

EDITORIAL

Dereliction of duty?

As has always been the case with landfill fires, three weeks after a fire broke out at Brahmapuram site in Kochi, authorities are trying to assemble inconclusive pieces to complete the jigsaw — to what positive effect, nobody knows! In the meantime, people in the surrounding areas continue to grapple with toxic fumes. Landfills, or huge mountains of waste that they are, contain a layered accumulation of toxic gases on and beneath their surface. There is a vast multitude of such structures across India. Usually, the waste generated in mega cities land up in one of those filthy structures with a pungent smell. With the onset of summers, fires, small and big, become a commonplace at landfills. The Brahmapuram site in Kochi, too, has been a witness to severe fires in the past. Sadly, as the fires keep replicating themselves, the authorities do the same by exhibiting their negligence or inability in preventing such fires. In the aftermath of 2019 and 2020 fires at the site, CSIR, in collaboration with National Institute for Interdisciplinary Science and Technology, reported the release of highly toxic dioxins. The report also recommended a more elaborate study of the environmental impacts of the fires. Authorities' failure in preventing and studying such incidents appears to be more telling when considered against the fact that the timing of such incidents has been more or less the same. It is unacceptable to keep allowing an anticipated failure to repeat itself again and again. Preventing or containing the impact of fires is just one part of the problem. Big fires manage to make headlines but the landfills, without being engulfed in fire, remain no less threat throughout the year. A broader challenge before the Kochi Municipal Corporation is to effectively manage the large chunk of waste that the landfill receives on a daily basis. The municipal corporation has been failing miserably in tackling this challenge. The first major challenge is segregation of waste at source. This, in fact, is the core of the issue. Segregation of waste before they are dumped at landfills will lead to far more smaller waste accumulation, as the recyclable waste and those capable of being utilised as Refuse Derived Fuel (RDF) would already be extracted. RDF mechanism entails burning of high calorific solid waste after appropriate shredding and drying, to produce energy. Once these two categories of waste are removed, landfills will only contain biodegradable and inert waste that are less harmful for the environment and comparatively unflammable, and undergo decomposition in the soil. Unlike many other states across India, Kerala enjoys the reputation of successfully scaling the decentralised waste management process. It entails involvement of multiple stakeholders at various levels of waste generation and management, leading up to little accumulation at landfill sites. It is inexplicable as to why Kochi has not been able to replicate and scale the practice of decentralised solid waste management to date. The state government needs to take a serious note of the problem, and introduce necessary changes. There are numerous examples from across the country that have shown that with innovative policy interventions, the garbage mountains can be done away with. Reclamation of a large swath of land in Bhopal's Bhanpur is a textbook example of such an intervention. As late as 2017-18, the pungent smell from the landfill reminded train passengers that they had entered Bhopal. Today, that site is a resplendent attraction for visitors. However, following such examples requires strong political will and determination, which seems to elude authorities in Kochi as for now. The National Green Tribunal (NGT), pointing out towards "an attitude of neglect by government authorities", called for "soul searching and high-level enquiry to determine culpability in the larger public interest". NGT has also imposed a penalty of Rs 100 crore on the civic body for its failure in waste management. The civic body, however, has expressed its intent to move to court against the NGT order, citing huge financial implications and justifying the problem as a result of two-decade long legacy waste management problem. The civic body's failure in claiming responsibility for the fire only justifies NGT's no-accountability assertion. Though the fire is doused and people in surrounding areas are hoping to recover against toxic gases, the path ahead for Kochi does not seem promising. There are no signs of doing what is completely doable.



SAURABH CHANDRA

The share of manufacturing in the Gross Domestic Product (GDP) of India has remained around 15-16 per cent for more than three decades; the corresponding figure for China is 27 per cent

Pursuit of competitive balance

The Union and state governments should work in tandem to ensure infrastructure- and innovation-led broadening of manufacturing base to minimise dependence on China

"Warfare is now escaping from the boundaries of bloody massacre, and exhibiting a trend towards low casualties or even none at all and yet high intensity. This is information warfare, trade warfare..."

— Unrestricted Warfare, PLA Cols. Qiao Liang and Wang Xiangui

India's imports from China reach record high in 2022, trade deficit surges beyond USD 100 billion. This news item based on Chinese Customs data also pointed out that compared to 2021, the trade deficit was up by 45 per cent. This trade deficit, which is almost one third of the country's total trade, is attributable not only to electronic components, computer hardware peripherals, telecom instruments, organic chemicals, industrial and electrical machinery, auto components, active pharmaceutical ingredients (API), and medical supplies, but also to low-technology manufactured items.

Deepak Nayyar's article in a periodical dated January 13, 2023 provides an explanation for this. To quote: "Between 1990 and 2019, India's share in manufacturing value added (in current prices at market exchange rates) increased from 1.3 per cent to 3.1 per cent, while that of China jumped from 1.3 per cent to 28.7 per cent."

The share of manufacturing in the Gross Domestic Product (GDP) of India has remained around 15-16 per cent for more than three decades. The corresponding figure for China is 27 per cent. And China's GDP is more than 4 times that of India.

The plateauing of manufacturing share has a direct impact on the trade deficit. Outside the oil exporting countries, the maximum trade surpluses are enjoyed by manufacturing giants like China, Japan, Germany, South Korea, and Taiwan. A high trade deficit impacts the currency of a country adversely. This often results in importing inflation. For countries like India, this could also lead to a higher fiscal deficit, mainly on account of raising the bill for fertiliser subsidy and, to a lesser extent,



Success in manufacturing is the true test of cooperative federalism

for fuel subsidy.

Cheap imports from China have created an unfavourable environment for boosting India's domestic manufacturing base. This has also raised the cost of economic growth. The manufacturing sector is not only well-placed, but also the only sector which has the potential to provide gainful employment to the surplus labour from the overburdened agriculture sector; which supports almost 50 per cent of the workforce on 14 per cent of the nation's GDP. Agrarian distress is reality.

Dependence on China for critical raw materials, intermediates and finished products, is a serious risk. The list is long. Some examples will give an idea about the magnitude of the problem.

About 80 per cent of India's API requirements are met by imports from China. As Devi Shetty had pointed out in a daily on November 22, 2021, without heparin, a drug used to prevent blood clotting cardiac surgery, kidney dialysis, vascular surgery, angioplasty and adequate management of heart attack and brain stroke cannot be done. China produces 80 per cent of the world's requirement of heparin.

India's critical minerals policy (expected to be finalised soon) is a recognition of the problem posed by the depen-

dence on China for supply of critical minerals and rare earth elements — an essential requirement for new-age manufacturing items like electric vehicle batteries, wind turbines and solar photovoltaic cells.

Security concerns pose the biggest threat. Chinese Internet of Things (IoT) modules in critical infrastructure and key industries can be used for surveillance, and also sabotage them. *Asian International* reported that "China is watching you via laptops, smart bulbs, fridges, cars, and credit cards by weaponising microchips embedded in them. More specifically, the threat revolves around four areas: national security, economic prosperity, privacy, and values and human rights."

The border stand-off with China has brought into focus the imperatives of reducing the dependence on China for supply of strategic goods. The Production Linked Incentive Scheme, announced for 14 sectors, is a step in the right direction. It has to be supplemented by a package of measures to make domestic manufacturing stand up to competition from imported goods, particularly from China.

Manufacturing is an outcome. It is an upshot of state action, the most important of which are:

(i) Support in areas of competi-

- tive advantage;
- (ii) Fostering a climate of innovation which leads to depth in manufacturing;
- (iii) Focus on providing public goods, especially law and order;
- (iv) Effective and timely enforcement of contracts;
- (v) High factor productivity — land, labour, and capital;
- (vi) Reasonably priced electricity;
- (vii) Low logistics costs;
- (viii) Sensible regulatory burden;
- (ix) A level playing field, which discourages rent seeking behaviour; and
- (x) A change in the Indian entrepreneurial mindset — from buyers and licensors of technology to developers of technology

The state governments have an important role to play in this sector, in line with the Constitutional scheme of the country. As per Schedule 7, Entry 24 in the State List deals with "Industries subject to the provisions of Entries 7 and 52 of List 1."

In List 1, i.e., the Union List, Entry 7 mentions "Industries declared by Parliament by law to be necessary for the purpose of defence or for prosecution of war" whereas Entry 52 specifies "Industries, the control of which by the Union is declared by Parliament by law to be expedient in the public interest."

De-licensing, initiated in 1991 by reducing the number of industries in the Entry 52, has made state governments equally responsible for promoting industrialisation. States lagging in industrialisation have to follow the example of states like Gujarat where manufacturing contributes almost 40 per cent of the State GDP.

Investor confidence is a necessary condition for investment to flow into any sector. Manufacturing is typically a long-term play. This casts a duty on the state governments to provide a secure and safe environment, where investors believe that their investment would yield reasonable returns. Competitiveness of manufacturing can be sustained only on an assured and stable grid electricity availability. The state governments have to ensure

reliable electricity supply by their discoms. The onus of ensuring availability of land at reasonable prices and labour laws which enhance labour productivity is also on the State governments.

The Union government has to put in place policy measures to incentivise investment in areas where domestic manufacturing enjoys a competitive advantage. The policy regime has to be stable and predictable. This entails ensuring availability and access to cheap capital, speedy disposal of litigation pertaining to contractual disputes and a widely accepted perception that a level playing field exists.

There are several areas where the Union and the States have to supplement each other's efforts. Reducing logistics costs through high-class infrastructure and reducing expenditure on compliance by lowering the regulatory burden are two such areas.

The biggest dilemma is to change the mindset to bring about innovation-led manufacturing, as opposed to licensing and/or buying technology and assembly-based manufacturing. This is an adaptive challenge. It requires industry-academia collaboration, as exemplified in the Silicon Valley, with the government stepping in to fund research in areas of national importance. Leadership at both the Union and State governments have to strive to bring about the transformation in attitudes to ensure domestic presence at points of high value addition in the manufacturing chain.

Success in manufacturing is the true test of cooperative federalism. The mantra is that it has to be driven by infrastructure and innovation. The strategic concerns arising out of supply disruptions due to the Covid pandemic and geo-political tensions have brought to fore the imperatives of urgently enhancing the domestic manufacturing base. Time is of essence. The Indian lion has to come out of the grip of the Chinese dragon.

The writer is former Petroleum Secretary; and co-founder of thinktank Deepstrat. Views expressed are personal

WORLD WATER DAY

Catalysing collaborative change

The World Water Day presents a wonderful opportunity for all stakeholders to come together for 'accelerating change' towards saving the Earth's most precious resource



AK MERCHANT

The theme for the World Water Day, 2023, is 'Accelerating Change'. Water affects us all, and we need everyone to act — at individual, institutional, and community levels.

The UN 2023 Water Conference, under its Water Action Agenda, will discuss what needs to change, and how the world should create a collective action plan to help all member-states reach the identified goals at a faster-than-ever rate.

Water is crucial for advancing human rights, reducing poverty and inequality, and enabling peace, justice, and sustainability. Sustainable Development Goal 6 is a unique opportunity for mainstreaming water in the national and subnational planning. SDG 6.3 states that by 2030, water quality may be improved by reducing pollution, eliminating waste dumping, minimising release of hazardous chemicals and materials, halving the proportion of untreated waste water, and increasing recycling and safe reuse.

Only three per cent of water on the Earth is fresh, and two-thirds of that is ice. The amount of water available today is the same as it was when dinosaurs roamed the planet. The problem is not simply the availability and supply of water; the problem is people — our increasing numbers and our flagrant abuse of one of our most precious, limited resources. Add to this the problems caused by wastage



The demand for freshwater is doubling every 18 years, forcing us towards an ecological suicide

and pollution of water. Water takes into solution a vast number of substances, and what it can't dissolve, it simply pushes along or grinds up fine enough to carry as suspension.

Unfortunately, although we had registered some success in fulfilling the target set in the Millennium Development Goals (2000-2015) the situation today is becoming more desperate and alarming. According to a report endorsed by 14,000 scientists from 1,990 jurisdictions in 34 countries, "we are nearing or have already crossed tipping points associated with critical parts of the Earth system, including the West Antarctic and Greenland ice sheets, warm-water coral reefs, and the Amazon rainforest."

A well-known forester and ecologist, Richard St. Barbe Baker (1899-1982), wrote many decades ago: "Water must be a basic consideration in everything: forestry, agriculture and industry." According to a World Bank

report from 2022, "approximately two billion people around the world do not have safely managed drinking water services, 3.6 billion people do not have safely managed sanitation services, and 2.3 billion lack basic handwashing facilities... Consequences will be disproportionately felt by the poorest and most vulnerable."

Access & availability of water is today a major source of potential conflict. Gradual reductions over time in the quality and/or quantity of fresh water can add to the instability of a region by depleting the health of a population, obstructing economic development, and exacerbating larger conflicts. This is especially the case where river basins are shared by two or more countries. Using a purely quantitative methodology, Thomas Homer-Dixon successfully correlated water scarcity and the scarcity of arable lands to an increased chance of violent conflict.

In most agricultural, and

almost all urban areas, there has been a serious deterioration of rivers, aquifers, and groundwater, especially in India. The world population has crossed eight billion and, with the demand for freshwater doubling every 18 years, we are moving towards an ecological suicide.

The Government of India held its first All-India Annual State Ministers Conference on Water in Bhopal in January 2023 around the theme 'Water-Vision@2047'. The Government's National Water Mission was launched in the context of the National Action Plan on Climate Change, to ensure integrated water resource management. The mission considers the provisions of the National Water Policy, and developed a framework to optimise water-use by increasing water-use efficiency by 20 per cent through regulatory mechanisms with differential entitlements and pricing. It seeks to ensure that a considerable share of the water needs of urban areas are met through recycling of waste water, and that the water requirements of coastal cities with inadequate alternative sources of water are met through adoption of new and appropriate technologies. The National Water Policy revisits the consultation with states to ensure basin-level management strategies to deal with variability in rainfall and river flows.

This includes enhanced storage and rainwater harvesting, coupled with equita-

ble and efficient management structures. The mission seeks to develop new regulatory structures, combined with appropriate entitlements and pricing. It seeks to optimise the efficiency of existing irrigation systems, including rehabilitation of systems that have been run down, and also expand irrigation, wherever feasible, with a special effort to increase storage capacity.

Appropriate indicators have been evolved for assessing adaptation benefits of the actions. The 'Technical Document' annexed with the NAPCC has identified key areas related to: (a) studies on management of surface water resources, (b) management and regulation of ground water resources, (c) upgrading storage structures for fresh and drainage system for wastewater, (d) conservation of wetlands, (e) development of desalination technologies, and (f) Jal Shakti Abhiyan: Catch the Rain.

Humanity's crying needs will not be met by a struggle among competing ambitions or by protest against one or another for the countless wrongs afflicting a crisis-stricken age. It calls, rather, for a fundamental change of consciousness. Let's then: "Arise, Awake! Stop Not till the Goal is reached!" There is light at the end of the tunnel of accelerated change.

The writer is a social worker and an independent researcher based in New Delhi. Views expressed are personal

Dear Editor

A WONDERFUL ALTERNATIVE

Methanol is a low-carbon, hydrogen-carrying fuel made from high-ash coal agricultural residue, CO₂ from thermal power plants, and natural gas. It is the best way for India to meet its commitment to COP 21. The 'Methanol Economy' programme of the NITI Aayog on implementation could lead to reduction of India's oil import bill, greenhouse gas (GHG) emissions, and the conversion of coal reserves and municipal solid waste into methanol. Despite having a slightly lower energy content than gasoline, methanol can be used in transportation (road, rail, and marine), energy (DG sets, boilers, process heating modules, tractors, and commercial vehicles), and retail cooking (replacing LPG kerosene and wood charcoal). Blending 15 per cent methanol into gasoline can result in a 15 per cent reduction in crude oil imports. Furthermore, this would reduce GHG emissions by 20 per cent in terms of particulate matter, NO_x, and SO_x, improving urban air quality. The Methanol Economy will also generate nearly 5 million jobs via methanol production/application and distribution services. Additionally, blending 20 per cent DME (Di-methyl Ether, a methanol derivative) in LPG can save Rs 6,000 crore per year. This will save the consumer between Rs 50 and Rs 100 per cylinder as per NITI Aayog speculation.

— VIJAYKUMAR HK, RAICHUR via email

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For working among the poorest and most vulnerable Harsh Mander gets a CBI inquiry, netas with offshore bank accounts and millions through corrupt means remain beyond the law. #HarshMander



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