

**DAILY CURRENT AFFAIRS (14 August 2024)**

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**Mallakhamb Skill**

- **Mallakhamb** is an ancient Indian sport that combines elements of gymnastics, yoga, and wrestling.
- It involves performing various acrobatic and gymnastic feats on a vertical wooden pole or a rope suspended from a height.
- The name is derived from the Sanskrit words "malla" meaning wrestler and "khamb" meaning pole.

**Key Skills Involved in Mallakhamb**

Mallakhamb demands a unique blend of physical and mental attributes.

- **Strength:** To support the body weight and perform various poses, significant upper body, core, and lower body strength is required.
- **Flexibility:** The sport involves a wide range of stretches and contortions, necessitating high levels of flexibility.
- **Balance:** Maintaining equilibrium while performing on a vertical pole or rope is crucial.
- **Coordination:** Precise movements and synchronization of body parts are essential for executing complex maneuvers.
- **Agility:** Quickness and responsiveness are vital for adapting to the dynamics of the pole or rope.
- **Mental Focus:** Concentration and mindfulness are key to prevent accidents and achieve mastery.



**Furlough:**

Furlough refers to a temporary leave granted to an inmate, allowing them to leave prison for a short period under specific conditions. It is usually authorized for personal reasons, such as family emergencies, attending significant events, or participating in rehabilitation programs.

**Purpose:** The primary aim of furlough is to assist in the rehabilitation of inmates by enabling them to maintain family bonds and reintegrate into society gradually. It allows prisoners to experience life outside the confines of the prison, which can be crucial for their mental well-being and social skills.

**Conditions:**

- Furloughs are generally short-term and can last from several hours to a few days.
- They are granted at the discretion of prison authorities and involve strict compliance, including returning to the institution by a designated time.
- The nature of the offense and the inmate's behavior are taken into consideration during the approval process.

**Parole:**

**Definition:** Parole is a conditional release of a prisoner before their complete sentence is served. Unlike furlough, parole allows inmates to serve the remainder of their sentence in the community under supervision.

**Purpose:** The goal of parole is to facilitate the reintegration of offenders back into society while monitoring their behavior to ensure public safety. Parole aims to reduce prison overcrowding by allowing eligible inmates to transition to community living.

**Conditions:**

- Parole can last for the remainder of a prisoner's sentence and often includes ongoing supervision.
- Conditions for parole may include regular check-ins with parole officers, adherence to curfews, and participation in rehabilitation programs or employment.
- Violating any conditions of parole can result in the inmate being brought back to prison.

**Key Differences Between Furlough and Parole**

Feature	Furlough	Parole
Nature	Temporary leave from prison	Conditional release from prison
Duration	Short-term (hours to days)	Long-term (remainder of sentence)
Purpose	Maintain family ties and support	Facilitate rehabilitation in society
Conditions	Specific requirements for the leave	Supervised conditions throughout parole
Authority	Granted by prison officials	Decided by parole boards or authorities

# Surat diamond factories lose sparkle as waning global demand cripples business

**Mahesh Langa**  
AHMEDABAD

Large-scale layoffs and pay cuts due to dwindling global demand caused by economic and geopolitical factors have taken the sheen away from Surat's famed diamond industry, which until now employed around seven lakh workers in thousands of factories.

Recently, one of the largest diamond firms in Surat declared a 10-day "vacation" for its 50,000 employees from August 17 to 27, citing diminished demand for polished diamonds in the international market due to an "economic slowdown" in developed countries.

"Though we will deduct some amount, all employees will be paid salary for this period. We are forced to announce this va-

cation because of the economic slowdown. I am tired of this now," Kiran Gems owner Vallabh Lakhani told mediapersons in Surat.

According to him, the short supply of rough diamonds and the lack of sufficient demand for polished diamonds exported from Surat are the twin factors that have upended Surat's factories.

Since 95% of polished diamonds are exported, global factors always affect the sale of the precious stones, said experts from Surat, blaming the Russia-Ukraine and Israel-Hamas conflicts as some of the main factors responsible for the situation.

"In 2022, our diamond industry's turnover was nearly ₹2,25,000 crore, which has come down to nearly ₹1,50,000 crore to-

day," said Surat Diamond Association president Jagdish Khunt, adding that the industry has seen negative growth in the past two years.

The other factor behind the economic downturn for the Surat industry is sanctions imposed by the U.S. and other members of the G7 group of countries on Russian diamonds due to its invasion of Ukraine.

The industry in Surat has been left with large inventories because Russia is one of the largest suppliers of rough stones.

Global diamond mining firm De Beers announced a 15% cut in rough diamond production in the second quarter ending June, as compared to the first quarter, citing "higher than normal" inventories as one of the reasons.

While big firms like Ki-



In a memorandum to the District Collector, members of the Surat Diamond Workers' Union have demanded financial support to those who lost their jobs. SPECIAL ARRANGEMENT

ran Gems have given extended vacation to their employees, smaller firms employing 100 to 500 artisans have found it difficult to sustain their operations and have simply fired their workers.

"Yes, there are job losses because small firms are

not able to sustain themselves. The problem is not in their control," a representative from the Surat Diamond Association said.

**'Rising worker distress'** Last month, the Surat Diamond Workers' Union launched a suicide preven-

tion helpline for those affected by job losses or any financial problems. Within weeks of the launch, over 1,600 distress calls have been received on the helpline from those who either lost their jobs or were struggling with reduced wages that crippled their household finances.

Citing media reports, the union's Surat president Bhavesh Tank claimed that as many as 65 workers have died by suicide in Surat in the past 15 months.

"There is massive distress among workers and those engaged in the diamond sector in Surat. The situation is worse than what it was during the 2008 global financial crisis," he said, adding the union has sought financial support for the workers and their families from the State government.

"We launched the suicide helpline on July 15. Most of those who call have been rendered jobless in the past few months," he said.

**Deep salary cuts**

He added that many workers have suffered salary cuts ranging from 20% to 40% and now they have been calling on the helpline seeking assistance in paying their children's school fee, house rent, and home and vehicle loans.

"Due to the Ukraine-Russia and Israel-Hamas conflicts as well as weak demand for polished diamonds in key market China, there is oversupply, which has piled up losses, resulting in 50,000 workers losing their jobs this year," Mr. Tank said.

"The closure of small diamond units has led to

some jewellers losing their jobs and they are unable to run their household, and even pay their children's school and college fee," Dharmanandan Diamonds, a leading firm, said in a statement after its owner announced financial support to some needy families.

"After surveying the financial status of the families seeking financial assistance, they were given cheques for school fee. A cheque distribution programme was organised, in which 40 students studying in schools and colleges were given cheques for ₹15,000 each for school fee," it said.

Meanwhile, the industry representatives have asked the Surat diamond factory owners to extend support to workers and their families to tide over the crisis.

## Surat diamond factories lose sparkle as waning global demand cripples' business (14 August)

- Surat's diamond industry is facing challenges due to global economic and geopolitical factors, leading to layoffs and pay cuts.
- The industry employed around 700,000 workers, but declining demand for polished diamonds has forced some firms to give extended vacations or lay off employees.
- Kiran Gems, a large diamond firm, declared a 10-day vacation for its 50,000 employees due to the economic slowdown in developed countries.
- The short supply of rough diamonds and low demand for polished diamonds have significantly impacted the industry.
- The turnover of Surat's diamond industry dropped from ₹2,25,000 crore in 2022 to around ₹1,50,000 crore.
- U.S. and G7 sanctions on Russian diamonds, due to the Ukraine invasion, have further affected the industry, leading to large inventories.
- De Beers announced a 15% cut in rough diamond production in the second quarter of 2024 due to higher-than-normal inventories.
- Smaller diamond firms in Surat have struggled to sustain operations, leading to job losses and financial distress among workers.
- Many workers have faced salary cuts of 20% to 40%, and some have been unable to pay for basic needs like school fees, rent, and loans.
- The Surat Diamond Workers' Union launched a suicide prevention helpline in July 2024 due to rising distress among workers, with over 1,600 distress calls received.
- Media reports indicate that 65 workers have died by suicide in Surat in the past 15 months, prompting the union to seek financial support for affected workers and their families from the State government.

# The container that cools just right



**Q: How does water stored in a mud pot remain cool?**

**A:** The molecules of any liquid are in constant

motion but all of them don't move with the same speed. Their energies vary over a small range and the temperature we measure represents only the average kinetic energy of all the molecules.

Even when left undisturbed, the fast moving molecules escape from the surface and vanish into air. As a result, the mean kinetic energy or the temperature of the water is lowered. This process is facilitated by a large surface area as more molecules come into contact with air.

The pores in mud pots provide a large surface area for evaporation and significantly cool the water in the pot, especially when the temperature outside is higher.

Interestingly, the water in the pot can never become ice. This is because the pitcher is not a closed system: it can also take up heat from its surroundings.

Thus an equilibrium temperature is reached when the process of heat loss and gain are balanced. Further conversion of water (even at 0° C) into ice



The pores in mud pots provide a large surface area for evaporation and significantly cool the water in the pot. GETTY IMAGES

would require a further removal of heat to bring about a phase change. This will only be possible by using a refrigerant.  
— B. Kavitha, Chennai



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## The container that cools just right (14 August)

How does water stored in a mud pot remain cool?

- Liquid molecules are constantly moving, but their speeds vary, and temperature measures their average kinetic energy.
- Fast-moving molecules escape from the surface of a liquid, lowering its temperature through evaporation.
- A larger surface area enhances evaporation, leading to greater cooling, as seen with mud pots.
- Water in a mud pot cannot freeze because it is not a closed system and can absorb heat from its surroundings.
- An equilibrium temperature is reached where heat loss and gain balance, and further cooling to freeze water requires a refrigerant.

# The shock-effects of South Asian tumult

From the start of this decade, India has received one shock after another in its neighbourhood. If in 2021, it was the coup in Myanmar and the Taliban takeover in Afghanistan, in 2022 there was the ouster of Prime Minister Imran Khan from office in Pakistan and riots that pushed Gotabaya Rajapaksa out of the country in Sri Lanka. Since then there have been some other events – the dramatic electoral change in the Maldives, that pushed the more India-friendly Solih government out, while a similar effect in Nepal wrought by coalitions collapsing, has brought the less India-friendly Oli government in. With Bangladesh, the shock of Prime Minister Sheikh Hasina's dramatic departure and her arrival in India is all the more palpable, because of how heavily New Delhi invested in the Hasina government. It has now been left scrambling to reach out to her successors. If the last few years are a trend, then what are the lessons for India that can help insulate it from the spill-over effects of radical shifts in South Asia, and escape similar consequences for itself?

## India stayed on one side of the fence

Perhaps the first big lesson is that the government cannot be caught napping by events in its own neighbourhood. India's presence in Bangladesh, with four consulates in Chittagong, Rajshahi, Khulna and Sylhet, apart from the High Commission in Dhaka and a slew of agencies working on various projects there, should have ensured that the groundswell of anger against the Hasina government was well documented and relayed to Delhi – not just in the past few months, but over the past few years. Despite obvious signs that the Awami League government was transforming into an authoritarian, single-party-rule regime that jailed, raided or sent most of its political opposition into exile, and that various sections of civil society felt alienated and harassed, New Delhi did little to acknowledge the situation or reach out to the government with its concerns in any perceptible way.

In addition, the failure of India's diplomats to keep a close contact with the opposition, refusing permission to Bangladesh Nationalist Party (BNP) leaders to visit, and on one occasion even deporting a British lawyer for the BNP at the request of the Hasina government, underlined South Block's decision to be only on one side of the political fence. Many a time, such one-sided engagement is demanded by history. While the BNP's term in office under Khaleda Zia was a period of where India-Bangladesh tensions were grave, especially over the issue of terrorism and border killings, India cannot choose to ignore the main opposition party in the neighbourhood (the BNP) for a sustained period of time.

India's decision to strengthen ties with the Taliban, despite its leaders' involvement in deadly attacks on Indian missions in Afghanistan,



Suhasini Haidar

India must learn lessons from the changes in most of its neighbourhood

or the warm welcome to leaders of Sri Lanka's Janatha Vimukthi Peramuna (JVP), a party that has often espoused an anti-Indian stance, and having to deal with Communist Party of Nepal led by K.P. Sharma Oli, despite his constitutional move on maps that India had raised strong objections to, point to one thing. It indicates that, eventually, pragmatism dictates engagement with all stakeholders in neighbouring countries.

In the Maldives, India's full support to then-President Ibrahim Mohamed (Ibu) Solih and the casting of Mohamed Muizzu as an anti-India leader came a cropper when electoral tides turned. Even though India had to swallow a bitter pill and withdraw its troops from the islands, India's External Affairs Minister S. Jaishankar sought close engagement with the Muizzu government during his visit this week. Such hard lessons can be avoided if New Delhi abjures its "muscular" outlook, and broadbases its neighbourhood engagements. Rather than the stability of the one-party rule, New Delhi must favour a plurality of political views – within and outside its borders.

## Loss of reputation, communal lens

Conversely, another lesson, well learnt in the case of Bangladesh and Sheikh Hasina, is that India must never forget its friends. After the fall of Kabul, New Delhi lost its reputation as a dependable partner when it refused visas to hundreds of Afghans fleeing the Taliban – many were senior defence and security officials in the previous Afghan establishment who had personally risked their lives to secure Indian diplomats. India's decision to slam the door on them has left a lingering bitter taste. Apart from the principle, it is necessary to take the pragmatic view.

In South Asia, leaders often lose power, only to return after some time. New Delhi has done well by allowing Sheikh Hasina to stay in India until she finds another safe destination, as to have turned its back on her would have been a betrayal. The future too must be calibrated carefully. Ms. Hasina's continued stay will complicate ties with the new government, especially if they ask for her extradition on charges, or the Awami League is perceived to be using India to regroup itself.

The third lesson the government must learn, sooner rather than later, is that it is a mistake to reduce ties in the neighbourhood to communal binaries. South Asia is a region of religious majorities, with Hindus, Muslims and Buddhists forming overwhelming parts of the population in different countries. The assumption that good ties are somehow linked to religion in any way, is faulty. Hindu-majority Nepal has been one of India's most difficult relationships, while Buddhist-majority Bhutan and Muslim-majority Maldives have often been its best allies. The government's move on the Citizenship

(Amendment) Act, to fast-track citizenship only for non-Muslims from Muslim-majority countries (Afghanistan, Pakistan, Bangladesh) has backfired badly across the neighbourhood – not just in the countries it mentions, but others who see it as India's overreach. The Modi government's concern for minorities in Bangladesh in the wake of Ms. Hasina's removal is well placed, but must be expressed more discreetly, and not through blunt instruments such as India's Ministry of Home Affairs' five-man committee. India's concerns may be taken more seriously if the government also shows, by its actions not words, that it is committed to securing minorities within its borders as well.

## Erosion of pan-South Asian mechanisms

Lesson number four is that India must regain its place as the pre-eminent power in the subcontinent – not one that can be buffeted by one global power or another. While China's inroads in the region are necessary to counter, the region must not become a playground for United States-China rivalries, where neither shows a sensitivity to India's interests. China's moves to marginalise India in trade, connectivity, investment and strategic ties in South Asia is well recorded. In Bangladesh, the U.S. campaign against Sheikh Hasina crushed India's concerns underfoot. Washington's increasingly harsh statements on the Hasina government, its decision to impose a special "visa policy" to secure democracy in Bangladesh was hypocritical when judged against its lack of comment on Pakistan's elections.

India must instead revive pan-South Asian mechanisms such as the South Asian Association for Regional Cooperation (SAARC), and find ways to engage with the neighbourhood without external interference. Bilateral issues with Pakistan have led to a boycott of SAARC for a decade now. New Delhi must also consider whether it would abandon the other mechanism, the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation, or BIMSTEC, if ties with Bangladesh worsen, in the manner it has abandoned SAARC, and where that would leave it.

Finally, not just New Delhi but all South Asian capitals must focus on certain common lessons from the last few years of turmoil and election results. Joblessness and unequal growth are fuelling anger on the streets and must be addressed. However, no amount of economic progress can cover up for democratic backsliding. In modern democracies, the stifling of dissent is unsustainable in the long run. The old dictum that if you want to 'raise crop for one year, plant corn...If you want to plant a crop for eternities, raise democracies' holds true for India and its ties in the neighbourhood.

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## The shock-effects of South Asian tumult (14 August)

- **India's Neighborhood Challenges:** India has faced numerous challenges in its neighborhood in recent years, including political upheavals and regime changes in Myanmar, Afghanistan, Pakistan, Sri Lanka, the Maldives, and Nepal.
- **Lessons for India:** India needs to learn from these events to protect itself from similar impacts and manage the consequences of radical shifts in South Asia.
- **Bangladesh Situation:** India has a significant presence in Bangladesh, with multiple consulates and agencies, but failed to recognize the growing dissatisfaction with Prime Minister Sheikh Hasina's government, which had become increasingly authoritarian.
- **One-sided Engagement:** India's focus on supporting only the ruling Awami League in Bangladesh and ignoring the opposition party (BNP) has proven to be a mistake. India's diplomats also did not maintain strong ties with the opposition.
- **Pragmatic Diplomacy Needed:** India's experiences with the Taliban in Afghanistan, anti-Indian parties in Sri Lanka, and the Oli government in Nepal show that it is important to engage with all political stakeholders in neighboring countries, even if they have been hostile to India in the past.
- **Maldives Experience:** India's support for then-President Solih in the Maldives, and the labeling of his opponent Muizzu as anti-India, backfired when Muizzu won the election. Despite this, India is now seeking to maintain close ties with the new government.

- **Avoiding Mistakes:** To avoid these mistakes in the future, India should move away from a "muscular" foreign policy approach and engage with a wider range of political views within its neighboring countries. This would help ensure more stable and balanced relations in the region.
- **One-Sided Diplomacy:** India's diplomats failed to maintain close contact with the opposition in Bangladesh, such as the Bangladesh Nationalist Party (BNP). They even refused BNP leaders permission to visit India and deported a British lawyer at the request of the Hasina government. This shows India's choice to engage only with the ruling party.
- **Pragmatic Engagement Needed:** Despite past tensions with the BNP, India cannot ignore major opposition parties in neighboring countries for long periods. Pragmatism requires India to engage with all political stakeholders, even those who have been hostile, like the Taliban, Sri Lanka's JVP, and Nepal's Oli government.
- **Maldives Experience:** India's full support for the previous Maldivian President, Ibrahim Mohamed Solih, backfired when his opponent, Mohamed Muizzu, won the election. Despite the setback, India is now working to engage closely with the new government.
- **Broader Engagement Strategy:** India should avoid a narrow, "muscular" approach in its foreign policy. Instead, it should engage with a broader range of political views and not rely on the stability of a single party or government.
- **Loyalty to Allies:** India learned from its experience in Afghanistan, where it lost reputation by refusing visas to Afghan allies fleeing the Taliban. This highlighted the importance of not abandoning friends.
- **Handling Sheikh Hasina's Situation:** India has allowed Sheikh Hasina to stay in the country after her departure from Bangladesh, which helps maintain a relationship with her. However, this could complicate relations with the new Bangladeshi government if they request her extradition or view India as supporting her party.
- **Avoiding Religious Assumptions:** The Indian government should not base its relationships with neighboring countries on religious similarities or differences. For example, despite being Hindu-majority, Nepal has been a challenging partner, while Buddhist-majority Bhutan and Muslim-majority Maldives have been strong allies.
- **Impact of Citizenship Amendment Act (CAA):** The Citizenship (Amendment) Act, which fast-tracks citizenship for non-Muslims from Muslim-majority countries, has caused negative reactions across the region, not just in the targeted countries but also in others who view it as overreach by India.
- **Concerns for Minorities:** While India's concern for minorities in Bangladesh after Sheikh Hasina's removal is valid, it should be addressed more subtly. Actions like setting up a committee by India's Ministry of Home Affairs could be seen as heavy-handed.
- **Strengthening South Asian Leadership:** India needs to reassert its leadership in South Asia, ensuring it is not overshadowed by global powers like the U.S. and China. India should prevent the region from becoming a battleground for U.S.-China rivalries, which may neglect India's interests.
- **Countering China's Influence:** China's growing influence in South Asia through trade, connectivity, and strategic ties needs to be countered by India. The U.S. actions, like imposing a special visa policy to promote democracy in Bangladesh, have sometimes undermined India's concerns in the region.
- **Reviving Regional Cooperation:** India should focus on reviving regional mechanisms like the South Asian Association for Regional Cooperation (SAARC) to engage with its neighbors without external influence. The ongoing issues with Pakistan have led to a boycott of SAARC for a decade.
- **Considering BIMSTEC's Future:** India needs to consider whether it would abandon other regional platforms like the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) if relations with Bangladesh deteriorate, similar to how it has distanced itself from SAARC.
- **Addressing Regional Issues:** All South Asian countries should learn from recent turmoil and election outcomes. High unemployment and unequal growth are causing unrest, which needs to be addressed.
- **Importance of Democracy:** Economic progress alone cannot compensate for a lack of democracy. Suppressing dissent in modern democracies is unsustainable, and promoting strong democratic practices is essential for long-term stability in India and its relations with neighboring countries.

# Hints of the corporatisation of science research in India

During the inaugural address of the 107th Science Congress in Bengaluru in January 2020, Prime Minister Narendra Modi reflected on the government's take on how science should be conducted in India. It was conveyed to young researchers in his usual aphoristic manner of speaking: “innovate, patent, produce, prosper”. By expressing it in a maxim, the Prime Minister was hinting at the birthing of a new policy on knowledge production under his leadership.

Over several years, the current ruling regime has been directing laboratories and other research centres to earn their revenue from external sources by marketing their expertise and investing the surplus to develop technologies for national missions. This policy position can be traced to the ‘Dehradun Declaration’ prepared by the directors of the Council of Scientific and Industrial Research labs in 2015, where it was decided to market patents as a means to self-finance research. In other words, this was a call for the corporatisation of science research – a process of converting any state-owned entity into a market commodity and being able to follow the business model to support itself, rather than relying on public support. Science institutes are now encouraged to develop research centres registered as Section 8 companies, wherein private companies or shareholders can invest money.

## The ANRF and research

This line of thinking can be seen in the formulation of the Anusandhan National Research Foundation (ANRF). Established under the ANRF Act of 2023, this new mechanism is designed to fund research in the country and to improve linkages between research and development, academia and industry. The Finance Minister echoed the same in her July 23, 2024 Budget speech: “We will operationalise the ANRF for basic research and prototype development.” The “prototype development” is a significant part of the innovation cycle to assess the marketability of a product – yet another hint of the government's overriding interest in funding the research that will cater to the market.



**C.P. Rajendran**

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In establishing the Anusandhan National Research Foundation and the way its funding proportion is designed, there are clear signals of the government's plan

Another giveaway is the way funding proportion is designed. The ANRF will receive ₹50,000 crore over five years, 72% of which is expected to be from the private sector. Judging from the way the resources are currently scheduled for the ANRF, it is clear that the government intends to reduce its role in funding the research and expects private entrepreneurship to pitch in a big way.

Even in the United States, where research and development has significantly outstripped government funding over the last decade, it is clustered mostly in IT and pharmaceuticals. The knowledge thus generated through research is considered a commodity to be marketed. The entrenchment of market-oriented perspectives comes from two sources, as discussed by Prabir Purkayastha in his book, *Knowledge as Commons*. What makes science different from the Renaissance period and after that is that science and technology are now more closely integrated than ever, and scientific advances can now end up as marketable products more rapidly. This transformation has also led to intellectual property rights allowing universities to sell the patents to private corporations, even if the research is publicly funded. The adoption of neoliberal economic policies across the globe has also accelerated the greater involvement of the private sector in funding science.

## Signals despite the stated objective

The understated objective of the ANRF is to fund research in natural sciences, but in reality, there are sufficient hints that the government is planning to place the university research system subservient to what Ellen Meiksins Wood calls “the dictates of the capitalist market”. The curiosity-driven research in natural sciences involves understanding and predicting natural phenomena based on empirical evidence and experimentation. The private sector cannot be expected to finance curiosity-driven science because it will not invest money unless the research finds some immediate application that maximises its profits. Interestingly, the same stringency in government funding is not shown while supporting the branches of the ‘Indian Knowledge Systems’, which are not part of

evidence-based science. Science is driven by the zeal to understand the world through scientific tools. This can be encouraged only by increasing the share of public funding. The research proposals in basic science need to be assessed based on the proposers' ability to acquire knowledge about a problem defined by conducting observations, experimentation and analyses. The application part of the result may not be apparent at all. A generally accepted working definition of basic scientific research reads: “the pursuit of knowledge to understand a natural process irrespective of the potential applications that might arise from such knowledge”.

## Country comparison

Although India is ranked among the top 10 by gross domestic product (GDP), the ratio of public funding for science research in India has been 0.6% to 0.7% of GDP for the last decade. A country such as South Korea, only a third the size of India and its population, spends about 2% to 3% of its GDP. While the private sector is encouraged to fund, the government must increase its basic science and non-profit research allocation. If that does not happen, the country will eventually witness the decline of curiosity-driven science in our universities, which could also undermine public trust in science when it gets dominantly mediated by private interests. Equally important is to nurture an ambience of free enquiry and maintain the financial and administrative autonomy of the institutes. This should have been amplified in the ANRF Act itself. As Niraja Gopal Jayal writes in the India Forum, although the heavy hand of the educational bureaucracy has always been hovering over public universities, constraining their autonomy, in recent times “the state intervention has become more manifestly political in a partisan way, and openly ideological within an ecosystem that attaches no value to academic freedom”. It all boils down to a grand vision, but it does not evolve in a repressive society.

*The views expressed are personal*

## Hints of the corporatisation of science research in India (14 August)

- **Prime Minister's Vision for Science:** In 2020, Prime Minister Narendra Modi emphasized the importance of innovation, patenting, production, and prosperity in science, signaling a new policy approach to knowledge production.
- **Corporatization of Research:** The current government has been encouraging research institutions to generate revenue by marketing their expertise and patents, moving towards a model where science research supports itself financially rather than relying on public funding.
- **Dehradun Declaration:** In 2015, the Dehradun Declaration laid out the idea of corporatizing science research by promoting the self-financing of research through patent marketing.
- **Encouraging Private Investment:** Science institutes are now encouraged to create research centers registered as Section 8 companies, allowing private companies and shareholders to invest.
- **Anusandhan National Research Foundation (ANRF):** The ANRF was established in 2023 to fund research in India and improve connections between research, academia, and industry. The government's focus on prototype development indicates a strong interest in research that has market potential.
- **ANRF Funding Structure:** The Anusandhan National Research Foundation (ANRF) will receive ₹50,000 crore over five years, with 72% expected to come from the private sector. This indicates the government's intention to reduce its role in funding research and rely more on private entrepreneurship.
- **Market-Oriented Research:** The government's approach reflects a shift towards market-driven research, where scientific advancements are quickly turned into marketable products, similar to trends seen in the United States.
- **Private Sector's Role:** Private companies are more likely to invest in research that offers immediate applications and profit potential, rather than curiosity-driven science, which seeks to understand natural phenomena without immediate commercial benefits.
- **Impact on University Research:** The government appears to be aligning university research with capitalist market demands, potentially compromising curiosity-driven research in natural sciences.
- **Public Funding for Science:** To support genuine scientific inquiry, there is a need to increase public funding. Basic scientific research should be driven by the pursuit of knowledge and understanding, not by immediate commercial applications.

- **Selective Government Support:** While there is stringency in funding evidence-based science, the government does not apply the same strictness when supporting branches of the 'Indian Knowledge Systems,' which may not be part of evidence-based science.

### Country comparison

- **Low Public Funding for Science:** India spends only 0.6% to 0.7% of its GDP on science research, which is low compared to countries like South Korea, which spends 2% to 3% of its GDP.
- **Need for Increased Government Funding:** The government should increase its funding for basic science and non-profit research to prevent the decline of curiosity-driven science in universities.
- **Risk of Private Sector Dominance:** If science research becomes too reliant on private sector funding, it may undermine public trust in science due to potential conflicts of interest.
- **Importance of Autonomy and Free Inquiry:** Research institutes need financial and administrative autonomy, as well as an environment that fosters free inquiry, to thrive.
- **Political Interference in Universities:** Recent trends show increased political and ideological interference in public universities, which threatens academic freedom.
- **Grand Vision Requires Freedom:** A truly grand vision for science and education can only evolve in a society that values and protects academic freedom.

## Step down (14 August)

### For the sake of a fair investigation, Madhabi Puri Buch must resign

- **Scrutiny on SEBI:** The Securities and Exchange Board of India (SEBI) is under scrutiny, similar to the attention it received during the Harshad Mehta scam of 1992.
- **SEBI's Reputation:** SEBI has built a reputation as a reliable regulatory body with robust checks and balances over the years, making India's stock market a \$5.3 trillion powerhouse.
- **Conflict of Interest Allegations:** SEBI Chairperson Madhabi Puri Buch is facing allegations of conflict of interest, primarily due to investments made by her and her husband in offshore funds in tax havens where the Adani Group also allegedly invested.
- **Consultancy Firms:** Another conflict involves consultancy firms run by Ms. Buch and her husband, which were supposedly dormant after she joined SEBI, but Hindenburg Research claims they were active and earning revenue.
- **Adani Group Investigation:** SEBI has been investigating the Adani Group for stock market manipulation for 18 months, with 23 out of 24 charges reportedly completed.
- **Call for Resignation:** To maintain the integrity of SEBI and remove any doubts about her conduct, it is suggested that Ms. Buch should resign to allow for a thorough investigation into the allegations.

## Single digits (14 August)

### India needs to broaden its sport base for success in Olympics

- **India's Olympic Performance:** India won six medals at the Paris Olympics, a decrease from the seven medals won at Tokyo 2020.
- **New Heroes:** New stars emerged, including shooters Manu Bhaker, Sarabjot Singh, and Swapnil Kusale, and wrestler Aman Sehrawat. The men's hockey team won a medal for the second consecutive time, and Neeraj Chopra added a silver in javelin.
- **Challenges:** India's performance was marred by reliance on a few athletes, lack of participation in sports like swimming and gymnastics, and wrestler Vinesh Phogat's disqualification for being overweight.
- **Need for Improvement:** There is a need to broaden the sports base, increase participation, and distribute funding more equitably to foster a grassroots sports revolution. The Union Sports Ministry must also enforce the National Sports Code and improve governance.
- **Global Olympic Highlights:** The Olympics showcased remarkable achievements by athletes like Sifan Hassan, Faith Kipyegon, Mijain Lopez, Novak Djokovic, and Armand Duplantis. France, the host nation, excelled with 16 golds, led by swimmer Leon Marchand.
- **Athletics Post-Bolt:** The athletics world is still searching for a standout champion after Usain Bolt, but Paris showed that filling his shoes is challenging.

# An overview of governance in Delhi

Why is there constant tension and friction between the Union government and the Delhi government? What did the 1989 Balakrishnan committee recommend? How has the Municipal Corporation of Delhi been involved in the power tussle? What can be done?

## EXPLAINER

Rangarajan. R

### The story so far:

The Supreme Court has ruled that the Lieutenant Governor (LG) of the National Capital Territory (NCT) of Delhi can nominate 10 aldermen to the Municipal Corporation of Delhi (MCD) on his own without the aid and advice of its council of ministers. This has added to the friction between the Union government, the Delhi government and the local government.

### How did Delhi government evolve?

At the time of the commencement of the Constitution in 1950, Delhi was a Part C State. During the States reorganisation carried out in 1956, it was made a Union Territory to be governed by an administrator. The MCD was established in 1958, and a limited local government was established since 1966. Subsequently, as per the recommendations of the Balakrishnan committee (1989), the Constitution through the 69th amendment (1991) provided for a Legislative Assembly and council of ministers for the NCT of Delhi. However, the subjects of public order, police and land were excluded from the Delhi government; the Union government has control over them. The Government of NCT of Delhi Act, 1991 contains the detailed provisions relating to its legislature, executive and administration.

### What are the issues?

Since 2015, the Union government led by the Bharatiya Janata Party (BJP) and the Delhi government led by Aam Aadmi Party (AAP) have been at loggerheads on various issues. While political differences play a pivotal role in such conflicts, there are also important legal angles. The judgments of the Supreme Court have resulted in amendments to the Government of NCT of Delhi Act that have



**In rage:** AAP leader and party supporters stage a protest against the Delhi LG on August 3. ANI

curtailed the powers of the elected government in Delhi. A brief summary of these developments in the last decade is provided in the above Table.

Apart from the issues between the Union and the Delhi government, the MCD with its elected representatives add another dimension to the problem as was witnessed in the recent unfortunate loss of lives due to electrocution and flooding in Delhi. The public at large witnessed the shifting of blame between elected representatives at all three levels.

### What can be the way forward?

As part of its judgment in 2023, the Supreme Court mentioned that there is a triple chain of accountability in a democracy. The officials are accountable to the ministers; the council of ministers are collectively responsible to the legislative assembly; and the legislative assembly members are accountable to the

## The Union versus Delhi

Since 2015, the Union government led by the BJP and the Delhi government led by AAP have been at loggerheads on various issues

Case / Amendment	Brief description	Implication
Govt of NCT of Delhi vs Union of India (UOI) (2016)	The Delhi High Court ruled that the LG of Delhi exercised complete control of all matters relating to the NCT of Delhi	It made the appointed LG the executive head, reducing the powers of the elected government of Delhi
Govt of NCT of Delhi vs UOI (2018)	On appeal against the Delhi HC judgment, the Supreme Court held that the LG was bound by the 'aid and advice' of the council of ministers headed by the Chief Minister of Delhi except on matters relating to public order, police and land	This restored the powers of the elected government of the NCT of Delhi in matters of day-to-day administration
Government of NCT of Delhi (Amendment) Act, 2021	It required the council of ministers to obtain the opinion of the LG before any executive action on matters specified by the LG	This amendment tilted the balance of power again in favour of the LG
Govt of NCT of Delhi vs UOI (2023)	A Constitution Bench of the Supreme Court in May 2023 had held that the Delhi assembly and government shall have legislative and executive powers over 'services' except in relation to public order, police and land	This restored the powers of the elected government of the NCT of Delhi in matters of day-to-day administration including postings and transfers
Government of NCT of Delhi (Amendment) Act, 2023	It created the National Capital Civil Service Authority for deciding on matters relating to 'services'. This authority will consist of the Chief Minister, the Chief Secretary and the Home Secretary of Delhi	This had the effect of again reducing the importance of the elected government and Chief Minister in decisions relating to 'services'

**As part of its judgment in 2023, the Supreme Court mentioned that there is a triple chain of accountability in a democracy. The officials are accountable to the ministers; the council of ministers are responsible to the legislative assembly; and the legislative assembly members are accountable to the people**

people. The constant tussle between various layers of government ruptures such a chain of accountability.

The NCT of Delhi is spread over 1,450 sq kms while the capital of our country 'New Delhi' that houses most of the central government offices and foreign embassies is around 50 sq kms. In the U.S., Washington DC which is the capital

district is spread only around 177 square kilometres. A similar approach may be considered where the area in 'New Delhi' of 50-100 square kilometres can be under the complete control of the Central government. The rest of the areas may be brought under the powers of the Delhi assembly. This would require a constitutional amendment after detailed deliberation and consensus. Nevertheless, under the existing set up, the spirit of the judgment of the Supreme Court in 2023 should be honoured.

This would ensure that the people of Delhi get responsible and responsive governance from all three layers of government irrespective of whichever party is in power.

Rangarajan. R is a former IAS officer and author of 'Polity Simplified'. He currently trains civil-service aspirants at 'Officers IAS Academy'. Views expressed are personal.

## THE GIST

The Supreme Court ruled that the Lieutenant Governor (LG) of the National Capital Territory (NCT) of Delhi can nominate 10 aldermen to the Municipal Corporation of Delhi (MCD) on his own without the aid and advice of its council of ministers.

Since 2015, the Union government led by the Bharatiya Janata Party (BJP) and the Delhi government led by Aam Aadmi Party (AAP) have been at loggerheads on various issues.

The judgments of the Supreme Court have resulted in amendments to the Government of NCT of Delhi Act that have curtailed the powers of the elected government in Delhi.

## An overview of governance in Delhi (14 August)

Why is there constant tension and friction between the Union government and the Delhi government? What did the 1989 Balakrishnan committee recommend? How has the Municipal Corporation of Delhi been involved in the power tussle? What can be done?

- The Supreme Court ruled that the Lieutenant Governor (LG) of Delhi can nominate 10 aldermen to the Municipal Corporation of Delhi (MCD) without the council of ministers' advice.
- This ruling has heightened tensions between the Union government, the Delhi government, and the local government.
- At the time of the Constitution's commencement in 1950, Delhi was a Part C State, later becoming a Union Territory in 1956, governed by an administrator.
- The Municipal Corporation of Delhi (MCD) was established in 1958, and a limited local government was introduced in 1966.
- The 69th Constitutional Amendment (1991) provided Delhi with a Legislative Assembly and a council of ministers, but public order, police, and land remained under Union government control.
- Since 2015, there have been ongoing conflicts between the BJP-led Union government and the AAP-led Delhi government, with legal disputes further reducing the Delhi government's powers.
- The MCD, with its elected representatives, adds complexity to governance, as seen in recent incidents where blame was shifted between different levels of government.
- The Supreme Court in 2023 emphasized the need for accountability in governance, highlighting a "triple chain of accountability."
- A proposal suggests that New Delhi (50-100 sq km) could be under the Central government's control, while the rest of Delhi could fall under the Delhi assembly, requiring a constitutional amendment.
- The Supreme Court's 2023 judgment should be respected to ensure effective governance for the people of Delhi.

# Does India have laws on the movement of ballast water?

How is ballast water facilitating the spread of invasive mussels on the coast near the Kamarajar Port?

**M. Kalyanaraman**

**The story so far:**

The Tamil Nadu Water Resources Department (WRD) has informed the National Green Tribunal that it has sought ₹160 crore from the Kamarajar Port in Ennore, Tamil Nadu, to facilitate the removing of invasive mussels on the coast near the port in connection with an ongoing case on the proliferation of *Mytella strigata*, or charru mussel that harms marine ecosystems and hinders fisher boat movements, affecting their livelihood. The WRD has charged that Kamarajar Port is the main reason for the spread of the invasive species by not regulating the ballast water from ships.

**What is ballast water?**

Ships need to have a certain level of immersion into the sea to be stable. When a ship discharges cargo, it rises up in the water and therefore, to keep a minimum level of immersion, ship staff take in sea

water called ballast water inside tanks in the ship. And when the ship loads cargo, leading to more immersion, the ballast water is pumped out of the ship. Until recently, there was no bar on taking in and pumping out of ballast water at ports, in the ocean, along the coast and so on. Since ballast water carries invasive species into other countries that destroy ecosystems, global shipping has sought to regulate ballast water discharge.

**How serious is the problem?**

In India, scientists have recorded nearly 30 invasive species coming from ship ballast water. Among the most harmful in recent times is the charru mussel, *Mytella rigata*, says Biju Kumar, professor and head of the department of aquatic biology and fisheries at the University of Kerala. In the Pulicat lake in Tamil Nadu, as in Ashtamudi lake in Kerala, this mussel has replaced almost all other species, he says. Its survival rate and egg production is very high. Though of marine origin, it can survive even in fresh water, he adds.

**What are global regulations?**

The Ballast Water Management (BWM) Convention of the International Maritime Organization (IMO) came into force in 2017 to help prevent the spread of potentially harmful aquatic organisms and pathogens in ships' ballast water. From September 8, 2017, ships must manage their ballast water so that aquatic organisms and pathogens are removed or rendered harmless before the ballast water is released in a new location.

Recently constructed ships with functioning ballast water management systems continuously take a small portion of the ballast water they had taken in after discharge of cargo and dose it with chemicals so that all the water is rendered free of any biological organism before the water is pumped out during the loading of cargo. Ships built before the BWM convention that don't have these systems are required to exchange the ballast water they took in a port with "neutral" water from the middle of the oceans enroute to the loading port.

Among the countries most serious about preventing ship ballast water damaging their marine ecosystems are Australia and New Zealand. Australia, as a major supplier of coal and iron and other raw materials, sees much ballast water pumping out in ports. Australia is home to ecologically sensitive areas such as the Great Barrier Reef where such water can cause immense harm. Ships calling on Australian ports are often subject to rigorous checks including of ballast water management systems.

**What is India's position?**

Documents of the IMO show that as of July 2, 97 countries have signed on to the BWM as contracting states. India is not on the list of countries. This means that there is no obligation on the part of ships calling on Indian ports to enforce the BWM convention. While other rules such as relating to discharge of oil apply in Indian ports, the discharge of ballast water brought in from other countries is not subject to checks or regulation.

"No restriction is seen regarding discharge of ballast water in Indian ports," says V. J. Mathew, senior advocate who specialises in maritime law. In any case, ports are only a facilitator of ship traffic and cannot be held liable in such cases. If there is any evidence that a vessel has pumped out the ballast water that led to the invasive species, then the vessel owner can be held liable if a law is in force, says Mr. Mathew, adding that it is time India signed on to the convention.

**THE GIST**

The Tamil Nadu Water Resources Department (WRD) has informed the National Green Tribunal that it has sought ₹160 crore from the Kamarajar Port in Ennore, Tamil Nadu, to facilitate the removing of invasive mussels on the coast near the port.

When a ship discharges cargo, it rises up in the water and therefore, to keep a minimum level of immersion, ship staff take in sea water called ballast water inside tanks in the ship.

The Ballast Water Management Convention of the International Maritime Organization came into force in 2017 to help prevent the spread of potentially harmful aquatic organisms and pathogens in ships' ballast water.

## Does India have laws on the movement of ballast water? (14 August)

How is ballast water facilitating the spread of invasive mussels on the coast near the Kamarajar Port?

- The Tamil Nadu Water Resources Department (WRD) has requested ₹160 crore from Kamarajar Port to remove invasive mussels on the coast near the port.
- The invasive species, *Mytella strigata* (charru mussel), is harming marine ecosystems and affecting fishermen's livelihoods by hindering boat movements.
- WRD accuses Kamarajar Port of causing the spread of this invasive species by not regulating the ballast water from ships.
- Ballast water is taken in by ships to maintain stability and is discharged when the ship loads cargo. It can carry invasive species to new locations, disrupting ecosystems.
- In India, around 30 invasive species have been recorded due to ballast water, with the charru mussel being one of the most harmful.
- The Ballast Water Management (BWM) Convention by the International Maritime Organization (IMO) came into force in 2017 to prevent the spread of harmful aquatic organisms through ballast water.
- Ships built after 2017 must have ballast water management systems, while older ships must exchange ballast water with neutral water in the ocean.
- Countries like Australia and New Zealand are strict about managing ballast water to protect their ecosystems, such as the Great Barrier Reef.
- India has not signed the BWM Convention, so there are no regulations on ballast water discharge in Indian ports, making it difficult to hold ports accountable for invasive species spread.
- There is a call for India to sign the BWM Convention to enforce regulations and protect its marine ecosystems.

### International Maritime Organization (IMO)

- The International Maritime Organization (IMO) is a specialized agency of the United Nations responsible for regulating shipping.
- Established in 1958, it plays a crucial role in ensuring the safety and security of international shipping, preventing marine pollution, and facilitating international maritime trade.
- Headquarter: London, UK

**Functions**

- **Safety of Life at Sea (SOLAS):** The IMO develops and maintains the SOLAS Convention, which sets international standards for the construction, equipment, and operation of ships.
- **Marine Pollution Prevention:** The IMO is responsible for the International Convention for the Prevention of Pollution from Ships (MARPOL), which regulates the discharge of harmful substances into the marine environment.
- **Maritime Security:** The IMO works to enhance maritime security through the development of international standards and guidelines.

- **Legal Matters:** The organization deals with maritime law, liability, and compensation issues.
- **Technical Cooperation:** The IMO provides technical assistance to developing countries to improve their maritime capabilities.

#### Impact and Importance

- The IMO's work is essential for global trade, as the majority of the world's goods are transported by sea.
- By promoting safe, secure, and environmentally sound shipping, the IMO contributes to economic growth, sustainable development, and the protection of the marine environment.

#### Great Barrier Reef

- The Great Barrier Reef, located off the northeastern coast of Australia, is the **world's largest coral reef system**. It stretches over 2,300 kilometers (1,430 miles) and comprises approximately 2,900 individual reefs and 900 islands.
- It covers an area of about 344,400 square kilometers (133,000 square miles) and is recognized as one of the most complex and diverse ecosystems on the planet.

#### Significance:

##### 1. Biodiversity:

- The Great Barrier Reef is home to a vast array of marine life, including over **1,500 species of fish, 400 species of coral, and numerous species of mollusks, sea turtles, dolphins, and sharks**. Its diverse habitats support an intricate web of life, making it one of the most biodiverse ocean environments.

##### 2. World Heritage Site:

- The reef was designated a UNESCO World Heritage Site in 1981 due to its outstanding natural beauty and ecological significance. It is recognized globally as an area of exceptional biodiversity and importance for marine conservation.

##### 3. Tourism:

- The Great Barrier Reef is a major tourist attraction, drawing millions of visitors each year who come to enjoy activities such as snorkeling, scuba diving, and marine sightseeing. The tourism industry related to the reef contributes significantly to the Australian economy.

##### 4. Research and Conservation:

- The reef is a critical area for marine research and oceanography. Scientists study its unique ecosystems to understand coral reef resilience, marine biodiversity, and the impacts of climate change. Conservation efforts are ongoing to protect the reef from various threats.

#### Threats:

##### 1. Climate Change:

- Rising ocean temperatures due to climate change are one of the most significant threats to the Great Barrier Reef. Elevated temperatures can cause coral bleaching, where corals expel the symbiotic algae living in their tissues, leading to the loss of color and essential nutrients.

##### 2. Pollution:

- Runoff from agricultural activities, urban areas, and industrial processes introduces pollutants into the reef's waters. Sedimentation, nutrients, and pesticides can harm marine life and coral health.

##### 3. Crown-of-Thorns Starfish:

- This species, which preys on coral, has seen population outbreaks that lead to significant coral loss. Efforts to control these populations are essential for preserving the reef's health.

##### 4. Overfishing and Unsustainable Practices:

- Overfishing and destructive fishing practices can degrade fish populations and coral ecosystems. Sustainable fishing practices and regulations are needed to protect the reef's marine life.

**Conservation Efforts:** The Australian government, along with various organizations, is actively involved in monitoring and protecting the Great Barrier Reef. Initiatives include:

- Establishing marine protected areas.
- Implementing water quality improvement programs.
- Restricting coastal development.
- Engaging local communities and stakeholders in conservation efforts.

**Question:** In the context of any country, which one of the following would be considered as part of its social capital? (UPSC 2019)

- The proportion of literates in the population
- The stock of its buildings, other infrastructure and machines
- The size of population in the working age group
- The level of mutual trust and harmony in the society

# Impact of institutional stigma on Dalit business owners' earning capacity

A look at how the earning capacity of business owners vary even within marginalised communities due to social stigma. Such stigma adversely affects the economic opportunities of Dalit business owners, who experience lower income levels compared to other disadvantaged communities

**Rebecca Rose Varghese**

Raj P., Roulet T.J. and Bapuji H., 'It's not who you know, but who you are: Explaining income gaps of stigmatized-caste business owners in India', PLoS ONE 19(8), 2024

According to the "Income and Wealth Inequality in India" report published by the World Inequality Lab this year, the top 1% of Indians received 22.6% of the national income in 2022, a significant increase from 11.5% in 1951. Meanwhile, the income share for the bottom 50% dropped from 20.6% in 1951 to 15% in 2022, and the middle 40% saw their share decline sharply from 42.8% to 27.3% over the same period.

Reports analysing income inequality in India have been on the rise. While many studies focus on how economic and social discrimination affect people's ability to improve their economic mobility, Raj P, Roulet T.J., and Bapuji H. examine the role of stigma in income inequality among Dalits, specifically focusing on business owners. Factors like social and human capital significantly influence economic capital, but it is crucial to understand how effectively Dalits can leverage these resources compared to other disadvantaged communities due to the unique impact of stigma. Through quantitative analysis, the authors provide an in-depth examination of how systemic stigmatisation impacts the economic status of Dalit business owners. While other disadvantaged groups also face inequalities along demographic lines such as gender, race, and caste, the stigma against Dalits exacerbates their economic challenges. For instance, women face hiring and wage discrimination, losing about half a job level and 15% in wages, and similar income disparities affect racial minorities, LGBT individuals, and those from disadvantaged social backgrounds. However, the stigma

associated with being a Dalit according to the authors, further restricts access to resources and opportunities, leading to even greater economic disparities.

## Institutionalised stigma

A central theme of the research is the concept of institutional stigma, which is defined as the stigma ascribed to individuals based on their demographic group membership. This stigma operates subtly through interconnected social mechanisms, reflecting societal power dynamics and serving as a tool for dominant groups to exert control over marginalised communities. The prejudice resulting from stigma is perpetuated through multiple "institutionalised" channels, including access to resources, opportunities, and individual dignity. Such stigma adversely affects the economic opportunities and outcomes for Dalit business owners, who, due to their historically marginalised status, experience lower income levels compared to other disadvantaged communities. This systemic stigmatisation restricts their access to resources and opportunities, hindering their economic advancement.

## Defining capitals

To understand how societal factors affect Dalit business owners' economic progress, it's crucial to explore the roles of social and human capital. Social capital encompasses the networks and relationships individuals leverage for social mobility, divided into bonding and bridging types. Bonding social capital refers to ties within one's immediate community, such as family and friends, while bridging social capital involves connections beyond communities. Institutional stigma tends to worsen the economic disadvantages faced by Dalits, especially at higher levels of bridging social capital, due to increased out-group prejudice. Human capital, by contrast, focuses on individual capabilities such as education and professional skills.

## Methodology

Using data from the India Human Development Survey (IHDS) of 2011, which includes data on caste, business ownership, and income, the study employs Ordinary Least Squares (OLS) regression models to analyse income disparities among business-owning households. The survey has covered over 42,000 households from different demographic groups, in 373 districts across India. The survey shows that 21% (8,800 households) own at least one non-farm business, that are mostly a micro or small business, with an income around ₹1 lakh, annually.

Moreover, to assess the impact of social and human capital on economic outcomes, the study uses business income as the dependent variable, measured as the total income from a household's business. Given that business income data can be skewed, a log transformation is applied to stabilise variance and normalise the distribution. Institutional stigma is captured with a dummy variable, distinguishing Dalit households. Social capital is evaluated through the number of professions a household has personal connections with – such as doctors, politicians, government employees, lawyers, business owners, bankers and journalists – and includes bridging social capital while controlling for bonding social capital. Human capital is represented by the highest level of adult education in the household, and is used both as a control variable and in interactions to test its effect on mitigating income disadvantages related to institutional stigma.

## Stigma and income

The study reveals various findings on how stigma affects an individual's capacity to earn, highlighting the complex interplay between social and human capital in this context. Dalit business owners earn less than their counterparts from other disadvantaged communities as

institutional stigma has a negative correlation with business income.

Moreover, while social capital is generally advantageous, it has less impact on Dalit business owners' ability to earn more compared to other business owners. This is particularly true because Dalits must bridge social capital, and cultural and normative barriers hinder their ability to benefit from these connections, even when they exist. Though the authors initially hypothesise that human capital can mitigate income disadvantages for Dalit businesses, the data analysis reveals otherwise. While human capital is crucial in influencing income outcomes and benefits business owners from both stigmatised and non-stigmatised communities, it is insufficient to overcome the income disadvantage resulting from institutional stigma for Dalit entrepreneurs. This finding underscores the limitations of human capital in addressing systemic inequalities.

The findings must be considered within the context of their limitations. For instance, the authors note that the indicator of social capital is somewhat coarse, as it captures data on people's connections to various groups and professions but does not measure the number or strength of these connections. Despite these limitations, the study makes a significant contribution to the discourse on economic inequality. By demonstrating that earning capacity varies even among stigmatised communities due to the stigma and perceptions attached to certain groups, the paper highlights the inadequacy of general or universal policies and strategies in addressing these disparities. It underscores the need for tailored policies that cater to the specific needs of each community. Thus, a more nuanced approach is essential to ensure that individuals from stigmatised groups can ascend the economic mobility ladder.

*The author is a freelance journalist.*

## Impact of institutional stigma on Dalit business owners' earning capacity (14 August)

A look at how the earning capacity of business owners vary even within marginalised communities due to social stigma. Such stigma adversely affects the economic opportunities of Dalit business owners, who experience lower income levels compared to other disadvantaged communities

- The "Income and Wealth Inequality in India" report shows that the top 1% of Indians received 22.6% of the national income in 2022, up from 11.5% in 1951.
- The income share for the bottom 50% decreased from 20.6% in 1951 to 15% in 2022, and the middle 40% saw their share drop from 42.8% to 27.3%.
- Studies on income inequality in India are increasing, with many focusing on how economic and social discrimination affect economic mobility.
- A study by Raj P., Roulet T.J., and Bapuji H. examines the role of stigma in income inequality among Dalits, particularly Dalit business owners.
- The study highlights how stigma against Dalits exacerbates their economic challenges, restricting their access to resources and opportunities.

- Other disadvantaged groups, like women, racial minorities, LGBT individuals, and those from disadvantaged social backgrounds, also face income disparities.
- However, the stigma faced by Dalits creates even greater economic disparities compared to other disadvantaged communities.

### **Institutionalised stigma**

- The research focuses on institutional stigma, defined as stigma linked to an individual's demographic group.
- Institutional stigma subtly operates through social mechanisms, reflecting societal power dynamics and allowing dominant groups to control marginalized communities.
- This stigma is perpetuated through institutionalized channels, affecting access to resources, opportunities, and dignity.
- Dalit business owners, due to their historically marginalized status, face economic disadvantages and lower income levels compared to other disadvantaged groups.
- Systemic stigmatisation limits Dalits' access to resources and opportunities, hindering their economic progress.
- Social capital, which includes networks and relationships, plays a role in social mobility and is divided into bonding (within communities) and bridging (beyond communities) types.
- Institutional stigma exacerbates economic disadvantages for Dalits, especially with higher levels of bridging social capital due to increased out-group prejudice.
- Human capital, which includes education and professional skills, also impacts economic progress.

### **Methodology**

- The study uses data from the 2011 India Human Development Survey (IHDS), which includes information on caste, business ownership, and income.
- The survey covers over 42,000 households from various demographic groups across 373 districts in India, with 21% (8,800 households) owning at least one non-farm business, mostly micro or small, with an annual income around ₹1 lakh.
- The study employs Ordinary Least Squares (OLS) regression models to analyze income disparities among business-owning households.
- Business income is the dependent variable, measured as the total income from a household's business; a log transformation is applied to the data to stabilize variance and normalize distribution.
- Institutional stigma is represented by a dummy variable distinguishing Dalit households.
- Social capital is measured by the number of professional connections a household has (e.g., doctors, politicians, government employees, lawyers, business owners, bankers, journalists), focusing on bridging social capital while controlling for bonding social capital.
- Human capital is represented by the highest level of adult education in the household and is used as a control variable and to test its effect on mitigating income disadvantages related to institutional stigma.

### **Stigma and income**

- The study finds that institutional stigma negatively affects Dalit business owners' earnings compared to other disadvantaged communities.
- Social capital generally benefits business owners but has less impact on Dalit business owners due to cultural and normative barriers that limit their ability to leverage these connections.
- The study initially hypothesized that human capital could mitigate income disadvantages for Dalits, but the analysis shows that while human capital influences income, it is insufficient to overcome the disadvantages caused by institutional stigma.
- The study acknowledges limitations, such as the coarse measurement of social capital, which does not capture the number or strength of connections.
- Despite these limitations, the study highlights that earning capacity varies among stigmatised communities, underscoring the need for tailored policies to address economic disparities.
- A nuanced approach is necessary to help individuals from stigmatised groups achieve economic mobility.