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**1. Frank Duckworth dies: How his DLS method works****Why in News?**

Frank Duckworth, 84, passed away on June 21. It is not a stretch to say that he, along with fellow statistician Tony Lewis, has had a greater impact on cricket than many who have actually played the game.

The duo co-invented the Duckworth-Lewis method, used to fairly determine results and set targets in rain-truncated matches. First used in international cricket in 1997, the method was fully adopted by the ICC in 1999. In 2014, the DL method became the DLS (Duckworth-Lewis-Stern) method in 2014, after Australian statistician Steven Stern made some crucial updates to better reflect modern scoring trends.

Here is why the method was brought in, and how it works (in simple terms).

**Most Productive Overs Method**

In 1992, Duckworth presented a paper, "A fair result in foul weather" at the Royal Statistical Society. This was a response to the rather farcical ending of the 1992 South Africa vs England semi final. South Africa needed an achievable 22 from 13 balls when rain interrupted play. After the rain delay, the revised target was calculated as 22 required of one ball — an impossible task.

The revised target was determined using the newly adopted Most Productive Overs method. Devised by a panel of cricketing experts, the method took into account runs scored in the best 'x' number of overs in the first innings to set the target, when 'x' was the number of overs the second innings was reduced to. So if a team scored 300 runs in 50 overs, and 200 of these came in say 25 overs, a match reduced to 25 overs would set a target of 201 for the chasing team.

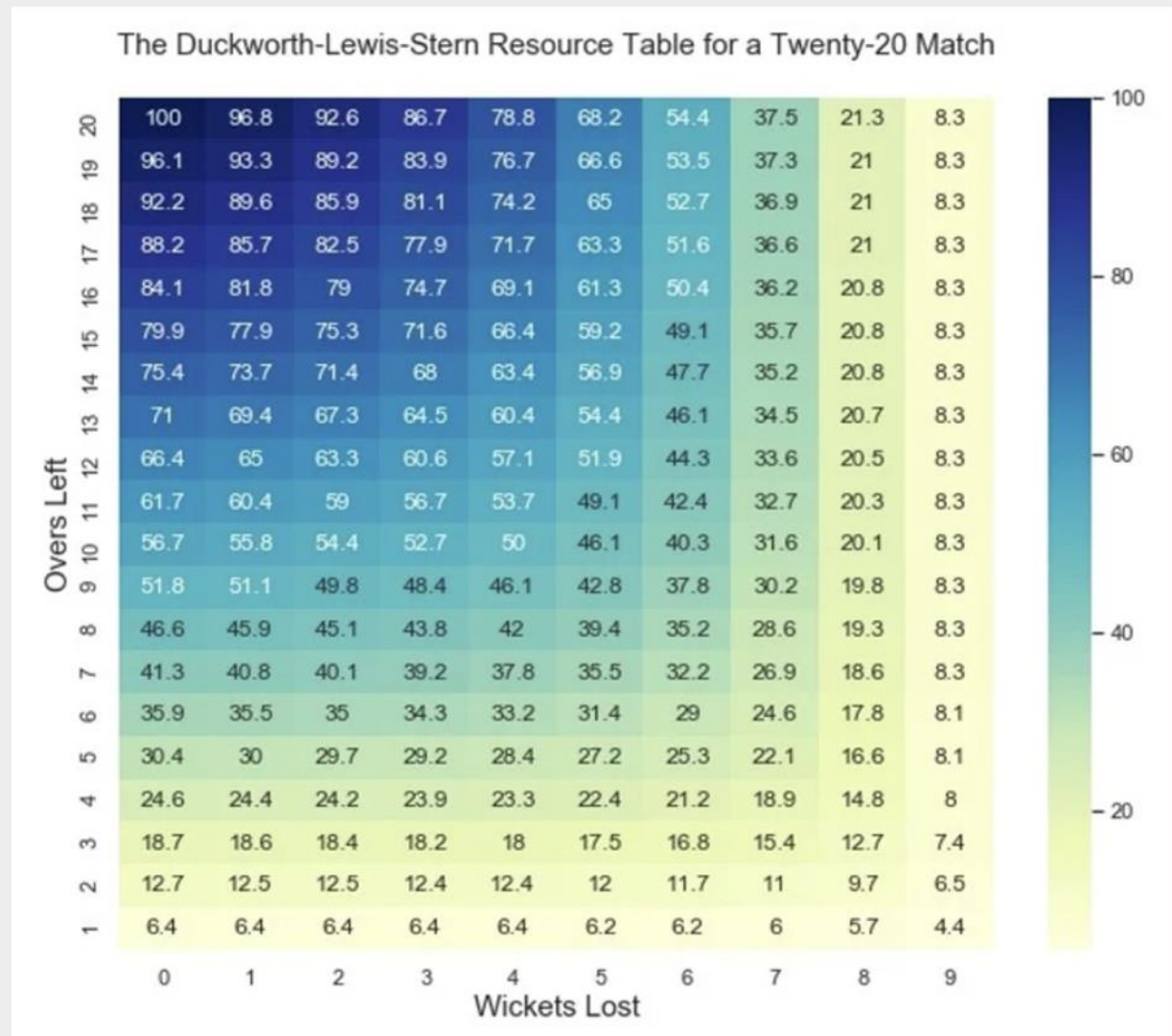
While the MPO method took into account that run scoring is not evenly distributed across the innings, something that a simple average run rate calculation does not, it unfairly penalised the chasing team by simply ignoring the best overs bowled by them in its calculations of a revised target. It also took no consideration of how wickets impacted run-scoring.

**The DLS 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. Duckworth and Lewis studied historical scores and found that there is a very close correlation between availability of these resources and a team's final score.

The DL method converts all possible combinations of balls and wickets in hand to a combined "resources remaining" figure, which is expressed in percentage — full 50 overs, and 10 wickets in hand means 100% resources available.



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

$$\text{Team 2's par score} = \text{Team 1's actual score} \times \frac{\text{Team 2's resources}}{\text{Team 1's resources}}$$

### Some criticisms

The DLS method has faced criticism on the grounds that it weighs wickets more heavily (as a resource) than balls available. This means that in big run chases with rain looming, teams simply need to keep wickets in hand to match the DLS par score — they can win even while scoring at a losing rate. The underlying assumption of "keeping wickets in hand" is in line with

traditional cricketing logic, but flies in the face of data today, especially as run-scoring has become ever more rampant.

This emphasis on wickets has also meant that the DLS is less accurate for T20s, where one good partnership can decisively swing a game.

Steven Stern's additions to the DL method updated it for the modern-day run-environment, but these criticisms still persist. Today, the data to calculate the DLS par score is taken from a running average of four years of international cricket.

Relevance: GS Prelims & Mains Paper III; Miscellaneous

Source: Indian Express

## 2. Parts of new Telecom Act came into force: What to expect

### Why in News?

Multiple sections of the Telecommunications Act, 2023 came into effect, giving way to what is the first piece of the larger technology legislative puzzle to fall into place. This is among the three key laws the Centre wants to put together as a comprehensive legal framework for the country's burgeoning tech sector.

The law, which has been criticised for its ambiguity on whether internet-based services fall under its ambit, also attempts to bring in a slew of structural changes to current regulatory mechanisms in the sector. These range from simplification of the licensing regime, clarity on spectrum assignment, and a stringent requirement of user verification, among other things.

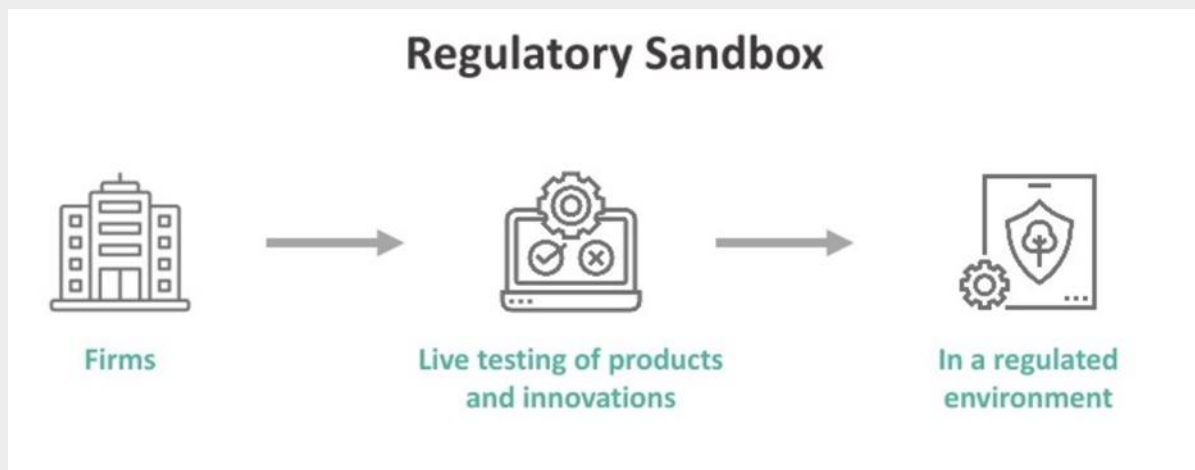
### What's coming into force, what's not

Sections 1, 2, 10 to 30, 42 to 44, 46, 47, 50 to 58, 61 and 62 of the Act has come into effect. These sections include the entire chapter on right of way reforms (they bring in a state government-led dispute resolution structure, where state bureaucracy can decide right of way issues that are related to permits for telecom network roll out), standards, public safety, national security and protection of telecommunication networks, Digital Bharat Nidhi (a replacement of the erstwhile Universal Service Obligation Fund), innovation and technology development, protection of users, offences and certain miscellaneous sections.

Some of these provisions (for instance, the right of way reforms), however, need further rules to be made completely operational. These rules are yet to be released by the Department of Telecommunications (DoT). Other provisions, like the suspension and interception of telecommunication services, which go into effect under the Act, have been in place under the older laws as well.

### Sandboxes for innovation

Creating sandboxes for innovation — meaning building a controlled environment in which organisations can test and experiment with new technologies and ideas without the risk of failure — is a new provision which will come into force.



The Act envisions the creation of a live testing environment where new products, services, processes and business models may be deployed, on a limited set of users, for a specified period of time, with certain relaxations.

#### **Reforms yet to come into force**

Crucially, some of the big ticket reforms that the Telecom Act wished to achieve, including the introduction of an authorisation regime, mandatory biometric verification of users, amendments to the Telecom Regulatory Authority of India Act, 1997, and allowing administrative allocation of spectrum for satellite communications (in place of allocation of spectrum by way of auction), are yet to come into effect.

Some of the provisions – such as suspension and interception of messages – that came into force were already in force through extant laws such as the Indian Telegraph Act. Others related to duties of users, criminalisation of certain acts such as tampering with telecom identifiers, and creation of regulatory sandboxes are new.

Relevance: GS Prelims & Mains Paper II; Governance

Source: Indian Express

### **3. ICC convicts Mali insurgency chief of war crimes**

#### **Introduction**

The International Criminal Court (ICC) issued a guilty verdict in the case of an al-Qaeda-linked jihadist accused of war crimes and crimes against humanity during an alleged reign of terror in Mali.

Al Hassan Ag Abdoul Aziz Ag Mohamed Ag Mahmoud will be sentenced at a later date, but the crimes he is convicted of could amount to life imprisonment. The charges brought against him included torture, rape and sexual slavery, as well as destroying religious and historic buildings.

The crimes are believed to have taken place when al-Qaeda-linked insurgents, a group known as Ansar Dine, took over the Malian ancient city of Timbuktu in early 2012 for almost a year.

### **What was Al Hassan accused of?**

Prosecutors accused Al Hassan of personally overseeing amputations and floggings while he served as police chief during Ansar Dine's reign over Timbuktu. Citizens of the historic city, once dubbed the "Pearl of the Desert," are said to have lived in fear of "despicable" violence. Other charges brought against Al Hassan included overseeing cutting peoples' hands off.

Al Hassan was accused of particularly targeting women. Many were forced into marriage. Confined against their will and repeatedly raped by members of the armed group. Al Hassan was involved in organizing such marriages. Prosecutors also accused Al Hassan of flogging women accused of adultery.

### **Mali under Islamist insurgents**

Militants from al-Qaeda in the Islamic Maghreb and Ansar Dine exploited northern Mali's 2012 ethnic Tuareg uprising, seizing control of Malian cities including Timbuktu.

They were driven out by a 2013 French-led military operation. However, the dent of their rule lasted much longer.

Residents remain haunted by the fear and violence they experienced. Insurgents also destroyed some of Timbuktu's iconic shrines, which they deemed idolatrous.

Mali has remained embroiled in an Islamist insurgency, alongside its neighbors Burkina Faso and Niger, for over a decade. The three West African countries have recently come under the rule of military juntas following coups.



Al Hassan's case echoed that of Ahmad Al Faqi Al Mahdi, another Ansar Dine member the ICC sentenced to nine years in prison in 2016 for destroying religious sanctuaries in Timbuktu, inscribed on UNESCO's World Heritage list. The sentence was reduced to two years on appeal in 2021.

Relevance: GS Prelims; International Issues

Source: Indian Express