

INDIAN HERITAGE AND CULTURE, HISTORY**Hindu New Year:**

Hindu New Year was welcomed in different parts of the country with traditional festivities and celebrations.

The ChaitraSukladi, Ugadi, GudiPadava, Navareh, Navroz and Chetti Chand are the same festivals in different names, marking the occasion.

- Andhra Pradesh and Telangana: Ugadi.
- Karnataka: Yugadi /Ugadi.
- Maharashtra: GudiPadwa.
- Sindhis: Cheti Chand.
- Manipuris: SajibuCheiraoba.
- Hindus of Bali and Indonesia also celebrate their new year on the same day as Nyepi.
- Kashmir: Navreh.

CONSTITUTION AND POLITY**Women's Representation in Elections:**

National parties have fielded very less percentage of women in Lok Sabha elections.

Situation of national Parties

- Outburst of women in politics shows, women are tiring of the power differential in the national parties — with ample reason.
- Neither the BJP nor the Congress has done more than talk about women's political empowerment.
- In the current elections to the Lok Sabha, they have fielded 12 per cent and 13.7 per cent of women candidates, respectively.
- That is far less than the commitments by two "regional" parties — Trinamool Congress has fielded 40 per cent women candidates, while BJD has fielded 33 per cent.

Questions need to be raised

- The question to be asked of both the BJP and the Congress is: How do they claim to be "national" parties if they do not attempt to adequately represent the political aspirations of 50 per cent of the country's people?
- The question of representation is also inevitably tied to equity.
- When a patriarchal culture and society confines a majority of women to subordinate social and economic roles, politics must find a way of punching holes into the walls — and let some air in.
- That is not to say that parties should be blind to the calculus of competing interests that determine elections, but they must also ask themselves why they have so far made little space for women's ambitions.
- As women rightfully complained, dynasty cannot be the only factor in choosing women candidates.
- Several social and political firestorms have shown — whether it is the debate over triple talaq, or the allegations of sexual assault against minister, or the agitation for women's entry to Sabarimala — that Indian women are forcefully renegotiating the terms of their social contract, even if they are not always in a position of strength.
- But for these contestations to bring in substantial and far-reaching change, political power is essential.
- Not just that, to bring in a fresh perspective on lawmaking, there is no better prescription than an infusion of new talent — of people from various gender, caste and class positions.

Conclusion: Politics is, of course, a balancing act between the demands of pragmatism and idealism. But in this case, national parties have brazenly and consistently chosen to ditch equality for realpolitik. As more voices speak up, they must realise that the time's up for patriarchal condescension.

Rajasthan's Gujjar quota faces a legal challenge

The Supreme Court has refused to entertain a plea challenging the grant of 5% quota to Gujjars and four other castes in jobs and educational institutions in Rajasthan through an amendment in February.

SC has dismissed the appeal against a Rajasthan High Court order refusing to grant interim relief on the petition challenging the quota to Gujjars and others, treating them as socially and economically backward classes.

What's the issue?

- Rajasthan government has proposed to give 5% reservation to Gujjars and four other nomadic communities in jobs and education in Rajasthan, citing them as being an “extremely backward class”.
- However, the PIL argues that this law breached the 50% ceiling on reservation. The PIL had also cited the proportion of Gujjars’ population as per the last Census instead of referring to the quantifiable data of backwardness in education and public employment.

Rajasthan Backward Classes Amendment Bill, 2019:

- The Rajasthan government has passed the Rajasthan Backward Classes (Reservation of Seats in Educational Institutes in the State and of Appointments and Posts in Services under the State) Amendment Bill, 2019.
- The bill seeks to provide 5% reservation to Gujjars, Banjaras, GadiaLohars, Raikas and Gadaria. At present, the communities are provided 1% reservation under More Backward Classes (MBC).
- The bill has increased the OBC reservation in Rajasthan from the present 21% to 26%. It has also increased the income limit for defining creamy layer in OBC from Rs. 2.5 lakh to Rs. 8 lakh/annum.
- The Rajasthan government has also passed a resolution requesting the Centre to include the bill in Schedule IX of the Indian Constitution. This is because Rajasthan has breached the 50% cap on reservations set by the Supreme Court.

Ninth schedule: A law enacted and included in the Ninth Schedule gets protection under Article 31-B (validation of certain Acts and Regulations) and is not subject to judicial review. However, in 2007, the Supreme Court ruled that all laws including those in the Ninth Schedule would be open to judicial review if they violated the basic structure of the constitution.

SCIENCE AND TECHNOLOGY- EVERYDAY SCIENCE, SPACE, NUCLEAR, DEFENCE ETC

Stephen Hawking's hypothesis on black holes discarded

An international research team including researchers from IUCAA, Pune has ruled out the possibility of primordial black holes being a major constituent of dark matter. This finding disproves a theoretical claim of Prof Stephen Hawking.

What is Dark matter?

- In the solar system, Mercury, the planet closest to the Sun, takes just 88 days to make one revolution around the sun, while Neptune, the farthest one, takes 165 years to make one round.
- In like manner, laws of gravity expect us to see stars closer to the centre of galaxies rotating faster than the stars on the edge.
- However, in most galaxies, the stars closer to the centre and the stars at the edge of the galaxies take almost same time to make one revolution.
- This implied that something invisible and enveloping the galaxies was giving an extra push to the outer stars, speeding them up.
- This entity has remained as one of the central unresolved puzzles in cosmology since 1930s. It is, no wonder, named 'Dark Matter'.
- The material is considered to be a 'matter' since it appears to have gravitational attraction and it is 'dark' because it does not seem to interact with light (or for that matter any part of the electromagnetic spectrum).
- Detailed surveys of the cosmos indicate that almost 85% of the total mass of the Universe is composed of dark matter.

Proposition by Stephen Hawking

- In 1971, Prof. Hawking showed the possibility that black holes could form very early in the universe.

- Since the actual nature of dark matter particles is a mystery, he predicted that these primordial black holes (made up of ordinary matter) could behave like dark matter.
- He computed that the mass of the primordial black holes could range from as low as one-hundredth of a milligram to as high as more than the mass of thousand Suns.

How did researchers disapprove Hawking?

- The research team used the Hyper Suprime-Cam on the Japanese Subaru Telescope located in Hawaii to look for any tell-tale evidence of primordial black holes between Earth and Andromeda galaxy using gravitational lensing technique.
- They kept observing the entire disk of the Andromeda galaxy consisting of lakhs of stars.
- Previous studies had ruled out the existence of large numbers of primordial black holes that could range in size from the mass of the Moon to about 10 solar masses.
- If the Universe is filled with invisible various primordial black holes, with masses lighter than the moon, as postulated by Hawking, then the team should have seen at least 1,000 gravitational lensing events.
- However, they were able to see at most one such event which implies Hawking's theory that such black holes make up all of dark matter is wrong.

Technical Analysis of FAME II Scheme

The NITI Aayog and the Rocky Mountain Institute (RMI) has released a report on opportunities for the automobile sector and government under the Faster Adoption and Manufacturing of Electric Vehicles II (FAME II) scheme.

India's Electric Mobility Transformation

- The report is titled 'India's Electric Mobility Transformation: Progress to Date and Future Opportunities'.
- It quantifies the direct oil and carbon savings that the vehicles incentivized under FAME II will deliver.
- According to the analysis, if FAME II and other measures – in public and private space – are successful, India could realize EV sales penetration of 30% of private cars, 70% of commercial cars, 40% of buses and 80% of two and three-wheelers by 2030.
- For example, achieving these levels of market share by 2030 could generate cumulative savings of 846million tonnes of CO2 over the total deployed vehicles' lifetime.

Key highlights from the report:

- The electric buses covered under FAME II will account for 3.8 billion vehicle kilometers travelled (e-vkt) over their lifetime
- In order to capture the potential opportunity in 2030, batteries must remain a key focal point as they will continue to be the key cost driver of EVs.
- EVs sold through 2030 could cumulatively save 474 million tonnes of oil equivalent (Mtoe) worth INR 15 lakh crore and generate net CO2 savings of 846 million tonnes over their operational lifetime.

What more is needed?

- India needs auto industry's active participation to ease electric mobility transition.
- The auto and battery industries could collaborate to enhance customer awareness, promote domestic manufacturing, promote new business models, consider new business models to promote EVs
- Government should focus on a phased manufacturing plan to promote EVs, provide fiscal and non-fiscal incentives for phased manufacturing of EVs and batteries.

QUOTE OF THE DAY

It doesn't matter where you come from. What matters is where you are going to.