



तकनीकी पत्रिका विषय-सूची

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(Technical Journals)

(A Monthly Current Awareness Service from Technical Journals)

Vol.5 No.02, February, 2021

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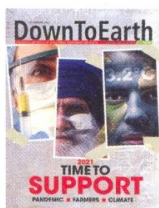
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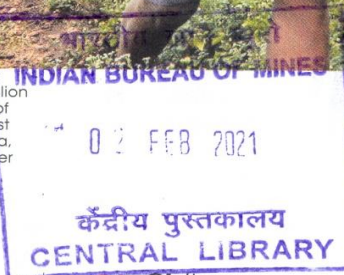
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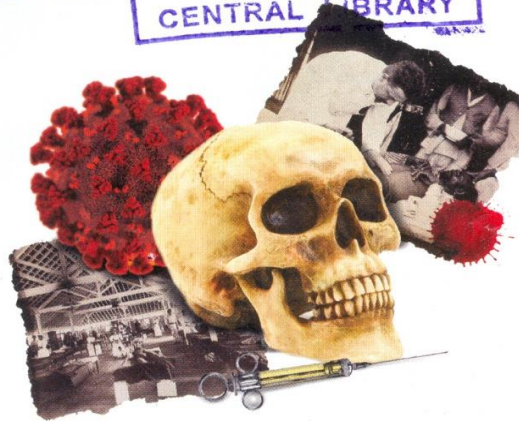
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Curbing Police Atrocities

Sustained public outrage is needed to check the power of the police in order to ensure justice and accountability for the heinous offence of torture. [page 32](#)

Harnessing Agri-start-ups

The impact of COVID-19 on start-ups engaged in agriculture has been devastating, and government investment is crucial to unlock this sector's potential. [page 13](#)

Violence in the Law

Karnataka's poorly drafted cow slaughter bill is an example of state-sanctioned violence being used to subject the marginalised to further atrocities within the framework of law itself. [page 10](#)

Crude Oil Price Hits Sub-zero

Crude oil price becoming negative is a rare event, the effects of which, while not benefiting end users in India, will have an impact on the country and investors. [page 18](#)

Last Mile of Mumbai's Lifeline

Last-mile connectivity could play a vital role in the twin pursuits of retaining and augmenting the sustainability gains from public transport and improving commuter experience in Mumbai. [page 38](#)

Economic & Political Weekly, Vol.55 No.50, 19 December 2020

Politics of Law against Inter-religious Marriages

- 7 Legal intervention in a democratic society should promote freedom of choosing a life partner.

Cine Star in Electoral Politics

- 8 Can the superstar provide traction to majoritarian politics in the Dravidian heartland?

Cow Slaughter Laws as State-sanctioned Violence

- 10 The Karnataka Prevention of Slaughter and Preservation of Cattle Bill, 2020 is poorly drafted, raising questions on whether it is just a tool of state-sanctioned violence. — *Alok Prasanna Kumar*

How Did Agri-start-ups Fare during the COVID-19 Pandemic?

- 13 Although agricultural start-ups in India took a hit due to the COVID-19-induced lockdown, they have enormous potential in aiding economic recovery. — *Neeru Bhooshan, Anjani Kumar*

Why and How Crude Oil Price Became Negative?

- 18 The real reason for oil prices to move into sub-zero level is not attributable to the supply-demand mismatch, but to the timing of this movement and the "day-of-the-week effect." — *Palanisamy Saravanan*

Central Bank Profits in National Accounts

- 21 The transfer by the Reserve Bank of India of a record surplus to the coffers of the government is examined in a stock-flow-consistent model. — *Romar Correa*

Police Atrocities and the Quest for Justice

- 32 Catapulted by the June 2020 case of brutal custodial torture and killings of Jayaraj and Bennix in Thoothukudi, Tamil Nadu, this article examines the issue of police atrocities through human rights and legal perspectives. — *Saumya Uma, Vijay Hiremath*

The Invisible Last Mile of Mumbai's Lifeline

- 38 The railways' wide geographical presence across Mumbai city and access to 45% of the city's commuters can be utilised to develop stations as the harbinger of futuristic and sustainable modes of transport for all of Mumbai. — *Srishti Gupta, Vignesh P*

Hyundai and the Law of Resale Price Maintenance in India

- 47 The Competition Commission of India's landmark order in the Hyundai case on resale price maintenance is analysed in light of the cci's broader decisional practice on RPM. — *Shilpi Bhattacharya, Aditi Khemani*

Green Revolution and the Yield Question

- 54 Based on research conducted by the Indian Council of Agricultural Research, it is argued that the green revolution could not have been the only option for India in the mid-1960s. — *Rajinder Chaudhary*

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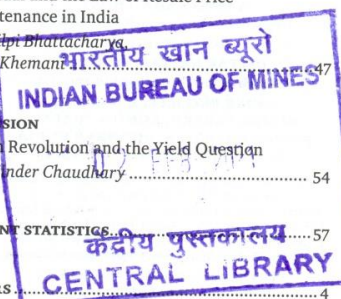
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Review of Urban Affairs

A set of four papers on repair and maintenance in South Asia explains how the repairers and maintainers of Kolkata, Karachi, and Mumbai experience and contribute to the changing urban landscape and make the cities functional; an independent paper traces the social history of Jangpura neighbourhood in Delhi. **page 31 onwards**

Forest Rights in the Pandemic

Within the legal framework of wildlife protection and rights of forest-dwelling communities, can the forest department forcibly evict these communities, as it has been trying to do in Rajaji National Park? **page 10**

On 'Professional' Journalism

The critique of journalism from the inside proposes for an engagement with the field to critically reflect on a multitude of power structures, but also taken for granted constructs within the field of journalism. **page 25**

Income and Consumption Inequality

The focus on one headline gross domestic product growth rate number may hide several important trends in the economy, obfuscate the facts, and have implications for economic inequality. **page 13**

Protected Areas, Forest Rights, and the Pandemic

- 10 The complex nature of contestation between the forest department and the local communities in the Rajaji National Park is explored.
— *Kamal Nayan Choubey*

Beyond Headline GDP Growth

- 13 Data shows that beyond the headline gross domestic product growth rate, there is a significant heterogeneity in growth rates depending on the income distribution. — *Ritwik Banerjee, Prerana Maheshwari*

Food Security and the Public Distribution System in J&K

- 18 The PDS in Jammu and Kashmir requires systematic reforms to curb the leakages within the system in order to provide food security to people at large. — *Shaveta Kohli, Khurshid Ahmad Rather*

Problematic of Practice as Pedagogy

- 25 This article offers a critical response to the writings of Indian editors and journalists by interrogating the pedagogical underpinnings of their essays on journalism. — *M Imran Parray, Saachi Gupta Ghosh*

Review of Urban Affairs

A set of four papers foregrounds how the maintenance and repair practices refashion the brokenness of South Asia's cities; and an independent paper on the social history of Jangpura, Delhi.

Cultures of Repair: Cargo-cycles and Kinship in Kolkata

- 34 The kinship fostered in Kolkata's repair worlds continues to keep workers at the margins of capital and profits. — *Malini Sur*

Keeping Karachi in Motion

- 40 The connection between breakdowns, and repair and maintenance practices in Karachi is looked at by understanding the work dynamics of the *ustads* and *shagirds*. — *Nausheen H Anwar*

Infrastructural Ephemerata and Public Health in Pakistan

- 45 "Infrastructural ephemerata" of projects of urban governance are examined through the labours of women community health workers in Lyari Town, Karachi, at a time of intense gang violence. — *Adeem Suhail*

Invisibility and the Labour of Infrastructure Maintenance

- 52 The paper argues that the invisibilities of infrastructure are themselves contingent on the invisibilisation and subjugation of maintenance workers. — *Nikhil Anand*

Jangpura Triptych

- 57 A neighbourhood history of one central Delhi neighbourhood is attempted as a way of addressing the lack of such work in existing urban studies. — *Diya Mehra*

Postscript

- 71 *Vidyadhar Date* on the need for contemporary art and artists to engage with the idea of justice; *Sankar Varma* on the relevance of Henri Lefebvre's ideas on space-time for the current pandemic; *Jayat Joshi* on those compelled to make a choice between disease and starvation during the lockdown; and *Ponnappa's* Last Lines.

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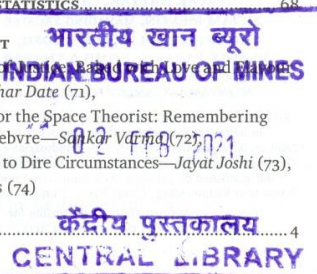
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- The Role of Social Capital in the Performance of Fish Businesses

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Marriage and Women's Agency

Uttar Pradesh's anti-conversion ordinance makes the government the self-appointed custodian of women under the pretext of "protection," and undermines their agency exercise of choice in marriage. **page 15**

Trust in Police

Managing trust is important in policing, an integral part of the state machinery, as people's experience of violence can affect their perception of and the amount of trust they vest in the police. **page 41**

Fighting Child Labour

Using a trade-theoretic framework, the links between social exclusion and child labour are explored, highlighting the importance of disaggregation and social exclusion for policymaking. **page 49**

The China Conundrum

India's China conundrum cannot be overcome without rejecting the narrative of the "new Cold War" and other anti-China propaganda emanating from Western points of view. **page 19**

The Right to Water

In Chile, the only country where water is privatised, as the right to water is not enshrined in the constitution, this resource transforms itself into a consumer good, which is tradable. **page 36**

The Crisis in India-China Relations

- 10 Growing power asymmetry, uncertainty of future intentions and a fluid geopolitical context have hindered a new framework to stabilise the India-China relationship. — *Zorawar Daulet Singh*

The Self in Dalit Literature

- 12 Self-determination involves the interrogation of the social hierarchy and morally regressive conditions created by the caste system to push the "untouchables" beyond morally minimum humanness. — *Samar Kavi*

Rights and Wrongs of Anti-conversion Law(s)

- 15 The legal ramifications of the Uttar Pradesh Prohibition of Unlawful Conversion of Religion Ordinance, 2020 are examined from a feminist perspective of women's agency and exercise of choice in marriage. — *Saumya Uma, Niti Saxena*

Overcoming the China Conundrum

- 19 Narratives of the new Cold War and the "liberal" West versus "authoritarian" China are neither adequate to grasp China's political economy, nor do they explain global contradictions. — *Satyendra Ranjan*

Politics and Self-representation of Online Muslim Youth

- 22 This article is an exploration into the self-representation and engagement with politics of online Muslim youth based on an analysis of responses to tweets on the recent Bihar assembly election. — *Ravinder Kaur*

Leveraging International Influence through Higher Education

- 26 Higher education in India can leverage its international influence in the emerging situation by tapping into new academic partnership opportunities in the global South. — *Eldho Mathews*

Is Water Access a Privilege or a Fundamental Right?

- 36 It is argued that there is a need for a more institutional and interdisciplinary approach to the water problem in Chile due to the privatisation of water. — *Ranjeeva Ranjan, Alexis Castillo Bruna*

Violence and Trust in Police in India

- 41 Empirical application of ordered probit models on the India Human Development Survey-II data set suggests that the recent experience of violence faced by a household affects its trust in the police significantly. — *Shashank Shekhar Shukla, Kaushik Bhattacharya*

Child Labour and Social Exclusion: A Trade-theoretic Analysis

- 49 A four-good, four-factor general equilibrium trade-theoretic model is utilised, incorporating social exclusion, consumption disaggregation, and child labour that highlights the importance of disaggregation and social exclusion for policymaking. — *Bharat Hazari, Vijay Mohan*

The Role of Social Capital in the Performance of Fish Businesses

- 57 The analysis of survey data for 268 usable sampled fish retailers, 235 women and 33 men, clearly indicates substantial improvements in the profitability and business turnover when there is access to social capital. — *S Gunakar, Ramachandra Bhatta*

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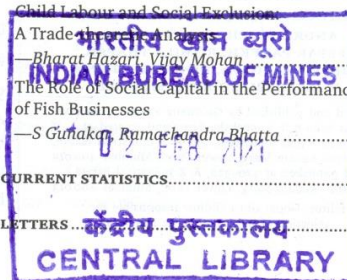
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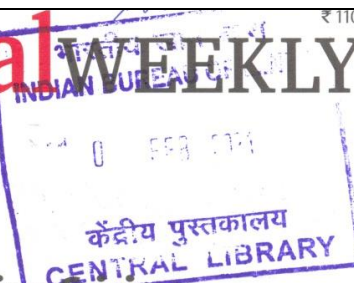
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Punjab's Agrarian Crisis

The approach of the Punjab government's expert committee to the agricultural sector, of tinkering with existing policies, is critiqued and an alternative perspective is presented. **page 10**

Managing Debt Burdens

A survey of rural microfinance clients in Maharashtra shows that borrowers having income deficits will be unable to service their debts as the loan repayment moratorium is relaxed. **page 13**

Auditing Caste-based Exclusion

A target-oriented social audit system and its weak vigilance wing miss the caste-based exclusion in the implementation of the Mahatma Gandhi National Rural Employment Guarantee Act. **page 35**

Inflation Dynamics in India

Indian inflation behaviour—the dynamics of consumer price index headline, core, and food inflation—is revisited by employing the atheoretical approach pioneered by Stock and Watson in 2007. **page 42**

Ambedkar's Dhamma and Sangha

Ambedkar's reinterpretation of classical Buddhism and Plato's theory of imitation, devoid of dialectics, constructs sangha as a new source of institutional power. **page 29**

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Punjab Agriculture: Pinning Hopes on Private Sector for Revival

- 10 A critical commentary on the Punjab government's expert committee recommendations for rolling out a medium- and long-term strategy for the revival of the state economy — *Sukhpal Singh*

Is Borrowing Relief Ending Too Soon?

- 13 Findings from a survey of 1,452 rural microfinance clients in Maharashtra show that a critical majority of borrowers will not be in a position to service their debts for the foreseeable future. — *Britta Augsburg, Bansi Malde*

Restricting Third Country Imports

- 15 The Government of India has rolled out new rules to restrict third country imports routed through free trade agreement partners for availing preferential tariff benefits. — *Ram Singh, Surendar Singh*

Formation of the Union Territory of Ladakh

- 18 After an initial sense of satisfaction to their long-pending demand for union territory status, there remain many concerns related to jobs, land, environment and heritage in Ladakh. — *Rekha Chowdhary*

Riverfront Development of Mula–Mutha

- 21 Mula and Mutha rivers of Pune, severely polluted and vulnerable waterbodies, are burdened further as they are set to host a riverfront along the lines of the Sabarmati riverfront project. — *Madhura Bedarkar*

Ambedkar's Dhamma or Buddha and Plato minus Dialectics

- 29 Due to the elimination of Buddhist and Platonic dialectics, Ambedkar adopts the theory of imitation from Plato and constructs a new source of institutional power, that is, sangha. — *Viplov Dhone (Wingkar)*

Caste in MGNREGA Works and Social Audits

- 35 This paper examines the caste-based exclusion in the implementation of MGNREGA, and the social audit and follow-up action taken by the vigilance wing. — *Nitin Dhakode*

Understanding Inflation Dynamics in India: A Revisit

- 42 This paper attempts to throw light on the dynamics of consumer price index headline, core, and food inflation, using a relatively young and atheoretical approach pioneered by Stock and Watson in 2007. — *Gopinath Tulasi, Amaresh Samantaraya, Thangjam Rajeshwar & Abhishek Chaubey*

Rhetoric, Parivar Kinship and Performative Politics in Kerala

- 51 Even though Hindutva's modus operandi in Kerala has not been significantly different from other places in India, the strategies it evolved in the state have certain interesting characteristics. — *P K Yasser Arafath*

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- 63 *Susan Haris* pays tribute to French philosopher Bernard Stiegler; *Snehashish Mitra* on relief work in the Sundarbans following Cyclone Amphan; a poem by *Vandana*; and *Ponnappa's* Last Lines.

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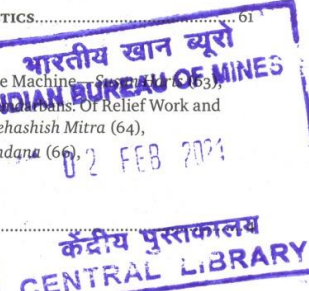
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A Remunerative MSP

The MSP faces redundancy in the new policy environment, which is set to create an exploitative free market that will be inimical to farmers' interests. **page 12**

Farmers' Bargaining Power

Agriculture gets a raw deal in the fiscal stimulus package as farmers are adversely placed with regard to collective action, weakening their position to bargain or lobby for resources. **page 16**

Failure of Apex Wildlife Body

The government's failure in having a functioning National Board for Wildlife, a body presently guided by narrow short-term economic interests, will have long-term ramifications for biodiversity and human welfare. **page 30**

Hissedari to 'Absolute Equality'

The new generation of Dalit leaders needs to go beyond Kanshi Ram's legacy of envisioning democratisation through community-based *hissedari*, towards an imagination of substantive citizenship. **page 35**

DNA Regulatory Board

The form and purposes of the DNA Regulatory Board under the much-criticised DNA regulation bill need to ensure that it does not violate the principles and structure of the Constitution. **page 19**

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A Statistical Quirk

- 7 With core inflation still sticky, any significant dip in consumer prices is very unlikely.

American Democracy Struggles for Recuperation

- 8 Consolidation of the white-supremacist far-right poses a persistent threat to Democracy.

The Challenge of LDC Debt

- 10 A challenge set by the COVID-19-induced economic crisis that would be difficult to address is the external debt crisis engulfing developing countries.
— C P Chandrasekhar

MSP in a Changing Agricultural Policy Environment

- 12 Agricultural reforms are essential to rectify minimum support price's weaknesses, but the new farm laws foster a policy environment based on the laissez-faire approach inimical to farmers' interests.
— Sukhpal Singh, Shruti Bhogal

Garnering the Fiscal Stimulus: A Bargaining Game

- 16 As public policy is influenced by bargaining power through intense lobbying, the low distribution of resources in the fiscal stimulus package towards farmers and labourers could be due to their low bargaining power.
— Indranil De, Sanjib Pohit

A (Re)look at the Proposed DNA Regulatory Board

- 19 The provisions of the bill for forming a DNA Regulatory Board and the board's constitution, powers, and framework of functioning are examined.
— P Puneeth, Manpreet Dhillon

Demystifying Caste in Bengal

- 21 Although caste is a crucial reality in West Bengal, the failure in forging a broader Dalit solidarity has led to the invisibility of caste in the politics of the state. — Sandip Mondal

National Board for Wildlife and the Illusion of Wildlife Protection

- 30 The recent approvals granted by the National Board for Wildlife point to the NBWL becoming a "clearing house" for projects, where its decisions are guided more by economic, strategic and political considerations.
— Ritwick Dutta

Kanshi Ram and the Making of Dalit Political Agency

- 35 Dalit leadership needs to go beyond Kanshi Ram's vision of democratisation through community-based *hissedari*, towards an imagination of "absolute equality." — Surinder S Jodhka

Jat Agitation for Other Backward Class Status

- 42 The recent protests of Jats for Other Backward Class status are embedded in twin processes initiated in 1991: the "Market" and the "Mandal."
— Christophe Jaffrelot, Kalaiyaran A

Insecurity, Identity and Resistance

- 51 The analytical category of "perceptual ambivalence" is proposed to understand the nature of contemporary political discourse of Shias in Kashmir and their political disposition. — Syed Jaleel Hussain, Syed Eesar Mehdi

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Assam 2021

The next assembly elections in Assam would be determined by the Congress's ability to forge a counter coalition and a consensus to challenge the Bharatiya Janata Party's dominance. [page 12](#)

Agricultural Markets in Bihar

The repeal of Bihar's APMC Act in 2006 has seen market infrastructure remaining stagnant, public procurement remaining negligible, and prices remaining below the minimum support price. [page 17](#)

Rules of the Road

A site of conflict and contestation, the spatial and temporal frame of roads across Manipur is driven by the nexus of politicians, contractors, bureaucrats, insurgents and elites. [page 38](#)

India's Gobar Economy

The key to unlocking gobar's economic potential lies in strengthening India's biogas programme by piloting new business models for village-scale plants with the support of dairy cooperatives. [page 43](#)

Effect of Inflation Uncertainty

A first attempt at using a stochastic volatility in mean model with the time-varying parameter and the wholesale price index to assess how uncertainty affects inflation over time in the Indian context [page 52](#)

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An Act of Judicial Disingenuity

- 10 The Supreme Court's order on 12 January 2021, ostensibly "staying" the operation of the three controversial farm laws, goes contrary to the Court's precedents and practices. — *Alok Prasanna Kumar*

After Gogoi: Congress and Its Challenges in Assam

- 12 With assembly elections due in April 2021, the Congress party faces the challenge of forging consensus over a new ideological middle ground to challenge the dominance of the Bharatiya Janata Party.
— *Vikas Tripathi, Dhruba Pratim Sharma*

The Government's Retreat from Agricultural Policy

- 17 The experience from Bihar suggests that repealing the APMC Act saw the number of mandis remaining stagnant, with negligible public procurement, leading to a lower price realisation by farmers in the state. — *Manish Kumar*

Land Laws of Jammu and Kashmir

- 20 The new land laws implemented by the union government in Jammu and Kashmir are cataclysmic, as they seek to upend a legal structure that emerged out of one of the most successful land reforms in South Asia.
— *Muhammad Mutahhar Amin*

Locating Elite Muslims' India through Their Writings

- 25 Autobiographies and memoirs of Ashraf Muslims reveal how secularism becomes a dominant concern, while the question of caste among Muslims is pushed into oblivion. — *Manjur Ali*

Introspecting Human Development

- 29 It is argued that for development to have a human face, human development approach is the only answer. — *Balakrushna Padhi, Udaya S Mishra*

Politicising Roads in Manipur

- 38 Drawing from fieldwork conducted in Manipur, this article analyses contemporaneous state practices of infrastructure and its sociopolitical processes, and offers evidence to understand their materialities, forms, and societal relations. — *Raile Rocky Ziipao*

Unlocking Fortune at the Bottom of India's Gobar Pyramid

- 43 India's biogas programme needs to maximise the energy as well as nutrient value derived from gobar, overcome farmers' loss aversion, and incentivise the installation of biogas plants. — *Tushaar Shah*

Time-varying Effect of Inflation Uncertainty

- 52 This paper investigates the effect of the uncertainty associated with inflation using the monthly wholesale price index data and applying a stochastic volatility in mean model with the time-varying parameter. — *Ashutosh Kumar Tripathi*

Climate Change and Disaster Management

- 58 A response to Avinash Persaud's H T Parekh Finance Column ("Climate Change Is Uninsurable, So, What Should We Do?" *EPW*, 15 February 2020).
— *Yoginder K Alagh*

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- 63 *Tanvi V Deshpande* puts down the researcher's guide to navigating the Indian bureaucracy; *Bijaya Biswal* remembers abandoned origins and an uprooted childhood on watching *Gamak Ghar*; a poem by *Pravanthi Dasari*; and Last Lines by *Ponnappa*.

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Competition Calling

The diffusion of technology and availability of complementary technology in the smartphone industry affects its competitive nature and thereby its market structure. **page 13**

Struggles of Self-help Groups

Two major problems for the self-help group movement—regional disparities and the rising share of non-performing assets in SHG loans—require immediate intervention. **page 36**

Women in Tamil *Mahabharatas*

An attempt at simultaneously understanding women's subordination and resistance to the dominant patriarchal social order in the tales from the Tamil *Mahabharatas* **page 29**

Patterns of Urban Growth

The underlying causes for the disparate pattern of rural economic transformation and urbanisation in Gujarat and Rajasthan highlight the need for a regional focus of policy. **page 44**

Women's Groups and Nutrition

A review of the role of women's groups in improving nutrition outcomes discusses the next generation of implementation science and research to actualise their substantial potential. **page 17**

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- 7 Strategies of surveillance of women reveal the state's warped notion of public safety.

Questionable Permission, Ineffective Programme

- 8 The two recent major decisions of the Indian health authorities regarding COVID-19 vaccination are problematic.

The Capital-Labour Rupture and the World Order

- 10 More than the rise of China, it is cyber-capitalism that is the driving force of the current changes in the global political economy, now breaking itself free from labour. — *Atul Bhardwaj*

Technology Diffusion and Competition

- 13 The purpose of this article is to show how the technology diffusion leads to change in the market structure and strengthening of competition in the smartphone industry under incomplete market information. — *Shashi Kr Shaw*

Working with Women's Groups to Improve Nutrition

- 17 A comprehensive literature review summarises what is known about the implementation and effectiveness of women's groups in improving nutrition outcomes, and highlights key areas that the next generation of studies could focus on. — *Kalyani Raghunathan, Sapna Desai*

Remembering B D Dhawan (1938–2020)

- 21 The literary expertise and journey of late B D Dhawan are detailed upon, along with a look at his contributions to the *EPW*. — *M Dinesh Kumar, P K Viswanathan & R Maria Saleth*

Situating Women in Tamil Mahabharatas

- 29 A critical examination of Tamil Mahabharatas reveals the existence of several women characters, whose stories can be read simultaneously as resisting as well as conforming to the dominant patriarchal order. — *Vijaya Ramaswamy*

Performance of Self-help Groups in India

- 36 This study focuses on two aspects of the self-help group programme's performance: its geographical expansion and the growth of non-performing assets. — *Pankaj Sinha, Nitin Navin*

Rural Economic Growth and Emerging Pattern of Rural Towns

- 44 An attempt is made to examine the emergence of small towns or urbanised villages in Gujarat and Rajasthan, which depict a disparate pattern of rural economic transformation and varying levels of urbanisation. — *Niti Mehta*

Impact of Public Distribution System on Food Consumption

- 52 An in-depth analysis shows that the consumption of some non-cereal foods increases with the consumption of cereals through the PDS, which becomes possible through the implicit savings the PDS generates due to subsidised cereal prices. — *Sourindra Mohan Ghosh, Imrana Qadeer*

Diabetes Risk Factors and Prevention Strategies

- 60 A questionnaire-based survey of diabetic patients performed during 2018 in Punjab finds perception and comprehension regarding risk factors, and prevention strategies are still at a nascent stage. — *Pooja Kansra, Sumit Oberoi*

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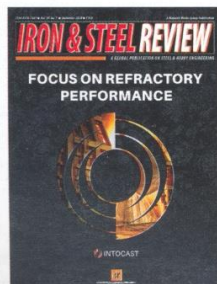
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**"We are working towards
being a net-debt-free
company"**



Ulrich Greiner Pachter
CEO and MD
SMS India

**"SMS India is already sailing
the boat of Atmanirbhar
Bharat Abhiyaan"**



Guenther Schnell
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**"India is definitely a potential
and attractive market for us"**



Sunanda Sengupta
Executive VP
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**"The Indian refractory
industry is expected to grow
by 3% in the coming year"**



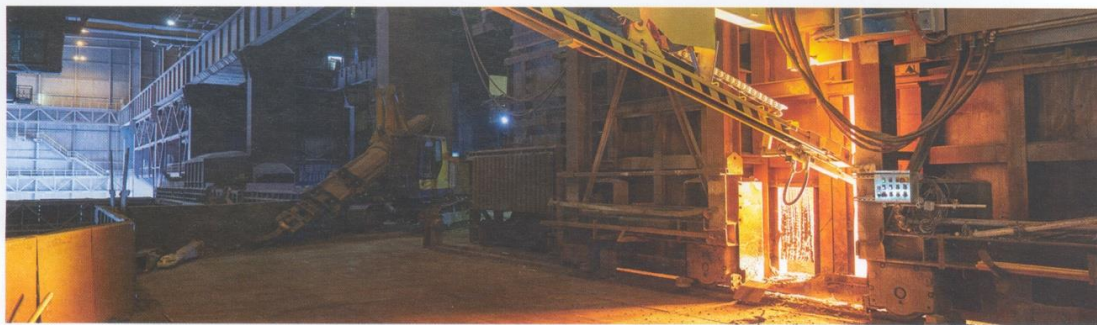
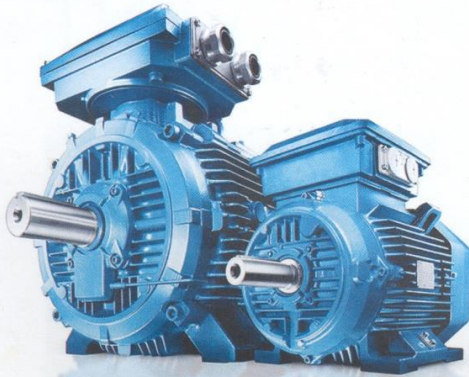
Vivek Tibrewal
Director - Sales &
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**"During the nationwide
lockdown our operation was
in full swing"**



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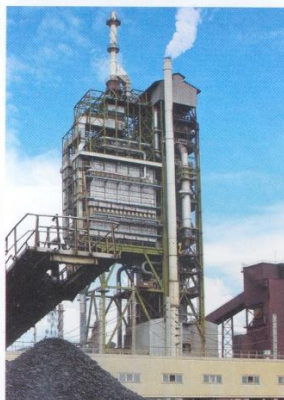
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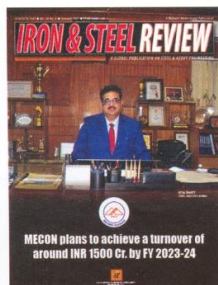
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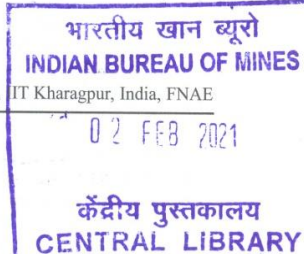
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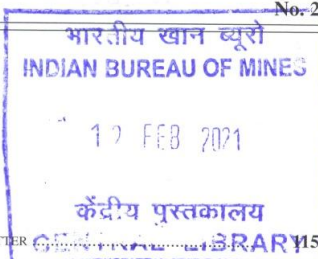
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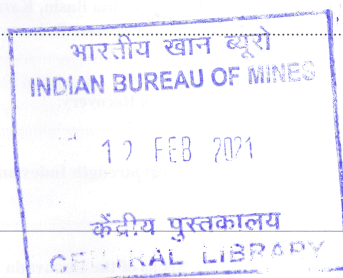
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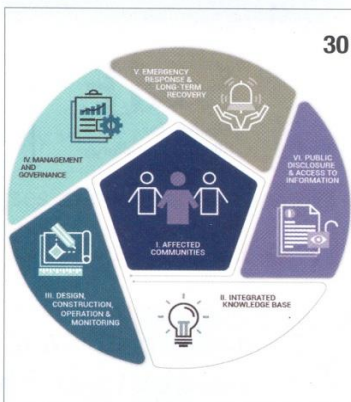


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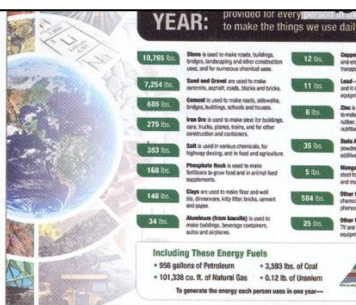
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Horizontal curves on over-land conveyors as tight as 400 m (1,312 ft) are difficult, but feasible, with conventional conveyor belt and component assemblies, given the right conditions. A team from Duro Felguera Mining & Handling completed the task to transport coal from the Port of Lázaro Cárdenas to the Petacalco Power Station in Guerrero, Mexico, see the story on page 18. And on page 28, read about compliance considerations for S-K 1300. Cover photo courtesy of Conveyor Dynamics.

This month exclusively on
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Minimizing noise in pipe conveyors
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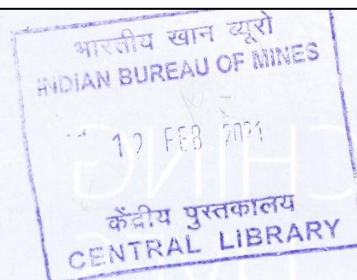
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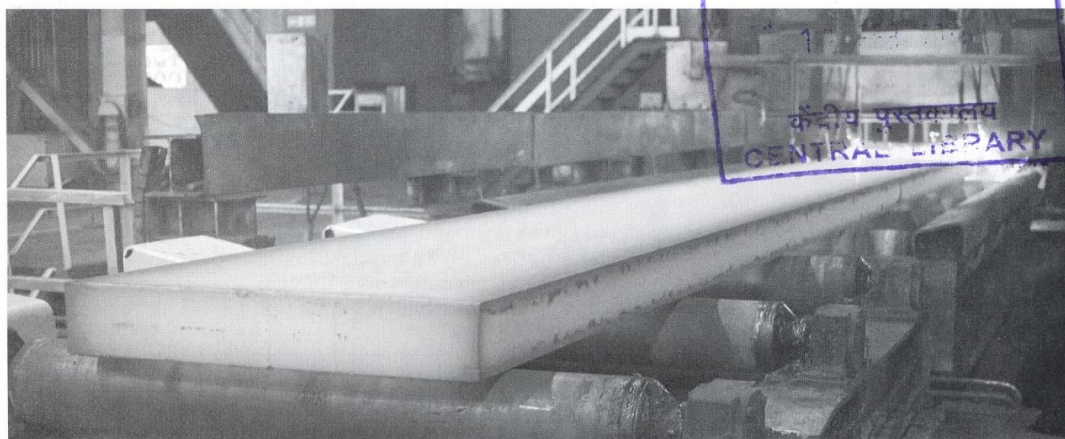
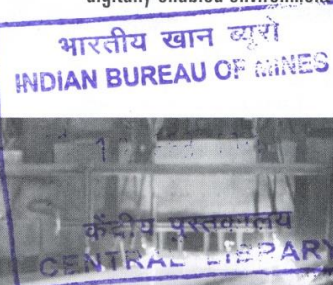
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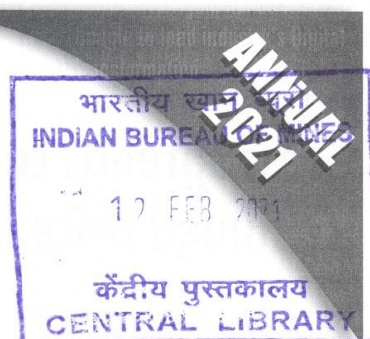
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