

TERROR ECOSYSTEM

It's good to see LG Manoj Sinha often speak of his determination to dismantle terror ecosystem in J&K but one wishes more stakeholders were involved in this task. The problem is huge and there are many collaborators who remain embedded in the system and society. Some of them hold important positions while others are parents whose children are vulnerable to propaganda by the gang, and those who turn deaf and blind to this ecosystem are equally to be blamed and given the responsibility of dismantling the system that is damaging us. Dismantling the terror ecosystem is the job of the government only as far as active logistics managers of terrorists are concerned. However, there is an army of ecosystem which is working on the minds of the youth turning them to bigots and possibly drugs users. The entire system and society has to deal with them. The government must setup a wider net to work against this ecosystem. Seminar and workshops must be organized for the youth to spread awareness in neutralizing this ecosystem.

CHAMPIONS TROPHY

Pakistan is on the edge over the organizing of the 2025 Champions Trophy for which India has refused to play in that country. The reason behind this is no secret as India's leadership has made it amply clear that India being victim of Pakistan sponsored terrorism cannot play cricket in day and face terrorism in night. Though the stalemate on Champions Trophy would be sorted out soon most likely by resorting to the hybrid model it's a lesson for Pakistan to realize the realities. How long will Pakistani commentators keep abusing India as arrogant cricketing force and not realize why India boycotts coming to Pakistan. With senior players like Shahid Afridi calling names to Indian leadership and not even acknowledging his country's sinister role in spreading terror in J&K.

Realigning India's economic strategy

Atul Sehgal

The world is undergoing rapid political changes. With these geopolitical changes underway, it becomes imperative to relook at the current strategy for economic development to meet the declared target of achieving a developed nation status by 2047. It becomes necessary to realign and readjust the policy points with the changing circumstances. Countries become rich by producing and selling globally valuable and value-added products. India's share in global trade has to grow rapidly from the present mealy 1.8 per cent in goods exports and 2.8 per cent in goods imports. In the service sector too, India needs to enhance its share of delivered services upwards from the present 6 per cent. How will this happen? We need to take quantum measures and hard steps without caring for internal political expediency. Global political scenario may affect the choice of strategic steps but it can have, at best, limited effect if we as a nation are determined, focused and forthright.

Nothing can come in the way if we act united and our government performs its actions without fear or favour. The government's backtracking on the Agriculture and Farm Bills of 2019 was an unfortunate incident. Such incidents should not recur. The government buckled under the fake protests by agro market middlemen masquerading as farmers who created a false show of protests to put spokes in the wheel of the Bills and sabotage them. The government, under fear of burgeoning vandalism by anti-national elements to prevent the promulgation of Bills, backed by foreign enemy countries capitulated and rolled back the Bills. This should not have happened. The country paid a heavy price for this as agriculture is still the mainstay of India's economy. If only those important Bills had been passed, we would have witnessed an economic growth rate increase of at least 2 per cent over the existing. Let our government bring back those Bills at the earliest appropriate time to provide a vital booster to our economy. The other important area that needs the urgent attention of the government is the MSME sector which continues to lie stagnant. This sector is the prime driver of employment growth and needs steps to facilitate the establishment of new units and expansion of the existing ones. These steps are—bureau-



cratic reforms to cut red tape and reduce unnecessary regulatory compliances that engender corruption and impede growth. To boost Indigenous manufacturing and increase the share of manufacturing in the national GDP from 16 per cent (almost stagnant since 2015) to upwards of 20 per cent, rebooting the entire Make in India program is needed. The blueprint of this otherwise visionary plan was, alas, not implemented seriously.

Too much dependence on foreign capital and FDI was never forthcoming and efforts should have been made to utilise domestic capital. The central sector and state sector Public Sector Undertakings (PSUs) should have taken the initiative in enhancing domestic manufacturing. Also, Make in India should have emphasised Make by India. Bureaucratic reforms, an increase in domestic manufacturing especially by PSUs by increasing import tariffs and further increasing fiscal concessions are some of the steps needed. Good work has been done in the area of defence and space in this context by encouraging and promoting startups.

This should be extended to other sectors of the economy. Value-added manufacturing in agriculture, food, healthcare and education will go a long way in boosting indigenous manufacturing and even exports. It is quite a pity that in spite of the wonderful success of the BJP

government in the cleanup of the Banks, its benefit has not percolated to domestic manufacturing. Why out of the 100 smart cities conceived in 2014, only about 20 have seen the light of the day and that too partially? The establishment of special economic zones and specialised product production zones was blueprinted but its implementation has also got stuck in the legislative and bureaucratic quagmires. Bureaucratic reforms, I reiterate, are an emergent necessity. Large imports from China over the last ten years have indeed prevented the growth of MSMEs in the country. Many pre-existing factories faced closure and many manufacturers turned traders. India's exports to China in 2023-24 were USD 16.65 billion, while imports stood at USD 101.75 billion, leaving a trade deficit of more than USD 85 billion. Efforts were made by the ruling NDA government to contain Chinese imports. But most of the curtailment took place in lower-end consumer goods and less dent could be made in import of industrial goods. Irrespective of government policy, if our countrymen had decided to boycott Chinese goods that can be produced in India, we would have made a huge dent in Chinese imports and facilitated the growth of the domestic manufacturing industry. But this did not happen.

The land acquisition Amendment Bill

was presented in Parliament on 10 March 2015 but could not be passed due to opposition by non-BJP lawmakers in the Rajya Sabha where the ruling NDA lacked a clear majority in numbers. The opposition party MPs called the proposed amendments anti-farmer and anti-poor. The proposed amendments sought to remove requirements for approval from farmers to proceed with land acquisition under five broad categories of projects. Its passage continues to hang fire. It is the foundational base of the Make in India program. When will it be passed? Political expediency has been truly the bane of our country and the main impediment to our fast-track economic progress.

In the above context, it would be appropriate to mention that strongly nationalistic citizens can collectively create conditions conducive to the growth of the domestic industry. The economic resurgence of Germany and Japan post World War 2 are case in point. Though the USA lent economic support to these countries, their citizens were patriotically driven to establish their domestic manufacturing base and the countries developed into major industrial and economic powers in a period of barely two decades following their defeat and total devastation in 1945, the end year of the war. Both these countries lay stress on manufacturing, innovation and technology development. Their emphasis was on production and value-added exports. A similar strategy is needed. India has been the world's major economic power for millennia and in keeping with its inherent potential; it is capable of a long-term economic growth rate of 12 per cent.

For this to happen, the aforesaid steps brook no delay. In the destiny of nations, there are some phases when it becomes necessary to take bold steps in line with progressive principles of economic development rather than get bogged down by over-strategising and political expediency. Our revered political and economic scholar Chanakya had stated that Dharma (righteousness) should take precedence over everything else in governance and even strategy should be aligned with universal divine Dharma. We need to proceed further in our economic journey accordingly.

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TRUMP 2.0: STEEP TARIFFS ON CARDS

Kumardeep Banarjee

He had during campaigning talked about imposing nearly 60 per cent tariffs on China imports. Recently he has said that one of the first executive orders, he is likely to sign after assuming office on January 20, would be to impose tariffs on Canada, Mexico and China imports. Of course, the caveat is, unless, they stop sending illegal immigrants and ban drugs across to the US. Donald Trump knows his tariff-based foreign policy approach has bipartisan support among Democrats and Republicans. It feeds well into his Made in America, local job creation narrative which catapulted him back to the White House in a non-consecutive term. India is overseeing this space, as it knows very well that even though the first tariff bullets may not be fired at India, eventually many will. Mr Trump has already spoken

about India's high tariffs in his election rallies and notwithstanding the amount of good, the Indian IT services sector has done for the US, he needs to send home hard messages. The only saving grace in the upcoming US-India bilateral relationship, under President Trump 2.0 would be the personal equation, the president-elect has with Prime Minister Modi. Knowing each other for a long period and having observed each other's style of governing, can be an initial advantage but not a long-term solution. Key Indian trade interlocutors are in high demand, especially those who have been in government during Trump's first presidency.

At some point in time, the issue of tariffs would come up in the bilateral conversations, where hard-nosed negotiations may be required. India and US under the Biden administration managed to establish a formal institutional

framework for settling trade and tariff issues in the form of a Trade Policy Forum (TPF). The TPF platform provides trade representatives from the US and India to meet regularly to discuss and find solutions to mutual areas of concern. To be sure the TPF mechanism existed even under the Trump administration, but with one meeting and a new Indian government under Prime Minister Modi (with less focus on trade and external affairs policy), it served little purpose. Chances are, given Donald Trump's style of functioning, the TPF may be relegated to the background and several transactional bilateral meetings would be formatted to, minimise the friction in the trade relations.

It may be worth noting that India has a trade surplus with the US, a point Mr Trump will keep in mind to extract his side of the deal. Meanwhile, the expected tightening of the trade environment be-

tween the US and China would have a significant impact on the global economy. China would have to find newer markets to push some of the goods, which could be too expensive to export to the US. India and its neighbouring nations would have to brace up. Prices of items in the US, most of which are imported from China could add an extra burden on household budgets, which in turn could push rate hikes.

These global headwinds will shape, the narratives for a long time to come. It could have an inflationary impact on global oil prices and growth of the several global economies. India's Reserve Bank has already cautioned that the slowdown in the global economy, protectionism, and tariffs are three key factors that will shape India's economy next year. It would be another tightrope with clever hands of the juggler on rope which can carry India for the next few years.

Climate change and Lichens: The tiny titans of nature

BKP Sinha and Arvind Kumar Jha

Vibrant patches of colour adorning some tree trunks and rocks may draw your attention as you move in the forest. Although they appear as mere stains or growths; they are intricate organisms called lichens, a product of a mutualistic alliance between fungus and algae. Making it a unique creation of nature, the fungus absorbs water and nutrients from the air while an organic compound is generated by the photosynthetic partner. Thus while fungi build a house; its algal partner supplies food as the breadwinner. Similarly, if fungi did not provide a secure structure, the algae would die homeless in harsh places.

The absence of cuticles and roots and their direct reliance on the atmosphere for nutrients, however, makes lichens highly vulnerable to pollutants. Found in a variety of shapes and colours, ranging from delicate leafy structures to crusty patches, they thrive in diverse habitats, from rocky mountainsides to

rain forests and deserts. They can grow on soil, humus, stones, rocks, bricks, plaster, leaves, tree trunks, decaying wood and even on glass. Overtly so simple and insignificant in the face of the dominant bias of human beings that often considers a forest just as an assemblage of trees and vegetation mix, lichens play an extremely vital role in ecosystems. Lichens are known to play a crucial role in soil formation, breaking down rocks through biogeochemical and biochemical weathering and creating nutrient-rich soil paving the way for other plants to grow. They produce unique compounds with potential medicinal properties, such as antibiotics and antifungals.

They are used in medicine, food, fodder, perfume, spices, and dyes. Researchers are exploring these compounds to develop new drugs and sustainable materials. By understanding the adaptations and biochemical properties of lichens, one can unlock new possibilities and contribute to a more sustainable future. Lichens can survive at extreme temperatures and altitudes in which no

creatures can survive. One can see more lichen on the edge of the forest than deep in the forest. They will be lesser near the towns as the air quality deteriorates. Many lichens are incredibly sensitive to air pollution, particularly due to sulphur dioxide and nitrogen oxides, as also to the level of heavy metal pollution. All lichens, however, are not equally sensitive to air pollutants. Different lichen species exhibit different sensitivity to specific air pollutants. Consequently, lichens are well-suited as biological indicators for monitoring environmental quality.

More than seventeen thousand species of lichens are reported to cover around seven per cent of the world's surface. India, a land of diverse landscapes and climatic conditions, is home to rich biodiversity and harbours about 3,000 fascinating species of lichens. Some European countries like Germany, Italy, Portugal and Slovenia; considering lichen's response to pollution; have positioned them as bio-monitors and bio-indicators and included them in their air-pollution-related policy docu-

ments. Much of India's lichen diversity, however, remains relatively unexplored as regards their ecological significance and potential applications. Yet another crucial issue in the Indian context is the undervaluation of lichens in India.

When the diversion of forest land for rainforest purposes is proposed, the net present value (NPV) of the forest is calculated and the amount is recovered from the project proponents. Calculation of NPV does not consider the aspect of the immense value that lichens have from ecological as well as economic points of view. This is evident from the fact that the per hectare NPV of forests of Eco-class-I and Eco-class-II categories that have forests of types Tropical Wet-Evergreen/Semi-Evergreen/Moist-Deciduous/ Littoral and Swamp have been assigned the same value. It is essential that realistic values are assigned to the forests of different types and the monetised value of lichens and their services are duly incorporated therein.

Climate change has serious implications for the lichens. Higher tem-

peratures can disrupt the delicate balance between the fungal and algal partners. Extreme heat can lead to desiccation and reduced growth rates. Altered rainfall patterns can affect the availability of water, which is crucial for lichen growth and reproduction. Further, climate change can exacerbate air pollution, harming lichens.

A rise in pollution load in the air breaks the lichen cell resulting in bleaching of the organism, and the same is followed by its demise. Again, acid rain, caused by releasing sulphur dioxide and nitrogen oxides, can damage lichen tissues. Climate change-induced alterations in habitats may result in the loss of suitable environments for their growth while fragmentation of habitats can critically limit dispersal and gene flow. The importance of exploring the roles of different organisms involved in the complex eco-processes in the context of global changes cannot be overestimated.

In this context, lichen is increasingly being recognised globally as a bio-indicator of 'Global Change Dri-

vers' that are seen as interconnected stressors like climate change, pollution, land use change, and loss of biodiversity contributing to large-scale environmental impacts. The mapping of epiphytic lichen diversity to assess ecological changes has emerged as a popular bio-monitoring approach in Europe and a European standard has been adopted under the Committee European d Normalisation (CEN) framework. It aims to provide Standard Operating Procedures (SOP) to ensure reliability, consistency and objectivity while simultaneously improving data quality and comparability across space and time.

Needless to say, it is high time that India, possessing almost eighteen per cent of the world's lichen species and being globally the third-highest air-polluted country only after Bangla Desh and Pakistan, prioritises her efforts in this direction. Detailed exploration and study of lichens can also yield many more useful species for an unexpectedly wide variety of ecological as well as human needs and pursuits including their widespread use as bio-prospecting agents.