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Today's topics

- 1. A good template – Pg.No.6 GS 2**
- 2. How exports are concentrated in few States – P.no.8 GS 3**
- 3. Maternal mortality dropped as institutional deliveries rose to 89%: Health Minister – P12 GS 1**
- 4. Rhino dehorning nearly eliminated poaching in African reserves: study– P.No.20 GS 3**

A good template

India's FTA with New Zealand can be a precedent, not an exception

India's recently announced closure of negotiations for a free trade agreement (FTA) with New Zealand marks a maturing in New Delhi's approach to global trade. Unlike the earlier headline-grabbing mega trade pacts, this agreement has been negotiated from a position of sectoral caution and strategic clarity. Both countries begin from a relatively low base. India's Commerce Ministry data indicate that total trade in goods and services in FY25 was a little over \$2 billion, modest by India's contemporary trade standards. Yet, the shared ambition to double trade within five years is notable – not because of the headline number, but because of how the agreement seeks to get there. The most striking feature is India's success in negotiating a mobility clause, where 5,000 Indian professionals "at any given time" will be eligible for three-year work visas in areas where India enjoys strong domestic capabilities – IT services, health care, education and traditional medicine. This goes well beyond the limited precedents set elsewhere. Even the Australia-India Economic Cooperation and Trade Agreement (AI-ECTA) only provides for 1,000 "working holiday" visas annually, which allow young professionals to work short term, typically in hospitality or services, while travelling.

Read alongside New Zealand's decision to allow uncapped entry of Indian students into higher education institutions and a minimum 20-hour weekly part-time work entitlement, the agreement creates a deeper, people-centric economic bridge. On tariff exclusions, nearly 30% of India's tariff lines have been kept out, reflecting hard-won carve-outs to protect rural livelihoods. Dairy products; animal products other than sheep meat; and some vegetable products have been excluded. This is no small concession, given that dairy accounts for roughly a third of New Zealand's global exports. The absence of similar safeguards was a key reason India exited the Regional Comprehensive Economic Partnership in 2019 – a pact in which New Zealand and Australia were central players. The agreement also includes New Zealand's commitment to investments in India of about \$20 billion over 15 years. In that sense, the deal moves past a narrow goods trade lens and gestures towards a more holistic economic partnership. If ratified by New Zealand's Parliament, as expected, the agreement could come into force within seven months. These are modest gains in the face of mounting global trade headwinds. But for India, the real test lies ahead: ensuring the removal of non-tariff barriers – from recognition of Indian educational qualifications to quality standards and rules of origin – and actively popularising the agreement among sectors poised to benefit. That sustained, patient work will determine whether this FTA becomes a template rather than an exception.

Context

India–New Zealand FTA reflects India's calibrated trade policy focusing on mobility, services, and farmer protection rather than blanket tariff liberalisation.

இந்தியா-நியூசிலாந்து FTA, முழுமையான கட்டண தாராளமயமாக்கலுக்குப் பதிலாக, இயக்கம், சேவைகள் மற்றும் விவசாயிகளின் பாதுகாப்பில் கவனம் செலுத்தும் இந்தியாவின் அளவீடு செய்யப்பட்ட வர்த்தகக் கொள்கையை பிரதிபலிக்கிறது.

UPSC CSE Syllabus

GS Paper 2 : International Relations

The Hindu – Newspaper 24/12/2025

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India–New Zealand Free Trade Agreement (FTA):

India concluded **FTA negotiations with New Zealand** in 2025

Current bilateral trade (FY25): **~\$2 billion**

Target: **Double trade in 5 years**

Reflects India's **cautious, sector-specific trade strategy**

The Hindu – Newspaper 24/12/2025

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Key Features of the FTA

Mobility & Services (Major Gain for India)

5,000 Indian professionals allowed **3-year work visas** at any time

Sectors: **IT, healthcare, education, traditional medicine**

More liberal than **India-Australia ECTA** (only 1,000 short-term visas)

Education & People-to-People Links

Uncapped entry for Indian students in New Zealand universities

Students allowed **20 hours/week part-time work**

Strengthens **human capital and remittance linkages**

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Tariff Exclusions to Protect Indian Farmers

~30% of India's tariff lines excluded

Sensitive sectors excluded:

Dairy products

Animal products (except sheep meat)

Certain vegetables

Important as **dairy** = **~1/3 of New Zealand's exports**

Addresses concerns that led India to exit **RCEP (2019)**

Investment Commitment

New Zealand to invest **~\$20 billion in India over 15 years**

Moves beyond goods trade to **long-term economic partnership**

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Strategic Significance

Shows India's shift from **mega trade blocs** to **tailored FTAs**

Balances:

Market access

Domestic livelihood protection

Services & mobility

Can serve as a **model/template** for future FTAs

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Challenges Ahead

Removal of **non-tariff barriers**:

- Recognition of Indian qualifications

- Standards & certification issues

- Rules of origin

Need to **popularise FTA** among Indian exporters and service providers

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How exports are concentrated in few States

For decades, development theory assumed export expansion would serve as the primary bridge from agriculture to mass industrial employment. That link is now broken. There is now a clear trend of capital deepening while the ratio of capital to labour increases permanently

ECONOMIC NOTES

Deepanshu Mohan
Ankur Singh

Despite a weakening rupee that has put India in the bracket of Asian countries with the worst performing currency, the economy's export numbers look impressive in the aggregate. However, a closer reading of the data reveals a far more uneven and structurally revealing story. When stripped of national aggregates, the data reveals a sharp divergence in performance across regions. A rigorous interrogation of the RBI Handbook of Statistics on Indian States 2024-25 reveals underlying structural dynamics.

A core-periphery pattern

The geography of India's trade is becoming perilously lopsided as the export engine is being powered by a shrinking cluster of States. The top five exporters – Maharashtra, Gujarat, Tamil Nadu, Karnataka, and Uttar Pradesh – now command nearly 70% of the national export basket. This creates a deceptive narrative where the national average masks a deepening regional crisis – where exports are becoming agglomerated rather than being dispersed across the nation. Firms are increasingly benefitting from spatial clustering, and not spreading out to newer regions.

Half a decade ago, the top five States contributed roughly 65% of national exports. That figure has now crept close to 70%. In technical terms, the Herfindahl-Hirschman Index (HHI), a standard metric used to gauge market concentration, of India's export geography is rising, signalling that India's export geography is becoming dangerously top-heavy. Instead of regions which are lagging behind trying to catch up to these States, we are witnessing a hardening core-periphery pattern. The coastal belts of the south and west are integrating tighter into global supply chains while the vast demographic heartland of the north and the east are effectively decoupling from the trade engine.

To understand why this divergence is accelerating, one must look beyond domestic policy to the tightening constraints of today's global trading environment.

Shifting from volume to value

The window for low skill, labour intensive industrialisation that allowed countries like Bangladesh or Vietnam to plug into the world economy is closing. WTO data indicates a structural slowing of merchandise trade volume growth to a band of 0.5-3%. The UN Trade and Development (UNCTAD) 2023 report estimates show that the top 10 global exporters control approximately 55% of world merchandise trade. In this environment, global capital is not merely seeking low-cost labour which was the traditional advantage of India's hinterland. In today's global economy, capital is no longer drawn merely to low costs but to high economic complexity. Research in economic complexity shows that economies with more diverse and tightly connected export baskets are far better positioned to transition into higher value production.

Predator space visualisations reveal a networked structure in which sophisticated goods, such as machinery and automotive components, cluster in dense core areas, enabling relatively



Thriving Industry: Cars to be loaded in to wagons at the Rail Auto Hub, in the Walajabad Railway Station, in Kanchipuram, Tamil Nadu in 2018. (iit mumbai)

smooth movement into adjacent advanced technologies. In contrast, regions whose export baskets are concentrated in sparsely connected, peripheral areas face steep barriers to structural upgrading, as they lack the underlying capabilities required to enter complex value chains.

The tragedy of this divergence is compounded by a shift in the nature of production itself. It undermines the long-held assumption that export expansion would automatically absorb surplus labour. For decades, development theory assumed export expansion would serve as the primary bridge from agriculture to mass industrial employment. That link is now broken.

We are witnessing a clear trend of capital deepening where the ratio of capital to labour increases permanently. The Annual Survey of Industries (ASI) 2022-23 data reveals a "smoking gun" where fixed capital investment grew by roughly 10.6% while employment growth lagged at just 7.4%. The factory floor is becoming more expensive and less labour absorbent as the fixed capital per person engaged has risen to ₹23.6 lakh. We are exporting value rather than volume of employment. This effectively bypasses the labour-intensive phase of industrialisation that East Asian economies utilised to build their middle classes.

Capital over the worker

The Periodic Labour Force Survey (PLFS) corroborates this capital bias from the household side. If the export boom were truly labour-intensive, we would expect a sharp structural shift of workers into factory jobs. Instead, the latest PLFS data indicates that the manufacturing sector's share of total employment has stubbornly

hovered around 11.6%-12%. This stagnation persists even as export values hit record highs. It implies that the elasticity of employment with respect to export growth has collapsed. The jobs being created are not in the labour-absorbing factories of the hinterland but in the capital-intensive hubs of the coast.

This capital bias is further evidenced by the structural compression in the wage share of Net Value Added (NVA). ASI data indicates that as productivity rises in automated sectors like petrochemicals or precision electronics, the gains accrue disproportionately to capital owners rather than wage earners.

The worker is becoming less central to the production process. This explains why we see high GDP growth in industrial States without a commensurate explosion in mass prosperity. Even the PLI-driven surge in electronics exports, growing over 4% year-on-year, is spatially sticky. It remains locked in specific districts in Kanchipuram or Noida because the complexity of these supply chains requires a logistics precision that does not exist outside these industrial islands.

The failure of the hinterland to converge is ultimately a failure of state capacity and financial depth. It creates a vicious cycle where the poor subsidise the rich. The RBI's data on Credit Deposit (CD) Ratios offers a stark financial MRI of this divide. In export powerhouses like Tamil Nadu and Andhra Pradesh, the CD ratio frequently surpasses 90%. This implies a high velocity of money where local savings are aggressively recycled into local industry. In contrast, in the hinterland States of Bihar and eastern Uttar Pradesh, the ratio languishes below 50%. This indicates a perverse form of capital flight where the savings of the

hinterland are deposited in banks only to be lent out to projects in the industrialised coast. These financial constraints are compounded by persistent human capital deficits in low-export States, constraining their ability to generate the skilled, healthy workforce required for integration into high complexity global value chains.

Need for new metrics

What emerges from this evidence is a quiet but profound shift. Exports in India are no longer operating as a lever of structural transformation but have become an outcome of prior structural capacity. States do not export their way into development; they export because they are already developed enough to do so. In this sense, export performance is increasingly a mirror of accumulated industrial wealth rather than a pathway toward building it.

If export-linked industrial policy may no longer generate labour intensive employment, and not catalyse convergence, then the role of an open economy in India's development strategy must be carefully re-examined. Treating export growth as a proxy for inclusive economic prosperity for all risks misleading outcomes for instruments. It also signals a gap between hope and reality. The danger is not that India misses global trade opportunities, but that it is perhaps measuring progress using a metric that increasingly reflects past advantages rather than future inclusion.

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THE GIST

▼ The geography of India's trade is becoming perilously lopsided as the export engine is being powered by a shrinking cluster of States.

▼ The tragedy of this divergence is compounded by a shift in the nature of production itself. It undermines the long-held assumption that export expansion would automatically absorb surplus labour.

▼ Exports in India are no longer operating as a lever of structural transformation but have become an outcome of prior structural capacity.

Context

India's export success reflects accumulated industrial capacity in a few States rather than a vehicle for nationwide structural transformation and employment.

இந்தியாவின் ஏற்றுமதி வெற்றி, நாடு தழுவிய கட்டமைப்பு மாற்றம் மற்றும் வேலைவாய்ப்புக்கான ஒரு வாகனமாக இல்லாமல், ஒரு சில மாநிலங்களில் திரட்டப்பட்ட தொழில்துறை திறனை பிரதிபலிக்கிறது.

UPSC CSE Syllabus GS Paper 3: Indian Economy



The Hindu – Newspaper 24/12/2025

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Key Findings

Regional Concentration (Core–Periphery Pattern)

Top 5 States (Maharashtra, Gujarat, Tamil Nadu, Karnataka, Uttar Pradesh) account for **~70% of India's exports**

Share rose from **~65% (5 years ago)** → **~70% now**

Rising **Herfindahl-Hirschman Index (HHI)** → increasing export concentration

Coastal western & southern States integrate into global value chains

Northern & eastern hinterland increasingly decoupled

Shift in Global Trade Environment

Global merchandise trade growth slowed to **0.5–3%**

Top 10 exporters control ~55% of world trade (UNCTAD)

Capital now seeks:

Economic complexity

Dense supply chains

Logistics precision

Low-skill, labour-intensive export path (East Asian model) is closing

From Volume to Value (Capital-Intensive Exports)

India exporting **value, not jobs**

ASI 2022–23:

Fixed capital growth: **10.6%**

Employment growth: **7.4%**

Fixed capital per worker: **₹23.6 lakh**

Indicates **capital deepening** (higher capital–labour ratio)

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Weak Employment Link

Manufacturing employment stuck at ~**11.6–12%** (PLFS)

Export growth not translating into factory jobs

Employment elasticity of exports has collapsed

Wage share in Net Value Added (NVA) declining → gains accrue to capital

The Hindu – Newspaper 24/12/2025

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Spatial Stickiness of New Exports

PLI-driven sectors (electronics, auto components) grow fast
But remain confined to **industrial islands**:

Kancheepuram (TN)

Noida (UP)

Hinterland lacks logistics, skills, supplier networks

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Financial & Institutional Divide

Credit-Deposit (CD) Ratio:

Export States: **>90%** (local savings fund local industry)

Hinterland States (Bihar, eastern UP): **<50%**

Indicates **capital flight from poorer States to richer ones**

Reinforced by **human capital deficits** (skills, health, education)

Implications for Policy

Export-led growth **cannot be sole metric** of progress

Need focus on:

- State capacity building

- Human capital

- Domestic demand & employment

Risk of mistaking **outcomes for instruments**

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Maternal mortality dropped as institutional deliveries rose to 89%: Health Minister

Nadda lays foundation stone for two medical colleges in Madhya Pradesh; says health benefits provided to mothers and children through 1,81,000 Ayushman Arogya Mandirs across the country

The Hindu Bureau
BHOPAL

Union Health Minister J.P. Nadda said on Tuesday that the country's institutional delivery rate had gone up to 89%, leading to a significant reduction in the maternal mortality rate (MMR) during childbirth.

Mr. Nadda made the statement after laying the foundation stone for a medical college in Madhya Pradesh's Dhar district. He laid foundation for another medical college in Betul district. The two colleges will be operated on a public-private partnership (PPP) model.

"The rate of institutional deliveries in the country has increased to 89%, which led to a significant reduction in the MMR. The Narendra Modi government is striving through its healthcare services to ensure that citizens remain healthy and do not fall ill in the first place," Mr. Nadda said.

He said the two medical colleges would also be the first of its kind in the coun-



Union Health Minister J.P. Nadda with Madhya Pradesh Chief Minister Mohan Yadav at an event in Dhar on Tuesday. ANI

try that would function through the PPP model.

"The establishment of the medical college would provide better healthcare services to the people of Betul and the surrounding tribal areas," he said, claiming that a "radical transformation" had taken place in the health sector under Prime Minister Narendra Modi.

"Until the end of the 20th century, there was

ing provided to mothers and children through 1,81,000 Ayushman Arogya Mandirs [health and wellness centres]. Today, keeping in mind the health of everyone in the country, not only is the benefit of the Ayushman Yojana being provided, but 12 types of vaccines are also being administered to protect the life of every child through immunisation," he added.

The medical colleges in Dhar and Betul are going to be constructed at an estimated cost of ₹260 crore and ₹300 crore respectively, as per a State government statement.

Medical colleges

The State currently has 33 medical colleges, including 19 government institutions.

"In 2003, there were only 1,250 seats [in the State]. In 2023-24, this increased to 4,875, and in the 2025-26 academic session, it further rose to 5,550 [government: 2,850, private: 2,700]. The total number of PG (MD/MS) seats has also increased to 2,862," the government said.

Context

The rise in institutional deliveries to 89% reflects India's shift towards preventive and accessible maternal healthcare, contributing significantly to the reduction in maternal mortality.

மருத்துவமனை பிரசவங்கள் 89% ஆக உயர்ந்திருப்பது, தடுப்பு மற்றும் அணுகக்கூடிய தாய்வழி சுகாதாரப் பராமரிப்புக்கான இந்தியாவின் மாற்றத்தைப் பிரதிபலிக்கிறது, இது தாய்வழி இறப்பு குறைப்பில் குறிப்பிடத்தக்க பங்களிப்பை அளிக்கிறது.

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GS Paper 1: Indian Society

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What is in News

- Union Health Minister **J.P. Nadda** stated that **institutional deliveries in India have risen to 89%**, leading to a **significant decline in Maternal Mortality Rate (MMR)**.
- Foundation stones laid for **two new medical colleges in Dhar and Betul districts of Madhya Pradesh**.
- These are India's **first medical colleges to operate under a Public–Private Partnership (PPP) model**.
- The colleges aim to improve healthcare access, especially in **tribal and underserved regions**.

India now has:

23 AIIMS

821 medical colleges (up from 387 in 2014)

1.81 lakh Ayushman Arogya Mandirs (Health & Wellness Centres) are providing maternal and child health services.

Ayushman Bharat and universal immunisation (12 vaccines) highlighted as key preventive healthcare measures.

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What is Maternal Mortality?

Maternal Mortality Rate (MMR):

Number of maternal deaths per **1,00,000 live births**

Death during pregnancy, childbirth, or within **42 days** of termination of pregnancy

Causes related to pregnancy or its management

Major Causes of Maternal Mortality

Haemorrhage (excessive bleeding)

Sepsis (infection)

Hypertensive disorders (pre-eclampsia, eclampsia)

Unsafe abortions

Anaemia and malnutrition

Lack of skilled birth attendants

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Why Institutional Deliveries Matter

Conducted in hospitals/health centres

Presence of:

- Skilled doctors and nurses

- Emergency obstetric care

- Blood transfusion and referral facilities

Reduces:

- Complications during delivery

- Delay in treatment

Hence, **rise to 89% institutional deliveries → fall in MMR**

Government Initiatives to Reduce MMR

Janani Suraksha Yojana (JSY) – cash incentives for institutional delivery

Janani Shishu Suraksha Karyakram (JSSK) – free delivery, medicines, transport

Ayushman Bharat – Health & Wellness Centres

Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA) – assured antenatal care

Universal Immunisation Programme

Expansion of medical colleges & healthcare infrastructure

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Challenges Still Remaining

Regional disparities (higher MMR in some States)

Shortage of specialists in rural areas

Quality of care in public health facilities

Anaemia among pregnant women

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Rhino dehorning nearly eliminated poaching in African reserves: study

Reserves that removed the horns of rhinos reported a 75% decrease in poaching compared to the pre-dehorning levels. In the seven reserves that implemented abrupt dehorning (within one to two months), poaching fell by 78%. Dehorned rhinos also faced a 95% lower risk of being poached compared to animals with intact horns

Sanjukta Mondal

Once upon a time, the thunder of the hooves of herds of mighty rhinoceroses echoed across the savannahs, grasslands, and tropical forests of Africa and Asia – but things have gotten pretty quiet lately. As of 2024, fewer than 28,000 rhinos remain on the planet, all five species combined.

Relentless poaching has been a major threat to the survival of rhinos around the world. Greater Kruger, the southern African reserves protecting the world's largest rhino population, alone lost 1,985 black and white rhinos between 2017 and 2023. That's nearly 6.5% of the rhino population disappearing each year, despite an investment of \$74 million in anti-poaching strategies, including ranger patrols, trained tracking dogs, AI-powered detection cameras, and aerial surveillance.

One approach that has shown promise is dehorning. An international team of researchers recently collected data over seven years from 11 reserves in the South African portion of the Greater Kruger region and found that dehorning significantly reduced poaching incidents by removing the primary incentive for poachers.

Nelson Mandela University senior lecturer and study member Tim Kuiper said the idea for their project arose from an urgent need on the ground: "The managers, rangers and scientists [at Kruger National Park] came together and asked a bold question: why are we still losing so many rhinos? What can we do differently?"

The team found that dehorning 2,284 rhinos across eight reserves resulted in a sudden 78% drop in poaching, achieved with just 1.2% of the total anti-poaching budget. The findings were published in *Science*.

Illegal rhino horns

Rhinoceroses' horns are made of keratin, the same fibrous protein found in hair and nails. The animals use them to dig to access edible plants and roots, and as a symbol of virility during mating.

Some people also perceive rhino horns as status symbols. Many practitioners of traditional medicine in certain Asian countries, but especially China and Vietnam, also include rhino horns in their preparations because they believe the horn treats everything from fever and gout to more mystical issues like possession. There is no scientific evidence to back any of these claims, but that has not stopped a global black market worth hundreds of millions of dollars still persists.



Rangers manage Quintus, a 3-year-old male white rhino, which has just been tranquilised at the Lewa Wildlife Conservancy, in Meru County, Kenya. REUTERS

One 2022 report by the Wildlife Justice Commission found that the wholesale trade in raw rhino horns between 2012 and 2022 generated between \$874 million and \$1.13 billion in gross illicit income.

Why poachers kill

The researchers behind the new study said the demand for rhino horns plus poverty in many local communities creates financial pressures that drive people to risk everything, sometimes their lives, to poach or support poachers.

To remove a rhino's horn without causing harm, conservationists and veterinarians sedate, blindfold, and fit the animal with earplugs to reduce stress. Then they carefully cut 90-95% of the horn with a saw, above the germinal layer, which is the living tissue at the horn's base that's essential for it to regrow. After trimming, the remaining stump is smoothed and coated with a tarry substance to prevent infections.

Poachers often operate under intense pressure, so killing the rhino allows them to remove the entire horn without resistance.

Dehorning against poaching

To assess the effectiveness of dehorning in reducing poaching, the researchers analysed quarterly data from 2017 to 2023 across 11 wildlife reserves. Using a powerful statistical method called hierarchical Bayesian regression modelling, they compared reserves that dehorned rhinos with those that didn't, tracking changes in poaching before and after the intervention.

Reserves that removed the horns reported a 75% drop in poaching versus

and Nepal have lost only one or two over the last three years. Kaziranga's success has been attributed to smart patrolling and active community engagement. Partnerships of local communities and park authorities have helped mitigate human-wildlife conflict.

pre-dehorning levels. In the seven reserves that implemented abrupt dehorning (within one to two months), poaching fell off by 78%. Dehorned rhinos also faced a 95% lower risk of being poached compared to those with intact horns.

In another striking finding, while efforts to detect and arrest poachers remain a crucial part of the anti-poaching toolkit, they weren't found to be as effective at actually deterring poachers. The researchers said this could be because systemic issues and corruption create loopholes that traffickers can exploit to avoid detection. Weak criminal justice systems also make it worse, often allowing poachers to escape with little or no meaningful punishment.

Conservation with locals

Kaziranga National Park in Assam, home to one of the world's largest populations of greater one-horned rhinos, has also suffered poaching.

Bibhab Kumar Talukdar, an International Union for Conservation of Nature awardee and rhino

conservationist, said that while poaching still claims over 400 rhinos a year, India

and Nepal, however, have chosen not to dehorn, because their local programmes have been successful. They have lost only one or two rhinos over the last three years.

Kaziranga's success has been attributed to smart patrolling and community engagement. The efforts required extensive

groundwork, involving more than 1,000 hours in workshops and discussions with reserve staff and rangers on how to collect and interpret data. The labour-intensive nature of such research highlights the need to involve those on the ground in conservation efforts.

Rangers in particular are often locals and possess regional ecological knowledge, but this resource remains underutilised. Dr. Kuiper said rangers are the frontline defenders of conservation. Their welfare, including fair pay, training, and safety, must be prioritised alongside interventions, as lasting success depends on supporting the people who implement these strategies.

The researchers also noted that while dehorning might not be a silver bullet, as poachers may still target rhinos for the small horn remnants, it shows strong potential as a long-term strategy. They believe the study's findings can help governments and wildlife protection agencies make more informed decisions about allocating resources and assessing the effectiveness of interventions.

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THE GIST

Greater Kruger lost 1,985 rhinos between 2017 and 2023. That was despite millions invested in anti-poaching strategies, including patrols, dogs, AI-powered cameras, and aerial surveillance. Now, one approach is showing promise – dehorning.

Some perceive rhino horns as status symbols. They are also used in traditional medicine because it is believed that it treats everything from fever and gout to more mystical issues like possession. One report found that horns generated between \$874 million and \$1.13 billion in illicit income.

India and Nepal, however, have chosen not to dehorn, because their local programmes have been successful. They have lost only one or two rhinos over the last three years.

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groundwork, involving more than 1,000 hours in workshops and discussions with reserve staff and rangers on how to collect and interpret data. The labour-intensive nature of such research highlights the need to involve those on the ground in conservation efforts.

Rangers in particular are often locals and possess regional ecological knowledge, but this resource remains underutilised. Dr. Kuiper said rangers are the frontline defenders of conservation. Their welfare, including fair pay, training, and safety, must be prioritised alongside interventions, as lasting success depends on supporting the people who implement these strategies.

The researchers also noted that while dehorning might not be a silver bullet, as poachers may still target rhinos for the small horn remnants, it shows strong potential as a long-term strategy. They believe the study's findings can help governments and wildlife protection agencies make more informed decisions about allocating resources and assessing the effectiveness of interventions.

Context

Rhino dehorning has emerged as a cost-effective, preventive conservation tool, significantly reducing poaching by removing the economic incentive for wildlife crime.

காண்டாமிருகக் கொம்புகளை அறுப்பது செலவு குறைந்த, தடுப்பு பாதுகாப்பு கருவியாக உருவெடுத்துள்ளது, வனவிலங்கு குற்றங்களுக்கான பொருளாதார ஊக்கத்தை நீக்குவதன் மூலம் வேட்டையாடுதலைக் கணிசமாகக் குறைக்கிறது.

UPSC CSE Syllabus

GS Paper 3: Environment & Ecology



The Hindu – Newspaper 24/12/2025

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What is in News

A new international study published in *Science* shows that **rhino dehorning has significantly reduced poaching** in African wildlife reserves.

Study covered **11 reserves in South Africa's Greater Kruger region (2017–2023)**.

Key findings:

- 75% reduction in poaching** after dehorning compared to pre-dehorning levels.

- 78% drop** in reserves where dehorning was done rapidly (within 1–2 months).

- 95% lower risk of poaching** for dehorned rhinos compared to those with intact horns.

The Hindu – Newspaper 24/12/2025

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Dehorning:

Involved **2,284 rhinos across 8 reserves**

Used only **1.2% of total anti-poaching budgets**

The study found that:

Traditional anti-poaching methods (patrols, surveillance, arrests) alone were **less effective** as deterrents.

Systemic corruption and weak criminal justice systems reduce the impact of arrests.

The findings strengthen the case for **preventive conservation strategies**.

Indian context:

India and Nepal have seen **near-zero rhino poaching in recent years** due to **strong patrolling and community participation**, especially in **Kaziranga National Park**.

The Hindu – Newspaper 24/12/2025

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General Overview

Rhinos are **large herbivorous mammals** known for their **horns made of keratin** (same protein as hair and nails).

As of **2024**, **fewer than 28,000 rhinos** remain worldwide.

They play a key role as **keystone species**, shaping grassland and forest ecosystems.

Species of Rhinoceros

There are **five species** globally:

Africa (2 species):

White Rhino

Black Rhino

Asia (3 species):

3. Greater One-horned Rhino – India & Nepal

4. Javan Rhino

5. Sumatran Rhino

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Rhinos in India

India is home to the **Greater One-horned Rhinoceros (Rhinoceros unicornis)**.

Major habitats:

Kaziranga National Park (Assam) – largest population

Pobitora, Orang, Manas National Parks

Protection measures:

Strict anti-poaching laws

Community participation

Armed forest patrols

Conservation Approaches

Preventive:

- Dehorning
- Habitat protection

Protective:

- Ranger patrols
- Surveillance technology

Participatory:

- Community involvement
- Local employment in conservation

Legal:

- Strong wildlife laws and enforcement