduce pollution in metro cities, the government has taken many measures.

This Union budget emphasized creating urban fossil-fuel zones, a battery-swapping policy and recognition of energy as service. The government has extended its FAME -2 scheme for another three years and increased incentives for 2- and 3-wheeler batteries. There are exist production-linked incentive (PLI) schemes for ACC battery storage units and auto products as well as auto components. As many as 20 automobile and 75 auto component makers have now got approvals under that scheme. Another landmark announcement was India's policy on green hydrogen, which envisions India as a global leader in its production.

However, many areas need to be worked upon for the expansion and integration of e-mobility. Range anxiety is one such point of contention for consumers who fear being stranded in case their EVs run out of charge. Within Indian cities, the existing charging infrastructure meets current requirements. Industry and the government are working in tandem to increase charging stations in preparation of future demand. The focus is on creating the right standards for charging networks. The cost of chargers and their interoperability could be addressed by standardizing chargers. This will help lessen range anxiety.

The cost of batteries, which pushes up the total cost of EV ownership, is also being addressed. PLI schemes that support the

localization of battery production, new battery chemistry and swappable battery models are expected to provide a major push.

Investment in manufacturing by component players can be increased through demand aggregation for components. Non-essential items like motors and connectors can easily be aggregated. The scaling opportunity that can justify investments will be a major motivation. Original equipment and component makers will need to work closely in the EV space to develop products from an early stage. Startups and other new players will have to be co-opted and made integral to the design and manufacturing ecosystem.

The automobile sector is also going through a semiconductor shortage globally. Automobiles now have more electronic components, driven as they are by smart connectivity features and re-engineered to meet tighter emission norms. With a move towards vehicle electrification and hybridization, we can expect more supply-side pressure, some of which could be eased by a robust semiconductor making ecosystem.

Maintaining the trust of customers and living up to their expectations will keep the wheels of this e-mobility revolution turning. Innovation, digital technology and sustainability will come together to generate top and bottom-line improvements.

Advanced, autonomous and sustainable mobility is closer than many may think.

Draft battery swap policy has its drawbacks too

*Mint, 27/04/2022*

**BENGALURU**: Niti Aayog's draft policy on battery swapping, which primarily focuses on electric two-wheelers (e-2W) and three-wheelers, is being seen as a step in the right direction and comes against the backdrop of rising penetration of electric vehicles (EVs) in India.

This policy would ensure equal opportunities across business models which involve sale of EVs with fixed or swappable batteries.

The policy is a step forward in conversion to clean mobility, according to analysts. However, the road to this being adopted on a mass scale is not without hurdles. Battery swapping falls under the Battery as a Service (BaaS) business model where the EVs are purchased without the battery. A regular subscription fee is paid to service providers for battery service during the vehicle's lifetime.

"The success of BaaS will depend on devising efficient ways to address the interoperability of batteries and software for battery management system, financing for the battery inventory (for use in vehicle and a back-up in charging/swapping station), initially low captive demand, and risks because of evolving battery technology for EVs," said analysts at Kotak Institutional Equities in a report on 25 April.

"At present, the battery packs of EVs are not standardized among different vehicle brands, models and segments, which makes them incompatible," the analysts said.

"Technology has not matured yet and this needs some deliberation," said an analyst who spoke on the condition of anonymity, sharing a similar view. However, there are entities whose battery swapping ecosystems have been successful. One such example is Gogoro, a Taiwanese company with which Hero MotoCorp Ltd has a joint venture.

The total cost of ownership (TCO) would be favourable for e-2W with a battery-swapping system when compared to e-2W with fixed batteries, said Kotak analysts. The TCO would be cheaper than it would be for internal combustion engine vehicles.

However, with recent instances of e-2Ws catching fire, safety concerns arise. Battery swapping cannot be seen as a sure shot solution to avoid such incidents, analysts said. This is because a faulty battery management system can still cause fire in e-2W with battery-swapping system.

Meanwhile, the penetration of e-2Ws in India is on the rise and has surpassed 4% in March 2022. "The share of e-2Ws in states leading the transition, such as Delhi and Karnataka, has reached 8-12% in March. Our estimates factor in EVs forming 6-8% of 2W industry in FY24/FY25," said analysts at Jefferies India in a report on 25 April.

Electric scooters in flames show high cost of India's green goals

*The Economic Times, 29/04/2022*

A spate of high-profile battery fires is undermining India's bid to become a leader in electric vehicles, particularly in the



ubiquitous two-wheelers that ply the country's traffic-clogged roads.

Social media is awash with videos of battery-powered scooters in flames. Last month, a father and daughter died from smoke inhalation after their brand-new bike from Okinawa Autotech Pvt caught fire while it was charging overnight at home. In another video, an Ola Electric Mobility Pvt scooter burns in Pune in the country's west, while in another, some 40 two-wheelers made by Jitendra EV go up in smoke as they are transported in a container.

The incidents have, not surprisingly, made many Indians wary of electric vehicles — the number of people who said they wouldn't buy an electric scooter due to safety and performance concerns jumped eightfold to 17% in the seven months through March, a survey of around 11,500 consumers conducted by LocalCircles showed. Just 2% of people are likely to buy an electric scooter in the coming six months, it found.

They're also coming just as India, the world's third-biggest emitter of greenhouse gases, is trying to get more electric vehicles on its roads. Already many consumers are reluctant to make the switch from combustion engine cars and motorcycles due to EVs' high upfront cost and the country's lack of charging stations, making it increasingly difficult for India to catch up with places like China and the U.S. that have made meaningful progress toward electrifying their transport fleets. About 77% of annual passenger vehicle sales in China will be electric by 2040, versus just 53% in India, BloombergNEF data show.

"When I hear of such incidents, I wonder why I should go for an electric vehicle. I'd rather

buy a new gasoline one," said Santhosh Kumar, who has an Ola electric bike himself but regards it now with a degree of caution. "I want to be part of the EV revolution and stop pollution but nothing is more important than the safety of my family and kids," the 36-year old from Chennai said.

The fires have also sparked debate about India's dependency on imported auto parts that are then assembled locally. The concern is the resulting electric scooters aren't designed from the ground up for the nation's extreme climate — temperatures routinely soar to 48 degrees Celsius in the capital New Delhi — or its infrastructure. India's roads are notoriously potholed, causing all sorts of suspension problems. India currently imports most of its EV components from China, depriving automakers of full control over the quality and reliability of their products.

India's nascent EV market is also flooded with startups that have rushed electric scooters to market and not all of them are going through the necessary rigor of testing under a wide variety of weather conditions, according to Rahul Mishra, a partner at management consultancy firm Kearney. Pressures of meeting investor expectations, the need to reduce time to market and managing stakeholder perceptions mean some haven't fully built capabilities in product development, manufacturing, sales and after-sales, and so are struggling to demonstrate the same level of maturity as established automakers, he said.

"Coming out with a prototype is one thing but selling it in the market at a commercial scale like an established automaker is a completely different ballgame," Mishra said, adding that established carmakers and

startups alike need to consistently demonstrate that safety is “non-negotiable” when it comes to EVs.

Ola, which has pledged to build the world’s biggest scooter factory, follows “very high” regulatory standards and is examining the cause of the accidents, founder Bhavish Aggarwal said. Bengaluru-based Ola, backed by SoftBank Group Corp., said last week it will recall a batch of 1,441 scooters following an investigation into the vehicle fires.

Okinawa said in a statement to Bloomberg that it had recalled 3,215 units of its PraisePro electric scooters to fix battery related issues, noting that the company complies with all testing standards set by the government. The scooters will be checked for loose battery connectors and repaired for free at dealerships, it said. Okinawa, India’s second-biggest electric two-wheeler maker by market share, blamed the fire on user negligence, saying the blaze was due to a short circuit that resulted from improper charging.

Jitendra EV didn’t respond to emails seeking comment. Pure EV, another company whose scooter was captured on video with thick plumes of gray and white smoke shooting from its rear, also didn’t respond to requests for comment.

The accidents have at least ushered in some reforms to India’s budding EV industry. Road Transport Minister Nitin Gadkari has pledged to adopt new standards to tackle the fires, which are likely caused due to thermal inefficiencies in lithium-ion batteries and exacerbated by hot weather. EVs should only be certified after they clear a revised testing system for battery packs and cells, he said earlier this week. In the

meantime, automakers should be “cautious” with the cells they’re using and recall products if they discover manufacturing defects.

The widely reported fires may also force some industry rationalization with only higher quality startups surviving, according to Mitul Shah, an analyst at Reliance Securities Ltd. While legacy automakers know the importance of making a product foolproof upfront, younger companies don’t realize it’s difficult to regain lost brand image because consumers don’t always give second chances, he said.

To be sure, India isn’t the only market to have experienced battery fires. Tesla Inc. cars have come under scrutiny in China after crashes damaged the batteries of several and General Motors Co. recalled a whole lot of Chevrolet Bolts after some went up in flames while parked in garages or driveways.

In China, authorities announced a new standard for battery two-wheeler models that will see tens of millions of non-compliant vehicles phased out by 2025, Gogoro Inc. Chief Executive Officer Horace Luke said. Gogoro is a Taiwanese electric scooter startup that earlier this year announced a tie up with Foxconn to expand in Indonesia. The Indian government should incentivize startups to focus on battery R&D, which requires a higher degree of human capital to meet a higher safety bar, he said.

Inside A Gogoro Inc. Global Experience Center and Interview With CEO Horace Luke  
Gogoro scooters inside a workshop at one of the company's stores in Taipei.  
Photographer: Billy H.C. Kwok/Bloomberg  
“The technology development and

management of batteries needs to be taken very seriously," Luke said. "It's important to understand that not all EVs or batteries are the same and when shortcuts are taken in their development, consumers can be exposed to potential unmitigated safety issues."

But faced with a market potential the size of India, a country of some 1.4 billion where around 231,000 electric scooters were sold in the 12 months through March, that may be easier said than done.

"In a fast growing market, the temptation to launch early without a mature product is very strong," said Ravneet Phokela, the chief business officer of Ather Energy Pvt, another electric scooter startup whose bikes haven't been documented in any fires yet. Blazes can erupt from the faulty packaging of cells and badly engineered thermal management systems, which are responsible for dissipating heat, he said. "It's a dangerous temptation to give in to."

## 7. Environnement et qualité de l'air

Dump sites in Delhi & other cities are like time bombs

*The Times of India, 03/05/2022*

NEW DELHI: The National Green Tribunal has expressed serious concern over fire incidents at Ghazipur landfill site in the national capital saying dump sites are like "time bombs". A massive fire erupted at the Ghazipur landfill site on Wednesday, the third such incident since March 28, sending a dense plume of smoke into the sky and exacerbating the already polluted air in nearby areas. Last year, the authorities

reported four fire incidents at the Ghazipur landfill. In 2017, a large part of it broke away, crashing onto a road and killing two people.

A bench headed by NGT chairperson Justice A K Goel said the dump sites in Delhi and in other cities are like "time bombs" because they constantly generate explosive gases like methane which may escape through vertical and lateral ways posing constant threat of explosion.

"It is a matter of concern that such incidents are taking place elsewhere also and there is potential for the same wherever legacy waste remains unremediated. It is for this reason that there is statutory timeline expected to be followed strictly.

"Situation in Delhi may be more serious having regard to the size of the garbage dump and its location in densely populated area. This requires constitution of a multi-department committee of concerned departments and responsible prompt action at higher levels of the administration" the bench said.

The NGT constituted a committee headed by Justice S P Garg, former Delhi high court judge with members from Central Pollution Control Board, Delhi Pollution Control Committee (DPCC), Department of Urban Development, Delhi, EDMC, Delhi Disaster Management Authority and district magistrate and DCP, East Delhi.

"DPCC will be the nodal agency for coordination and compliance. The Committee may hold its first meeting within one week, undertake visit to the site, interact with the stakeholders, ascertain the factual situation and suggest further course



of action after interaction with the concerned stakeholders," the bench said.

The green panel said the committee may furnish the report within one month by e-mail.

The tribunal took up the matter in the light of media report showing serious hazard to public health and environment on account of fire at the Ghazipur garbage dump site.

Commissioned in 1984, the Ghazipur landfill site is spread across 70 acres. In 2019, the garbage dump site had grown 65 metres high.

The DPCC had imposed a fine of Rs 50 lakh on the East Delhi Municipal Corporation (EDMC) after a fire erupted at the landfill on March 28.

How bad air in Delhi is adding to summer of discontent

*The Times of India, 16/04/2022*

NEW DELHI: Delhi's air quality improved on Friday to the best of this month due to drizzle and strong winds the previous evening. However, experts said dust, coated with toxic elements, posed a major threat to the summer air quality. The city is witnessing one of the three annual phases when the pollution is at its peak, they added.

On Friday, the air quality index (AQI) was 201, just one point away from "moderate", compared with Thursday's 280, on the higher side of "poor". The weather has, however, started getting dry again, and with the mercury rising, the pollution levels are expected to spike.

On Thursday and Wednesday, a number of areas recorded "very-poor" air quality while Mundka clocked "severe" AQI due to dust. At 4pm on Thursday, Mundka's AQI was 403, and the same at Alipur, Anand Vihar, Bawana, Chandni Chowk, Dwarka, Major Dhyani Chand Stadium, Narela, Punjabi Nagar, Rohini, Siri Fort, Sonia Vihar and Vivek Vihar was "very poor". According to the Central Pollution Control Board data, while both fine and coarse particles were responsible for pollution, PM10 remained the lead pollutant in summer. "In long term, there are three phases of high pollution in Delhi. The first one is April-May, then pre-winter, and the third one is winter. During winter, PM2.5 is the dominant pollutant due to poor ventilation and it's discussed a lot, but the summer pollution is not given the similar importance," said an official of Delhi Pollution Control Committee.

During summer, the main reason is wind-blown dust, and vehicles are the permanent source of combustion, he said, adding that other major sources of dust include unpaved patches, bald parks and construction to an extent.

While Delhi's air quality largely depends on its location, several steps could be taken to reduce the pollution, the official said. "Open patches could be covered with hardy grass, whose roots hold onto the dust even if they dry. Open and unpaved stretches should also be paved or covered," he pointed out.

According to experts, dust or coarser particles are as harmful as the finer ones as they are getting coated with toxic elements emanating from combustion, making the summer air as dangerous as the winter's.

"PM10 is the coarser particle, and around this time of the year, its impact, mostly due to dust, is higher. The summer source apportionment studies have also revealed so. Dust particles become the carrier of the toxic material, which comes from combustion," said Anumita Roy Chowdhury, executive director of Centre for Science and Environment.

Time to assign high priority to environmental Crimes.

*Financial Express, 27/04/2022*

It is high time that Environmental Crimes draw our full attention. In fact, we need to first understand our environment in a holistic fashion and then carve out the areas of concern areas where awareness as well as deterrence, both the options should be explored well to check further deterioration of the very elemental base of our survival. The rise in temperatures, displacements of weather patterns, emergence of new extremities or calamities of nature, increasing pollution levels, unfavorable changes in biodiversity that sustains us need our increasing attention. All these have their roots in the type of developmental initiatives human beings have adopted over a period of time; life styles that have not proven to be eco-friendly and the negative spillover effects of affluence of a few over the lesser privileged who are struggling even for their basic survival.

In the list of structured crimes as per UN rating, environmental crimes have been the fourth largest in terms of illicit trade in wildlife, timber, fisheries, hazardous waste and ozone depleting substances; Drug trafficking, Arms trafficking & Human trafficking being the first three. The Indian

Environment Protection Act also lays emphasis on water, air and land on one hand and living creatures, plants and micro-organism on the other. In fact, there are diverse enactments such as Noise Pollution Act, Cigarette & Tobacco Products Act, Air & Water (prevention & control of pollution) Act, Energy Conservation Act, National Green Tribunal Act, Bio Diversity Act, Wildlife Protection act and series of Forest related acts. Though the environment related offences have increased by more than 50-60 percent per annum in the past few years, the level of awareness as well as the cognizance by authorities to ensure their non-recurrence has been still far below the required level. We still need to cover a long way. Even if we go by figures of air pollution, source wise, 51% pollution is generated by industries, 27% by vehicles and the rest by various activities in the modern human habitat. Thus, it is evident that on one hand we have been weakening the intrinsic features that sustain a robust environment for us, on the other hand the human activities in its various facets have been aggravating the pollution levels in proportions beyond the self-rectifying capacity of Nature in its holistic format. One of the glaring examples of the challenges to sustainability of the environment in the past has been the policy of commercial exploitation of forests and wild life before the alarm was raised. When checked, they then managed to wiggle their way into smuggling poaching activities, given the huge margins in the illegal global market. Similarly, the use of fossil fuel for energy requirements and lack of alternate energy options or technologies that would be energy efficient has been the example of the human-led aggravating factors.

In the Indian context, we are not only the signatories to various international conventions over a period of time, it is pertinent to underscore that our constitution itself includes environmental protection as a core duty under article 51(A). Taking cognizance of the right to environment as a fundamental right, courts have pronounced judgements making 'Precautionary Principle' & 'Polluter Pays Principle' as essential features of 'sustainable development'.

Though the legal protocols have been drawn out, it is pertinent to observe that offences carry a very light fine. The only deterrence is confiscation of instrumentalism of crime i.e., vehicle etc. As gradually we realized that mere enactments were not enough, special bodies such as WildLife Crime Control Bureau, National Green Tribunal, and Pollution Control Boards were created to oversee the enforcement. Environmental crimes still being low risk and high profit ventures, their perpetrators flourish. Most of them are complaint cases and no direct cognizance is taken. Its irony lies in the fact that there is actually a trial before the trial. Out of 60,000 plus cases registered in 2019-20 alone, no headway worth being mentioned has come to fore. No big syndicate has been unearthed. Conviction rate in substantive cases has been around 3% only. Further, investigation capacities are limited and forensic support is also inadequate.

Since international operatives are involved, the problem of Mutual Legal Assistance Treaties not being in place make the situation more pitiable. With fast globalization and ease of communication, various other syndicates have merged together to exploit the situation through

local criminal networks. UNODC led research work clearly underlines such a nexus that also indulges in smuggling of ozone depleting substances. Hence, international cooperation, intelligence led operations and assistance of National level forensic facilities hold the key to success. Enforcement agencies need to coordinate well professionally in order to nab the international syndicates and neutralize their linkages. Similarly, neo investigative skills and forensic appreciation, given the varied scientific & behavioral developments, need to be pushed ahead appropriately in all the distinct sub-domains. The task is monumental yet doable.

The way the issues of environmental crimes have emerged over a period of time, we require diplomatic efforts at global level in bringing all the countries on the same page through international bodies and evolving of common protocols. There is also a need to create better funding options by developed nations for facilitating the developing countries for a changeover, which would otherwise be very difficult as many of them are still striving to make ends meet.

On the domestic front, the multiplicity of laws now requires integration. Else, all agencies will keep doing their bit within their given domains and miss the sight of the elephant in the room. I recall a typical case in a set up where post-incidence I had gone as the advisor. More than half a dozen departments had dealt with that case in which a water body was destroyed while constructing a cricket stadium. Consequently, all departments complied with their individual domain-obligations. Unfortunately, none took a holistic view of the lake's revival or its sustenance



thereafter. Hence, we must evolve a cohesive coordination mechanism.

However, everything cannot be controlled by law. Like anti-smoking campaigns, we need to take up awareness drives to ignite community-consciousness toward environmental protection too. Whereas policy makers need to strategize ways & means at the macro level to keep air, water and earth clean & green, in terms of technologies, waste management, carbon harvesting etc.; at the micro level people need to learn how to minimize the carbon footprints. The habit of being minimalist, using public transport or electric vehicles, saving on use of electricity, creating green covers etc. are some of the important examples in this respect.

Since environmental distortions lead to disasters and related life issues, we need to harness our response capacities in multiple core-areas. Deaths due to environmental degradation have been 12 million plus globally, and 3 million plus in India alone. Over 30% of the diseases are attributed to the pollution of varied kinds. Besides these domains, a great amount of research & development is also needed to restore the biodiversity imbalances and evolve neo equilibriums to manage micro-organisms in a more fruitful way. The human intervention with half-baked knowledge has led to such

imbalances that we now find difficult to restore. The change in temperature upwardly from 1.5 to 3 degree, as expected, will lead to a holocaust beyond everybody's control.

Nature will anyways restore its balance even at the cost of human lives and habitats. Someone lightheartedly mentioned that everything would be alright on Mother Earth if only we were to take away the human being. And he was really not far removed from the truth. We need to mend our ways individually as well as collectively.

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