

# DAILY PT POINTERS

27th June, 2024



## T.N. House urges Centre to take up caste-based census

**The Hindu Bureau**  
CHENNAI

The Tamil Nadu Assembly on Wednesday unanimously adopted a resolution, proposed by Chief Minister M.K. Stalin, urging the Union government to conduct a caste-based census along with the general population census.



The Assembly unanimously adopted the resolution on

### Tamil Nadu passes resolution for immediate caste census

- Caste wise enumeration of the population was introduced under the British colonial administration in 1881 and continued till the 1931 census. Independent India's governments abandoned full caste enumeration on the apprehension that it would strengthen caste divisions and perpetuate the caste system.
- However, the caste system has persisted and flourished in independent India — even without the caste census — along with its discriminatory and exclusionary consequences, as revealed by official surveys and statistics.

### Do you know ?

- Article 15(4) of the Constitution enables the State to make special provisions for the advancement of “socially and educationally backward classes of citizens
- The V.P. Singh government implemented 27% OBC reservation for public services in 1990 and following legal challenges, the Supreme Court upheld it in the *Indra Sawhney & others versus Union of India* judgment in 1992 with the significant observation

The Hindu :GS3-Environment(Page -5)

## India's largest leopard safari opens at Bannerghatta

**The Hindu Bureau**

BENGALURU

South India's first and the country's largest leopard safari was inaugurated by Karnataka Environment Minister Eshwar Khandre on Wednesday at the Bannerghatta Biological Park.

As per Central Zoo Authority guidelines for safaris, an area of 20 hectares has been demarcated and fenced for the safari. Eight leopards have been released for the safari in the open forest area.

According to park officials, Bannerghatta is home to a good



**In focus:** A leopard clicked during the inaugural safari ride at Bannerghatta in Bengaluru on Wednesday.

K. MURALI KUMAR

South India's first and the country's largest leopard safari was inaugurated by Karnataka Environment Minister Eshwar Khandre on Wednesday at the Bannerghatta Biological Park. The facility has been created at a cost of ₹4.5 crore. The leopard safari area is made up of undulating terrain with natural rocky outcrops and semi-deciduous forest.

### Do you know ?

- Leopards have held cultural significance in ancient civilizations, symbolizing power, agility, and nobility
- The Indian leopard (*Panthera pardus fusca*) is distributed across a variety of forested habitats in India, Nepal, Bhutan, and parts of Pakistan, excluding mangrove forests and desert habitats
- It is listed in Schedule I of the Wildlife (Protection) Act, 1972 and classified as "Vulnerable" by the IUCN Red List,

Indian Express- GS 3/Environment –Page -10

## How well is India tapping its rooftop solar potential?

Which are the States with the highest RTS capacities? How can more awareness be spread?

Shantanu Roy

### The story so far:

India's installed rooftop solar (RTS) capacity increased by 2.99 GW in 2023-2024, the highest growth in a year. As of March 31, the total installed RTS capacity in India was 11.87 GW, according to the Ministry of New and Renewable Energy. To meet rising energy demand, India needs to double down on its efforts to expand its RTS potential.

### What is the RTS programme?

India launched the Jawaharlal Nehru National Solar Mission in January 2010. Its main objective was to produce 20 GW of solar energy (including RTS) in three phases: 2010-2013, 2013-2017, and 2017-2022. In 2015, the government revised this target to 100 GW by 2022, including a 40-GW RTS component, with yearly targets for each State and Union Territory. In December 2022, India had an installed RTS capacity of 7.5 GW and

target to 2026. While financial incentives, technological advances, awareness, and training have improved RTS installation numbers, there is a long way to go. India's overall RTS potential is approximately 796 GW. To meet India's target of installing 500 GW of renewable energy capacity, with a solar component of 280 GW, by 2030, RTS alone needs to contribute about 100 GW by 2030.

### How are States faring?

As of March 31, 2024, the RTS capacities of Gujarat, Maharashtra, and Rajasthan had taken big strides while some others were behind the curve. An installed RTS capacity of 3,456 MW in Gujarat is the result of its government's quick approval process, a large number of RTS installers, and high consumer awareness. Similarly, Maharashtra, with an RTS capacity of 2,072 MW, is one of the top-performing States owing to its robust solar policies and conducive regulatory environment.

Thanks to its land area and high solar

potential in the country: 1,154 MW. Its efforts to streamline approvals, provide financial incentives, and promote RTS through public-private partnerships have spurred this growth.

Kerala, Tamil Nadu, and Karnataka, with respective installed capacities of 675, 599, and 594 MW, have also performed reasonably well. However, Uttar Pradesh, Bihar, and Jharkhand, among others, are yet to fully explore their RTS potential. Their challenges include bureaucratic hurdles, inadequate infrastructure, and lack of public awareness.

The 'Pradhan Mantri Surya Ghar Muft Bijli Yojana' is a flagship initiative to fit one crore households with RTS systems and help them get up to 300 units of free electricity every month. An average system size of 2 kW for targeted households will result in a total RTS capacity addition of 20 GW. The scheme has a financial outlay of ₹75,021 crore, which includes financial assistance for consumers (₹65,700 crore), incentives for

installing capacity (₹1,000 crore)

incentives for local bodies and model solar villages in each district, payment security mechanisms, capacity building (₹657 crore), and awareness and outreach (₹657 crore). The scheme also encourages the adoption of advanced solar technologies, energy storage solutions, and smart grid infrastructure.

### THE GIST

India's installed rooftop solar (RTS) capacity increased by 2.99 GW in 2023-2024, the highest growth in a year.

### How can we ensure RTS growth?

Creating awareness is key to getting consumers on board. In addition, RTS needs to be economically viable for households. While government subsidies are helping, multiple low-cost financing options are required. The number of banks and non-bank financial companies providing RTS loans has increased of late. Access to low-cost RTS loans should be as easy as getting a bike or car loan.

Promoting R&D in solar technology, energy storage solutions, and smart-grid infrastructure can lower costs, improve performance, and enhance the reliability of RTS systems. Investments in training programmes, (like the 'Suryamitra' solar PV technician programme initiated in 2015), vocational courses, and skill development initiatives will help build a skilled workforce.

As the scheme's implementation enters full swing, net-metering regulations, grid-integration standards, and building codes should be reviewed and updated to help address emerging challenges and facilitate smooth implementation.

Shantanu Roy works with the Center for

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### Related initiative

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## The Hindu-Health (GS II )/Environment(GSIII)–Page 12

### Prolonged exposure to coal mining causes respiratory, skin diseases in workers: study

Jacob Koshy  
NEW DELHI

Prolonged exposure to pollutants from coal mining has resulted in widespread respiratory and skin diseases among mine workers and other inhabitants of six districts in India where coal extraction is a major occupation, says a survey of 1,200 households published by the National Foundation for India, an organisation that works on social justice issues.

The six districts are Koriya and Raigarh (Chhattisgarh), Dhanbad and Ramgarh (Jharkhand), and Angul and Jajpur (Odisha).

#### Medical expenses

At least 65% of the participants interviewed reported health issues such as chronic bronchitis, asthma, and skin ailments such as eczema, dermatitis and



**Unmindful of the risk:** Workers at an open-cast coal mine in Jharia on the outskirts of Dhanbad in Jharkhand. AFP

fungal infections. On an average, a household in these districts spent ₹300 to ₹1,000 on monthly medical bills.

The average annual hospitalisation expenses in Dhanbad were the highest at ₹28,461 for a household. The survey, on an average, spanned 18 to 20 villages in each district.

People living closer to

the mines are relatively more vulnerable. Dhanbad and Ramgarh, which have more people living in such zones, have higher incidence of lung and breathing-related diseases and skin infections.

#### Shift from coal

The broader thrust of the study was to investigate a 'just transition' – or how

those who are directly dependent on coal mining may be effectively and sensitively transitioned from these jobs.

The world's shift away from coal is expected to result in significant job losses and economic downturn in coal-dependent regions. This will impact not only the coal miners and workers directly but also the broader local economy.

"Social and economic disparities were evident across districts, with varying income levels and irregular wage receipt patterns," said Pooja Gupta, co-author of the study and research associate at the NFI.

"Dhanbad (Jharkhand) and Koriya (Chhattisgarh) are solely reliant on coal production, and reported lower incomes than the more diversified industrial districts like Angul (Od-

isha)," she said in a press statement.

#### Renewable energy

While India has committed to source nearly 500 GW of electricity – nearly half its projected installed capacity for 2030 – from renewable energy sources, coal is expected to be the mainstay of power generation in India for decades.

Nearly half of India's installed power generation capacity, or about 205 GW, are coal-powered thermal plants.

Change, however, is in the air as renewable energy accounted for 71.5% of the record 13.6 GW power generation capacity added by India for the first time in the January-March quarter this year, while coal's share, including lignite, of the total power capacity dropped below 50% for the first time since the 1960s.

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#### Do you know ?

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# HEADLINES OF THE DAY



The Hindu –Environment (GSIII)-Page 20



James Larkin (left) from the University of the Witwatersrand implants radioisotopes into a sedated rhinoceros' horns, along with other Rhisotope Project members in the Waterbury UNESCO biosphere in Mokopane, on Tuesday. AFP

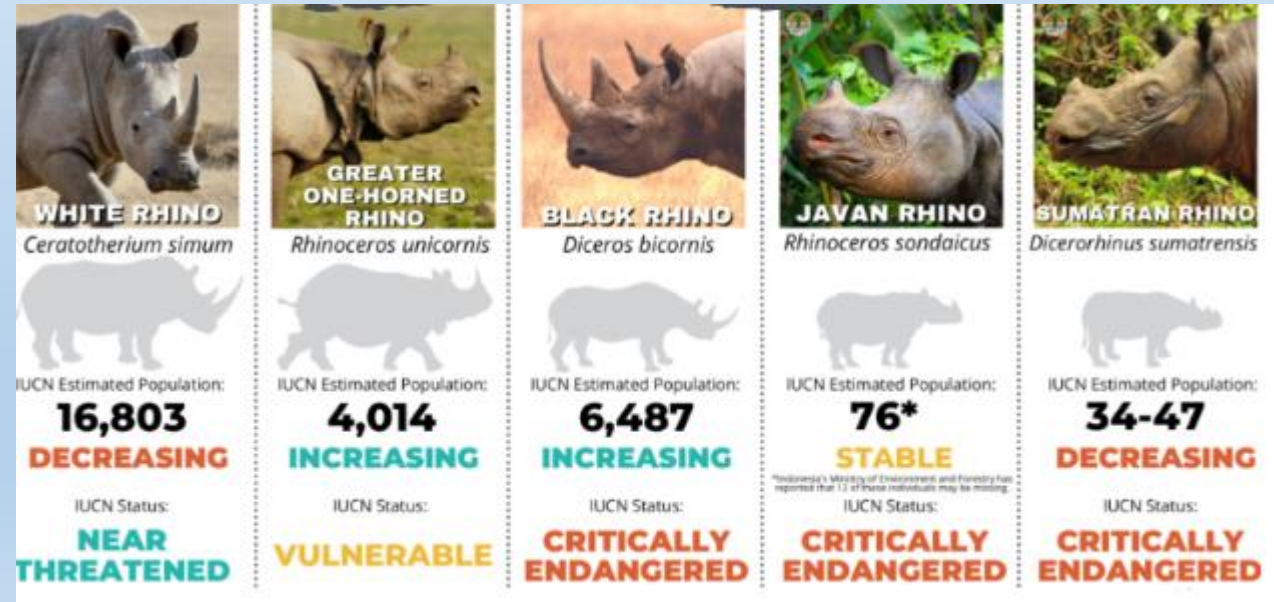
## Radioactive implant for rhino horns to curb poaching

Agence France Presse

South African scientists on Tuesday injected radioactive material into live rhinoceros horns to make them easier to

South African scientists injected radioactive material into live rhinoceros horns to make them easier to detect at border posts in a pioneering project aimed at curbing poaching.

The country is home to a large majority of the world's rhinoceroses and, is a hotspot for poaching driven by demand from Asia, where horns are used in traditional medicine for their supposed therapeutic effect.



## The Hindu –Economy(GSIII)

### Coffee exports rise as Europe braces for EUDR

Yishwanath Kulkarni  
BENGALURU

Indian coffee exporters are witnessing an increase in demand from European buyers who are seen building inventory ahead of the deadline for compliance to the proposed European Union Deforestation Regulation (EUDR) norms.

The EUDR is aimed at minimising the importation of products linked to deforestation and requires strict due diligence and traceability measures for commodities such as coffee and is likely to have an impact on the Indian exports.

The EUDR norms, which applies to a wide range of products, including cattle, cocoa, coffee, oil palm, rubber, soya and wood, requires businesses to comply with its requirements by December 30 this year.

**‘Front-loading of coffee’**  
“With the EUDR coming up there’s lot of front-loading of coffees as European customers are buying ahead of the deadline.

“We are seeing a build-up of inventories in Europe. Already, a lot of shipments are taking place.”



**Stricter norms:** The EUDR is aimed at minimising importation of products linked to deforestation. THE HINDU

**The EUDR norms requires businesses to comply with requirements by December 30**

tonne a year earlier.

Shipments of the India-grown coffees have seen an increase of 15% during the period at more than 1.83 lakh tonne against 1.59 lakh tonnes a year earlier.

“Most of our clients who preferred to buy just-in-time, now feel that it’s safe to have inventory. Over the past 20 years, the mantra was just-in-time and supply-chain management,

ranges between February and May. This year, the peak season has extended to June, Mr. Rajah added. Normally, the shipments turn slack during June-August period due to the arrival of monsoon.

**Europe in focus**

India, the seventh largest producer of coffees, is the fifth largest exporter of the commodity after Brazil, Vietnam, Colombia and Indonesia. More than two-thirds of India-grown coffees are exported. About 60% of the Indian coffee exports are destined to Europe with Italy, Germany and Belgium being the ma-

- ‘Indian coffee exporters are witnessing an increase in demand from European buyers who are seen building inventory ahead of the deadline for compliance to the proposed European Union Deforestation Regulation (EUDR) norms. The EUDR is aimed at minimising the importation of products linked to deforestation and requires strict due diligence and traceability measures for commodities such as coffee and is likely to have an impact on the Indian exports.
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### Do you know ?

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## Indian Express -Environment (GSIII)

### Danish farmers to face carbon tax for flatulent cows, pigs, a world first

JAN M. OLSEN

COPENHAGEN, JUNE 26

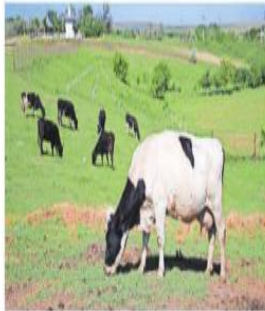
DENMARK WILL tax livestock farmers for the greenhouse gases emitted by their cows, sheep and pigs from 2030, the first country in the world to do so as it targets a major source of methane emissions, one of the most potent gases contributing to global warming.

The aim is to reduce Danish greenhouse gas emissions by 70% from 1990 levels by 2030, said Taxation Minister Jeppe Bruus. As of 2030, Danish livestock farmers will be taxed 300 kroner (\$43) per ton of carbon dioxide equivalent

in 2030. The tax will increase to 750 kroner (\$108) by 2035. However, because of an income tax deduction of 60%, the actual cost per ton will start at 120 kroner (\$17.3) and increase to 300 kroner by 2035.

Although carbon dioxide typically gets more attention for its role in climate change, methane traps about 87 times more heat on a 20-year timescale, according to the U.S. National Oceanic and Atmospheric Administration.

Levels of methane, which is emitted from sources including landfills, oil and natural gas systems and livestock, have increased particularly quickly since 2020.



Livestock account for about 32% of human-caused methane emissions, says the UN Environment Program. AP

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"We will take a big step closer in becoming climate neutral in 2045," Bruus said, adding Denmark "will be the first country in the world to introduce a real CO2 tax on agriculture" and hoped other countries would follow suit. New Zealand had passed a similar law due to take effect in 2025. However, the legislation was removed from the statute book Wednesday after hefty criticism from farmers.

New Zealand said it would exclude agriculture from its emis-

sions trading scheme in favor of exploring other ways to reduce methane. In Denmark, the deal was reached late Monday between the center-right government and representatives of farmers, the industry, unions, among others, and presented Tuesday.

Denmark's move comes after months of protests by farmers across Europe against climate change mitigation measures and regulations that they say are driving them to bankruptcy. The Danish Society for Nature Conservation described the tax agreement as "a historic compromise."

"We have succeeded in land-

ing a compromise on a CO2 tax, which lays the groundwork for a restructured food industry — also on the other side of 2030," its head Maria Reurnert Gjerding said. A Danish cow produces 6 metric tons of CO2 equivalent per year.

Denmark, which is a large dairy and pork exporter, also will tax pigs although cows produce far higher emissions than pigs.

The tax is to be approved in the 179-seat parliament, but the bill is expected to pass after the consensus. According to Statistic Denmark, there were as of June 30, 2022, 1,484,377 cows, a slight drop compared to the previous year. AP

Denmark will be first to impose carbon tax on agriculture

- A carbon tax could discourage the use of fossil fuels and encourage a shift to less-polluting fuels, thereby limiting the carbon dioxide (CO<sub>2</sub>) emissions that are by far the most prevalent greenhouse gas.
- Carbon taxes, levied on coal, oil products, and natural gas in proportion to their carbon content, can be collected from fuel suppliers. They in turn will pass on the tax in the form of higher prices for electricity, gasoline, heating oil, and so on, as well as for the products and services that depend on them



## Indian Express –Governance(GSII)-Page 9

### Leader of Opposition in Lok Sabha: the position, role, responsibilities

ASAD REHMAN  
NEW DELHI, JUNE 26

RAE BAREILLY MP Rahul Gandhi is Leader of Opposition in Lok Sabha, a position that lay vacant for 10 years because no party had numbers equalling a tenth of the strength of the House, which has been by practice a requirement to lay claim to the post.

The Congress, the largest opposition party, won 44 and 52 seats in the 543-member House after the elections of 2014 and 2019 respectively. The party has almost doubled its 2019 tally to 99 seats in this election.

In 2014, Mallikarjun Kharge – who is now Congress president and Leader of Opposition in Rajya Sabha – was recognised Leader of the Congress party in Lok Sabha. In 2019, this position went to then Baharampur MP Adhir Ranjan Chowdhury. Both Congress leaders were part of panels to select candidates for high positions that required the presence of the Leader of Opposition.

#### Who can serve as Leader of Opposition in Lok Sabha and Rajya Sabha?

The position of Leader of Opposition was officially described in The Salary and Allowances of Leaders of Opposition in Parliament Act, 1977.

The Act describes the Leader of Opposition as a “member of the Council of States or the House of the People, as the case may be, who is, for the time being, the Leader in that House of the party in opposition to the Government having the greatest numerical strength and recognised as such by the Chairman of the Council of States or the Speaker of the House of the People”.

In an article written for *The Indian Express* in May 2017, former Lok Sabha Secretary General PVT Achary said: “The law is clear that the Speaker is required to recognise the leader of the numerically largest party in opposition as the leader of opposition. The option of not recognising him/her is just not available.”

Achary, however, rejected the conventional understanding that to get the post of

Leader of Opposition, a party must have at least 10% of MPs in the House. He wrote:

“A mysterious rule is often quoted by some self-styled experts, which requires a party to have at least 10 per cent of the members of the House for the Speaker to recognise someone as the Leader of the Opposition. There is no such rule. Yes, there is direction 121 issued by the Speaker for recognising a party or group for the purpose of providing certain facilities in the House... This direction relates to the recognition of a party, not the Leader of Opposition.”

Before the BJP in 2014 and 2019, the Congress, which had 415 members in Lok Sabha in 1984, had denied the TDP, which had 30 MPs, the post of Leader of Opposition.

#### What position does the Leader of Opposition have in the House?

The Leader of Opposition sits in the front row to the left of the Chair, and enjoys cer-

tain privileges on ceremonial occasions like escorting the Speaker-elect to the rostrum. The Leader of Opposition is also entitled to a seat in the front row during the Address by the President to both Houses of Parliament.

The main duty of the Leader of Opposition is to serve as the voice of the opposition in the House. An official booklet on Parliament published in 2012 says the Leader of Opposition in Lok Sabha “is considered as a shadow Prime Minister with a shadow Cabinet, ready to take

over the administration if the Government resigns or is defeated on the floor of the House”.

Since the parliamentary system is based on “mutual forbearance”, the Leader of Opposition lets the Prime Minister govern and is, in turn, permitted to oppose. “His/her proactive role in facilitating smooth functioning of the business of the House is as important as that of the Government”, the booklet says.

**Theory apart, what practical role and**

#### responsibility does the Leader of Opposition have?

Most importantly, the Leader of Opposition is the opposition’s representative in the high-powered committees headed by the Prime Minister for appointment to key posts such as the Director of CBI, the Central Vigilance Commissioner and Chief Information Commissioner, the Chairperson and Members of the National Human Rights Commission, and the Lokpal.

As the Leader of the Congress in Lok Sabha from 2014 to 2019, Kharge had alleged that the government repeatedly tried to keep the opposition out of the selection of the Lokpal on the ground that there was no Leader of Opposition.

In order of precedence, the Leaders of Opposition in Lok Sabha and Rajya Sabha come at No. 7, along with Union Cabinet Ministers, the National Security Advisor, the Principal Secretary to the PM, the Vice-Chairperson of the NTI Aayog, former PMs, and Chief Ministers.

#### IN THE POST IN THE PAST

SUSHMA SWARAJ  
(DEC 2009 TO MAY 2014)

L K ADVANI  
(MAY 2009 TO DEC 2009;  
MAY 2004 TO MAY 2009)

SONIA GANDHI  
(OCT 1999 TO FEB 2004)

SHARAD PAWAR  
(MAR 1998 TO APR 1999)

ATAL BIHARI VAJPAYEE  
(JUN 1997 TO DEC 1997)

RAJIV GANDHI  
(DEC 1989 TO DEC 1990)

**EXPLAINED  
POLITICS**

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## Indian Express –Miscellaneous -Page 9

### Setting targets in rain-truncated matches: How the DLS method works

ARJUN SENGUPTA  
NEW DELHI, JUNE 26

FRANK DUCKWORTH, 84, passed away on June 21. He, along with his fellow English statistician Tony Lewis, co-invented the Duckworth-Lewis method used to fairly determine results and set targets in rain-truncated matches. The method was first used in international cricket in 1997, and was fully adopted by the ICC in 1999. In 2014, the DL method became the DLS (Duckworth-Lewis-Stern), after some key updates by Australian statistician Steven Stern to better reflect modern scoring trends.

#### Inspired by a farce

In 1992, Duckworth presented a paper titled "A fair result in foul weather" at the Royal Statistical Society—a response to the farcical end of the South Africa vs England World Cup semifinal in Sydney. Batting second, South Africa needed an achievable 22 runs from 13 balls when rain stopped play.

When play resumed, South Africa was given a revised target of scoring 22 of 1 ball.

This impossible target was determined by the newly adopted "Most Productive Overs" (MPO) method. Runs scored in the best 'x' number of overs in the first innings were taken into account to set the target—'x' being the number of overs the second innings was reduced to. So, if a team scored 300 in 50 overs, and 200 of these runs came in 25 overs, a match reduced to 25 overs would set a target of 201 for the chasing team.

While the MPO method factored in that scoring is not evenly distributed across innings, it unfairly penalised the chasing team by ignoring the best overs bowled by them in its calculation of a revised target. It also did not take into account how wickets impacted run-scoring.

"Watching that match I realised that it was a mathematical problem that required a mathematical solution", Duckworth would say in an interview in 2007. In his 1992 pa-

per, he presented his idea for an alternative—following which Lewis got in touch.

#### The DL method

The DL method introduced the concept of 'resources' in making score estimations for truncated games. In limited-overs cricket, each team, in effect, has two 'resources' to score as many runs as possible—the number of overs (balls yet to be bowled, and the number of wickets in hand.

Simply put, the more the balls left to be bowled, the more the batting team can score; and the more the wickets in hand, the more it can

score. In a paper they wrote jointly in 1997, Duckworth and Lewis said: "Clearly, a team with 20 overs to bat with all ten wickets in hand has a greater run scoring potential than that which has lost, say, eight wickets".

The DL method converts all possible combinations of balls and wickets in hand to a combined "resources remaining" figure, which is expressed in percentage—a

#### OVERS, WICKETS, AND RESOURCES REMAINING

Wkts lost	0	2	4	9
50 overs	100	83.8	62.4	7.6
40 overs	90.3	77.6	59.8	7.6
30 overs	77.1	68.2	54.9	7.6
25 overs	68.7	61.8	51.2	7.6
20 overs	58.9	54	46.1	7.6
10 overs	34.1	32.5	29.8	7.5

From 'A fair method for resetting the target in interrupted one-day cricket matches', by Duckworth and Lewis, 1998. This has since been updated multiple times.

full 50 overs and 10 wickets in hand means 100% resources are available.

Target scores for a team batting second can be adjusted (either up or down) from the total of the team batting first, based on the number of resources either team has lost. The following formula is used: Team

2's par score = Team 1's actual score x Team 2's resources / Team 1's resources.

The real achievement of Duckworth and Lewis was in calculating the relation between total runs that can be scored, and the resources remaining (both runs and balls). While the extremes are intuitively arrived at, how each over and wicket impacts the state of the game was determined through significant number-crunching and some "statistical sorcery", as critics have said.

"Commercial confidentiality prevents the disclosure of the mathematical definitions of these functions. They have been obtained following extensive research and experimentation so that...they behave as expected under various practical situations," Duckworth and Lewis wrote.

#### Problems with DLS

Even with Stern's additions, DLS has been criticised for weighing wickets more heavily (as a resource) than balls available. This means that in big run chases with rain looming, teams simply need to keep wick-

ets in hand to match the DLS par score.

The tactic of "keeping wickets in hand" aligns with traditional cricketing logic but flies in the face of the reality of the game today, where run-scoring has become ever more rampant. The emphasis on wickets also means DLS is less accurate for T20s, where one good partnership can change a game.

DLS also does not take into account other variables that definitely play a part, like quality of bowling, ground dimensions, pitch conditions, batting depth, etc. For instance, this year's IPL winner KKR had solid hitters coming in at number 8 or 9. Thus, any fast-scoring handicap that a team might face after losing five or six wickets did not apply (or applied to a much lesser extent) to the team.

Today, there are two versions of the DL/DLS method—the publicly available DL Standard Edition, used in lower levels of cricket, and the DLS Professional Edition, which the ICC maintains as a proprietary computer software to be distributed only through countries' cricket boards.

Frank Duckworth, one of the inventors of the Duckworth-Lewis (later Duckworth-Lewis-Stern) method to determine results in rain-affected cricket matches, died, June 21 at the age of 84.

The original method, devised by English statisticians Duckworth and Tony Lewis, was first used in international cricket in 1997 and was formally adopted by the ICC as the standard for setting revised targets in truncated games in 2001. In 2014, it was renamed the Duckworth-Lewis-Stern method after the retirement of Duckworth and Lewis and the modifications made to the system by Australian statistician Steven Stern.

# HEADLINES OF THE DAY



## PIB –Defense(GSIII)

Ministry of Defence

### DRDO hands over Medium Range-Microwave Obscurant Chaff Rocket to Indian Navy

This niche technology creates a microwave shield around platforms & reduces radar detection

Posted On: 26 JUN 2024 4:15PM by PIB Delhi

- Defence Research and Development Organisation (DRDO) handed over the Medium Range-Microwave Obscurant Chaff Rocket (MR-MOCR) to the Indian Navy at a ceremony held in New Delhi on June 26, 2024. Microwave Obscurant Chaff (MOC), a niche technology developed by DRDO's Defence Laboratory, Jodhpur, obscures radar signals and creates a microwave shield around platforms and assets, thus reducing radar detection.
- Special type of fibres, with diameter of few microns and unique microwave obscuration properties, have been assembled in the medium range chaff rocket. The rocket, when fired, forms microwave obscurant cloud in space spreading over a sufficient area, with adequate persistence time, thus creating an effective shield against hostile threats having Radio Frequency seekers.
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# HEADLINES OF THE DAY

## AIR –IR(GSII)

### Paraguay Becomes 100th Full Member Of The International Solar Alliance



. The ISA was conceived as a joint effort by India and France to mobilize efforts against climate change through deployment of solar energy solutions

The International Solar Alliance is an international organisation. It works with governments to improve energy access and security worldwide and promote solar power as a sustainable way to transition to a carbon-neutral future. ISA's mission is to unlock US\$ 1 trillion of investments in solar by 2030 while reducing the cost of the technology and its financing. It promotes the use of solar energy in the Agriculture, Health, Transport and Power Generation sectors.

- ISA was formed at the 21st Conference of Parties (COP21) to the United Nations Framework Convention on Climate Change (UNFCCC) held in Paris in 2015 and is partnering with multilateral development banks (MDBs), development financial institutions (DFIs), private and public sector organisations, civil society, and other international institutions to deploy cost-effective and transformational energy solutions powered by the sun, especially in the least Developed Countries (LDCs) and the Small Island Developing States (SIDS).