

Israel pounds Lebanon, 2 more Hezbollah leaders among dead

INTERNATIONAL RELATIONS

Deadly strike: A building flattened by an overnight Israeli strike in Shiah in Beirut's southern suburbs on Sunday.

Israel continued its airstrikes on Lebanon well into Sunday evening striking nearly 120 Hezbollah targets and killing at least 24 people. Israel announced the death of Nabil Kaouk, the deputy head of Hezbollah's Central Council, making him the seventh senior Hezbollah leader slain in Israeli strikes in a little over a week. Hezbollah's chief Hassan Nasrallah was killed in an Israeli strike Friday.

Who is Nabil Kaouk?

Nabil Kaouk was a high-ranking Hezbollah official who served as the deputy head

of Hezbollah's Central Council. A Hezbollah veteran, he joined the organization in the 1980s, Kaouk served as the group's military commander in southern Lebanon during the 2006 war with Israel. Kaouk was also involved in Hezbollah's public and military strategy, frequently representing the group in media appearances. The United States had announced sanctions against him in 2020.

Background to recent attacks:

Hezbollah has also been targeted by a sophisticated attack on its pagers and walkie-talkies that was widely blamed on Israel. A wave of Israeli airstrikes across large parts of Lebanon has killed at least 1,030 people in less than two weeks and driving out hundreds of thousands of people from their homes in Lebanon by the latest strikes. The government estimates that around 2,50,000 are in shelters, with three to four times as many staying with friends or relatives, or camping out on the streets.

Hezbollah began firing rockets, missiles and drones into northern Israel after Hamas' October 7 attack out of Gaza triggered the war there. Hezbollah and Hamas are allies that consider themselves part of an Iran-backed "Axis of Resistance" against Israel. Hezbollah has continued to fire rockets and missiles into northern Israel, but most have been intercepted or fallen in open areas. No Israelis have been killed since the latest wave of strikes on top Hezbollah leaders began on September 20.

Israel has responded with waves of airstrikes, and the conflict has steadily ratcheted up to the brink of all-out war, raising fears of a region-wide conflagration. Israel says it is determined to return some 60,000 of its citizens to communities in the north that were evacuated nearly a year ago. Hezbollah has said it will only halt its rocket fire if there is a cease-fire in Gaza, which has proven elusive despite months of indirect negotiations between Israel and Hamas led by the United States, Qatar and Egypt.

Israel strikes Gaza

Israeli military strikes across the Gaza Strip have killed at least 11 Palestinians, as Israeli planes bombarded several northern, central and southern areas. The Israeli military claims to have struck Hamas militants operating from a command centre embedded in a compound that had previously served as Um Al-Fahm School. Israel accused Hamas of exploiting



civilian facilities and its population for military purposes, which Hamas denies.

Israeli troops have discovered and dismantled an underground tunnel route approximately one km long near residential buildings and civilian spaces in central Gaza, used by Hamas for prolonged periods.

Most of Gaza's population of 2.3 million have been displaced by the war, in which 41,500 Palestinians have been killed. Israel and Hamas have been fighting since gunmen from the Palestinian militant group stormed into southern Israel on October 7, killing 1,200 people and capturing about 250 hostages, going by Israeli tallies.

NAMASTE India

POLITY AND GOVERNANCE

Skewed shares

The caste-wise share (in %) of the workers engaged in cleaning of sewers and septic tanks across the country

Scheduled Castes

68.9

Scheduled Tribes

8.3

Other Backward Classes

14.7

General

8

% of workers

Source: Government data tabled in Parliament



The Union Ministry of Social Justice and Empowerment carried out the first-ever profiling of 38,000 sewer and septic tank workers (SSWs) from over 3,000 urban local bodies in 29 States and Union Territories. Approximately, 68.9 % of profiled sanitation workers were SCs, 14.7 % were OBCs, 8.3 % were STs, and 8 % were from the General Category.

State efforts

Twelve States and UTs, including Kerala, Rajasthan, and Jammu and Kashmir, have completed the profiling process, while the exercise is still under way in 17 States, including Andhra Pradesh, Bihar, Gujarat, Uttar Pradesh,

Madhya Pradesh, and Maharashtra. Chhattisgarh, Meghalaya, and West Bengal are among the States that have yet to begin the profiling process. Tamil Nadu and Odisha are running their own programmes for SSWs, and are not reporting data to the Centre under this programme.

States such as Kerala and Karnataka are holding information, education, and communication (IEC) campaigns to profile workers at special camps. In Andhra Pradesh, ULBs are visiting workers' homes and workplaces to profile them, with State data showing that around 30% of their profiling was done this way.

What is Self-Employment Scheme for Rehabilitation of Manual Scavengers (SRMS)?

Under the now non-extant Self-Employment Scheme for Rehabilitation of Manual Scavengers (SRMS) scheme, the government had identified 58,098 manual scavengers till 2018. Of the identified 43,797 manual scavengers, 97.2 % of them were from SC communities. The share of STs, OBCs, and others were each around 1 %. All the 58,098 people identified as manual scavengers till 2018 had been given a one-time cash transfer of ₹ 40,000. While 18,880 of them had opted for skills training in alternative occupations, 2,051 had opted for loans under the scheme's subsidies to start alternative businesses as of 2022.

What is NAMASTE Programme?

The NAMASTE programme introduced in 2023-24 replacing the Self-Employment Scheme for Rehabilitation of Manual Scavengers (SRMS) targets "workers directly associated with sewer and septic tank cleaning including drivers of desludging vehicles, helpers, machine operators and cleaners".

Under NAMASTE programme, a nationwide enumeration exercise of sanitation and sewerage workers would be carried out. Since the scheme began a year ago, 3,326 urban local bodies (ULBs) have begun the process and profiled around 38,000 SSWs. So far, 283 ULBs have reported zero SSWs, and 2,364 ULBs have reported less than 10 SSWs each.

Sanitation workers would be provided safety training and equipment, and offer capital subsidies that could turn sewer and septic tank workers into “sanipreneurs”, or sanitation entrepreneurs. By the end of the 2023-24 financial year, 31,999 SSWs had been validated, capital subsidies amounting to ₹ 2.26 Cr. have been given to 191 beneficiaries and their dependants for alternative self-employment projects, while 413 sanitation workers and dependants have received capital subsidies of ₹ 10.6 Cr. for sanitation-related projects.

In short, NAMASTE programme seeks to mechanise all sewer work and prevent deaths due to hazardous cleaning work. Between 2019 and 2023, at least 377 people across the country have died from hazardous cleaning of sewers and septic tanks.

Hazardous cleaning

The Union government’s rationale is that manual scavenging as a practice has ended across the country and what needs to be fixed now is the hazardous cleaning of sewers and septic tanks. It draws this distinction based on a technical difference in how manual scavenging and hazardous cleaning are defined in the Prohibition of Employment as Manual Scavengers and their Rehabilitation Act.

The Ministry of Housing and Urban Affairs estimates that there are five lakh sanitation workers for an urban population of 100 core. Based on this, the government used decadal growth rates to estimate that as of 2021, there are likely to be one lakh sewer and septic tank workers (SSWs) employed by India’s 4,800 ULBs. The NAMASTE programme intends to profile all SSWs across the country to create a central database.

Navy chief holds talks on strategic ties with officials in Greece

INTERNATIONAL RELATIONS

Indian Navy chief Admiral Dinesh K. Tripathi concluded a successful visit to Greece interacting with political and military leadership. The Navy Chief held substantive and comprehensive discussions with Greece’s Deputy Minister of Defence Ioannis Kefalogiannis and General Dimitrios Choupis, Chief of the Hellenic National Defence General Staff.

Admiral Dinesh K. Tripathi discussed avenues for cross-training in niche technologies and advanced courses with for strengthening strategic and operational ties to enhance bilateral military cooperation, and tackling evolving maritime challenges through a collaborative approach towards a stable and secure Mediterranean and Indian Ocean Region.

The talks with Greece’s Deputy Minister of Defence Ioannis Kefalogiannis focused on the criticality of open sea trade routes. They laid the groundwork for advancing Indo-Greek defence collaboration with a focus on strategic naval opportunities, capacity building, shared training initiatives, and enhancing interoperability.

The Navy chief was received in Athens by Vice-Adm. Dimitrios E. Kataras, Chief of the Hellenic Navy General Staff, with a ceremonial Guard of Honour at the Papagos Camp and also held talks with Vice-Adm. Polychronis Koulouris, Commander-in-Chief of the Hellenic Fleet.

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170 killed as floods and landslides batter Nepal

DISASTER MANAGEMENT

Desperate search: Rescue personnel work to retrieve the bodies of victims from a landslide in Dhading, Nepal, on Sunday.

Nepal's capital has been devastated by floods, with Kathmandu recording 240 millimetres of rain in the 24 hours to Saturday morning, the highest rainfall recorded in Kathmandu since at least 1970. Nepal's National Disaster Risk Reduction and Management Authority estimate the death toll to 170 across the country with another 42 still missing.



Deadly rain-related floods and landslides are common across South Asia during the monsoon season from June to September, but experts say climate change is increasing their frequency and severity. Entire neighbourhoods in Kathmandu were inundated over the weekend with flash floods reported in rivers coursing through the capital and extensive damage to highways connecting the city with the rest of Nepal.

Demand flux

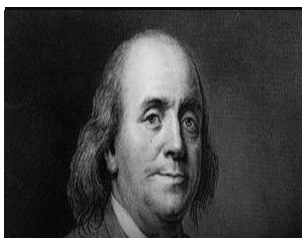
ECONOMICS AND DEVELOPMENT

India's GDP grew by 8.2% in 2023-24, but there are concerns. The farm sector slowed due to poor monsoon, and private consumption grew only 4%, the weakest since 2002-03 (excluding the COVID-19 hit year of 2020-21). This weak consumption is partly due to reduced rural demand from the farm sector's struggles. Economists noted a K-shaped consumption pattern, with higher-end goods and services seeing more demand. A normal monsoon is expected to boost the farm sector and rural demand, which could increase overall consumption, spur growth, and encourage private investment, creating a cycle of more jobs and higher consumption.

In the first quarter, the Private Final Consumption Expenditure (PFCE) rose by 7.4%, outpacing the GDP growth of 6.8%. Rural demand indicators, like two-wheeler sales, improved, and real rural wage growth turned positive in July due to cooling inflation, which is beneficial for consumption.

The urban demand is showing signs of fatigue, with high interest rates tempering it. S&P Global Ratings expects India to grow by 6.8% this year, lower than the Reserve Bank of India's 7.2% forecast. The RBI's consumer confidence survey for July indicates declining confidence among urban buyers, and the Finance Ministry noted a dip in passenger vehicle sales from April to August.

High food inflation is limiting urban discretionary spending, which is crucial for growth and private investment. It recommends that the government consider passing on reduced global oil prices to consumers and cutting levies on retail fuel prices to support economic demand.



"If you invest more in your education, then you are likely to get more interest in it."

—Benjamin Franklin

GDP vs Private Final Consumption Expenditure growth rate

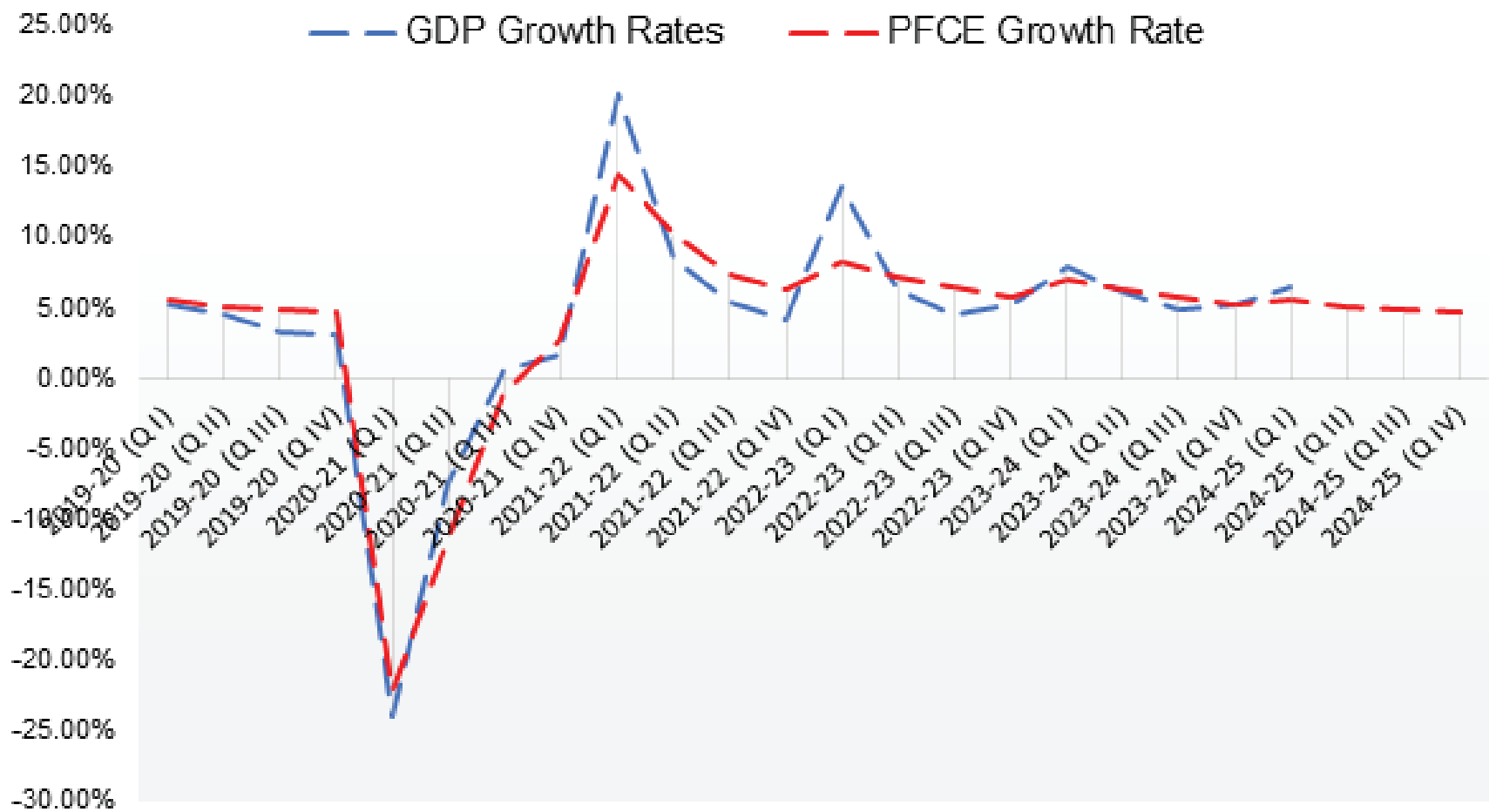
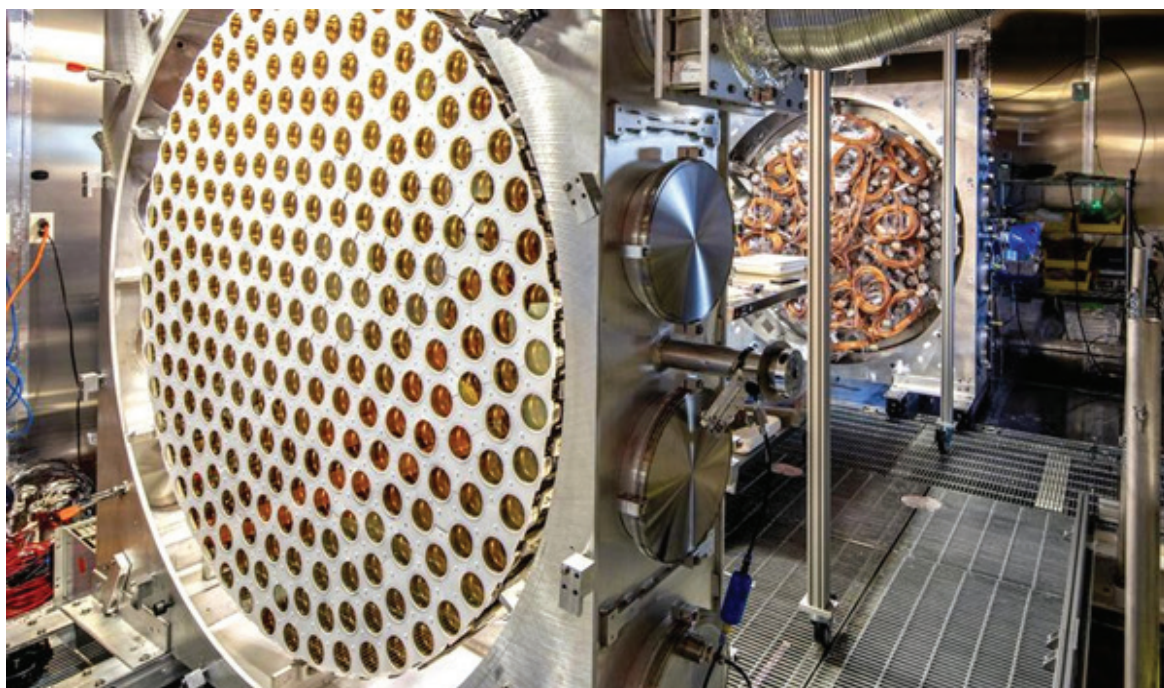


FIGURE: Line chart representation comparing the growth rates of GDP and Private Final Consumption Expenditure

Not just nothing, dark matter quests close in on dire ‘neutrino fog’

SCIENCE AND TECHNOLOGY



An array of photomultiplier tubes assembled for the LUX-ZEPLIN experiment. LZ Dark Matter Experiment, lz.lbl.gov

On August 28, two members of an experiment at conferences in Chicago and São Paulo representing about 200 of their colleagues involved in the design, building, and operation of the LUX-ZEPLIN (LZ) experiment located 1.5km below the earth’s surface at the Sanford Underground Research Facility in South Dakota, U.S. is still inconclusive of the identity of the particles that made up dark matter.

Experiments similar to LZ — such as XENON-nT in Italy, PandaX-4T

in China, and dozens of others around the world — have been turning up empty-handed for decades now despite heroic efforts.

What is Dark Matter?

Dark matter is the invisible stuff making up most of the mass in the universe, that makes up 85 % of the Universe mass. Stars, gas, and planets contribute only 15 % to the universe's mass. The simplest contender for the make-up of dark matter is a previously unknown type of particle that doesn't interact with photons and lives — i.e. without disintegrating, unlike most particles — for at least the age of the universe, about 14 billion years.

A sail to catch the wind

In 1985, physicists Mark Goodman and Ed Witten proposed a new strategy that has since mushroomed into an entire sub-field of experimental physics. In the Solar System, every teaspoon of space is estimated to contain about two protons' weight of dark particles that blow as a wind into us from all directions at one-thousandth the speed of light. Goodman's and Witten's (GW) idea were to catch this wind in a "sail" — a chunk of metal placed deep underground to shield against other radiation from space. If a nucleus in the metal were seen to recoil spontaneously, it must be the invisible bump of dark matter.

In Ernest Rutherford's gold foil experiment, his team shone a well-understood beam at a mysterious target. GW's idea was the reverse: an enigmatic beam on a familiar target. The goal of the experiment is to measure two quantities: the unknown mass of the dark particle and the unknown rate at which atomic nuclei scatter dark matter particles. Physicists track this rate using a variable called the cross-section.

Consider the passage of light in a vacuum, in glass, and in a piece of rock. In the first case, a photon travels unimpeded; in the second, it travels a good distance before being scattered by an atom; and in the third, it is immediately stopped. We then say, for these three cases respectively, that the scattering cross-section is zero, small, and enormous. Transparency needn't apply to light alone: any medium can be quantifiably transparent or opaque to any particle type. GW's proposal would have measured the cross section for dark matter to scatter on nuclei down to 10-38 cm², already a staggeringly tiny quantity. It would imply that dark matter would have to traverse 10 billion km of rock before being stopped.

'The neutrino fog'

Goodman and Witten proposed the use of a kilogramme of metal for a day, today scientists expose tonnes of liquid xenon and argon to the dark-matter wind for years. The advantage of going bigger and running longer is that one can catch dark matter that is ghostlier, i.e., with a smaller cross section. As a result, we can now say with a straight face that we have ruled out dark matter-nucleus cross sections of 10-44 cm², a million times smaller than the GW limit.

Future detectors that will weigh tens to hundreds of tonnes will also register much more noise from the scatters of other ghostly particles, especially neutrinos forged in the Sun's interior and in the earth's atmosphere. In fact, PandaX-4T and XENONnT are already reporting this issue. The resignation following LZ's announcement is partly for this reason: scientists had hoped to reveal dark matter's identity before facing this "neutrino fog." Telling dark matter and neutrino signals apart in future searches is a challenge that drives a great deal of research.

Every last drop

Scientists are actively pursuing other avenues of research, too. One is to detect dark particles that are lighter than atomic nuclei, for these would scatter feebly off the target nucleus. Picture a bug hitting a truck, which would hardly move the vehicle. The goal is to develop technology to perceive the slightest of energy transfers, which involves building detectors using special materials that are currently restricted to the realm of condensed matter physics.



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Common Practice Standards must have India outlook

ECOLOGY AND ENVIRONMENT

Agroforestry accounts for 8.65 % of India's total land area and contributes 19.3 % of the country's carbon stocks. There is a possibility to expand the area under agroforestry from the current 28.4 million hectares to 53 million hectares by 2050. There is a vast potential in the agroforestry sector to integrate with carbon finance projects through Afforestation, Reforestation, and Revegetation (ARR) initiatives. Recent research suggests that if adequate policies, financial support, and incentives are implemented, the sector could contribute an additional carbon sink of over 2.5 billion tons of CO₂ equivalent by 2030.

'Common Practice' in Carbon Standards

According to Verra's Verified Carbon Standard (VCS) or the Gold Standard, if an activity is deemed "common practice", it may not qualify for carbon credits, as it is not seen as contributing additional environmental benefits beyond the norm.

Large-scale agricultural practices integrating agroforestry practices in extensive and contiguous landholdings found in regions such as Latin America, Africa, or the United States are eligible for financial incentives provided by carbon credits, whereas farmers in India with small and fragmented landholdings of less than two hectares engaging in agroforestry in a non-systematic, scattered manner, planting trees alongside crops or on small patches of fallow land perceived as "common" within the Indian context under the current definition would not qualify for financial incentives.

While beneficial, these practices may not meet the additionality criteria set by current carbon standards because they are perceived as "common" within the Indian context, effectively excluding a large number of Indian farmers from participating in ARR carbon finance projects, thereby denying them the opportunity to earn additional income from carbon credits.

Need for India-centric approaches

There is an urgent need to redefine and consider the common practice criterion to better reflect the specific challenges and opportunities within the Indian agroforestry sector to unlock the potential of agro-forestry sector in India. An India-centric approach would recognise that even small, incremental changes in land management practices such as adopting more systematic agroforestry techniques or utilising carbon finance to maintain tree cover can be transformative.

Revising and consideration of the common practice standards to accommodate the fragmented, small-holder model prevalent in India would unlock the vast potential for carbon sequestration. This would enable a greater number of farmers to participate in carbon finance projects, providing them with additional income streams while contributing to India's climate goals. Further, by acknowledging the fragmented nature of Indian agriculture, carbon credit platforms could design incentives that encourage systematic agroforestry, thereby enhancing both environmental sustainability and rural livelihoods.

Agroforestry, when integrated with ARR initiatives, offers a viable solution to the various challenges faced by India's agricultural sector. By promoting alternative livelihoods and providing additional income streams for farmers, these projects can help address issues such as low productivity, dependence on monsoons, and environmental degradation. The carbon finance provided by ARR projects enables a more systematic and sustained approach to agroforestry, which would otherwise be difficult to achieve given the financial pressures and market constraints faced by many Indian farmers. For farmers grappling with unpredictable weather patterns and fluctuating crop yields, participating in ARR projects presents a pathway to income diversification. By integrating trees into their agricultural landscapes or restoring degraded forest areas on their land, farmers can tap into additional revenue streams through carbon sequestration. Beyond economic gains, ARR projects deliver crucial environmental benefits, such as enhancing soil fertility, improving water retention, and mitigating erosion, thereby bolstering agricultural productivity and ensuring long-term sustainability.

Help small and marginal farmers

Research institutes such as The Energy and Resources Institute (TERI) have already demonstrated the potential of ARR projects in India, spearheading 19 projects across seven States, benefiting over 56,600 farmers. However, for such initiatives to scale up, it is imperative that international carbon finance platforms revise their standards to better align with the realities of Indian agriculture.

As India looks to expand its agroforestry sector and leverage the benefits of carbon finance it is crucial that international standards evolve to reflect the specific conditions of the Indian subcontinent. Revising the "Common Practice"

guidelines to be more inclusive of Indian agroforestry practices will enable millions of small and marginal farmers to participate in ARR projects. This would not only drive sustainable development but also provide a much-needed boost to the incomes of millions of rural households, ultimately contributing to the overall economic and environmental resilience of the country.

What has Make in India achieved?

ECONOMICS AND DEVELOPMENT

Make in India report card



The data for the charts were sourced from National Accounts Statistics, National Sample Survey Organisation, Ministry of Commerce and Industry, Annual Survey of Industries, and Periodic Labour Force Surveys

Chart 1 | Manufacturing sector GVA growth rate at constant prices

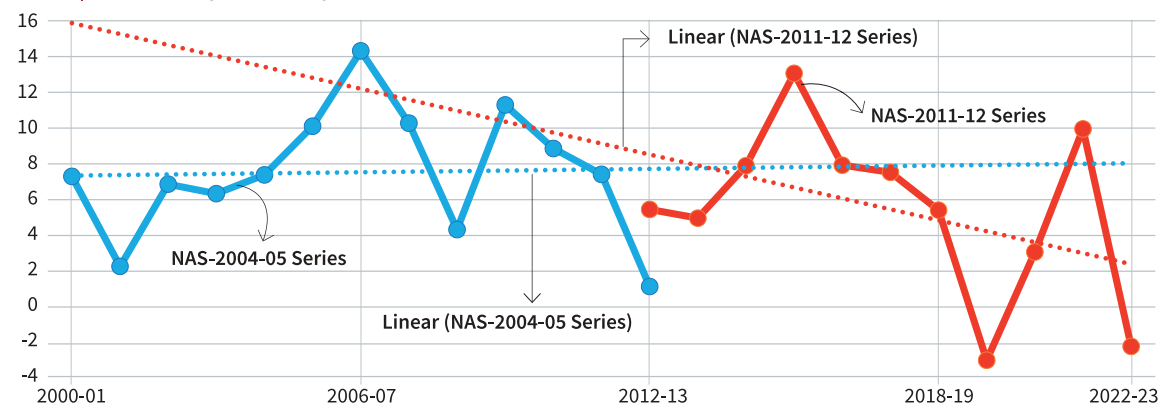


Chart 2 | The chart shows the manufacturing (MFG) sector's share in GDP at constant prices (1991-2023)

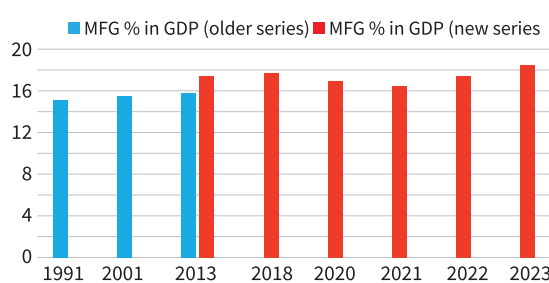


Chart 3 | The chart shows the shares of agriculture and manufacturing in total employment (1994-2023)

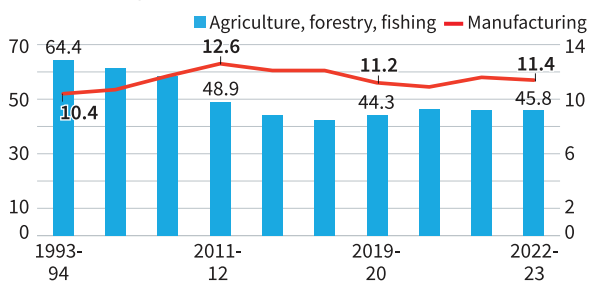


Chart 4 | The chart shows average growth rates of GVA and GFCF (2012-13 to 2019-20)

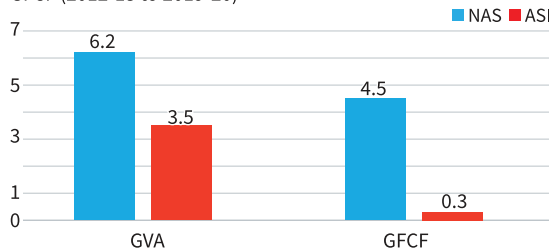
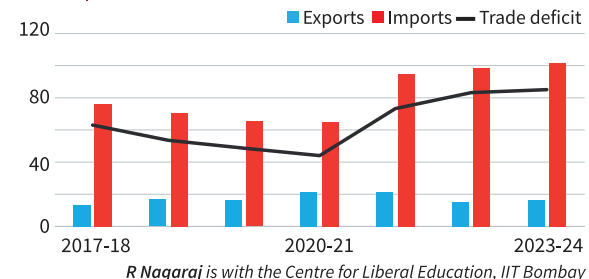


Chart 5 | The chart shows India's trade imbalance with China



R Nagaraj is with the Centre for Liberal Education, IIT Bombay

On September 25, 2014, the newly elected Union government initiated the Make in India (MI) policy with two objectives: (i) to raise the manufacturing sector's share in GDP to 25% (from 14 %-15 %), and (ii) to create 100 million additional industrial jobs (from about 60 million) by 2025. The policy was similar to the New Manufacturing Policy 2012, formulated but not implemented. The policy context: though India's annual real (net of inflation) GDP growth rate had accelerated to 7 %-8 % during the previous decade with rising export share, especially during 2003-08, manufacturing sector performance was modest, with increasing net imports and modest employment expansion.

According to the National Accounts Statistics (NAS), the manufacturing real gross value added (GVA) growth rate has slowed down from 8.1 during 2001-12 to 5.5 % during 2012-23. The sector's GDP share has stagnated at 15 %-17 % over the last three decades, though it is slightly higher in the latest GDP series due to methodological changes.

As per the NSSO sample surveys, manufacturing employment has declined from 12.6% in 2011-12 to 11.4 % in 2022-23. Unorganised or informal sector manufacturing accounts for most employment, declining by 8.2 million, from 38.8 million in 2015-16 to 30.6 million by 2022-23, as per surveys of unincorporated sector enterprises. Agriculture's share in the workforce increased from 42.5 % in 2018-19 to 45.8% in 2022-23

The preceding reversal of structural transformation from a higher to a lower productivity sector is unprecedented in post-independent India. It is the clearest sign yet of premature de-industrialisation, that is, before attaining industrial maturity as in the advanced countries.

Fixed investment growth practically collapsed. Chart 4 shows the annual growth rate in GVA and gross fixed capital formation (GFCF) from 2012-13 to 2019-20 as per National Accounts Statistics (NAS) and Annual Survey of Industries (ASI). We focus on time-tested ASI figures as the NAS figures are overestimated due to methodological problems. The industrial output growth rate is much lower than the official NAS-based estimates. The GFCF growth rate during the period is practically zero. Unsurprisingly, booming imports, mainly from China, have met the demand (Chart 5).

Despite India's rank in the World Bank's Ease of Doing Business (EDB) index, improving from 142 in 2014-15 to 63 in 2019-20? Because EDB is a bogus, politically motivated index with little analytical or empirical foundations. With hindsight, the government squandered away six precious years chasing a dubious index.

The key to reversing de-industrialisation is re-imagining industrial policy to align trade and industrial policies to promote domestic value addition and learning. Protection policies must promote securing a dynamic comparative advantage, not offer cash subsidies to gain a static comparative advantage. India must aim at investment-led growth and technological catching up. They must be supported by domestic R&D to promote adaptive research and the indigenisation of imported technology. Publicly funded development finance institutions or "policy banks" are needed to provide affordable long-term credit for socialising the risks of learning and catching up with the technological frontier.

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