

DAILY PT POINTERS

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The Hindu-Environment(GSIII)Page 8

Analysing local environmental footprints

What is the importance of evaluating household environmental footprints? Which are the three footprints analysed in this study? Do these footprints associated with luxury consumption show an increase as one analyses households that are richer and affluent? What should policymakers do?

EXPLAINER

Soumyajit Bhar

While climate change is a global concern, issues such as water scarcity and air pollution are often localised or regionalised. For example, excessive water use in one region may not directly affect water scarcity elsewhere. Focusing on local environmental issues is crucial, and herein comes the importance of understanding household environmental footprints.

How are household environmental footprints distributed in India?

A recent study titled 'Water, air pollution and carbon footprints of conspicuous/luxury consumption in India', of which the author is one of the contributors, highlights the environmental impact of affluent individuals, particularly those who engage in consumption beyond basic needs. This study specifically examines the CO₂, water, and particulate matter (PM_{2.5}) footprints associated with luxury consumption choices among households in India across different economic classes. The analysis contrasts these luxury consumption footprints with those associated with non-luxury consumption. The luxury consumption basket includes various categories such as dining out, vacations, furniture, social events etc.

How were environmental impacts assessed in this study?

Methodologically, the study employed an input/output analysis of the entire economy to map or link different components of household consumption to the resources or materials involved in their production. This approach enabled the capture and aggregation of the (indirect or embedded) environmental impacts associated with each stage of production. For example, the water footprint was utilised to quantify water



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usage throughout various stages of production of different goods and services, as well as direct water usage by households. The PM_{2.5} footprint encompassed both embedded emissions and direct emissions from household activities such as the use of firewood, kerosene, and vehicular fuels. Similarly, the CO₂ footprint was used to capture both embedded and direct CO₂ emissions associated with household consumption.

What were the key findings?

The study reveals that all three environmental footprints increase as households move from poorer to richer economic classes. Specifically, the footprints of the richest 10% of households are approximately double the overall average across the population. A notable surge in footprint is observed from the ninth to the 10th decile, with the air pollution footprint experiencing the

highest increase at 68% in the 10th decile compared to the ninth. Conversely, the rise in the water footprint is the lowest at 39%, while CO₂ emissions stand at 55%. This suggests that Indian consumers, particularly those in the top decile, are still in the 'take-off' stage, with only the wealthiest segment exhibiting substantial increases in consumption-related environmental footprints. The highlighted footprints in the 10th decile are primarily attributed to increased expenditure on luxury consumption items.

What are the key contributors?

The study identifies eating out/restaurants as a significant contributor to the rise in environmental footprints, particularly in the top decile households, across all three footprints. Additionally, the consumption of fruits and nuts is highlighted as a factor driving the increase in water footprint in the 10th decile. Luxury consumption

items such as personal goods, jewellery, and eating out contribute to the rise in CO₂ and air pollution footprints. Notably, the presence of fuels like firewood in the consumption baskets of poorer households is emphasised, showcasing contrasting impacts of modern energy transitions. While transitioning from biomass to LPG reduces direct footprints, the lifestyle choices associated with affluence lead to a rise in PM_{2.5} footprints (and subsequently, the CO₂ footprint).

The average per capita CO₂ footprint of the top decile in India, at 6.7 tonnes per capita per year, is noted to be higher than the global average of 4.7 tonnes in 2010 and the annual average of 1.9 tonnes CO₂e/cap required to achieve the Paris agreement target of 1.5°C. While still below the levels of the average citizen in the U.S. or U.K., this disparity underscores the need for urgent attention from policymakers. Given the influence of elite lifestyles on broader societal aspirations, policymakers should prioritise efforts to nudge consumption levels of affluent households downwards to align with sustainability goals.

What are the implications?

The study emphasises that while sustainability efforts often focus on global climate change, global environmental footprints do not necessarily align with local and regional scale footprints. However, local and regional environmental issues exacerbated by luxury consumption disproportionately affect marginalised communities. For instance, water scarcity and air pollution disproportionately impact marginalised groups, further marginalising them, while affluent sections can afford protective measures such as air-conditioned cars and air purifiers. This underscores the importance of multi-footprint analysis in addressing environmental justice concerns and ensuring equitable sustainability efforts.

Soumyajit Bhar is Assistant Professor at the School of Liberal Studies of IIM, Manipal University, Gururam.

THE GIST

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RBI's proposed framework to administer project financing

What are some of the more important provisions recommended by the Reserve Bank of India?

Saptarno Ghosh

The story so far:

To strengthen the existing regulatory framework around long-gestation period financing for projects in infrastructure, non-infrastructure and commercial real estate sectors, the RBI issued draft regulations for consultation earlier this month. Comments on the draft direction are solicited until June 15.

What is purpose of the framework?

Infrastructure projects usually have a long gestation period, with a higher probability of not being financially viable. Depending on scale and technology, these projects may require a loan with a longer tenure. Such projects may also face multiple obstacles leading to delays or cost-overruns. The Ministry of Statistics and Programme Implementation's March review of 1,837 projects observed that 779 of them were delayed and 449 faced cost overruns. The review attributed the delay

to land acquisition, obtaining forest/environment clearances, changes in scope (and size) etc. These factors are dampeners for banks, which would have priced the risks associated with the project in a certain way on their books.

What are the key revisions?

The RBI's focus is on mitigating a 'credit event', that is, a default or a need to extend the original Date of Commencement of Commercial Operations (DCCO) or infuse additional debt, and/or diminution in the Net Present Value (NPV) of the project. One of the more important revisions concerns 'provisioning', that is, setting aside some money ahead of time to compensate for a potential loss. The proposed framework recommends that, at the construction stage (that is, when the financial assessment is finalised and before DCCO), a general provision of 5% is to be maintained on all existing and fresh exposures. This is a revision from the erstwhile 0.4%. According to CareEdge

Ratings, this would "dampen the bidding appetite from infrastructure developers in the medium term".

This 5% provisioning would be implemented in a phased manner.

What about prudential conditions?

The framework seeks that all mandatory pre-requisites must be in place before financial closure (that is, before the finalising of financial conditions). The indicative list must provide environmental, regulatory and legal clearances relevant to the project. The DCCO must be clearly spelt out. Financial disbursements would be made and the progress in equity infusion agreed to based on the stages of completion. The onus is on the bank to deploy an independent engineer or architect who would be responsible for certifying the project's progress.

RBI proposes to mandate that a positive NPV be a prerequisite to obtain project finance. It also seeks that lenders get the project NPV independently

re-evaluated every year. This is to help them avert the possibility of any build-up of stress and have an action plan in place.

THE GIST

Can repayment norms be revised?

Yes. However, the framework proposes that the original or revised repayment tenure, inclusive of the moratorium period, must not exceed 85% of the economic life of the project.

RBI's proposed framework also recommends certain criteria for evaluating a change in repayment schedule due to an increase in the project outlay if there's an increase in scope and size of the project. This revision will have to take place before the DCCO, after lenders offer a satisfactory re-assessment about the viability of the project, and if the risk in project cost, excluding any cost overrun, is 25% or more of the original outlay. Significantly, the framework also introduces guidelines to trigger a standby credit facility. This is to be sanctioned at the time of financial closure to fund overruns arising due to delays.

What have initial observations been?

Ratings agency ICRA observed in a report that higher provisioning requirement for projects under implementation would impact the near-term profitability of non-banking financial companies (and infrastructure financing companies). In their recent earnings call, the SBI, Union Bank of India and Bank of Baroda expressed confidence in the proposal not having any "significant" impact.

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- The Reserve Bank of India (RBI) issued a draft framework for lenders' financing of projects in infrastructure, non-infrastructure and commercial real estate sectors even as it prescribed norms for restructuring of their exposure in projects under implementation on account of change in date of commencement of commercial operations (DCCO)
- These regulations include higher provisioning during construction phases and classification of delayed projects as non-performing assets.
- However, banks and NBFCs fear these rules may hinder project viability and impede India's capital expenditure momentum.
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The Hindu- Art and Culture(GSI)

Men don women's attire to honour Gangamma in Tirupati's 'Ganga Jatara'

A.D. Rangarajan
TIRUPATI

At this time of the year in Tirupati, scores of devotees dressed up in peculiar and flamboyant costumes are a fairly common sight as the centuries-old folk festival 'Ganga Jatara' observed at the ancient Thathayagunta Gangamma temple is in motion.

The unique annual festival, which began on May 14, ends by the early hours of Wednesday. Revered as the '*Grama Devatha*' (village goddess), Gangamma is locally believed to be the sister of Lord Venkateswara. While visiting the temple by smearing chalk, sandal, *kumkum* and charcoal



Men dressed for 'Ganga Jatara' on their way to Gangamma temple in Tirupati on Tuesday. SPECIAL ARRANGEMENT

paste all over the body is a regular practice, the last day is dedicated to donning the guise of a woman.

According to ancient folklore, a local chieftain (*palegadu*) misbehaved with Gangamma. Taking

offence to his behaviour, Gangamma took a vow to kill him. Fearing for his life, the rogue Palegadu went into hiding. To lure him out, Gangamma went to town in different guises and donned unusual at-

tires. When Gangamma arrived dressed up as an attractive damsel on the last day, he came out of hiding, only to be slayed.

With the demise of the rogue ruler, the entire village of Tirupati was grateful to Gangamma. Replicating this narrative, male devotees started turning up in the guise of a woman to invoke her blessings.

However, over time, the ancient practice has been modernised – silk saris gave way to churidars and skirts, and traditional tufts were replaced by modern hair-dos and during the festival, make-up artists rake in profits by opening 'Jatara Special' branches in the temple's vicinity.

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HEADLINES OF THE DAY

The Hindu- Environment(GSIII)

30 flamingos fall dead, rammed by jet on glide path to Mumbai airport



- The flamingos migrate from Siberia to Mumbai via the Rann of Kutch in Gujarat.
- Between November and May, they make the wetlands and mudflats on Mumbai's eastern coast their home and feed on algae and small organisms.

No error: SC rejects pleas to review its Art 370 order

EXPRESS NEWS SERVICE
NEW DELHI, MAY 21

THE SUPREME Court has dismissed petitions seeking review of its December 2023 judgment upholding the government's August 2019 decision to end the special status of the then State of Jammu and Kashmir by abrogating Article 370 of the Constitution.

"Having perused the review petitions, there is no error apparent on the face of the record. No case for review under Order XLVII Rule 1 of the Supreme Court Rules 2013. The review petitions are, therefore, dismissed," a five-judge bench, presided by Chief Justice of India D Y Chandrachud, said.

The bench also comprised Justices Sanjiv Khanna, B R Gavai, Surya Kant and A S Bopanna.

The petitions were dismissed on May 1 and the copy of the order was uploaded Tuesday on the court's official webpage.

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- A Constitution Bench had upheld the abrogation of Article 370, an event which had led to the reorganisation of the full-fledged State of Jammu and Kashmir to two union territories
- The judgment, in November 2023, had confirmed that the President could "unilaterally issue a notification that Article 370 ceases to exist".
- The court had held that the President has power to abrogate Article 370 if "special circumstances warranted a special solution".

Indian Express-Environment(GSIII)-Page 2

UN report: Indian pastoralists need better access to land, recognition of rights

NIKHIL GHANEKAR
MAY 21, NEW DELHI

MILLIONS OF pastoralists in India who rear livestock and depend on grasslands, shrubs and plateaus for sustenance need better recognition of their rights and access to markets, says a new United Nations report on degradation of rangelands.

According to the report by the UN Convention on Combating Desertification (UNCCD), almost half of the world's rangelands are degraded due to climate change, population growth, land-use change and growing farmlands.

Rangelands cover 80 million sqkm, which is 54% of the earth's land surface. They are characterised by low vegetation and comprise grasslands, shrublands, wetlands, desert, semi-arid land, mountain pastures, plateaus and tundra. These rangelands, the report says, are an important ecosystem to fight against climate change as they

little public reaction," said UNCCD executive secretary Ibrahim Thiaw.

Though their exact numbers in India are not known, the population of pastoralist communities, comprising groups such as Maldharis, Van Gujjars, Rabaris, among others, is estimated to be 20 million or more.

The report highlights that pastoralists are a marginalised community with little influence on policy decisions, resulting in uncertainty over access to common land and land rights. "Although grasslands are considered threatened ecosystems in India, they have been virtually overlooked in environmental conservation and ecosystem restoration policies in favour of forestry-based interventions, which includes converting natural grasslands into plantation forests or other uses," the report said.

"Less than 5% of India's grasslands fall within protected areas, and the total grassland area declined from 18 to 12 million hectares between 2005 and

- The rangelands category of Earth's land cover consists mostly of the natural grasslands used by livestock and wild animals to graze and forage.
- They also include savannas, shrublands, wetlands, tundra and deserts.
- Added together, these lands constitute 54% of all land cover, account for one sixth of global food production and represent nearly one third of the planet's carbon reservoir.
- Millions of pastoralists in India who rear livestock and depend on grasslands, shrubs and plateaus for sustenance need better recognition of their rights and access to markets

Indian Express-S&T(GSIII)-Page 14

EU's Copernicus emergency service, called in to locate Raisi's chopper

ALIND CHAUHAN
NEW DELHI, MAY 21

SOON AFTER Iranian President Ebrahim Raisi's helicopter crashed on Sunday, the European Union (EU) activated its rapid satellite mapping service to help search efforts, following a request for assistance from Iran. Janez Lenarčič, European Commissioner for Crisis Management, posted on X: "Upon Iranian request for assistance we are activating the EU's @CopernicusEMS rapid response mapping service in view of the helicopter accident reportedly carrying the President of Iran and its foreign minister."

The wreckage of the helicopter was found on Monday after an overnight search in blizzard-like conditions.

The rapid mapping service is one of the crucial components of the Emergency Management Service (EMS), which comes under the EU's Copernicus programme. What is the Copernicus EMS, and how does its rapid mapping service work?

What is the Europe Union's Copernicus programme, to begin with?

The Copernicus programme is part of the EU's space programme and aims to monitor the Earth and its environment by collecting data from a set of satellites known as the Sentinels. It also gets data from contributing missions (existing commercial and public satellites) and in situ or non-space sources such as ground stations.

The data are processed and analysed to generate value-added information, which can



At the site of the crash. Reuters

be used for a wide range of applications in many areas. These include land management, the marine environment, the atmosphere, emergency response, security, and climate

change, according to the website of the European Space Agency (ESA). Users get the information on a "full, open, and free-of-charge" basis, the website says.

Launched in 1998, the Copernicus programme was earlier called Global Monitoring for Environmental Security (GMES). Currently, it is implemented by the European Commission (EC) with support from the ESA and the European Environment Agency (EEA).

And what is Copernicus EMS?

The Copernicus EMS has been in operation since 2012, and provides geo-spatial information derived from satellite remote sensing and in situ data sources to help manage natural disasters, man-made emergencies, and humanitarian crises.

There are two components of the serv-

ice: the mapping component and the early warning component. The former provides maps and analysis based on satellite imagery, the latter issues alerts about floods, droughts, and forest fires, and gives near-real time assessment of forest fire impacts.

The mapping component has two modules: rapid mapping (RM); risk and recovering mapping (RRM). The RM, which was activated to look for Raisi's crashed helicopter, provides maps within days or hours, anywhere in the world. The RRM delivers maps that are required for disaster management – and not for immediate responses – within weeks or months. It is used for prevention, preparedness, disaster risk reduction, and recovery.

How does the rapid mapping work?

To provide maps quickly, the service ac-

quires, processes, and analyses satellite imagery, geospatial data, and social media where required. According to the Copernicus website, the RM service can supply four different "products" – each one of them provides maps and brief analysis – which the user can choose while requesting the service.

■ **Reference Product:** It gives quick information on the area of interest and assets before the emergency (disaster) takes place.

■ **First Estimate Product:** It provides a quick assessment of the most affected locations after the disaster has taken place.

■ **Delineation Product:** It supplies information on the impact, extent, and update or the situation after the disaster has taken place.

■ **Grading Product:** It provides damage assessment, spatial distribution, and extent after the disaster has taken place.

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- These include land management, the marine environment, the atmosphere, emergency response, security, and climate change

HEADLINES OF THE DAY

PIB-Education(GSII)

Ministry of Education

Shri Sanjay Murthy along with Shri T. G. Sitharam launch the portal for nominations for National Awards to Teachers (Higher Education) 2024

Awards will be conferred on teachers of technical and non-technical higher education institutions and Polytechnic Institutions

Last date for nominations is 20th June 2024



- Secretary, Higher Education Sanjay Murthy launched the portal for nominations for National Awards to Teachers (Higher Education) 2024. The awards will be conferred on teachers of technical and non-technical higher education institutions and Polytechnic Institutions.
- The award is open to all the faculty members of colleges, universities, higher educational institutions and polytechnics.
- the nominee should have at least five years of full-time teaching experience at the Undergraduate and Post-graduate level.
- The purpose of the National Award to Teachers 2024 in Higher Education Institutions is to recognise the distinctive contributions of some of the finest faculty members in the country and honour them for their dedication and hard work, particularly in teaching and pedagogy, and its impact which have not only improved the quality of higher education but also enriched the lives of their students.

AIR-Culture (GSI)

250th Birth Anniversary Of Saint Lalon Shah Fakir Being Celebrated In Bangladesh



- Lalon is revered as a great mystic saint, philosopher and social reformer of his time.
- He composed thousands of songs which were later compiled by his disciples. His songs celebrate the spirit of humanism blending elements of Islam, Vaishnavism, Sahajiya Buddhism and Jainism.
- Fakir Lalon Shah is considered the most prominent figure of the Baul tradition of Bangladesh and India. Born in 1774 at Horishpur in Jhenaidah district of modern Bangladesh. He inspired and influenced people like Rabindranath Tagore, Kazi Nazrul Islam and the American poet Allen Ginsberg among others.