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## 1. A new White Revolution: where India stands, where it aims to be

### Introduction

India is the world's top milk producer, with production having reached 230.58 million tonnes during 2022-23. In 1951-52, the country produced just 17 million tonnes of milk.

Operation Flood, launched in 1970, ushered in the White Revolution and transformed the dairy sector in India. On Thursday, Union Home and Cooperation Minister Amit Shah announced plans for "White Revolution 2.0". What is the big picture currently in India's dairy sector, and what is the objective of the government's new initiative?



### White Revolution 2.0

The idea of White Revolution 2.0 revolves around cooperative societies, which were also the bedrock of Operation Flood five decades ago.

Dairy cooperatives procured 660 lakh kg of milk per day in 2023-24; the government wants to increase this to 1,007 lakh kg/ day by 2028-29.

For this, it has formulated a strategy of expanding coverage and deepening the reach of cooperatives.

White Revolution 2.0 will "increase milk procurement of dairy cooperatives by 50%...over the next five years by providing market access to dairy farmers in uncovered areas and increasing the share of dairy cooperatives in the organised sector", according to the Ministry of Cooperation.

This will also generate employment and contribute to the empowerment of women in the process, the ministry said.

### Scope for expansion

Since it was created in 2021, the Ministry of Cooperation has focused on expanding the network of cooperatives, in particular dairy cooperatives.

According to officials of the National Dairy Development Board (NDDB), the regulator of the dairy industry in India, dairy cooperatives operate in around 70% of the country's districts. There are about 1.7 lakh dairy cooperative societies (DCSs), which cover around 2 lakh villages

(30% of the total number of villages in the country), and 22% of producer households. These cooperative societies procure about 10% of the country's milk production and 16% of the marketable surplus.

In the states of Gujarat, Kerala, and Sikkim, and the Union Territory of Puducherry, more than 70% of villages are covered by dairy cooperatives. In the states of Uttar Pradesh, Uttarakhand, and Madhya Pradesh, and the UT of Jammu & Kashmir, however, coverage is only 10-20%. And in West Bengal, Assam, Odisha, Jharkhand, Chhattisgarh, Himachal Pradesh, and the smaller states of the Northeast, less than 10% of villages are covered.

### **Coverage, funding**

NDDDB has drawn up an action plan to establish about 56,000 new multipurpose dairy cooperative societies over the next five years, and to strengthen 46,000 existing village level DCSs by providing more advanced milk procurement and testing infrastructure. Most of the new DCSs will be established in Uttar Pradesh, Odisha, Rajasthan, and Andhra Pradesh.

In February 2023, NDDDB launched a Rs 3.8 crore pilot project to set up dairy cooperatives in uncovered gram panchayats in the districts of Jind (Haryana), Indore (Madhya Pradesh), and Chikmagalur (Karnataka). The 79 DCSs established as part of the pilot are together procuring 15,000 litres of milk per day from about 2,500 farmers, sources in the Cooperation Ministry said.

The bulk of the funding for White Revolution 2.0 will come through the National Programme for Dairy Development (NPDD) 2.0, a new central sector scheme under the Department of Animal Husbandry and Dairying.

Sources in the Ministry of Cooperation said targets for White Revolution 2.0 have been subsumed under the proposed scheme, the details of which are currently being finalised. A draft note has been circulated for approval from the Expenditure Finance Committee, they said.

Under the scheme, financial assistance will be provided to set up village-level milk procurement systems, chilling facilities, and training and capacity-building. "Assistance will be provided to 1,000 Multipurpose Primary Agricultural Credit Cooperative Societies (MPACSs) at the rate of Rs 40,000 per MPACS from the resources of NDDDB," an official said.

### **Milk scenario in India**

India is the world's top milk producer, with production having reached 230.58 million tonnes during 2022-23. In 1951-52, the country produced just 17 million tonnes of milk.

The average yield is, however, only 8.55 kg per animal per day for exotic/ crossbred animals, and 3.44 kg/ animal/ day for indigenous/ nondescript animals. The yield in Punjab is 13.49 kg/ animal/ day (exotic/ crossbreed), but only 6.30 kg/ animal/ day in West Bengal.

The national per capita availability of milk is 459 grams/ day, which is higher than the global average of 323 g/ day; this number, however, varies from 329 g in Maharashtra to 1,283 g in Punjab.

As per the Basic Animal Husbandry Statistics (BAHS) 2023, the top five milk producing states are UP (15.72%), Rajasthan (14.44%), Madhya Pradesh (8.73%), Gujarat (7.49%), and Andhra Pradesh (6.70%), which together contribute 53.08% of the country's total milk production.

Almost 31.94% of the total milk production comes from indigenous buffaloes, followed by 29.81% from crossbred cattle. Nondescript buffaloes contribute 12.87%, indigenous cattle 10.73%, and nondescript cattle 9.51%, according to BAHS figures. The share of goat milk is 3.30%, and that of exotic cows, 1.86%.

While total milk production increased from 187.75 million tonnes in 2018-19 to 230.58 million tonnes in 2022-23, the annual growth rate of production came down from 6.47% to 3.83% during this period.

The milk group, comprising milk consumed or sold in liquid form, ghee, butter, and lassi produced by producer households contributed almost 40% (Rs 11.16 lakh crore) of the value of output from the agriculture, livestock, forestry, and fishing sector in 2022-23 — much higher than cereals. The dairy sector provides livelihoods to more than 8.5 crore people directly or indirectly, of whom the majority are women.

About 63% of the total milk production comes to the market; the remaining is kept by producers for their own consumption. About two-thirds of the marketable milk is in the unorganised sector. In the organised sector, cooperatives account for the major share.

Relevance: GS Prelims & Mains Paper II; Governance

Source: Indian Express

## 2. How Starlink satellites are 'blinding' astronomers

### Introduction

Elon Musk's Starlink satellites are impeding the work of astronomers, a study published recently in the journal *Astronomy & Astrophysics* found.

Currently, the Starlink "constellation" comprises more than 6,300 working satellites orbiting Earth at an altitude of around 550 km. These satellites deliver high-speed internet to places which otherwise would not have access to it.

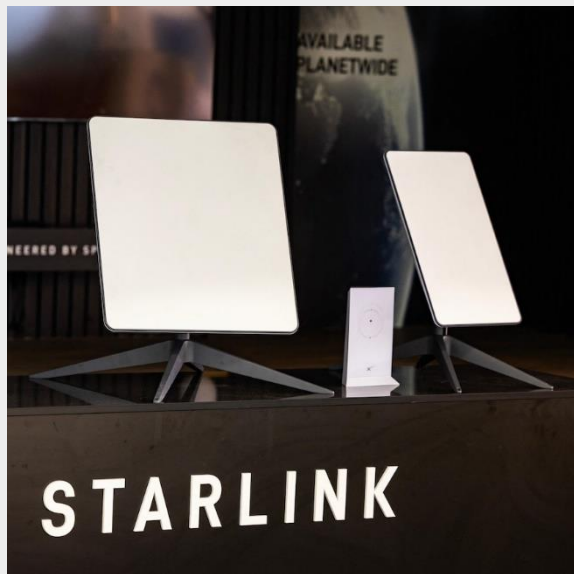
At the same time, they also create "radio noise", or unintended electromagnetic radiation (UEMR). This is what impedes the work of radio astronomers observing the sky from Earth.

### Blinded by light

Radio astronomy is a branch of astronomy that studies celestial objects at radio frequencies. Unlike optical telescopes that detect visible light, radio telescopes are designed to detect radio waves (which have higher wavelengths and lower frequencies) emitted by objects in space. But just like bright visible light can blind the observer — like the bright headlights of an approaching car — the same can also happen at radio frequencies. This is essentially why radio noise is a problem.

For radio astronomers, observing while a satellite is in its field of view is like trying to see the faintest star visible to the naked eye next to a full Moon, Cees Bassa of the Netherlands Institute for Radio Astronomy (ASTRON) and the lead author of the recent study, told Science Adviser.

Benjamin Winkel, a scientist at the Max Planck Institute for Radio Astronomy who contributed to the study, said the interference is literally “blinding” scientists. “When we say ‘blinded’ it means your eye collects too much light for you to see anything, you are getting saturated. This is exactly what happens with our radio telescopes,” he told DW.



### **Need for regulation**

Things might get worse. The recent study found that Starlink's second-generation satellites — which currently account for less than a third of the network — emit UEMR at levels 32 times brighter than its first-generation satellites. This is despite Starlink already running into trouble about the UEMR of its first-gen satellites.

“While the generation 1 satellites indeed got dimmer in the last year — so Starlink actually did something to them [to reduce radio leaks] — the new generation unfortunately seem to be brighter again,” said Winkel.

Moreover, as launching satellites becomes cheaper, some estimate that as many as 100,000 satellites could be orbiting Earth by 2030. The number was pegged at 11,330 in June 2023 by the United Nations Office for Outer Space Affairs (UNOOSA).

Experts say that these developments signal the need for regulations for satellite operators, just like there exist regulations for radio pollution from ground-based electronic sources like cellphone towers. “There is no way to make any electrical or electronic apparatus without this kind of leakage... the question always asked is: how much is leaked?” Winkel said. This is what regulations can help minimise.

Currently, astronomers are largely reliant on forging good faith interactions with companies like Starlink, which put satellites into space.

Relevance: GS Prelims; Science & Technology

Source: Indian Express

### **3. Bombay HC strikes down Centre's 'fake news' fact check rule — why did it need the opinion of a third judge?**

#### **Introduction**

Stand-up comic Kunal Kamra, the Editors Guild of India, the News Broadcasters & Digital Association, and the Association of Indian Magazines challenged the constitutional validity of the Rules, terming them arbitrary, unconstitutional, and in violation of fundamental rights.

The Bombay High Court struck down as unconstitutional a key provision of the amended Information Technology (IT) Rules, 2021 which empowered the government to identify “fake news” on social media platforms through a “Fact Check Unit” (FCU).

## Road to verdict

The fact check unit of Ministry of Electronics and IT has faced criticism since it was established on April 6, 2023.

The case against the Centre’s amendment has concluded after over a year. **Highlights:**

**April 10, 2023:** Satirist Kunal Kamra files a petition in Bombay HC against the amendments to the Act, calling them “arbitrary, violating fundamental rights of speech and expression and vague”; Editors Guild of India and the Internet Freedom Foundation join the plea later

**April 24:** IT Rules Amendment does not seem to offer protection to

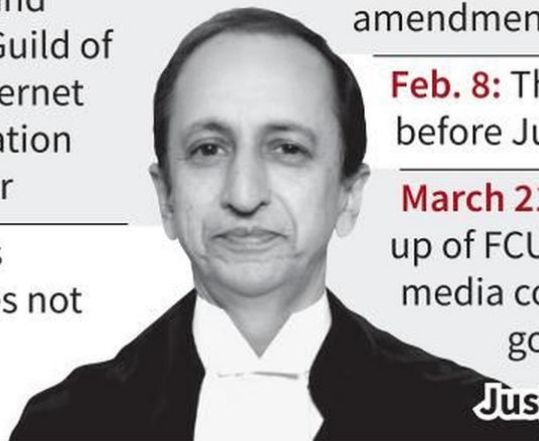
parody and satire, observes Bombay HC

**Jan. 31, 2024:** Court delivers a split verdict with Justice Patel favouring the petitioners and Justice Gokhale upholding the amendment

**Feb. 8:** The case is placed before Justice Chandurkar

**March 21:** SC stays setting up of FCU to monitor social media content about the government

**Justice Chandurkar**



In a 99-page ruling, Justice Atul S Chandurkar sided with the opinion delivered in January this year by Justice Gautam S Patel, leading to what is now essentially a 2-1 verdict. A two-judge Bench of Justices Patel, who has since retired, and Neela Gokhale, had delivered a split verdict in the case. Justice Patel had struck down the amended rules; Justice Gokhale had upheld them.

This ruling will have a larger impact on FCUs that even some states such as Karnataka and Tamil Nadu have established.



### **What is the law in question?**

In April 2022, the Ministry of Electronics and Information Technology (MEiTY) promulgated the IT (Intermediary Guidelines and Digital Media Ethics Code) Amendment Rules, 2023 (2023 Rules), which amended the Information Technology Rules, 2021.

The amendment to Rule 3(1)(b)(v) of the IT Rules, 2021 expanded the general term “fake news” to include “government business”.

Under the Rules, if the FCU comes across or is informed about any posts that are “fake”, “false”, or contain “misleading” facts pertaining to the business of the government, it would flag it to the social media intermediaries concerned.

The online intermediaries would then have to take down such content if they wanted to retain their “safe harbour”, that is, legal immunity with regard to third-party content published by them.

The Rules raised concerns over free speech and the extent to which the government can regulate it. The FCUs allowed the government to be the “only arbiter” of truth in respect of business concerning itself.

### **How did the matter come before Justice Chandurkar?**

Given the split verdict of January, as per rules of the Bombay High Court, the case was referred to a third judge who would hear the matter afresh.

Justice Chandurkar was assigned the task on February 7. On March 11, Justice Chandurkar refused to grant a stay on the notification to set up the FCU until he gave his final opinion. Following his interim order, the High Court dismissed the interim applications seeking the stay with 2-1 majority.

On March 20, the Centre notified the FCU under the Press Information Bureau (PIB). However, a day later, the Supreme Court stayed the operation of the notification until the Bombay High Court took a final decision on the petitions challenging the amended Rules.

Justice Chandurkar concluded the hearing on August 8 and reserved his verdict.

### **What were the arguments before the HC?**

Stand-up comic Kunal Kamra, the Editors’ Guild of India, the News Broadcasters & Digital Association, and the Association of Indian Magazines challenged the constitutional validity of the Rules, terming them arbitrary, unconstitutional, and in violation of fundamental rights.

The Centre said the Rules were not against any opinion, criticism, satire, or humour targeting the government, and were meant to only proscribe or prohibit the peddling of fake, false, and misleading facts on social media related to “government business”.

### **On what grounds did Justice Chandurkar strike down the Rules?**

In his opinion on the split verdict, Justice Chandurkar agreed with Justice Patel, and held that the amended Rule 3(1)(b)(v) was violative of Articles 14 (equality before law), 19(1)(a) (freedom

of speech and expression) and 19(1)(g) (right to practise a profession or trade) of the Constitution.

He said that the impugned Rule curtailed the fundamental rights of citizens beyond the reasonable restrictions prescribed under Article 19(2), which was "impermissible through the mode of delegated legislation".

The judge held that the expressions "fake, false or misleading" in the Rule are "vague and overbroad", and endorsed Justice Patel's view that under the right to freedom of speech and expression, there is no further "right to the truth". It was "not a responsibility of the state to ensure that the citizens are entitled only to 'information' that was not fake, false or misleading as identified by FCU", Justice Chandurkar said.

He said that the Centre's claim that decisions given by the FCU can be challenged before a constitutional court "cannot be treated as adequate safeguard", and therefore, the Rule cannot be saved by reading it down or making a concession of limiting its operation.

Echoing the views of Justice Patel, Justice Chandurkar noted that the impugned Rule resulted in a "chilling effect" on the intermediary due to the "threat of losing safe harbour", and also on the freedom of speech — and was therefore liable to be struck down.

#### **What was the split decision of the HC?**

Justice Patel said that the petitioners were "correct in saying that the State cannot coercively classify speech as true or false and compel the non-publication of the latter". "That is nothing but censorship," he noted.

"The sinister and insidious facet to the impugned amendment is that this new agency (FCU) has far more than a loud bark: it has fangs and claws, for its unilateral view of what is or is not the 'truth...'," Justice Patel said.

In a contrasting view, Justice Gokhale had said alleging bias against members of the FCU merely because they were government appointees was "unfair", and recourse to courts of law was always open in case of any bias.

The Rules "were not directly penalising" the intermediary or the user, and "did not bring any chilling effect on their rights", she said, adding that the challenge to the character of FCU authority which was "yet unknown" was "premature".

Dismissing the pleas, Justice Gokhale held: "Right of citizens to participate in the representative and participative democracy of the country is meaningless unless they have access to authentic information and are not misled by misinformation..."

#### **What happens in this matter now?**

Justice Chandurkar's opinion has settled the matter in favour of the petitioners by a 2-1 majority. His opinion will be placed before a division Bench of two judges, which will formally announce the 2-1 majority against the impugned Rule. This is the procedural part.

There is an option of an appeal before the Supreme Court, given that similar issues are pending before the Delhi and Madras HCs too.

Other aspects of the 2021 guidelines are also pending before various HCs. Among the key provisions are mandates for social media platforms to set up a grievance redressal and compliance mechanism, which include appointing a resident grievance officer, chief compliance officer, and a nodal contact person.

Relevance: GS Prelims & Mains Paper II; Governance

Source: Indian Express

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