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1. RBI to Transfer ₹2.69 Lakh Crore Dividend to Government

Highest-Ever RBI Dividend

The Reserve Bank of India (RBI) will transfer ₹2.69 lakh crore to the Union government as a dividend for FY 2024-25 — a 27% increase from last year's ₹2.11 lakh crore. This is the highest-ever surplus transfer by the central bank.

Risk Buffer Increased to 7.5%

The RBI has also increased its Contingent Risk Buffer (CRB) to 7.5%, up from 6.5% last year. This decision was made based on a revised Economic Capital Framework (ECF) and current macroeconomic conditions.

- CRB was held at 5.5% between 2018–2022 due to COVID-19 and other challenges.
- It was gradually raised to 6%, then 6.5%, and now 7.5%.

Why the Dividend Matters

- The Union Budget 2025-26 had estimated total dividends from the RBI and public sector financial institutions at ₹2.56 lakh crore. The RBI alone has now exceeded that.
- According to SBI's Soumya Kanti Ghosh, this could reduce the fiscal deficit by 20 basis points to 4.2% of GDP.

Key Drivers of the Surplus

- High foreign exchange gains: RBI earns upon both sale and purchase of foreign exchange.
- Strong dollar sales
- Rising interest income

The RBI was also noted as the top seller of foreign exchange reserves among Asian central banks in January.

Relevance: GS Prelims & Mains Paper III; Economics
Source: The Hindu

2. China's Tianwen-2 Mission: Why It Matters

China's First Asteroid Sample Mission

This week, China will launch Tianwen-2, its first mission to collect samples from a near-Earth asteroid. The target is asteroid 469219 Kamo'oalewa, which orbits the Sun close to Earth.

If successful, China will join the U.S. and Japan as the only countries to return asteroid samples to Earth.

What is Kamo'oalewa?

• Discovered in 2016 by a telescope in Hawaii.
• A quasi-satellite: it orbits the Sun, but stays close to Earth due to its gravitational influence.
• From Earth, it appears to orbit our planet, though it actually doesn't.
• It's been in its current orbit for 100 years and will likely stay for another 300.

Why Study This Asteroid?
Scientists are interested in Kamo'oalewa for two reasons:
1. Unusual Orbit – Learning about its orbit may offer clues about quasi-satellites and their origins.
2. Possible Lunar Origin – Some researchers believe it could be a fragment of the Moon, ejected during a collision in the distant past.
o Its light spectrum closely matches Moon rock samples from NASA's Apollo missions.
o Studying the samples in labs on Earth could confirm this theory.

How Will Tianwen-2 Collect Samples?
Tianwen-2 will use two main techniques:
• Touch-and-Go: A robotic arm briefly touches the surface, using gas or force to collect material.
• Anchor and Attach: Four robotic arms dig into the asteroid's surface to collect deeper samples.
Once the samples are collected, the probe will return them to Earth, and then continue on to explore the main asteroid belt.

A Technically Challenging Mission
Kamo'oalewa is very small — just 40 to 100 meters wide — which makes the mission especially tricky.
The spacecraft will need advanced systems like precision cameras, computers, and control systems to succeed.

Relevance: GS Prelims & Mains Paper III; Science & Technology
Source: Indian Express

3. EVs: A Green Solution with a Pollution Problem

Electric Vehicles (EVs) are celebrated for cutting greenhouse gas (GHG) emissions, helping fight climate change. But a new study warns of an overlooked environmental cost—pollution from tyre particles.

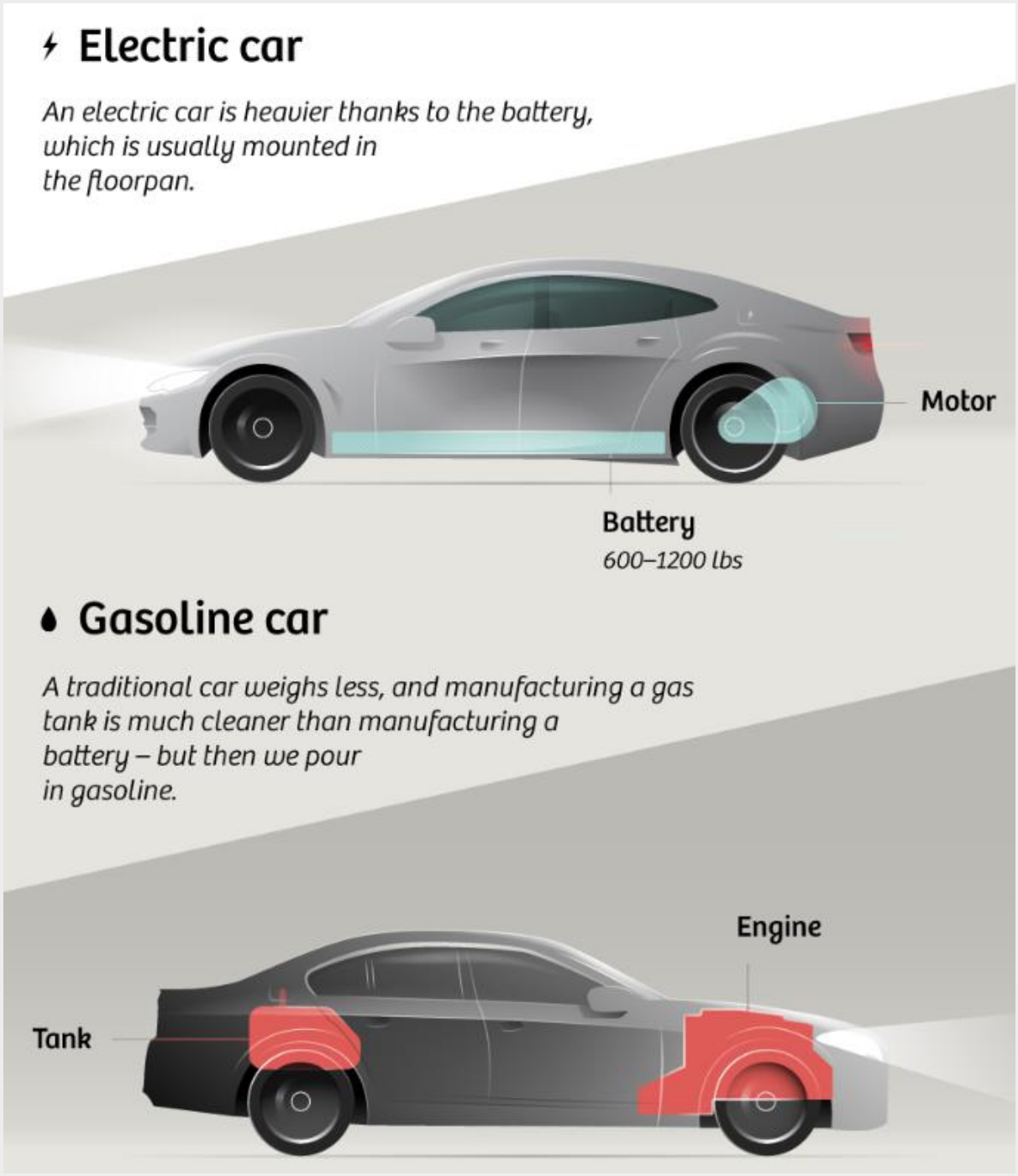
Key Findings of the Study
Published in Soft Matter (Royal Society of Chemistry), the study shows that:
• EVs release more microplastic particles from tyres than regular vehicles.
• This is mainly because EVs are heavier, leading to more tyre wear and tear.
• The smaller particles released stay in the air longer and are more harmful.

How Tyres Release Pollutants
Tyres shed tiny rubber fragments during use, which become airborne pollutants.
Two Types of Particle Production:

1.Primary Fragmentation
- Caused by sudden braking or hitting potholes.
- Releases mostly smaller particles.

2. Sequential Fragmentation
- Caused by gradual wear during normal driving.
- Produces larger particles.

Smaller particles remain suspended in the air, while larger ones settle on the ground.



Why EVs Cause More Tyre Pollution

• EVs are 15–20% heavier due to their large batteries (300–900 kg).

• Heavier vehicles = more tyre degradation.

• EVs also accelerate faster, adding further stress to tyres.
• As a result, EVs emit more tiny plastic particles—a hidden source of air pollution.

Global Implications
• EV adoption is growing rapidly worldwide:
  - Globally: 20% of new cars sold last year were electric.
  - India: 2.5% in 2024, with a goal of 30% by 2030.
  - China: Almost 50% of car sales were EVs in 2024.

As EVs become more common, tyre particle pollution could worsen without proper action.

What Can Be Done?
Researchers suggest a multi-pronged approach:
1. Stronger Tyres for EVs
o Manufacturers should design durable tyres tailored for heavier EVs.
2. Track Non-Exhaust Emissions
o Pollution standards should include tyre wear and brake dust, not just exhaust.
3. Capture Technologies
o Innovative tech could collect tyre particles before they enter the air.

Relevance: GS Prelims & Mains Paper III; Indian Express
Source: Indian Express

4. India Resumes Visas for Afghan Citizens After Long Suspension

Background
After nearly four years, India has resumed issuing visas to Afghan nationals in several categories, including business, medical, student, and cultural visas.

Background: Visa Suspension Since Taliban Takeover
• In August 2021, after the Taliban took control of Afghanistan, India suspended all visas for Afghan citizens.
• Only a limited number of "e-Emergency X-Miscellaneous visas" were issued, mostly to Hindus and Sikhs.

Quiet Rollout of New Visa System
• No official announcement has been made by the Indian government.
• However, a new online visa portal specifically for Afghan nationals was launched in late April 2025.
• A government source confirmed that Afghans are now getting visas for trade, medical treatment, and other purposes.

Relevance: GS Prelims & Mains Paper II; Bilateral Relations