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Cover: Coral reef time series are the tool through which we know that coral reefs have profoundly changed in the last few decades, and many of these time series are built on images recorded in the same spot over many years. Here, Peter Edmunds records the 37th year of photoquadrats at 14 meters' depth on the Tektite reef off St. John in 2023. The reef is dominated by lobes of the coral *Orbicella annularis*, and the reef is being recorded with a camera mounted on a 1 x 1 meter photoquadrat. Edmunds discusses the long-term monitoring of coral reefs in a Forum article in this issue. Photograph: S. Zimmermann

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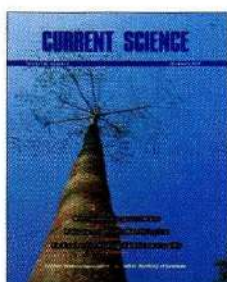
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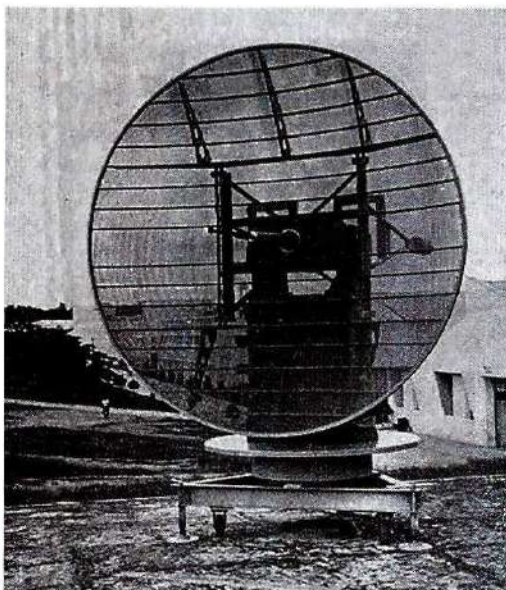
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drought-prone
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budget water
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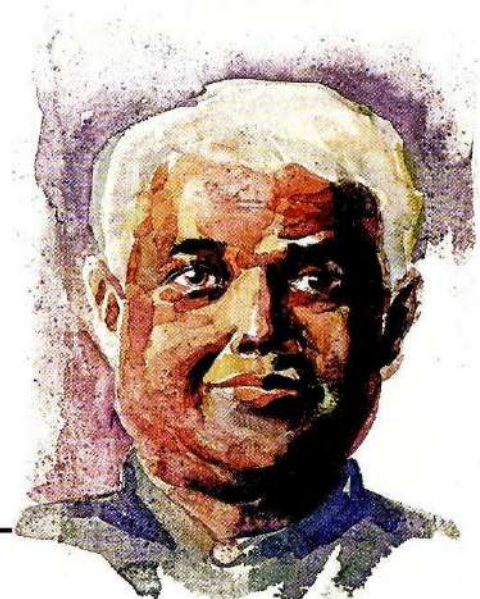
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are pushing the world towards
an uninsurable future

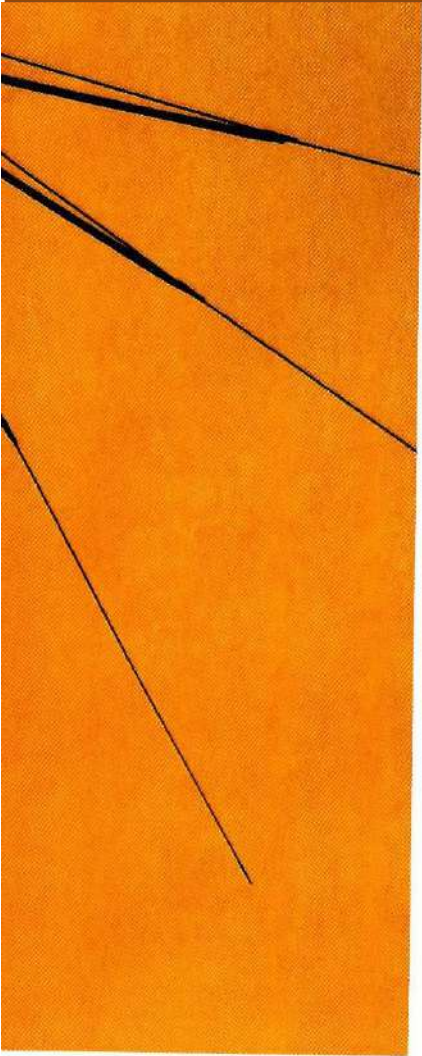
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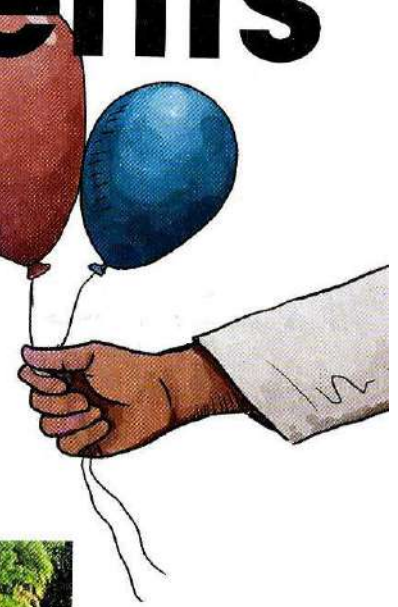
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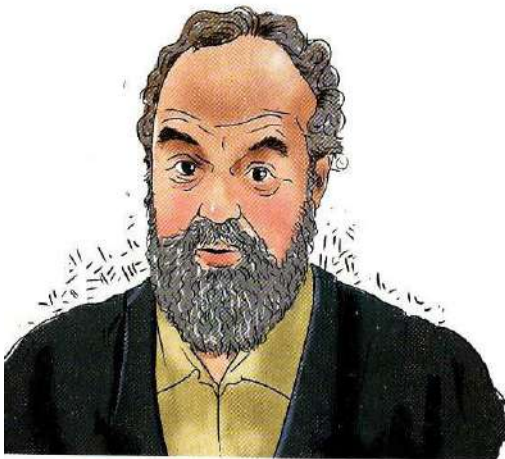
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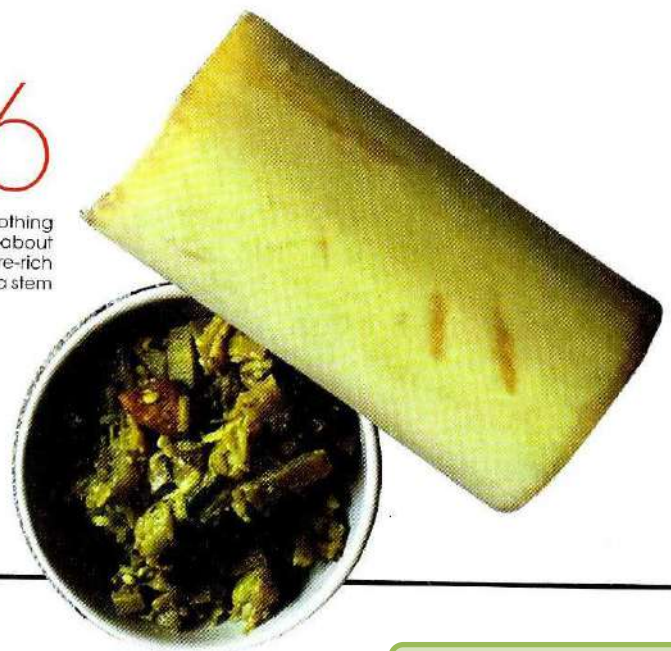


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Persisting Questions of Constitutionality

- 10 The draft Digital Personal Data Protection Rules, 2025 does not provide adequate clarity on how the DPDP board, which is responsible for the implementation of the act, is supposed to work. — *Alok Prasanna Kumar*

Climate Justice in the ICJ

- 13 The advisory opinion will be shaped by the relief that the states seek. Under what circumstances wrongfulness arises is the substantial question of law India should focus on. — *Mukul Sanwal*

Dispossession in the Name of Climate Change?

- 16 Invoking the notion of climate change politics as advanced by Borras and Franco, its impact in shaping mobilities and displacement is analysed. — *George T Mudimu, Fadzaï Chipato*

Free Movement Regime and Ethnic Belonging

- 19 Ethnicity as a primordial identity has the potential to disengage with political identity created by territorial states. However, the end result depends on the negotiating capacity of the state. — *V Bijukumar*

Improving Yield Efficiency

- 28 Farmers in regions with eruptive climate conditions are adopting pre-monsoon dry sowing as an eco-friendly and sustainable farming approach. Using primary survey data, the adoption rate, costs, benefits, technical efficiency, and recommendations for scaling up are examined. — *Brajaraja Mishra*

Effects of Farm Credit on Productivity

- 36 Using household-level data from the recent nationally representative farm survey in India, the impact of farm credit on productivity and risk in agriculture is assessed. The results show that credit boosts productivity by 24% and reduces downside risk by 16%. — *Pratap S BIRTHAL, Jaweriah Hazrana, Devesh Roy & K J S Satyasai*

Extraction and Development in Bastar

- 45 The neo-liberal political economy of natural resource extraction in Bastar undermines the long-standing relationships of local Adivasi communities with nature and makes them further marginalised. — *Janmejaya Mishra, Shashank Deora*

Child Budget through Age Lens

- 52 Computational methods are developed to analyse age distribution patterns for child budgets, with a case study of Karnataka. Remarkable variations in the allocation are observed by different age groups and child-centric programmes/non-programmes. — *M R Narayana*

Industrial Concentration in India

- 60 This paper investigates industrial concentration in India using the Herfindahl-Hirschman Index at different levels of the National Industrial Classification using income, assets and the sum of assets and income. Differences across industries are observed based on levels of aggregation and variables used. — *Gaurav S Ghosh, Subhashish Gupta*

National Family Health Surveys

- 69 A response to Irudaya Rajan and Sunil Rajpal's paper (EPW, 31 August 2024), the discussion critically reviews the quality of National Family Health Surveys and raises notable concerns. — *Pooja Arora, Somnath Jana & Laxmi Kant Dwivedi*

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Death Registration in India

- 10 India's death registration system faces significant challenges, including regional disparities, gender inequities, and incomplete data capture. — *Md Azharuddin Akhtar, Malik Altaf Hussain*

Academic Conferences

- 14 Due to their perceived lack of integrity, academic conferences worldwide face scrutiny. Scholars face challenges from the "publish-or-perish" culture and the commercialisation of academic recognition. — *Disha*

Adivasi Consolidation, Politics of Symbolism, and Identity

- 18 The outcome of the 2024 Jharkhand assembly elections is marked by a consolidation of Adivasi consciousness and identity, the will to reject "fear-based rhetorics," and a rebuff to "Operation Lotus." — *Bipasha Lakra*

Identifying the Risks of Coal Phase Down

- 21 This article highlights the challenges associated with increasing the share of renewables and identifies the risks of phasing down coal in the near to midterm future. — *Jay Ganesh Pandey*

Palm Oil and Deforestation in Tripura

- 28 The primary reason compelling tribals to embrace new emerging monocropping plantations of palm oil is centred around tribal land relations, while the political implications of deforestation remain overlooked. — *Thomas Malsom*

Recasting Mumbai's Slum Act

- 33 The Slum Rehabilitation Authority in Mumbai is doing more harm than good, yet there is talk of adopting the "SRA model" in other states. An alternative is to take slum lands off the market and dedicate them to low- and lower-middle-income housing. — *Shirish B Patel*

Rating Systems: A Drivers' Perspective

- 40 Rating systems used by ride-hailing companies, such as Uber and Ola, are studied. An analysis into what the companies have to say about the use of rating systems is juxtaposed with narratives of drivers' perceptions of the same. — *Devasmita Jha, Shishir Kumar Jha & Anupam Guha*

Ambedkar and the Evolution of Pragmatism

- 47 This paper surveys the relationship between Ambedkar and Dewey and argues that there are clear and evidenced points of engagement between their forms of philosophy. In showing this complex reception of Dewey's pragmatism, a new way of talking about Ambedkar is revealed. — *Scott R Stroud*

Fertility in the Business Cycle

- 55 Through a non-linear autoregressive distributed lag model, we find that although fertility is affected when the unemployment rate rises, a fall in the unemployment rate does not affect it. Thus, our finding reveals that the effect of unemployment on fertility in India is permanent. — *Jeet Saha, Zafar Iqbal*

Gender Neutrality in Sexual Harassment Laws

- 62 This article argues that judicial decisions on questions of gender neutrality in laws against sexual harassment tend to decontextualise and selectively draw upon feminist and queer debates on the subject in India. — *Atrejee Sengupta*

Postscript

- 71 *Renu Susan Jacob* on the titular refrain and lyrical subtext in *Jaya Jaya Jaya Hey*; *Kaaren Mathias* on *Neeche Jana*; *Tahseen Fatima* on capitalist alienation in *Pyaasa*; Last Lines by *Ponnappa*.

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The Crisis of Dalit Politics

- 10 In southern Tamil Nadu, prominent leaders among the Devendra Kula Vellalars have adopted a new political rhetoric after their alliance with the Bharatiya Janata Party. — *P Vellaisamy*

From McKinley to Musk

- 13 Tech giants with their control over digital infrastructure, artificial intelligence, and global communication networks are reshaping both American domestic policy and international relations. — *Atul Bhardwaj*

A Journey from Lewis to AJR

- 15 The institutional set-up that is implicit in Arthur Lewis's model was made explicit by Daron Acemoglu, Simon Johnson, and James A Robinson in their Nobel-winning research. — *Atanu Sengupta, Sanjoy De*

Politics of Emotions in Punjab

- 18 In the parliamentary elections in Punjab, the political leadership across parties employed populist schemes and emotional issues to shape the political perceptions and voting behaviour of the people. — *Surinder Singh*

The Places of Worship Act

- 20 What was once perceived as political exclusion is now being ratified through court decisions, highlighting a disturbing intersection of law and ideology that worsens the marginalisation of Muslims. — *Burhan Majid*

Parliamentary Representation post 2026

- 29 Concerns exist that the post-2026 delimitation might adversely affect the representation and resource-sharing of southern Indian states. This apprehension may be unfounded as in-migration would counteract the declining fertility rates in the south. The reduced share in tax assignment stems from the finance commissions' focus on income distance and their refusal to incorporate migration in computations. — *D Narayana*

Governing Tribal Towns

- 36 Contrary to the assumption that tribes predominately dwell in rural areas, there is a significant proportion of the tribal population in small towns of North East India. The paper conceptualises tribal urbanism around the notions of the community asserting control over their urban spaces and wielding political influence over economic life and sociocultural processes. — *Raile Rocky Ziipao*

Politics of Environmental Governance

- 43 This study employs historical institutionalism to explain China's relative success in managing air pollution, conceptualising three modes of institutionalisation—top-down, bottom-up and lateral. While top-down and bottom-up modes in Beijing created positive governance and political feedback, the lateral mode in Delhi generated friction. — *Dwarkeshwar Dutt*

Household Water Well-being

- 51 The complex links between the dynamics of water well-being for sustainable development across different social groups are examined to explain the underlying reasons for inequalities in water accessibility and availability in the sub-Himalayan Dooars region. It is found that Scheduled Caste and Scheduled Tribe communities encounter significant obstacles in accessing sustainable water resources. — *Suranjan Majumder, Indrajit Roy Chowdhury*

Normalising the False Binary of Hill-Valley

- 60 Representing prolonged conflicts faithfully is never easy. This is true for both the actual subjects of the conflicts and outside observers. — *Pradip Phanjoubam*

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An Assault on Privacy and Dignity

- 10 The Uttarakhand Uniform Civil Code seems less about ensuring uniformity and more about controlling the choices and bodies of young people. This is a clear violation of constitutional guarantees. — **Alok Prasanna Kumar**

Automating Domesticity

- 13 Technology emerges as a seeming "equaliser" in media portrayals of the domestic. Do such portrayals challenge patriarchal gender norms or do they reinforce them in subtler ways? — **Sanya Darapuri**

The Gender and Equity Question

- 16 For a just energy transition, it is important to ask who benefits from such transitions and how, taking into account the social positioning and power dynamics between various social actors. — **Divya Pradeep**

Shirish B Patel (1932–2024)

- 19 Urbanist Shirish B Patel's interests went far beyond the conventional boundaries of engineering and urban planning. He was a humanist committed to a "just and fair" city for all. — **Vidyardhar K Phatak**

Need for Deposit-accepting Licences

- 29 To strengthen the process of financial intermediation and reduce the systemic risk, there is a need to allow a few upper-layered non-banking finance corporations to raise public deposits. — **Rupa Rege Nitsure, Pretimaya Samanta**

Purse Seine Fishing

- 36 How Indian courts have handled disputes related to marine purse seine fishing since 2018 is examined. The narratives that underlie these cases contain a mix of environmental, developmental, and distributional arguments. The upcoming Supreme Court judgment will have major implications for the sustainability of marine fisheries. — **Maarten Bavinck**

Wilful Default in Emerging Economies

- 43 The role of related party transactions for wilful defaulters is examined. Logistic regression model results indicate that wilfully defaulting firms are likely to be financially constrained as they have lower cash flows from operations, lower interest coverage, and higher leverage compared to non-defaulter firms from the same industry. — **Dipali Krishnakumar, Madhvi Sethi**

Growth Divergence

- 50 There has been rising inequality among Indian states in terms of per capita gross domestic product. By examining the convergence or divergence between 20 major Indian states from 2000 to 2019, we find that the differences in productivity growth rates, as well as different steady states, are the drivers of the increasing interstate inequality. — **Taniya Ghosh, Kaustubh**

Labour Productivity and Structural Transformation

- 58 There are noticeable differences in labour productivity with respect to the ratios of manufacturing to agriculture, industry to agriculture, and services to agriculture in Uttar Pradesh. Dedicated policy efforts are required to revive the industry sector in the state to speed up the labour transformation from agriculture to non-agriculture sectors. — **Nagendra Kumar Maurya, Puneet Kumar Shrivastav**

Artistry of Resistance

- 66 Brahma Prakash's *Body on the Barricades* metaphorically places resistance as an assertive art in a political backdrop where curtailment, oppression, and marginalisation continue to exist in the most unapologetic forms. — **Radhika Jagtap, Aparna Vyas**

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- 71 **Sreshtha Chakraborty** on Palestinian women's resistance; **Saurabh Saikia** on the standardisation of Bihu; **Sonali Gupta** on the many definitions of adventure for women; and Last Lines by **Ponnappa**.

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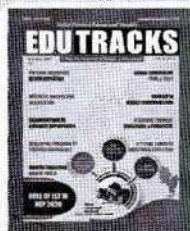
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e-mail : edutracksneelkamal@gmail.com

website: www.edutracks.neelkamalbooks.com

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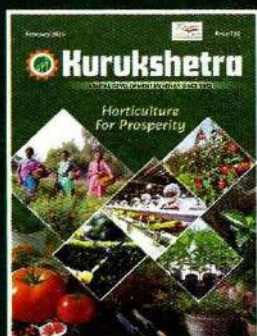
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EDITORIAL OFFICE
Room No. 653,
Publications Division,
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bhavansnavneet@gmail.com

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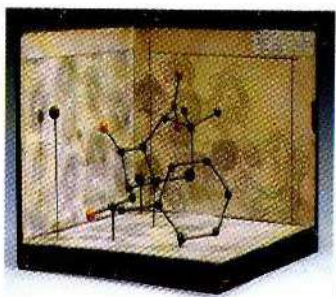
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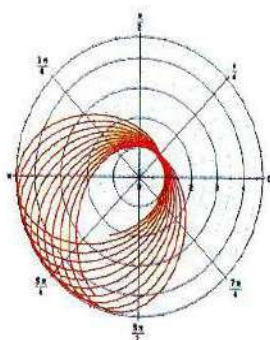


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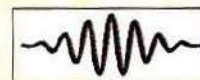
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Molecular model of penicillin built by Hodgkin using the electron density contour maps behind the model.

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Dorothy Crowfoot Hodgkin
(1910–1994)

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National Education Policy–2020: Challenges, Concerns, and A Possible Way Out

Moumita Das* and Suresh Garg**

It is widely accepted that education is an organic entity and has evolved to guide us towards productivity. It is a unique resource for the development of society. Education empowers us by imparting necessary knowledge and skills so that we can live a healthy life and contribute to the betterment of an equitable and just society. As such, education can be dealt with in four segments (i) Primary (ii) Upper Primary (iii) Secondary & (iv) Tertiary. NEP–2020 deals with each segment separately and is a holistic document.

The education system in India evolved by way of recommendations of education commissions (GOI, 1966; 1986; 1992, 2020) and was supported by the Indian Government with financial provisions ever since India became free from the British. However, in spite of the best efforts and intentions, a gap was created between what was needed in the workplace and what got transacted in the classroom. Unfortunately, this gap continued to grow with time. There were many reasons for this but the most powerful one was Macaulayism, which was mainly confined to teaching English and promoting Western education to produce Anglicized Indians who served as interpreters; their creativity was annulled and they lost originality of thought, intellect, action, and morals.

Over the decades, there was, a serious blow to indigenous knowledge systems; there was marginalization and decline of traditional knowledge, vocational skills, and vernacular languages and literature. The gradual dying out of the demand for artisanal technologies forced the out-of-work artisans to move to rural areas and embrace poverty, leading to an unsustainable economic condition. This blow led to the loss of valuable cultural practices, and enrichment thereof that perhaps would have allowed us a much healthier socio-economic prosperity in the country. The educational policies of the post-Independent India sought to rectify this undoing.

Evolution of Education in India

India has traditionally enjoyed a rich heritage of learning and culture. Yet due to varied reasons the educational scenario on the eve of independence was quite bleak. The literacy rate was about 14% and the education funding was less than ½ % of the national income. The number of universities was six and only 420 colleges existed then. After independence, several educational committees and commissions were constituted by the forefathers of Indian democracy

* Pro-Chancellor, Usha Martin University, Angara, Ranchi-835103, Jharkhand.
E-mail: pc@umu.ac

**Deputy Director, National Centre for Innovation in Distance Education, Indira Gandhi National Open University, New Delhi. E-mail: moumitadas@ignou.ac.in

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Occupation-based Learning Laboratories in India

D Srinivas Kumar*

Ancient Indian 'occupation-based learning laboratories' (OBLL) refers to the systematic and precise learning of young persons under the guidance of a teacher in a particular occupation or vocation and implementation and practice of the same in their daily life contexts for earning livelihood and for furtherance of occupation or vocation to the next generations. The CE 1879 has been considered as a benchmark because the experimental psychology laboratory was established by Wilhelm Wundt in Germany in the year 1879.

Psychological testing and evaluation were parts of the OBLL systems which existed in India, however, without displaying any huge name boards like in the case of the contemporary world; anecdotal records reveal that there existed such centers like - vedic learning centres, metal ornaments making and training centres, iron utilities making and training centres, wooden utilities making and training centres, sculpture making and training centres, earthen utilities making and training centres, hair decoration, and training centres, shoe-making and training centres, warriors training centres, agriculture training centres, dance training centres, music training centres and so on.

Interestingly, it could be noticed that the practitioners of a particular occupation or vocation had been placed under a category and named as a caste group or community. These were institutionalized as formal teaching places of education wherein skill-based teaching and learning of subjects occur simultaneously. As was said, "child is the father of man", - traditions and conventions gradually took place leading to specialized elementary skills in the application of theoretical knowledge and improved in the early ages of life of a person in a variety of perspectives of life, - character building, tolerance, perseverance, etc., - fundamentals of particular education/occupation which were pre-requisite qualities for future development of students towards of higher education. Here, it comes to our memory at the top international level, namely, Takshasila University and Nalanda University in undivided India. So, all these could be inferred that the very education policy and system itself was different from that of the one which exists now. The then vision and mission seem to be directed towards quality posterity as envisaged in Vedas and Upanishads of the yore.

As a matter of fact, genetic factors of a particular caste/community change over a period of time from generation to generation (as of now, it is scientifically proven).

Questions of the supremacy of occupations or vocations have manifested claiming one-upmanship over the other. Such situations gave rise to prejudices, making negative attributes to some other

* Professor and Dean, School of Education and HRD, Dravidian University, Srinivasavanam, Kuppam, Chittoor, Andhra Pradesh- 517426. E-mail: drsrinivas.kumar927@gmail.com

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Food Miles: A Potential Tool for Environmental Management

Asha Pandey* and N P Melkania**

The food system is an integral part of human well-being and environmental sustainability and plays a crucial role in achieving the Sustainable Development Goals (SDGs). However, it simultaneously contributes to significant challenges, including health issues, social inequities, environmental degradation, and High Greenhouse Gas (GHG) emissions. Addressing these unavoidable issues requires a comprehensive transformation of food systems across the whole supply chain. Efficient food systems, including those that advocate for plant-based diets, minimize waste, and decrease food miles, contribute to mitigating climate change and arresting environmental degradation.

As per the Food and Agriculture Organization (FAO, 2021), the global food system is responsible for approximately 31 per cent of the total GHG emissions which includes emissions from land use change, agriculture activities, food transport, food waste and dietary choices. Even if fossil fuel emissions are halted immediately, emissions from food production would alone push the world to cross the carbon budget for 1.5°C, leaving limited space to meet the 2°C target (Ritchie, 2021).

Fig. 1 illustrates GHG emissions per kilogram of food product. The figure envisages the GHG emissions from animal-based products and dark chocolate to be much higher than the plant-based products. In the era of globalization, food miles have emerged as a significant factor contributing to the environmental impact of food. The distance food travels from production to consumption, or "food miles," accounts for 20 per cent of GHG emissions from the entire food production system (Li *et al.*, 2022). Longer food miles, especially when depending on air or road goods, usually result in higher GHG emissions from transportation. The four main forms of food transportation are air, rail, road, and water. Since air travel is not common in the food supply chain, the present days largest emission globally is observed from water transportation (Fig. 2).

Prioritizing locally-produced food can reduce carbon footprints, boost regional economies, and promote seasonal eating. However, production methods can sometimes have a greater environmental impact than transportation; thus, it is imperative to balance food miles with sustainable farming practices. Including food miles in

*Assistant Professor, Department of Environmental Science, University School of Vocational Studies and Applied Sciences, Gautam Buddha University, Greater Noida-201 312, Uttar Pradesh. E-mail: asha.pandey@gbu.ac.in

**Professor, Department of Environmental Science; Dean University School of Vocational Studies and Applied Sciences; Dean University School of Biotechnology; and Dean Academics, Gautam Buddha University, Greater Noida- 201 312, Uttar Pradesh. E-mail: niranjan.melkania@gbu.ac.in

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EDITORIAL OFFICE

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Ph: (044) 2844 0042 E-mail: yuvabharati@vckendra.org

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