


MANTHAN- BEST TECH INITIATIVE

The Manthan platform won NSEIT, the Best Tech Initiative of Year at the Dun & Bradstreet Business Excellence Awards 2022. The award was presented for building the technology infrastructure to support Manthan, a platform that promotes collaboration at scale between industry and the scientific research and development ecosystem. The development of the platform was conceptualized and implemented by the Office of the Principal Scientific Adviser (PSA) to the Government of India. The award was received by Dr Sapna Poti, Director of Strategic Alliances Division, Office of Principal Scientific Adviser (PSA) to the Government of India and Anantharaman Sreenivasan, MD & CEO, NSEIT.

Manthan is aimed at promoting collaboration between industry and the scientific research and development ecosystem. Launched on India's 76th Independence Day, Manthan empowers multiple stakeholders to collaborate for co-creating solutions aligned with the United Nations' Sustainable Development Goals (SDGs) and our national scientific missions. The Principal Scientific Adviser to the Government of India, Prof Ajay K Sood launched the platform and noted that the creation of Manthan will be crucial for building, nurturing, and celebrating the outcome of partnerships between various stakeholders of science, technology, and innovation ecosystem in India. Emphasising the mandate of Manthan, he said, "This will give an impetus to the government's efforts to improve participation of industry in terms of GDP. In the last few years, the partnerships between academia and industry have been encouraging and it has worked well when two sides have come together to solve the problems or the challenges faced."

Congratulating teams behind Manthan, Dr Parvinder Maini, Scientific Secretary PSA, said, "Manthan is a unique platform enabling public-private-academia collaboration to achieve sustainability goals, and the goal is to play a transformative role in doing that. It is giving a thrust for innovative ideas and inventive minds to seamlessly collaborate and work towards making India a global innovation hub. This recognition commemorates the larger vision of Digital India and highlights the contributions of the teams behind Manthan's success." Dr Sapna Poti, Director of the Strategic Alliances Division, Office of PSA, said, "As the nation takes rapid strides towards becoming a global innovation hub, a platform to cater to the science, technology, and innovation ecosystem specifically is essential. Manthan - India's Platform for Research and Innovation will allow industries to source their project and innovation partners for both CSR and Industry R&D, facilitating the exchange of ideas, enhancement of communities' support, and co-development of solutions that will fuel scientific research and development in the country. Congratulations to the entire NSEIT team who designed and implemented Manthan."

"Manthan platform is visionary and is a true enabler for the Government of India's Digital India vision. I congratulate the teams from the Office of the PSA and NSEIT for their meticulous contributions toward making this ingenious and innovative platform a reality. This award is an outcome of teamwork and rigorous pursuit of excellence", said Ashishkumar Chauhan, MD & CEO of National Stock Exchange of India Limited. On receiving award, Anantharaman Sreenivasan, MD & CEO of NSEIT said, "This award is a validation of NSEIT's commitment to delivering high-impact and complex projects for customers. I thank the jury members and the organizing team at Dun & Bradstreet for recognizing NSEIT's efforts in providing innovation excellence and driving robust business outcomes. I also express gratitude to the Office of PSA to the Government of India for entrusting us with the honor of being a strategic technology partner. The teams behind the successful launch of Manthan deserve all the credit for fructifying this global innovation platform." Pertinent to mention here that NSEIT Limited is a global technology enterprise focused on delivering excellence in a complex digital environment, primarily in the banking, insurance, and capital market ecosystem, and a 100 per cent subsidiary of the National Stock Exchange of India. Their key service pillars are Application Modernization, Business Transformation, Data Analytics, Infrastructure & Cloud Services, Cyber-security, EdTech, and online examinations solutions.



OFF 'D' CUFF

Need Of A Spiritual Master

At present, our attention is going outward through our various senses. We have the sense of sight, hearing, smell, taste and touch. Unfortunately, we believe that the physical world is the only reality that exists. But how limited is our vision! Our eyes experience the light of waves of only certain lengths. Our ears hear sound waves of only certain frequencies. It was only after more sophisticated scientific instruments were developed that we learn there are waves of light and sound beyond the range of human sight and hearing. If our senses are not capable of perceiving reality in the physical realm, what about those realms beyond the physical world. The Bible says," If thine eye be single thy whole body shall be full of light." Great mystics, saints, prophets, and Masters have had their inner eyes and ears opened, and have not only seen into the beyond, but have journeyed there. They have voyaged through higher spiritual planes and ultimately realized God. Today people of all religions revere these great souls. The best way to pay homage to the ideals for which they lived is to put their teachings into practice.

-Sant Rajinder Singh Ji Maharaj

Today, India commences its G20 Presidency

■ NARENDRA MODI



The previous 17 Presidencies of the G20 delivered significant results - for ensuring macro-economic stability, rationalising international taxation, relieving debt-burden on countries, among many other outcomes. We will benefit from these achievements, and build further upon them. However, as India assumes this important mantle, I ask myself - can the G20 go further still? Can we catalyse a fundamental mindset shift, to benefit humanity as a whole?

I believe we can. Our mindsets are shaped by our circumstances. Through all of history, humanity lived in scarcity. We fought for limited resources, because our survival depended on denying them to others. Confrontation and competition - between ideas, ideologies and identities - became the norm.

Unfortunately, we remain trapped in the same zero-sum mindset even today. We see it when countries fight over territory or resources. We see it when supplies of essential goods are weaponised. We see it when vaccines are hoarded by a few, even as billions remain vulnerable. Some may argue that confrontation and greed are just human nature. I disagree. If humans were inherently selfish, what

would explain the lasting appeal of so many spiritual traditions that advocate the fundamental one-ness of us all? One such tradition, popular in India, sees all living beings, and even inanimate things, as composed of the same five basic elements - the Panchtatva of earth, water, fire, air and space. Harmony among these elements - within us and between us - is essential for our physical, social and environmental well-being.

India's G20 Presidency will work to promote this universal sense of one-ness. Hence our theme - 'One Earth, One Family, One Future'. This is not just a slogan. It takes into account recent changes in human circumstances, which we have collectively failed to appreciate. Today, we have the means to produce enough to meet the basic needs of all people in the world.

Today, we do not need to fight for our survival - our era need not be one of war. Indeed, it must not be one! Today, the greatest challenges we face - climate change, terrorism, and pandemics - can be solved not by fighting each other, but only by acting together.

Fortunately, today's technology also gives us the means to address problems on a humanity-wide scale. The massive virtual worlds that we inhabit today demonstrate the scalability of digital technologies. Housing one-sixth of

humanity, and with its immense diversity of languages, religions, customs and beliefs, India is a microcosm of the world.

With the oldest-known traditions of collective decision-making, India contributes to the foundational DNA of democracy.

As the mother of democracy, India's national consensus is forged not by dictate, but by blending millions of free voices into one harmonious melody. Today, India is the fastest growing large economy. Our citizen-centric governance model takes care of even our most marginalised citizens, while nurturing the creative genius of our talented youth. We have tried to make national development not an exercise in top-down governance, but rather a citizen-led 'people's movement'.

We have leveraged technology to create digital public goods that are open, inclusive and inter-operable. These have delivered revolutionary progress in fields as varied as social protection, financial inclusion, and electronic payments. For all these reasons, India's experiences can provide insights for possible global solutions.

During our G20 Presidency, we shall present India's experiences, learnings and models as possible templates for others, particularly the developing

world. Our G20 priorities will be shaped in consultation with not just our G20 partners, but also our fellow-travellers in the global South, whose voice often goes unheard.

Our priorities will focus on healing our 'One Earth', creating harmony within our 'One Family' and giving hope for our 'One Future'. For healing our planet, we will encourage sustainable and environment-friendly lifestyles, based on India's tradition of trusteeship towards nature.

For promoting harmony within the human family, we will seek to depoliticise the global supply of food, fertilizers and medical products, so that geo-political tensions do not lead to humanitarian crises.

As in our own families, those whose needs are the greatest must always be our first concern. For imbuing hope in our future generations, we will encourage an honest conversation among the most powerful countries - on mitigating risks posed by weapons of mass destruction and enhancing global security.

India's G20 agenda will be inclusive, ambitious, action-oriented, and decisive. Let us join together to make India's G20 Presidency a Presidency of healing, harmony and hope. Let us work together to shape a new paradigm - of human-centric globalisation.

Organic matter & its role in agriculture

■ PROF (DR) R D GUPTA

The soil organic matter includes everything from the newly added materials-fresh plant and animal residues to the thoroughly decomposed and polymerized residual matter, the latter being known as humus. The most common organic matter components found in soils are: carbohydrates, proteins and its derivatives, fats and oils, waxes and resins, lignin, alkaloids, auxins, vitamins, enzymes, pigments and organic acids. It is largely obtained in soils from farmyard manure, compost, and droppings of poultry birds, sewage and sludge. The exidizable fractions of organic materials are mainly composed of carbon and hydrogen, constituting more than half of the dry substances, is subject to microbial decay in soils.

Organic matter has been found the most valuable material for maintaining soil fertility. Moreover increasing trend in fertilizer application process has, necessitated its addition to various crops for making better use of plant nutrients content. It constantly releases nutrients through ion exchange reactions, by decomposition as well as chelation phenomenon. Some significant contributions of organic matter in agriculture have been discussed below.

1. Contribution of organic matter as a source of plant Nutrients: The soil fertility, or productivity is largely determined by the availability of nutrient elements for plant growth and organic matter plays a key role in this regard. Besides controlling the supply of nitrogen, sulphur, phosphorus, calcium, magnesium, and potassium, organic matter also influences availability of micronutrients. Essentially all of the nitrogen (93 per cent to 97 per cent), sulphur (97 per cent) phosphorus (20 per cent to 80 per cent) in soils occurs in organic combinations. Their amount varies greatly and is affected by those factors which affect the organic matter content viz; climate, topography vegetation, plant material/animal residue and age of the soil. Conversion

of organic nitrogen sulphur and phosphorus to available forms occurs through the microbial activity and is very much influenced by factors which affect the activity of micro-organism (temperature, moisture, soil pH etc) as well as the C/N, C/S and C/P ratio of decomposing plant and animal residues. The process is known as mineralisation. As a general rule mineralization will take place at C/N ratios less than 20:1. Immobilization of nitrogen, sulphur and phosphorus will occur if C/N, C/ Sand C/P ratios are 30:1, 400:1 and 300:1 respectively.

Organic matter in soil also influences the availability of nutrients through process of chemical weathering of mineral components or parent material. It is the most effective cation exchanger and thus stores nutrients against leaching.

2. Contribution of organic matter to physical properties of soils and plant growth: Soil structure is a result of the interactions between inorganic (clay minerals, amorphous clays) and organic colloids (Humic acid, Fulvic acid, Humin etc) and polyvalent.

The organic colloids associated with clay particles are largely responsible for aggregate stability and the cementing action due to gelatinous organic materials (gum, resins, waxes etc.).

The stability of soil aggregate, water holding or water retention capacity, moisture equivalent, the infiltration rates are positively co-related.

Thus, organic matter stabilizes the soil crumbs so that they are held together against the disruptive action of water. A good structure permits better aeration for the roots, resulting in less crusting, better seedling emergence and good subsequent crop growth.

3. Contribution of organic matter to crop nutrition: It was believed for a long time that organic matter serves as a direct source of plant food.

Although this opinion was later on discarded, there is some evidence that certain organic nitrogenous com-

pounds can often readily be absorbed by higher plants. The beneficial effects of small absorption of organic compounds might be accounted for by the presence of growth promoting substances. On the other hand some soil organic compounds e.g., dihydroxystearic acid no doubt may be harmful. Fractions humic substances have been found to have a favourable effect on growth and yield in nutrient solutions, sand cultures and also in soil.

4. Contribution of organic matter to biological Properties of soils: The organic matter serves as a source of energy to bacteria responsible for the fixation of atmospheric nitrogen in soils. Azotobacter Clostridia require simple sugars and number of organic compounds as well as inorganic substances (phosphate, calcium, molybdenum, iron etc.).

Ammonical sources of nitrogen are preferred by these bacteria. The organic matter in the process of decomposition releases these simple and other compounds for these bacteria to multiply rapidly which, in turn, can fix more atmospheric nitrogen.

The addition of organic materials with high nitrogen content stimulates the microbial activity and consequently facilitates their degradation and CO₂ liberation. Such produced CO₂ helps to keep in solution the ions that might otherwise be precipitated as carbonates or as more soluble carbonates. A part of CO₂ is absorbed by the leaves of crops which may represent a useful contribution to the products of photosynthesis. A loss of nitrogen by de-nitrification may occur in the field with a high application of NO₃ and organic materials. The micro-organisms participating in the decomposition of plant and animal residues use a portion of the latter for building up their own structures which however becomes a considerable portion of soil organic matter.

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Lapid's comments on TKF disturbing, false

■ OMKAR DATTATRAY

Israeli filmmaker Nadav Lapid's comments on Indian film 'The Kashmir Files' directed and produced by Vivek Agnihotri are fictitious, fictions and bundle of lies devoid of any substance and are false. Rightly his unbecoming and disturbing remarks on the film Kashmir files has attracted and aroused criticism and opposition not only from the film fraternity but from the Kashmiri Pandit organizations as well. The Pandit Package employees have taken to streets to vent their anger against the illogical and wrong remarks about the movie by Lapid and thus they have condemned the remarks and protested against the purported remarks by Nadav Lapid. Indian filmmakers, Kashmiri Pandits and Indian government has rightly slammed Israeli film maker for his unsavory comments. The critically acclaimed Israeli film maker Nadav Lapid has found himself at the centre of a controversy after he wrongly described director Vivek Agnihotri's film-The Kashmir Files as vulgar and propaganda at the closing ceremony of the 53rd international Film Festival of India (IFFI). Lapid, the Jury Chief at this year's edition of IFFI has on November 28 said that he was disturbed and shocked to see the film screened at festival. He said, "It felt us like a propaganda and vulgar movie that was inappropriate for an artistic and competitive section of such a prestigious film festival." He said this while presenting jury report about film festival. However, another jury member, Indian film maker Sudipto Sen tweeted a statement stating that everything said by Lapid about the Vivek Agnihotri's feature was his personal opinion and the tweet was re-tweeted by union Information and Broadcasting Minister Anurag Thakur, also present at the ceremony when Lapid made the unfortunate remarks and these drew required criticism from not only by the Indian film fraternity but by the Kashmiri Pandit organizations because KPs are the real victims of genocide

unleashed by the Islamic terrorists and radicals. The Kashmir Files released in theatres on March 11, was part of Indian Panorama section at IFFI and was screened on November 22. The film rightly and truly depicts the real story of the exodus of the Kashmiri Hindu's following the killings of the community members by Pakistan backed terrorists. Lapid's comments rightly triggered a backlash on social media and responses from actors and director of, 'The Kashmir Files'. The most critical response, however came from Israeli Ambassador to India, Naor Gilon, who said in a series of tweets that Lapid had abused his invitation to IFFI and condemned the filmmakers comments unequivocally. Stating that it was, 'insensitive' to talk about the country's historic event before deeply studying them, Gilon remarked to Lapid, "As you vocally did in the past, feel free to use the liberty to sound your criticism of what you dislike in Israel but no need to reflect your frustration on other countries." An open letter to Nadav Lapid following his criticism of Kashmir Files. It's not in Hebrew because I wanted our Indian brothers and sisters to be able to understand. It is relatively long ago I will give you the bottom line first. You Should Be Ashamed. Agnihorti has claimed that he will stop making films if Lapid can prove any event of Kashmir Files not absolute truth. Lapid's works are often a mixture of the personal and political, with his own admittedly conflicted sense of Jewish identity often creeping into narratives that flash a critical len of the functioning of Isreal administration and military. The remarks of Nadav Lapid have been rightly criticized by the Indian's irrelative of religious affiliation and the Kashmiri Pandit organizations have protested against the unsavory remarks about the film The Kashmir Files. The Kashmiri Pandits claim that the TKF is the reflection of truth and reality and say that even more atrocities were committed and heaped on the Kashmiri

Pandits by Islamic marauders. They have criticized the myopic knowledge of Lapid and advised him not to fish in troubled waters by making absolutely false and fake remarks about a true movie. It is so good and satisfactory that at a joint press conference with Anupam Kher, the lead actor of The Kashmir Files, Israel consul general Kobbi Shoshani said the film was not propaganda and carried a very strong message. Thus speaking at the closing ceremony of the 53rd edition of the IFFI festival, Israeli filmmaker Nadav Lapid, who headed the international competition section, addressed the audience, including union ministers Anurag Thakur and L. Murugan, Dadasheeb Phalke Award winner Asha Parekh, Akshy Kumar and Rana Daggubati and said he and his fellow jurors were disturbed and shocked by the inclusion of The movie Kashmir Files in the artistic competition segment since it was a propaganda, vulgar movie. Israel ambassador Gilon, however disagreed and said while the friendship between India and Israel is very strong and will survive the damage inflicted by Lapid's remarks, the filmmaker should reserve his criticism for government in Isreal. Former Israeli ambassador Daniel Carmon also unequivocally condemned Lapid's statements. Lapid's remarks left the political spectrum divided. Goa chief minister Pramod Sawant said he misused the IFFI platform to heap insult on the horrors faced by the Kashmiri Pandits but was unfortunately countered by Shiv Sena MP Sanjay Raut who backed Lapid's charge and said The Kashmir Files was a propaganda by one party against another. Lapid was pilloried and branded a supporter of Palestine on social media and even faced a police complaint against him in Goa for outraging Hindu Sentiments. While there were no comments from most of his international jury colleagues, the Indian film maker Sudipto Sen said, Lapid's remarks were no reflection of the jury's views. As jurors, we are assigned to judge

the technical, aesthetic quality and socio cultural relevance. We do not indulge in any kind of political comments on any film and if it is done, it is completely in a personal capacity. The film-makers controversial comments exposed the left vs. right fault lines and led to questions over his appointment as jury chair at IFFI. There was considerable consternation and dismay among a section of pro-Hindutva Handles who questioned the event organizers over their failure to run a thorough background check into Lapid's well known anti-establishment antecedents and also the fact that he remains a deeply polarizing figure back home. It is very unfortunate that at IFFI in Goa on November 28, Israeli filmmaker and screenwriter Nadav Lapid said that jurors were disturbed and shocked by Vivek Agnihotri's film The Kashmir Files. He further said that the film was inappropriate for an artistic competitive section of such a prestigious film festival. The filmmaker has since then become embroiled in controversy over his remarks which are bad in taste and factually incorrect and have no connection with reality of the film -The Kashmir Files. Israeli ambassador to India Naor Gilon has alleged that Lapid abused in the worst way the Indian invitation to chair the Panel of judges at IFFI, as well as the trust, respect and warm hospitality they have bestowed on Lapid. All the right thinking Indians in general and the Kashmiri pundits in particular have criticized opposed and condemned the remarks of the Nadav Lapid and demanded that Lapid should take back his controversial remarks. In brief the remarks of Nadav Lapid were untrue and wrong and reflected myopic knowledge of the genocide of Kashmiri Pandits at the hands of the terrorists and Radicals. Nadav should tender apology for his false remarks about the Film Kashmir Files to Kashmiri Pandits whose sentiments were hurt by his unwarranted and objectionable remarks because the film depicts nothing except truth about the genocide of Kashmiri Hindus and therefore no one should make controversial remarks about the film in question.