

Current Affairs of the Day

CBI, ED chiefs can now have five-year terms

1. President Ram Nath Kovind promulgated two ordinances that would allow the Union Government to extend the tenures of the directors of the Central Bureau of Investigation (CBI) and the Enforcement Directorate (ED) from two years to up to five years.

2. The chiefs of the Central agencies currently have a fixed two-year tenure, but can now be given three annual extensions.

3. While the change in tenure of the post of CBI Director was effected by amending the Delhi Special Police Establishment Act, 1946, the Central Vigilance Commission Act, 2003 was amended with respect to the ED Director's post.

4. The move has riled the Opposition as the ordinances were brought in barely two weeks before the winter session of Parliament from November 29.

EXTENSIONS IN 'NATIONAL INTEREST'

> Directors of Central Bureau of Investigation and Enforcement Directorate currently enjoy a tenure of two years

> Law and justice ministry says ordinances allowing for extension to come into immediate effect

> Both chiefs can be given an extension of up to 1 year at a time; tenure not to exceed 5 yrs

> Ordinances stipulate that any extension will have to be recommended by a committee, recording in writing why it would be in "national interest"

> Recently, SC upheld 1-year extension given to ED chief SK Mishra and said no further extension would be given

> Mishra's term, after the extension, ends on November 18

SC order

1. While the move will not immediately benefit CBI Director Subodh Kumar Jaiswal, appointed in May, it may benefit Mr Mishra. Appointed in November 2018, the ED chief was to retire in November 2020.

2. However, when the Government gave him a one-year extension retrospectively on November 13, 2020, the order was challenged in the Supreme Court.

3. The SC directed the Government not to give Mr Mishra any more extension while observing that any extension of tenure during superannuation has to be for a short period and reasons must be recorded for granting such extensions.

4. The court also noted that such extensions could be given "only in rare and exceptional circumstances" to facilitate an ongoing investigation. However, after the promulgation of the ordinance, the Centre can now give one-year extensions thrice after the completion of the initial two years.



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Deliveries of S-400 systems have begun: Russian official

1. Ahead of Russian President Vladimir Putin's visit to India early next month, Moscow has started deliveries of the S-400 air defence systems to India.
2. This risks the possibility of sanctions from the U.S. under the Countering America's Adversaries Through Sanctions Act (CAATSA).
3. Mr Putin is scheduled to visit India in December for the annual summit and the inaugural India-Russia 2+2 ministerial dialogue is likely to be held. Deals are expected in defence, trade and energy, apart from the focus on regional issues especially the developments in Afghanistan,
4. The U.S. has so far remained non-committal on a waiver to India under CAATSA, with some officials cautioning New Delhi to move away from the deal while others called for a waiver to India.

WHAT IS CAATSA?

Countering America's Adversaries Through Sanctions Act. Enacted in August 2017, came into effect in January. Targets Iran, North Korea and Russia

INDIA'S WORRY

One of its provisions targets Russian defence firms and countries doing business with them. India has defence deals worth over \$12 billion in the pipeline with Russia

THE SOLUTION

New clauses inserted by the US in the National Defense Authorization Act (US military budget), which empower the Trump administration to suspend CAATSA sanctions, but it has to certify that India is reducing its dependence on Russia

India inks S-400 Triumph deal with Russia

India has signed a \$ 5.43 billion (about ₹ 40,000 crore) deal with Russia to procure five S-400 Triumph advanced air defence missile systems

S-400 Triumph Features

Can engage all types of aerial targets including aircraft, unmanned aerial vehicles and all types of missiles	Locates targets at 600 km and can destroy them at 400 km range. up to an altitude of 30 km	The system can engage multiple targets simultaneously
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Integrates:

- Multifunction radar
- Anti-aircraft missile systems
- Launchers
- Autonomous detection and targeting systems
- Command and control centre

Range of missiles:

Capable of firing different types of missiles to create a layered defence shield

• 40N6: 400 km	• 9M96E2: 120 km
• 48N6: 250 km	• 9M96E: 40 km

Map not to scale
KBK Infographics



US VERSUS RUSSIA IN INDIAN ARMS MARKET

RUSSIA		THE US	
India's biggest arms supplier for decades. Sales worth \$65 billion since early-1960s	MiG fighters & Sukhoi-30MKI jets to Kilo-class submarines, Talwar/Tabar-class frigates & aircraft carrier INS Vikramaditya	Overtook Russia in bagging Indian deals over last 3/4 years. Sales worth \$15 billion since 2007	C-17 Globemaster-III strategic airlifters, C-130J Super Hercules aircraft & P-8I maritime patrol planes to M-777 ultra-light howitzers, Apache attack & Chinook heavy-lift helicopters
FUTURE PROJECTS		FUTURE PROJECTS	
<ul style="list-style-type: none"> ➤ Lease of 2nd nuclear-powered submarine (after first one, INS Chakra) for around \$1.5 billion ➤ Five S-400 Triumf air defence systems for around \$5.5 billion ➤ Four Grigorovich-class stealth frigates (2 to be built in India) for around \$4 billion ➤ Joint production of 200 Kamov-226T light utility helicopters (140 in India) for \$1 billion 		<ul style="list-style-type: none"> ➤ US pushing F/A-18 "Super Hornet" or F-16 fighter production line in India to supply 110 jets for IAF for \$20 billion ➤ In contention for 57 multi-role fighters to operate from aircraft carriers ➤ Also for 111 armed naval light utility helicopters (Rs 21,738 crore) ➤ Also 24 multi-role helicopters with anti-sub warfare capabilities (Rs 12,000 crore). Another 123 such choppers later 	
 <p>INS Vikramaditya</p>		 <p>IAF C-17 Aircraft</p>	
<p>TOI FOR MORE INFOGRAPHICS DOWNLOAD TIMES OF INDIA APP</p> <p>Available on the App Store Google play Windows Phone</p>			

Coal 'phase-down is a right: Minister

1. At the 26th United Nations Conference of Parties (COP) in Glasgow, India's last-minute intervention played a key role in the final text of the agreement that called for coal to be "phased down" rather than "phased out".
2. "Fossil fuels and their use have enabled parts of the world to attain high levels of growth. Even now, developed countries have not completely phased out coal. The United Nations Framework Convention on Climate Change (UNFCCC) refers to the mitigation of GHG emissions from all sources. UNFCCC is not directed at any particular source," India reasoned.



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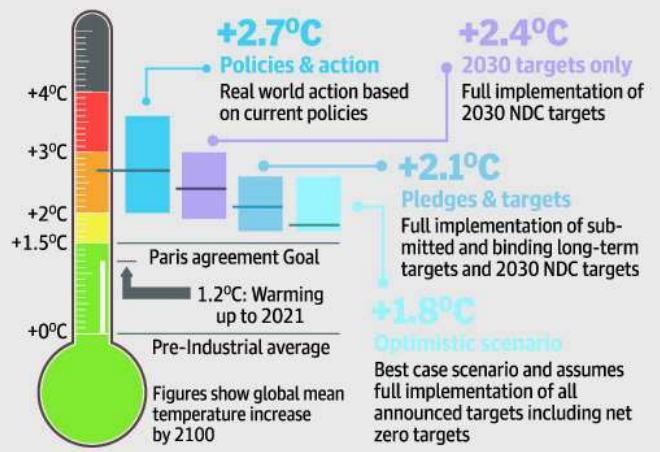
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3. "Developing countries have a right to their fair share of the global carbon budget and are entitled to the responsible use of fossil fuels within this scope."

Off target

A report by Climate Action Tracker said that the promises by nations to cut greenhouse gas emissions by 2030 will still result in the Earth heating up by around 2.4° Celsius by 2100, compared with pre-industrial levels, far beyond the UN target. A lowdown:

Source: Climate Action Tracker



4. India had said that principles of equity meant all fossil sources, coal, oil and gas, be reduced, but the U.S. and other countries refused to target oil and gas, ostensibly because they were also critical to their own economies.
5. The Glasgow Climate Pact, combined with increased ambition and action from countries, means that 1.5 degrees Celsius remains in sight, but it will only be delivered with concerted and immediate global efforts.
6. A major target when negotiations began was to tie up loose ends from the 2015 Paris Agreement. The Paris Rulebook, which specifies guidelines for how the Paris Agreement is delivered, was also completed today after six years of discussions.

Carbon Credits:

1. India was among the countries that had insisted on clarity on Article 6 because a bulk of the carbon credits accumulated by its several companies — private and public sector enterprises — over a decade were infructuous and India had pushed for them to be made valid again.



2. Carbon credits allow companies in developed countries to indirectly pay for clean energy transitions in developing countries by accumulating credits. However, the 1997 Kyoto Protocol that validated carbon credit trading via a Clean Development Mechanism had expired in 2020.
3. In the latest agreement, there is greater clarity on how bilateral carbon trades can proceed and the creation of a 'centralised hub' that replaces the Kyoto Protocol's Clean Development Mechanism (CDM).



THE HINDU

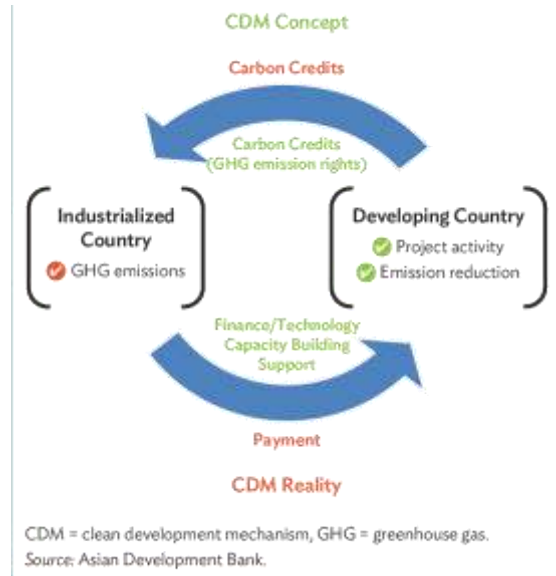
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- There was confusion on whether countries would have to correspondingly adjust their carbon accounts when transferring emission reduction abroad and the degree to which Certified Emission Reductions (CERs) generated under the CDM could be applied towards a country's Nationally Determined Contributions.
- Under the current agreement, criteria have been set out for countries to use CERs from projects registered after January 1, 2013, to meet their first NDC or first adjusted NDC.



- It also designates a 12-member Supervisory Body to oversee the emerging hub and tasks it with reviewing baselines of recognised credits.

The COP26 has definitely narrowed the gap for 1.5 and the processes which can be taken for future action. But the failure of the U.S. and EU to deliver on the promised \$100 billion in climate finance remains urgent and central to any ambitious climate action. Blocking the establishment of even a modest fund to help vulnerable communities around the world with the massive loss and damage they are experiencing at the hands of the climate crisis is a serious blow.

Kaiser-i-Hind is Arunachal's State butterfly

- An elusive swallowtail butterfly carrying 'India' in its name and found in next-door China will become the State butterfly of Arunachal Pradesh.
- The proposal was made with a view to boosting butterfly tourism and saving the species from extinction in the State.
- Although the Kaiser-i-Hind is protected under Schedule II of Wildlife (Protection) Act, 1972, it is hunted for supply to butterfly collectors.





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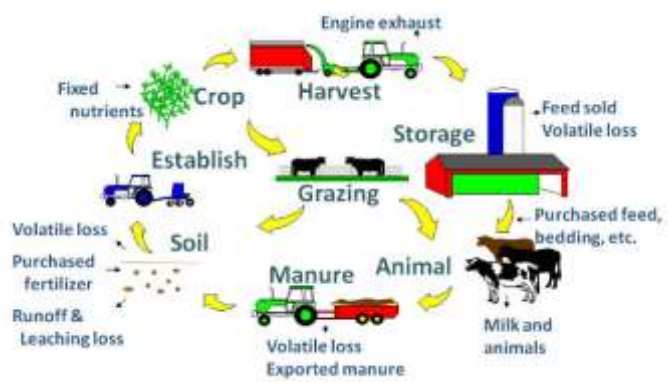


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4. The State Cabinet approved the large, brightly coloured Kaiser-i-Hind as the State butterfly. The Cabinet meeting was for the first time held outside State capital Itanagar at an unusual location — Pakke Tiger Reserve.
5. The Cabinet also adopted the Pakke Tiger Reserve 2047 declaration on climate change-resilient and responsive Arunachal Pradesh aimed at lowering emissions and sustainable development.
6. Kaiser-i-Hind (*Teinopalpus imperialis*) literally means Emperor of India. This butterfly with a 90-120 mm wingspan is found in six states along the eastern Himalayas at elevations from 6,000-10,000 feet in well-wooded terrain.
7. The butterfly also flutters in Nepal, Bhutan, Myanmar, Laos, Vietnam and southern China.

Integrated farming systems emerge as a possible climate adaptation solution

- Integrated farming system (IFS) is emerging as a nature-based solution to boosting productivity in climate-stressed regions.
- Farmers in the eastern Himalayas and coastal Bengal improve incomes with IFS.



Integrated farming systems

1. A “whole-farm” approach or integrated farming systems that supplement traditional crops with farming vegetables, fruits, poultry or fish is re-emerging as a nature-based solution to boosting productivity in climate-stressed regions.
2. New research from the Indian Council of Agricultural Research (ICAR) in India’s eastern Himalayas, where farming is turning increasingly risky due to climatic uncertainty, has shown that productivity and income of farmers “improved substantially” when they adopted a pond-based integrated farming system (IFS).
3. Small and marginal farmers in the area lack resources and are unable to adopt new, improved technologies, the report by a team of ICAR scientists says.



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4. A whole-farm approach or pond-based IFS, however, helped increase production, employment and income by generating a mix of enterprises based on rice, vegetables, fruits, fish, pigs and poultry.

What is IFS ?

- Integrated Farming (IF) is a whole farm management system which aims to deliver more **sustainable agriculture**.
- It refers to agricultural systems that **integrate livestock and crop production**. Integrated farming systems has revolutionized conventional farming of livestock, aquaculture, horticulture, agro-industry and allied activities. It is sometimes called as **Integrated Biosystems or Integrated Agriculture**.



Source :Manjunatha (2014)

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On-farm resources:

1. The integrated farming system adopted, tapped into on-farm resources and reduced dependence on external inputs such as fertilisers and pesticides.

Integrated Farming System



The IFS approach introduces a change in the farming techniques for maximum production in the cropping pattern and takes care of optimal utilization of resources.



The farm wastes are better recycled for productive purposes in the integrated system.



A judicious mix of agricultural enterprises like dairy, poultry, piggery, etc. suited to the given agro-climatic conditions and socio-economic status of the farmers.



Self reliance in inputs to the maximum extent, on-farm production of compost, vermicompost, vermishash, liquid manures and botanical extracts.

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2. The study found that the net returns under an integrated system that included ponds, rice, vegetables and pigs were eight times higher than the normal farmer practice of growing a single crop.
3. Scientific fish farming and multiple uses of water for growing vegetables, livestock and irrigation can enhance productivity, income and employment; as well as resilience against climate change.
4. The integrated farming approach provides year-round production, employment and income, reducing farming risks during climate uncertainty, he adds.



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5. In water-stressed areas, such as semi-arid areas, rainwater harvesting is a proven technology. In such areas adoption of IFS models comprising multipurpose trees, livestock especially goats, crops with low water requirements such as millets and pulses, and adoption of micro-irrigation with harvested water may be a solution.
6. IFS promotes farmers' knowledge, and efficient recycling of on-farm resources; and reduces dependence on external resources. It suits small and marginal farmers, but they could require some initial support for constructing ponds, livestock units, compost units, and an irrigation system.

More progress on state-level electric vehicle policies is needed to boost India's transition to EVs

- More than three years after India's federal think tank, NITI Aayog urged state governments to frame policies to promote electric vehicles (EVs), 14 Indian states have notified their policies till now.
- Some north-eastern states, Chhattisgarh and others are yet to draft and release their EV policies while states such as Karnataka and Maharashtra are updating their existing policies which were rolled out a few years ago.
- Experts say that in states where there is no policy, consumers, manufacturers and other stakeholders are deprived of support from local state governments.



FASTER ADOPTION:

1. At the ongoing Glasgow climate summit, several countries including India, global and local automobile manufacturers and other stakeholders have agreed to work together to move towards zero vehicular emissions by promoting Electric Vehicles (EVs).
2. In India, consumers are increasingly interested in EVs but faster adoption and a transition of the automobile market is still some time away.



3. The Indian market has come a long way though from two years ago in terms of sales, number of electric vehicle sellers and the level of awareness among consumers.

EV Scenario India

- GOI: 30% of vehicles electric by 2030
- 1120 Cr to TATA for manufacturing 10k EVs
- Savings of upto 7 Billion on oil imports

FAME II & National Electric Mobility Mission EV Policies India

Challenges for EV India

- High Cost
- Lack of Choice
- Charging Time
- INADEQUATE INFRASTRUCTURE
- RANGE ANXIETY
- LACK OF AWARENESS
- SERVICE & REPAIR

4. According to the data compiled by the Centre for Energy Finance at the Council on Energy, Environment and Water (CEEW-CEF), the sales of EVs in India have grown exponentially in 2021-22 and are likely to see new heights in the days to come.

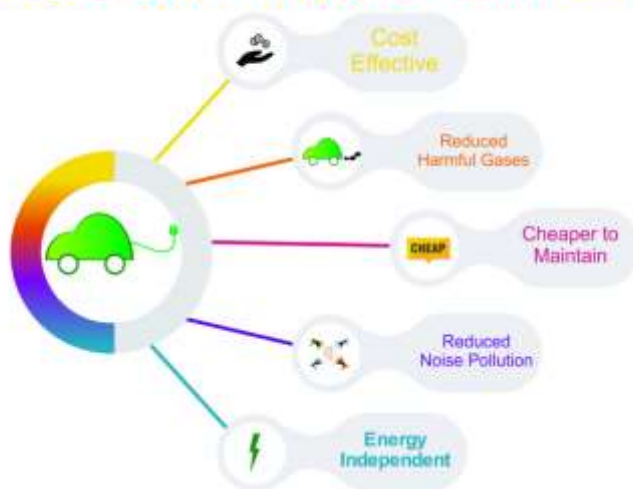
5. Currently, there are 441 EV manufacturers in India and the total EV sales by the end of 2030 could reach up to 14.8 million.

Inter-state policy gap

1. Though there is a serious push for the rapid adoption of EVs, there are several Indian states that are yet to draft policies for EVs or notify their finalised policies. So far, 14 of India's 28 states have notified their policies for EVs while seven states have made public a draft of such policies.

2. Manufacturers of EVs claim that in the absence of a notified state policy and without the support of the local state government, the growth of the sector is hampered.

Top 5 Benefits of Electric Cars





3. But a policy alone cannot help, say, experts, who note that even after a draft policy is prepared or a finalised policy is notified, there are other steps that are required to make the provisions of such documents a reality.

TECHNOLOGY CHALLENGES AND OPPORTUNITIES

- Time of battery changing is long
- Batteries are heavy (100kg extra weight consumes 2L/100km more)
- Batteries are expensive
- Low performance in hot or cold temperatures also may damage the battery
- Very sensitive to overcharge/undercharge (Battery life reduces dramatically)
- Contain toxic heavy metals, disposal issue

4. In the first step, a draft proposal is created in states by taking into account the interests of consumers, manufacturers, dealers, battery swapping players, recycling units and others.
5. What worries the experts is the dependency of the manufacturers on imported parts that are critical for achieving large-scale affordable production of such vehicles in the country.

<p>MCQs</p>	<p>Q1. The Pakke Tiger Reserve is situated in the state of</p> <ol style="list-style-type: none"> Arunachal Pradesh Sikkim Manipur Meghalaya
<p>MAINS DAWP</p>	<p>Q1. Discuss challenges to faster adoption of electric vehicles in India.</p> <p>Q2. Define the Integrated farming system. Discuss the Integrated farming system (IFS) as an emerging nature-based solution to boosting productivity in climate-stressed regions.</p>