Topics - MINDS MAPS included (Daily current affairs 3rd December 2024

SAURABH PANDEY
CSE
POOT EX DESTRUCTIONS
HOM BASSET TO UPPE BELLIANCE

- INS Arighaat:
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By saurabh Pandey



Target Mains -2025/26 -

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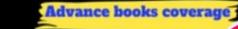
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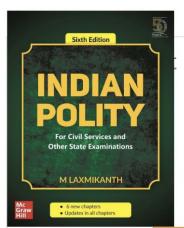
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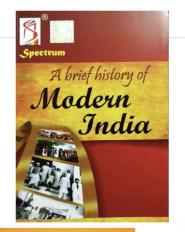
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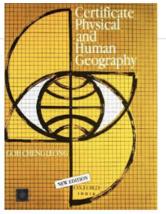


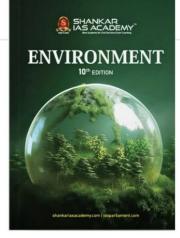
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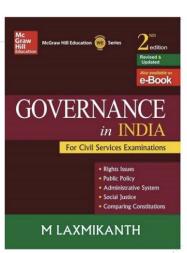


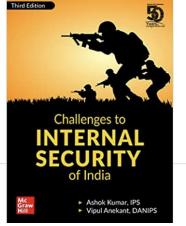


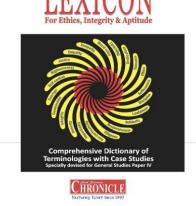


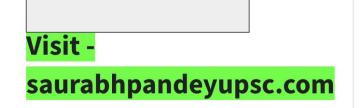




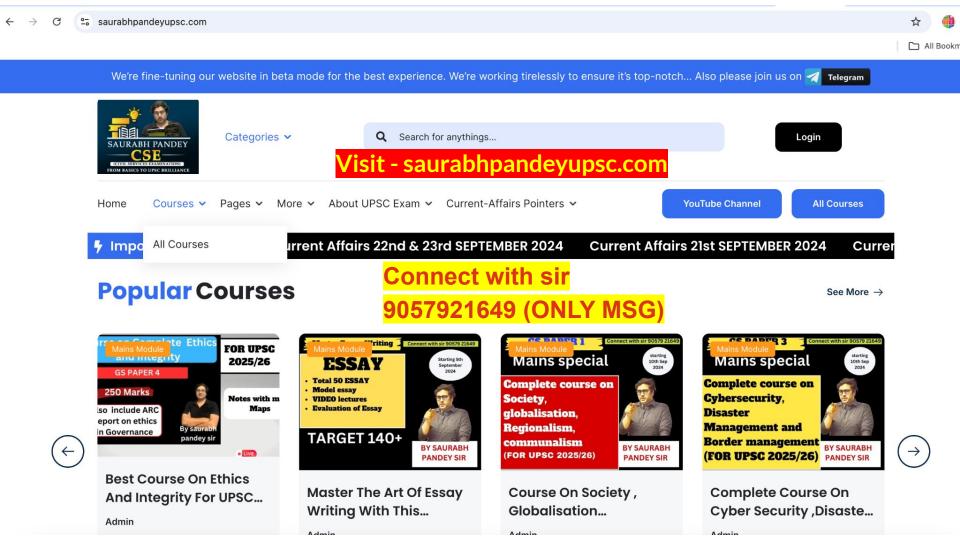








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Deals for 26 Rafale-M jets, 3 Scorpene submarines to be signed: Navy chief

Dinakar Peri

NEW DELHI

Navy chief Admiral Dinesh Tripathi on Monday acknowledged that the country's second nuclear ballistic missile submarine, INS Arighaat, successfully fired a Submarine Launched Ballistic Missile (SLBM) a few days back. In another important remark on the country's strategic nuclear programme, he said the first of the two nuclear attack submarines (SSN) to be indigenously designed and manufactured is expected to be ready by 2036-37.

Two multi-billion dollar deals under negotiation with France to procure 26 Rafale-M fighter jets and three additional Scorpeneclass conventional submarines are in advanced stages and could be signed next month, the Navy chief



India is in negotiation with France over a multi-billion dollar deal to procure 26 Rafale-M fighter jets soon. K. MURALI KUMAR

said in response to a question at the annual press conference ahead of Navy Day.

"It is just matter of completing the formalities of the acquisition process and we expect that if not this month, next month hopefully, this [Scorpène submarines] and Rafale-M deals should be signed."

On the deal for 26 Ra-

fale-M jets, he said it was "one level short of taking it to the CCS [Cabinet Committee on Security]" for clearance, which will be followed by contract-signing. "It is a government-togovernment deal and hence I expect it to happen fast," he said.

The deal for three Scorpene submarines is a repeat order to Mazagon Dock Shipbuilders Ltd. (MDL), which is building them in partnership with Naval Group of France. Of the six submarines from the earlier contract, five have been inducted and the last one is expected to be commissioned later this month.

On the nuclear ballistic missile submarines (SSBN), Admiral Tripathi said the first one, *INS Arihant*, had done a number of deterrence patrols.

The second, *INS Arigh*aat, which was commissioned recently, is undergoing trials, including missile test, he said.

"We did carry out test of missile... Launch was successful. Concerned agencies are examining as to what trajectory the missile took," he said on the recent K4 SLBM test with a range of 3,500 km from *INS Arighaat*.

Topic → **INS Arighaat: India's Strategic Submarine**



- Marighaat is an upgraded variant of the Arihant-class submarine.
- it is the second nuclear-powered ballistic missile submarine developed by India.
- The submarine is part of the Advanced Technology Vessel (ATV) project.
- Tonstruction took place at the Ship Building Centre in Visakhapatnam.
- INS Arighaat has been assigned the code name S3.
- It represents India's advancements in nuclear submarine technology.
- The submarine enhances India's strategic defense capabilities.

Summary: INS Arighaat is India's second nuclear-powered ballistic missile submarine, part of the ATV project, built in Visakhapatnam, and designated as S3.

Strategic Importance and Development



Strategic Role: Enhances India's defense capabilities with nuclear deterrence.

Technological Advancement: Showcases India's progress in nuclear submarine technology.

Construction and Development: Built at the Ship Building Centre, Visakhapatnam,

under the ATV project



Oxford study lauds PRAGATI system for fast-tracking projects



The Hindu Bureau NEW DELHI

A study by Oxford University's Saïd Business School has lauded Prime Minister Narendra Modi's PRAGATI infrastructure monitoring system for accelerating 340 projects worth \$205 billion across the country

and bringing about eco-

nomic transformation.

The study titled "From Gridlock to Growth: How Leadership Enables India's PRAGATI Ecosystem to Power Progress" was authored by Soumitra Dutta, dean at the SBS, and coauthored by associate fellow Mukul Pandya. It was presented at a symposium hosted by the Indian Institute of Management, Ban-

galore, on Monday.

toring of infrastructure projects and their completion since 2015 through the PRAGATI system, an acronvm for Pro-Active Governance and Timely Implementation of projects.

"The platform symbolises India's commitment to overcoming bureaucratic inertia and fostering a Team India mindset and culture of accountability and efficiency," says the re-"PRAGATI has brought together diverse stakeholders from Central The report says that PRAGATI system symbolises India's commitment to overcoming bureaucratic inertia

and State governments onto a single platform and this collaborative approach has been instrumental in addressing some of the complex challenges in infrastructure development, from land acquisition to inter-ministerial coordination," the report says. The report adds that the

economic impact of PRA-GATI is evident, According to studies by the Reserve Bank of India and the National Institute of Public Finance and Policy, for every The study looked at facrupee spent on infrastructors including close moniture, India sees a gain of ₹2.5 to ₹3.5 in GDP. "By fast-tracking projects that provide services like roads, railways, water, and electricity, PRAGATI has improved the quality of life for millions of Indians. It has incorporated sustainability into its core operations, facilitated faster environmental clearances and promoted the use of green technologies. This holistic approach ensures that India's development is both inclusive and sustainable," the report says.

Topic →**PRAGATI** Overview



- PRAGATI: Pro-Active Governance And Timely Implementation, initiated by the Government of India.
- m Purpose: Enhance governance efficiency and ensure timely project implementation.
- Implementation: Monitors and reviews project progress monthly.
- Technology Utilization: Uses video conferencing for real-time communication between central and state governments.
- Impact on Development: Addresses project delays and improves accountability.
- Stakeholder Engagement: Encourages collaboration among government officials and project managers.
- Focus Areas: Infrastructure projects, social welfare schemes, and developmental initiatives.

Summary: PRAGATI is a governance system in India aimed at improving project implementation and accountability through technology and stakeholder collaboration.

Key Aspects of PRAGATI



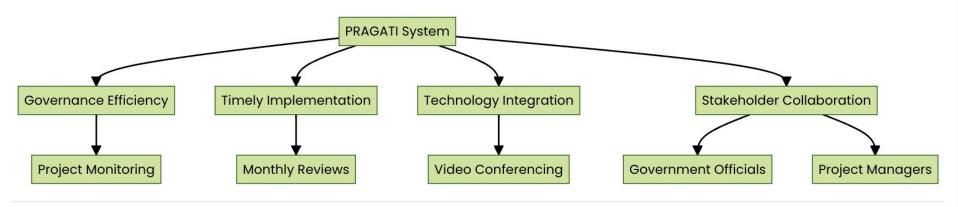
Governance Efficiency: Aims to streamline government operations.

Timely Implementation: Focuses on reducing project delays.

Technology Integration: Utilizes modern technology for effective communication.

Stakeholder Collaboration: Promotes teamwork among various stakeholders.

PRAGATI System Flow:





A photo taken on July 5 by the New Zealand Department of Conservation shows ranges beside what appears to be the carcass of a rare spade-toothed whale after it was discovered washed a shore on a beach mear Taleri Mouth, New Zealand, APP

Scientists in NZ gather to decode puzzle of rarest whale

It is the world's rarest whale, with only

Associated Press

seem of its land ever sported. Almost sociality as lower of the eigenstate of the ei

spade toothed kind processes its bood. Over the near week, researchers studying the 5 metre male at a research to the contract of the contract "There may be parasites completely new to science that just live in this whale," said van Helden, who thrilled at the chance of learning how the species produces sound and what it cast. "Who knows what we'll discover?" Only six been found, but all those discovered intact were buried before DAA testing could verify their identification.

The dissection will be slower than usual, because it is being undertaken in partnership with the Maori, for whom whales are a precious treasure, and the creature will be treated with the reverence afforded to an ancestor

New Zealand is a whale stranding hotspot, with more than 5,000 episodes recorded since 1840, according to the Department of Conservation. The first spade-toothed whale bones were found in 1872 on New Zealand's Pitt Island. Another discovery was made at an offshore island in the 1950s, and the

onsore is dailed in the 1908s, and the bones of a third were found on Chile's Robinson Crussee Island in 1908. Robinson Crussee Island in 1908. The control of the Island in 1908, and the species and the Island in 1908 of the same species and that It was distinct from other bealed whales. But researchers studying the mammal couldn't confirm whether the species was extinct until 2010, when two whole spade-to-othed whales, both dead, washed up on a New Zealand

dead, wasned up on a new Zeanam beach. On Monday, the seventh of its kind, surrounded by white-aproned scientists who were measuring and photographing, appeared relatively umblemished, giving no clue about its death. Researchers pointed out marks from cookiecutter sharks—normal, they said, and not the

sharis – normal, they said, and not the cause.

The dissection will be quiet, methodical, and slower than usual, because it is being undertaken in partnership with Maori, New Zealand's Indigenous people. To Maori, whales are a precious treasure, and the creature will.



Topic → **Spade-Toothed Whale:** A Rare Marine Marvel



Overview

The spade-toothed whale is a rare species, notable for its unique dental structure.

Found primarily in deep oceanic waters, making it challenging to study in the wild.

Nan grow to significant lengths, with some individuals exceeding 20 feet.

Its spade-shaped teeth distinguish it from other whale species.

Part of the beaked whale family, which includes other deep-diving cetaceans.

Limited information on its behavior and population due to its elusive nature.

Conservation efforts are ongoing to understand and protect this enigmatic marine mammal.

Conservation and Research

Efforts are focused on understanding the whale's behavior and population status. Research is hindered by the whale's deep-sea habitat and elusive nature

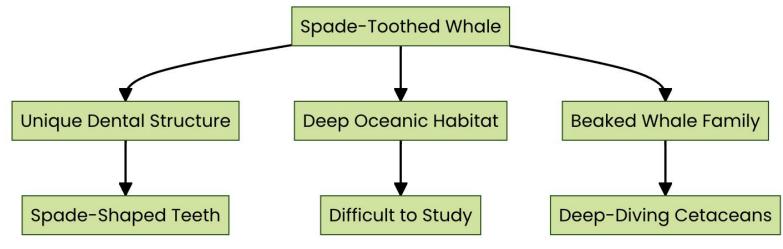
The **spade-toothed whale** (*Mesoplodon traversii*) is the rarest species of beaked whale. Most specimens found have been in the South Pacific, mostly in New Zealand, but they have also been found in Chile. Very little is known about the species







Spade-Toothed Whale Characteristics:



Summary

The spade-toothed whale is a rare, deep-diving cetacean known for its unique spade-shaped teeth and elusive nature. Conservation efforts are crucial to better understand and protect this mysterious marine mammal.

When a DNA analysis reveals a closely guarded family secret...

DNA analysis can create a 'narrow biologised notion of inheritance', to use the words of Projit Mukharji, for no reason other than that the molecule can reveal more than what we wish to tell. If this isn't a problem enough, consider what it means for laws we have, or don't, to protect our privacy

D.P. Kasbekar

he Centre for DNA Fingerprinting and Diagnostics (CDFD) is a government laboratory in Hyderabad. It provides DNA-based investigative services to the police, the judiciary, and to hospitals that offer organ transplant procedures. Recently, the CDFD bandled the case of a family in which the father offered to donate an organ to its alling son. CDFD technicians generated DNA the pattern's more pattern, and also the natives' more, the pattern, and also the natives' more pattern, and also the natives' more pattern, and also

while the DNA profiles of the mother and the son were consistent with their claimed mother-son relatorship, those of claimed mother-son relatorship, those of the consistent with their claimed mother-son relatorship, those of the consistence of the care of the consistence of the care of the consistence of the consistence of the consistence of the consistence of the care of the consistence of the care of the consistence of the care of th

Levirae is the custom in some families in which a woman who is widowed or one whose husbard is mentally or physically incapacitated has children fathered by the control of the control of

What are DNA profiles?

Every cell in our body has a nucleus that contains two copies of each of the 23 chromosomes, numbered 1 to 23. This 1-23 lump is our genome. One chromosome of each pair is inherited via the mother's egg and the other via the

father's sperm.

When we make our own reproductive cells – eggs or sperm – each egg or sperm receives only one chromosome from a pair, i.e., on egenome set. When a sperm cell and an egg fuse, they create a cell with two genome sets. This cell, called the zygote, divides to produce all the other cells of the baby.

Every chromosome contains a single DNA molecule that runs from end to end. A DNA molecule has two strands. Each strand is a long, linear sequence of four chemicals adenine (A), cytosine (C), guanine (G), and thymidine (T). The As on one strand form bonds with the Ts on the other, while Gb bond with the Cs. The As, the DNA's bases and the AT and G-C combinations are the DNA's base pairs.

The largest chromosome in humans, chromosome I, has more than 240 million base-pairs; the shortest, chromosome 21, has more than 40 million. The 23 chromosomes together have 3.2 billion

base-pairs.
At several locations, or loci, on each of
the 23 chromosomes, some short DNA
sequences are repeated multiple times.
These loci are called simple tandem
repeats (STRs). For example, one strand
of an STR locus might have multiple
repeats of GGCCA
(GGCCAGGCCA...). These are

When DNA creates a privacy issue

DNA has unwittingly opened a Pandora's box where the family skeletons could tumble out of the closet. You offer your DNA to further something that needs to be done and open a gaping wound



DNA analysis has the potential to cause very unpleasant situations. Illustrative image.

AUTOSOMAL STR DNA PROFILES OF THE INDIVIDUALS

D3S1358	16,16	16,16	15,18
vWA	14,17	14,14	15,18
D16S539	11,12	11,12	11,12
CSF1PO	10,13	12,13	11,12
TPOX	8,11	8,11	8,11
Yindel		2	2
D8S1179	13,14	14,15	13,15
D21S11	29,33.2	29,33.2	28,32.2
D18S51	14,15	15,17	14,14
DYS391		10	10
D2S441	9,10	10,10	10,11
D19S433	13,13	13,13	13,13
THO1	7,8	7,9	6,9
FGA	24,24	24,27	23,27
D22S1045	11,17	11,17	11,17
D5S818	10,12	12,15	12,15
D13S317	8,12	12,12	11,12
D7S820	8,12	11,12	11,13
SE33	13,29.2	13,29.2	19,29.2
D10S1248	13,15	14,15	14,14
D1S1656	14,14	14,17.3	8,15.3
D12S391	21,24	17,21	17,17.3
D2S1338	19,22	21,22	19,21
AMELOGENIN	x,x	XX	X,Y

paired with complementary CCGGT repeats on the other strand (CCGGTCCGGTL.). The repeat number of STR loci can differ in the two chromosomes of a pair. For example, a particular chromosome derived from the father might have 30 repeats while the same one from the mother may have 35.

The DNA profile of a person is simply the number of times the simple sequences are repeated in the STR loci. This number can be found by first creating lots of copies of DNA from a sum to the sample cusing the polymerase chain reaction, PCR), then segregating the DNA 35. fragments by size using a technique called

Y-CHROMOSOMAL STR DNA

DYS3891

DYS635

DYS627

DV\$460

DY\$458

DYS19

YGATAH4

DYS390

DYS438

DYS392

DYS437

DYS385

DYS449

DYS393

DYS481

DVF38751

DYS533

PROFILES OF THE INDIVIDUALS

23 23

19 19

10

16

14

11 11

17

23

11 11

16

14

12,16 12,16

31

12

11

10 10

16

23

12

23 23

Levirate is the custom in which a woman who is widowed or one whose husband is mentally or physically incapacitated has children fathered by her husband's brother

capillary gel electrophoresis. It is sensitive enough to both accurately and precisely establish the number of repeats in an

For example, the table below shows the number of repeats of the father, the mother, and the son in the case illustrated above – i.e. their DNA profiles.

According to the tuble, the mother's versions of Loca BISSS1 had it and is repeats, while the son's versions falca is BISSS1 had it and is repeats, while the son's versions had is and I'r repeats, while the son's versions had is DISSS had it and li4. The son received his 5 repeat version from his indien and the I'r-epeat version from his father. But whe woman's husband didn't have at Preservariant, so this man couldn't be the actual father. Likewise, for three other STG, the son received paternal variants that were absent from the donor.

The son and the man still had identical Y-chromosome profiles, plus identical variants in 19 of the 23 non-Y STR loci. This indicated that the woman's husband is closely related to the biological father – possibly a brother. Thus the marriage is levirate.

Levirate marriages in India

Projit Bihari Mukharji, a historian of science at the University of Pennsylvania and Ashoka University in Haryama, ably discussed the practice of levirate marriage in India in his 2022 book. 'Brown Skins, White Coats Race Science in India, 1920-66:

Mukharji cited the pioneering anthropologist and writer Irawati Karve (1905-1970) when he wrote that she spoke "of the three debts that any Hindu man owed and upon the repayment of which his ultimate liberation depended. These debts were respectively to the gods, the sages, and the ancestors.

sages, and the antestors.

Each of these ... required the making of regular offerings. These offerings could only be made by a son. Hence, the function of a son was the making of ancestral offerings, rather than the maintenance of a biological or genetic linease."

This pushed families to explore all possible ways, including levirate, to beget

a son.

Mukharji added that families are reluctant "to divulge information... not simply... by a modern desire to avert a scandal. Rather, it was because, within an older customary framework of kinship, 'descent' itself worked differently and to other ends... The refusal... to share in a more radical refusal to accept a narrowly biolosies denotion of inheritance.

36.39 36.59 biologised notion of inheritance."

Unfortunately, in the end, DNA analysis appears to have allowed the "narrow biologised notion of inheritance." to win for no reason other than that DNA just limit the STR bed.

In the STR bed.

Str 1 a problem enough, consider than the DNA just limit to DNA from a don't - to protect our sented crytacy.

(D.P. Kasbekar is a retired scientist kasbekardp@yahoo.co.in)



Topic → **DNA** and **Genetic Profiling**





DNA Structure

Nucleus: Contains two copies of 23 chromosomes, forming the human genome.



Eggs and Sperm: Each receives one chromosome from each pair, forming a zygote with two genome sets.



DNA Molecules

Composition: Each chromosome is a single DNA molecule with two strands made of adenine (A), cytosine (C), guanine (G), and thymidine (T).



Chromosome 1: Over 240 million base-pairs.

Chromosome 21: Over 40 million base-pairs.

Total: 3.2 billion base-pairs across all chromosomes.



Simple Tandem Repeats (STRs)



Repetition: Certain DNA sequences are repeated at specific loci, varying between chromosomes from each parent.

DNA Profiling

Techniques: Uses polymerase chain reaction (PCR) and capillary gel electrophoresis to count repeats in STR loci.

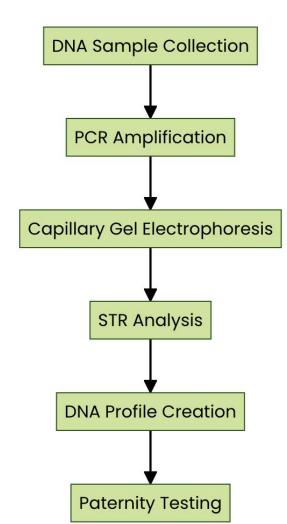
Paternity Testing

Familial Relationships: DNA profiles can reveal biological relationships, as shown in cases where STRs indicate a different biological father.

Summary: DNA profiles are created by analyzing simple tandem repeats in chromosomes, aiding in determining biological relationships.

DNA Profiling Process:





Citizens with disabilities, making their rights real

he data from the 2011 national Census of India indicate that persons with disabilities constitute 2.21 % of the total population. This is a grossly underestimated figure. According to the 2019 Brief Disability Model Survey conducted by the World Health Organization across India, Tajikistan and the Lao People's Democratic Republic, the prevalence of severe disability among Indian adults is 16%. India ratified the United Nations Convention on the Rights of Persons with Disabilities on October 1, 2007 and one of the immediate measures expected out of the state parties to the convention is to ensure alignment of the national disability legislations in line with the principles of the convention. Accordingly, Parliament passed the Rights of Persons with Disabilities Act 2016 (RPWD Act) that came into force on April 19, 2017 to replace the earlier Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995, which fell short of promoting a social and a human rights model of disability rights.

The role of the State Commissioner

One of the unique points of the RPWD Act in comparison to many disability legislations of the developing countries is the provision for the constitution of the office of the State Commissioners for Disabilities at the State level with a combination of review, monitoring, and quasi-judicial functions to ensure effective implementation of the disability law. According to Section 82 of the RPWD Act, the State Commissioners, for the purpose of discharging their functions under the Act, shall have the same powers of a civil court under the Civil Procedure Code 1908 while trying a suit, and every proceeding before the State Commissioner shall be a judicial proceeding within the meaning of Sections 193 and 228 of the Indian Penal Code (45 of 1860).

Despite the legislation providing far-reaching quasi-judicial powers to the State Commissioners in safeguarding the rights and fundamental freedoms of persons with disabilities, the State Commissioners in many States have fallen short of the expectations of citizens with disabilities. This dismal functioning of the office of the State Commissioners is largely due to the lax attitude on the part of the State governments to invigorate the statutory office in discharging its functions in accordance with the law. This reality has been aptly highlighted in the writ petition WPC 29329/2021, Seema Girija Lal vs. Union of India, in which the delay in appointment of the state

Commissioners has also been highlighted. Among various reasons for the failure to fulfil the statutory role by the State Commissioners is the manner in which the commissioners are appointed. The RPWD Rules provide an opportunity for persons with substantial



Pradeep Kumar Bagival

Disability Inclusion Adviser to the national governments, the United Nations and International Non-Governmental Organisations (INGOs) and former Assistant Commissioner for Disabilities, Persons with Disabilities Act-1995, Karnataka

Commissioners

have a vital

safeguarding

the rights and

fundamental

freedoms of

persons with

disabilities, but

in many States,

their statutory

role has fallen

expectations

short of

role in

experience in law, human rights, education, social work and rehabilitation and with a non-governmental organisation background to be appointed to the position of State Commissioner. In reality, a majority of the commissioners, either independent or holding additional charge, are civil servants from the nodal ministry. According to the latest report (2021-22) of the Chief Commissioner for Persons with

For an

future

inclusive

Disabilities, only eight States have appointed commissioners who are not part of the mainstream civil service. Having civil servants from the nodal ministry is in conflict with the purpose of having an impartial and independent office that can exercise oversight over the executive and hold them accountable for not

disability inclusion have appointed representatives of civil society organisations as State Commissioners and the State governments should consider appointing qualified women with disabilities as commissioners as they will be in a better position to address intersectional forms of discrimination that women and girls with disabilities in India currently experience.

implementing the provisions of the disability law.

Some of the progressive States in terms of

The State Commissioners have a substantive role including powers to intervene suo motu to identify and inquire about any specific policy, provision, programme and laws that contravene the provisions of the RPWD Act and recommend appropriate corrective measures.

There are many contraventions of the RPWD Act that are highlighted by aggrieved persons with disabilities and by certain proactive organisations of persons with disabilities (OPDs) and the State Commissioners have not been able to intervene suo motu to address discriminatory policies and practices which has led to an erosion of faith in the statutory offices created under the disability law to uphold the rights of citizens with disabilities. The State Commissioners should interact consistently with persons with disabilities and their representative organisations to understand which are those policies, guidelines, executive orders that contravene the provisions of the law and initiate necessary remedial action.

The example of Karnataka

It is vital for State governments and the office of the Chief Commissioner for Disabilities to build the capacity of the State Commissioners in performing their quasi-judicial role and in functioning as a civil court. As done by the State Commissioner's office in Karnataka, collaborating with law schools and legal experts in strengthening their respective capacities could be a viable option. While some States such as Karnataka and Delhi have been able to infuse confidence among persons with disabilities to register complaints with regard to a deprivation

of their rights, it is equally important for State Commissioners to look into complaints and dispose of them expeditiously. The websites of the office of the State Commissioners should - on the dashboard - indicate the number of cases received, disposed of and those pending for action along with other vital information such as annual reports and special reports submitted to

the government on implementation of the law by the government with concrete recommendations. Mobile adalats (mobile courts), as practised years ago by the Karnataka

Commissioner's office, could be a good practice for other States to emulate in reaching out to persons with disabilities in remote areas and to look into a deprivation of their rights. Adalats were organised in the State with prior notice to persons with disabilities through the nodal disability office in the districts for aggrieved individuals or institutions to get their grievance redress.

Often, these grievances would be resolved on the spot for persons with disabilities and their families. Designating District Magistrates as Deputy Commissioners for persons with disabilities - as done in the case of Karnataka - is a promising way to make local governance disability inclusive.

The RPWD Act enables State Commissioners to monitor the implementation of various pieces of legislation, programmes and schemes that impact persons with disabilities. To maximise the effectiveness of this critical role, the District Disability Management Review (DDMR) undertaken by the Karnataka State Commissioner's office could be one of the preferred practices for State Commissioners. The DDMR has become an inclusive governance tool for the State Commissioner in Karnataka to have sight of how development and welfare programmes and policies have been implemented by the relevant departments at the district level, and to what extent the quotas earmarked for persons with disabilities have been fulfilled.

Research as a function

One of the key functions of the State Commissioners is to undertake and promote research in the field of disability rights. This opens up opportunities for the State Commissioners to collaborate with United Nations entities which have a mandate to promote disability inclusion on the basis of the UN Disability Inclusion Strategy in undertaking research in areas such as disability inclusive social protection, disability inclusive care economy and the impact of climate change on persons with disabilities. The findings could pave the way for more inclusive policies and in advancing the rights of persons with disabilities in India.



Topic → **Rights of Persons with Disabilities act 2016**

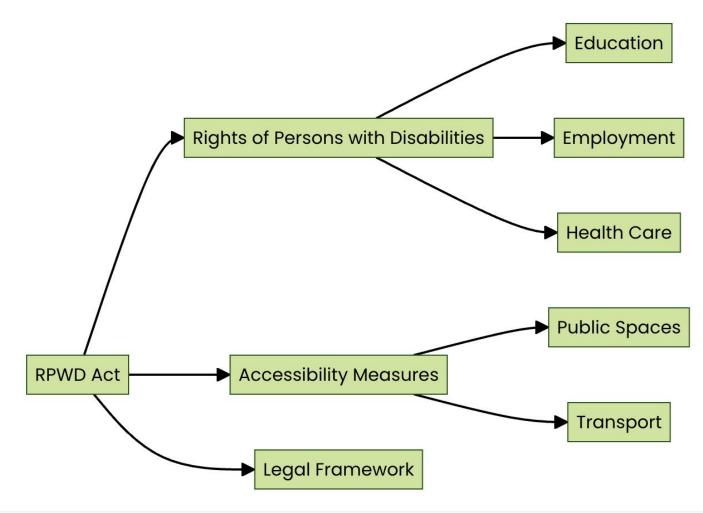


Rights of Persons with Disabilities Act 2016: A Comprehensive Guide

Title	Description
Rights of Persons with Disabilities Act 2016: A Comprehensive Guide	Explore the intricacies of the RPWD Act, its implications, and how it aims to empower individuals with disabilities in India. Understand the ongoing challenges and the path forward in ensuring equality and justice for persons with disabilities.

The Rights of Persons with Disabilities Act, 2016 (RPWD Act) is a landmark legislation in India that seeks to enhance the rights and dignity of individuals with disabilities. This act not only aims to promote inclusivity but also lays down a robust legal framework to address the challenges faced by persons with disabilities in their daily lives.

Figure 1.1: Key Features of the RPWD Act:





Key Provisions of the RPWD Act

The RPWD Act encompasses a plethora of provisions designed to safeguard the rights of individuals with disabilities. Some of the key features include:

Definition of Disabilities: The act broadens the definition of disabilities, encompassing various conditions such as physical, intellectual, and mental disabilities.

Rights Guaranteed:

Right to education and employment.

Right to live independently and be included in the community.

Access to public spaces and transportation.

Implementation Challenges



Despite the ambitious goals of the RPWD Act, its implementation has been riddled with challenges:

Lack of Awareness: Many individuals and organizations remain unaware of the rights conferred by the act.

Inadequate Resources: Government bodies often lack the necessary resources to enforce the provisions effectively.

Social Stigmas: Deep-rooted societal attitudes continue to impede the integration of individuals with disabilities into mainstream society.

Recent judicial interventions have shed light on these challenges, with the Supreme Court expressing displeasure over the "dismal" implementation of the RPWD Act.

Recent Developments and Judicial Interventions



In recent years, the judiciary has played a crucial role in upholding the rights of individuals with disabilities. Notable developments include:

Supreme Court Rulings: The court has mandated stricter adherence to the RPWD Act and called for accountability from government bodies.

Public Interest Litigations: Activists and organizations have filed litigations to address specific grievances faced by persons with disabilities.

Conclusion

The RPWD Act represents a significant step forward in the fight for disability rights in India. However, for its provisions to be effective, there must be a concerted effort from all sectors of society to ensure that individuals with disabilities can enjoy their rights and live with dignity

State Commissioners for Disabilities: An Overview



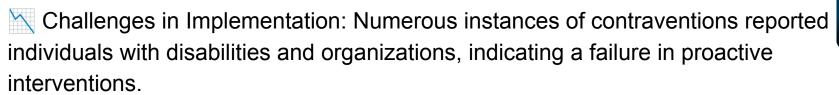
Key Responsibilities and Challenges

m State Commissioner Role: The RPWD Act establishes the office of State Commissioners for Disabilities, a unique feature among disability legislations in developing countries.

Judicial Powers: Under Section 82 of the RPWD Act, State Commissioners are endowed with civil court powers for conducting inquiries and proceedings.

Monitoring and Review: Tasked with reviewing and monitoring the implementation of the RPWD Act to ensure compliance.

Suo Motu Intervention: Empowered to intervene on their own initiative to investigate policies or laws that violate the RPWD Act.





Erosion of Trust: The inability to address discriminatory practices has led to a decline in public confidence in these statutory offices.

[2] Corrective Recommendations: Responsible for recommending corrective measures for identified violations of the RPWD Act.

Summary: The State Commissioners for Disabilities play a crucial role in enforcing the RPWD Act, but their effectiveness is undermined by challenges in intervention and public trust

India's 'One Nation, One Subscription' plan

Is the global research ecosystem increasingly embracing open access publishing away from subscription-based models? What is an article processing charge? Do researchers own the copyrights of their work after it has been published in a journal? What are open access repositories?

EXPLAINER

Moumita Koley

The story so far

he Union Cabinet approved the Indian government's 'One Nation, One Subscription (ONOS) scheme on November 25. The ONOS promises to provide equitable access to scholarly journals in all public institutions.

What does the ONOS entail?

First mooted around 2018-2019, the scheme's ambitious rollout comes with a substantial financial outlay of ₹6,000 crore over three years (2025-2027), to be paid to 30 major international journal publishers. For perspective, the Indian public and its academic institutions collectively spend around ₹1.500 crore every year on journal subscriptions. This is a rough estimate and probably includes the cost of subscription to databases as well; if so, the current total public expense to access journals will be well lower than ₹2,000 crore per year.

At the outset, ONOS's promise to offer equitable access to research articles. irrespective of an institution's prestige or financial capacity, which seems like a step towards democratising knowledge. But a that call for deeper analysis.

Is ONOS swimming against the tide? The central question is: why is India investing heavily in a subscription-based model at a time when the global research ecosystem is increasingly embracing

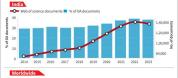
Open-Access (OA) publishing? In the subscription model, a journal receives manuscripts from scientists (about their studies, etc.), evaluates them through peer review, and accepts (or rejects) them. Once a paper is accepted. the journal publishes it and makes money by charging people and institutions to access it. OA refers to papers that are published to be freely accessible. There are different kinds of OA. A common type is called gold OA, where the journal makes money by charging authors an article processing charge (APC) to publish papers in the journal. The APC for a single paper has been known to be thousands of dollars. For example, Nature Communications charges \$6,790 per paper. Scientific knowledge, as a public good, should ideally be accessible to all, especially when taxpayers fund it. The COVID-19 pandemic showed why it is important to have immediate and unrestricted access to research, not just for scientists but also for the people at

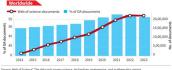
large: to combat misinformation and drive informed decision-making. Today, more than 53% of all scientific papers worldwide are open access in some way, according to data from Clarivate's Web Of Science platform. This is a significant increase since 2018-2019. when ONOS was first concentualised and raises questions about ONOS's financial prudence. If more than half of the research articles are freely accessible, should India not be paying significantly less for subscriptions than before? ONOS risks draining taxpayer money to achieve an obsolete good.

Some international developments further complicate the picture. The U.S. Office of Science and Technology Policy has mandated that from 2026, all publicly funded research articles must be freely accessible without any delay. Similarly, Horizon Europe, the European Union's flagship funding program, requires

Is open access the future? Scientific knowledge, as a public good, should ideally be accessible to all, especially when







its funding be made freely available online. Considering these moves, in another year a significant fraction of esearch produced worldwide is likely to be freely accessible to everyone.

This timeline raises questions about ONOS's relevance beyond 2025.

What are the challenges of

commercial publishing? The global scholarly publishing system is dominated by a handful of commercial publishers based in Western countries, and they have long been criticised for excessive subscription fees, inefficiencie resulting in delays in publishing articles. and resistance to innovation.

The scholarly publishing industry is ouilt on publicly funded research. Researchers generate new knowledge write their findings, and perform peer views - all without direct compensation from publishers. In the subscription model, these publishers charge exorbitant fees for access, creating a situation where public institutions must pay to access work they have already supported. Publisher profit margins often exceed 30%, revealing the exploitation implicit to scholarly publishing systems.

dominated by gold OA and its high APCs. Many prominent journals in a few disciplines, such as biological science. have transitioned to become fully OA. Indian researchers wishing to publish in these journals will have to pay APCs since the allocation for ONOS doesn't provide for this fee. Moreover, most subscription journals are now hybrid, so researchers especially from the U.S. and the EU - are

Even the shift towards OA has been

paying APCs to publish their articles to be OA in these journals.

India, with its immense pool of talent and resources, has the potential to reimagine this publishing ecosystem, fostering innovation in the workflow Especially when most of the backend work in the publishing industry is outsourced to India, the infrastructure and knowhow definitely exist in the national ecosystem. But ONOS risks entrenching the status quo by reinforcing reliance on Western publishers.

What about copyright transfers? Another significant issue with the subscription model is the need for researchers to surrender their convrights

to publishers. This allows publishers to use their work without considering the authors' rights or consent. A recent controversy involving Taylor & Francis (T&F) and Microsoft exemplifies the extent of this problem. In early 2024, T&F had signed a deal allowing Microsoft to use its journal content to train artificial intelligence (Al) models. Since authors don't hold the copyright of their work, there is no need for permission from authors - yet they objected because the use of their work to train AI models was going unpaid. There is an urgent need for

There are ways to address copyright violation concerns, Harvard University pioneered a policy in 2008 that granted the university a non-exclusive, irrevocable right to disseminate the work of university researchers. Researchers retained the right to self-archive their

policies that protect researchers'

intellectual property.

work in OA repositories. Many institutes like the Massachusetts Institute of Technology and the University of Oxford followed suit, ONOS has the opportunity to emulate these models by incorporating a nationwide 'rights retention' policy, enabling Indian researchers to deposit their work in institutional repositories immediately after publication – a practice

known as green open access. India's own 2014 Open Access Policy equires researchers funded by the Departments of Biotechnology and of Science & Technology to make their work openly accessible – but its implementation has been lacklustre. The ONOS could have been the ideal platform to enforce this mandate, ensuring Indian esearch becomes globally accessible through open repositories immediately after publication

Is digital content preserved?

Another issue is the long-term preservation of research articles, now that almost all major journals are published online. A recent study in the Journal of Librarianship and Scholarly Communication reported that 28% of articles with Data Object Identifiers (DOIs) unique IDs to identify published papers

aren't preserved, exposing gaps in current practices. The discontinuation of Heterocycles, a journal published by the Japan Institute of Heterocyclic Chemistry. in 2023 left around 17,000 articles inaccessible, highlighting the risks of relying solely on publishers to preserve scientific knowledge. In this case access was eventually restored, but the delay illustrates the need for solutions like self-archiving through green OA.

Is self-reliance possible in publishing? In an era where self-reliance is a national priority, it has been overlooked in scholarly publishing. While Indian researchers may continue publishing in journals like Nature Science Cell etc. significant potential exists to elevate Indian journals to world-class standards

India has the resources and expertise to build a robust indigenous publishing ecosystem. Preprinting and data sharing should also be considered as an integral part of the publishing workflow (preprinting refers to a paper being nublished online before it has been peer-reviewed). By investing in infrastructure, editorial processes, and global visibility for Indian journals, the country can reduce its dependence on Western publishers and attract high-quality submissions from across the world. This is not just about the money being drained from our ecosystem: it's also about establishing India as a leader in science and innovation

What could ONOS have done?

ONOS can be lauded for its ambition to democratise research access, but it should have addressed deeper structural issues plaguing scholarly publishing. There should have been parallel efforts to allow authors to retain convright. implement OA through institutiona repositories, and, importantly, improve self-reliance in scholarly publishing.

Given the allocation ONOS has received from the Indian government, it certainly had the potential to set a precedent for equitable and innovative publishing by addressing all the issues in parallel - vet i chose to overlook them. Without addressing these challenges, ONOS risks becoming a costly short-term fix. It is time to re-evaluate whether this initiative is a step forward or an expensive detour. Moumita Koley is a senior research analyst at Indian Institute of Science, Bengaluri

THE CIST

In the subscription model, a from scientists (about their studies, etc.), evaluates them through peer review, and

a paper is accepted, the journal iblishes it and makes mone by charging people and

Open Access (OA) refers to papers that are published to be ely accessible. There are different kinds of OA. A ommon type is called gold OA where the journal make money by charging authors ar to publish papers in the iournal. The APC for a single sands of dollars. For evample Nature

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Topic → One Nation, One Subscription: Transforming Access to Knowledge in India



Introduction

The One Nation, One Subscription (ONOS) scheme is a groundbreaking initiative designed to revolutionize access to knowledge across India. In a world where education and research are pivotal to progress, ONOS aims to democratize access to academic resources, ensuring that every educational institution, regardless of its size or location, can benefit from comprehensive research materials.

What is the One Nation, One Subscription Scheme?



The ONOS scheme represents a paradigm shift in how educational institutions in India access journals, databases, and other research materials.

Definition and Objectives:

Designed to create a unified subscription model for educational institutions.

Aims to provide access to a plethora of academic resources through a single subscription fee.

How It Works:

Institutions register under the ONOS program.

They gain access to a centralized repository of research journals and publications without the burden of individual subscriptions.

Benefits of ONOS for Educational Institutions



The potential benefits of the ONOS scheme are vast, promising to enhance the academic landscape in India.

Enhanced Access to Research Materials:

Institutions can access high-quality research papers, journals, and e-books, which were previously restricted due to high subscription costs.

Improvement in Academic Performance and Research Quality:

Increased access to information fosters better research outcomes and academic performance among students and faculty alike.

Encourages collaborative research and knowledge-sharing across institutions.



Challenges and Criticisms of the ONOS Scheme

Despite its noble intentions, the ONOS scheme is not without its challenges.

Potential Drawbacks and Concerns:

Some institutions fear that a centralized model could lead to a lack of diversity in available resources.

Concerns about the sustainability of funding and support from the government.

Responses from Stakeholders:

Educators and researchers have expressed mixed feelings, highlighting both the potential for enhanced access and the need for careful implementation.

Future Prospects of ONOS



Looking ahead, the ONOS scheme holds great promise for reshaping the educational framework in India.

Long-term Goals and Vision:

To establish India as a global leader in research and education by ensuring equitable access to knowledge.

How It Could Reshape the Educational Framework in India:

By fostering a culture of research and innovation, ONOS could significantly enhance India's position in the global academic community.



ISTOCKPHO

Proudhon's theory of mutualism: a critique of capitalism and authoritarianism

Mutualism is seen as a form of libertarian socialism, balancing individual freedom with collective well-being. It offers a radical alternative to both capitalism and state socialism, promoting voluntary cooperation and mutual respect

Rebecca Rose Varghese

utualism is an economic and social theory that emphasies voluntary cooperation, reciprocity, and the fair exchange of goods and services. It advocates for a society where individuals and communities engage in cooperative via the cooperative coope

While property itself is not inherently exploitative in this theory, ownership of tools or land is acceptable, provided it does not lead to exploitation of others.

Unlike capitalism, which profits from labour exploitation, mutualism envisions a system where individuals and communities own resources for personal and collective benefit. It also promotes the idea of workers controlling the means of production through cooperatives or production that production is driven by meed, not profit. This model seeks to eliminate hierarchical power structures and promote equality and fairness in economic relations.

Origins of the theory

The term "mutualism" was coined by French philosophe Pierre-Joseph Proudhon in the mid-tith century as part of his broader critique of capitalism and authoritarianism. While Proudhon is often remembered for his declaration, "Property is theft." in his seminal work what is Property (3460,) his philosophy was more complex. Mutualism was not a call for the outright abolition of property but for its relmagining into a system that serves collective well-being and fairness.

Proudhon was influenced by a secret society of weavers, known as the 'Mutualists', who he encountered during his time in Lyon in 1843. These workers advocated for worker-led cooperative production, envisioning a society where factories and resources could be run by associations of workers. They believed in transforming society through peaceful

economic action rather than violent revolution, challenging the centralised political traditions of Jacobinism. Deeplon inspired by their ideas, Proudhon adopted the term "mutualism" as a I tribute to these working class violonaries. It is adaptation of their ideals sought to build a decentralised society where cooperation and reciprocity replaced y exploitation and domination.

Mutualism and property Proudhon's approach to property is

central to matualist philosophy. While he condemned capitalist property for enabling exploitation and monopolisation, he did not call for the compiler elimination of ownership. Instead, he distinguished between "property," which allowed control over individuals could use resources for personal benefit without infringing on others freedoms. This distinction is crucial to understanding mutualism, as it considered that accumulation and nordiff.

Mutualism rejected property rights imposed by the state that perpetuated inequality and exploitation. It advocated for a decentralised system of voluntary and equitable exchanges rooted in rectpractis, Mechanisms like worker receptured in the continuous properties of the control of the cont

Mutualism and anarchism Rejecting state-enforced property rights,

mutualism also connects closely with anarchism, particularly in the debate between individualist and social anarchism. Individual anarchists emphasise personal autonomy and freedom, focusing on the liberation of the individual from state control, while social anarchists advocate for the collective management of resources and the organisation of society to promote equality and fairness. Proudhon's work occupies a unique space between these two schools of thought.

While some early anarchists saw mutualism as a form of individualist anarchism, emphasising personal freedom and the right to possess one's tools and land, others interpreted it as a more socialist form of anarchism, in which mutual cooperation and the collective management of resources were key. The tension between these interpretations arose from Proudhon's view that the state, by its very nature, was coercive and counterproductive to the freedom of the individual. However, Proudhon was not opposed to all forms of collective organisation. He argued that a mutualist society could be organised without a state, based on cooperative principles where people freely enter into contracts and mutual exchanges, thus blending both individual freedom and collective responsibility.

The collective and the individual

The emphasis on cooperative associations, mutual credit systems, and workers' control over production demonstrates the connection between mutualism and the collective. These ideas aim to foster economic and social environments based on mutual aid and cooperation, rather than competition and exploitation. Mutualism is also inherently. tied to the human need for cooperation. By organising society and the economy on the basis of shared interests and reciprocity, mutualism seeks to build a society where individuals are free to pursue their own interests while maintaining a sense of community and mutual respect

In General Labour History of Africa: Workers, Employers and Governments, 20th-21st Centuries, Stefano Bellucci and Andreas Eckert discuss how traditional African societies embodied mutualistic principles. In these communities, communal land ownership and collective labour were the norms, with resources shared and morduction aimed at the

collective good. This reflects mutualism's

focus on reciprocity and equitable distribution. The chapter on African mutualism contrasts it with neoliberalism, noting that mutualism promotes shared, noting that mutualism promotes shared ownership, fair compensation, and cooperation, while neoliberalism fosters inequality. It also explores the role of governments in either supporting or hindering mutualistic practices across the continent.

Mutualism was also seen as a form of libertarian socialism, balancing individual freedom with collective well-being. It offered a radical alternative to both capitalism and state socialism, promoting voluntary cooperation and mutual respect without centralised power or hierarchy.

Critiques of the theory

While mutualism holds significant revolutionary potential, it has faced critiques on several fronts. One major critique is that its reliance on small-scale property ownership may not sufficiently challenge the capitalist systems broader structural inequalities. Critics argue that mutualism fails to address the concentration of wealth and power that is intrinsic to modern capitalist economies. Furthermore, some question the Furthermore, some question the society based on whomat properation, suggesting that it may be too idealistic or difficult to implement on a large scale.

Marxist critics contend that mutualism does not sufficiently address the core issues of capitalism, such as exploitation and inequality, and fails to dismantle capitalist relations of production. They argue that Proudon's defence of small property owners and opposition to collectivism overlooks the entities of class struggle, where small producers are squeezed out by larger corporations.

Despite these criticisms, mutualism remains a radical theory that offers an alternative to both capitalist exploitation and authoritarianism. While it may nave flully resolved the challenges of inequality and exploitation, it continues to be a significant concept in the history of anarchist and socialist thought. The write is a freelance iournalist.

Topic → **Understanding Proudhon's Mutualism**

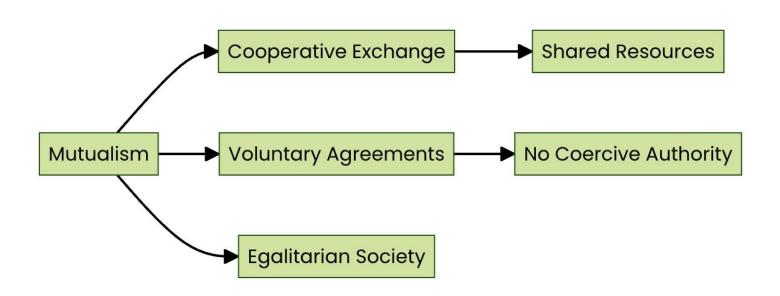


Proudhon's concept of mutualism is not merely theoretical; it represents a radical shift in how we perceive economic relationships and societal structures.

Definition and Principles: Mutualism posits that individuals and groups can engage in cooperative exchanges without the need for coercive governmental authority. Proudhon envisioned a society where goods and services are traded based on mutual benefit, emphasizing voluntary cooperation over competition.

Historical Context: Emerging in the wake of the Industrial Revolution, Proudhon's ideas were a response to the burgeoning capitalism that he believed fostered inequality and exploitation.





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- 6 implement green credit programme to cert air fullation and allittatating for green building

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Japan's 2-year bond yield hits 16-year high on BOJ rate hike bets



Reuters TOKYO

Japan's two-year government bond yield hit a 16year high on Monday as comments from the Bank of Japan's governor drove bets for the central bank to hike interest rates as soon as this month.

BOJ Governor Kazuo Ueda said the timing of the next interest rate hike was "approaching", as the economy was moving in line with the central bank's forecasts, the Nikkei newspaper reported on Saturday, leaving open the chance of a December rate increase.

The two-year JGB yield rose 3 basis points (bps) to 0.625%, its highest level



Arriving soon: BOJ's Governor said the economy was moving in line with the central bank's forecasts. REUTERS

since Oct. 2008.

"The yields rose on the comments from BOJ Governor Ueda because they have not changed much since then," said Miki Den, senior Japan rate strategist at SMBC Nikko Securities.

Mr. Ueda, however, also said the BOJ wanted to scrutinise developments in the U.S. economy, as there was a "big question mark" on its outlook, such as the fallout from President-elect Donald Trump's pro-

posed tariff hikes, according to the Nikkei.

"Ueda probably does not know whether to raise rates yet. He may want to see the outcome of the U.S. Fed's meeting," said Mr. Den, adding that the BOJ is nervous about the market reaction to its decision.

The BOJ's surprise rate increase in July jolted the market, sending the Nikkei share average falling 12% in a single day on Aug. 5.

"Whether the Fed cuts rates or not, the BOJ wants to see how the market reacts to the Fed's decision," he said.

Japan's five-year yield rose 3 bps to 0.75%, before retreating to 0.745%. The 20-year JGB yield rose 1.5 basis points to 1.865%.

Topic → **Bond Yield Overview**



Definition

Bond yield refers to the return an investor can expect from a bond, expressed as a percentage of its face value.

Types of Bond Yields

Current Yield: Calculated by dividing the bond's annual coupon payment by its current market price. Yield to Maturity (YTM): Represents the total return anticipated on a bond if held until maturity, considering all coupon payments and the difference between purchase price and face value.

Yield to Call: The yield calculated assuming the bond will be called before it matures.

■ Current Yield

Formula: Current Yield = (Annual Coupon Payment) / (Current Market Price)

🏅 Yield to Maturity (YTM)

Concept: Total return on a bond if held until maturity, factoring in all payments and price differences.





Factors: Interest rates, inflation, and the overall economic environment influence bond yields.



Bond Prices vs. Yields: As bond prices rise, yields fall, and vice versa.

Investment Indicator

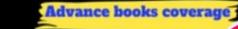
Economic Health: Bond yields serve as indicators of economic health and investor sentiment.

Summary: Bond yield is the expected return on a bond, influenced by various factors and types, and serves as an economic indicator.

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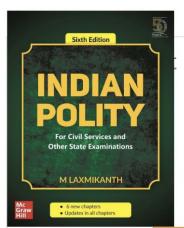
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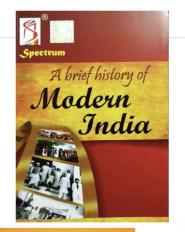
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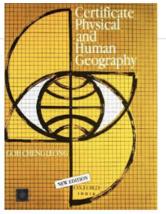


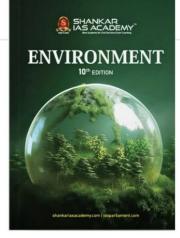
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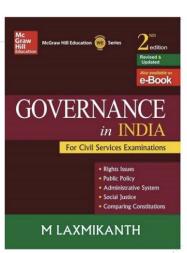


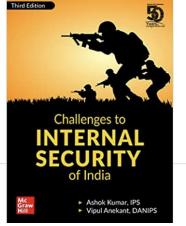


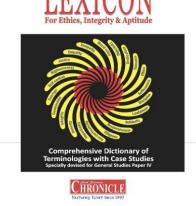


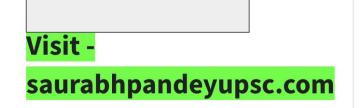




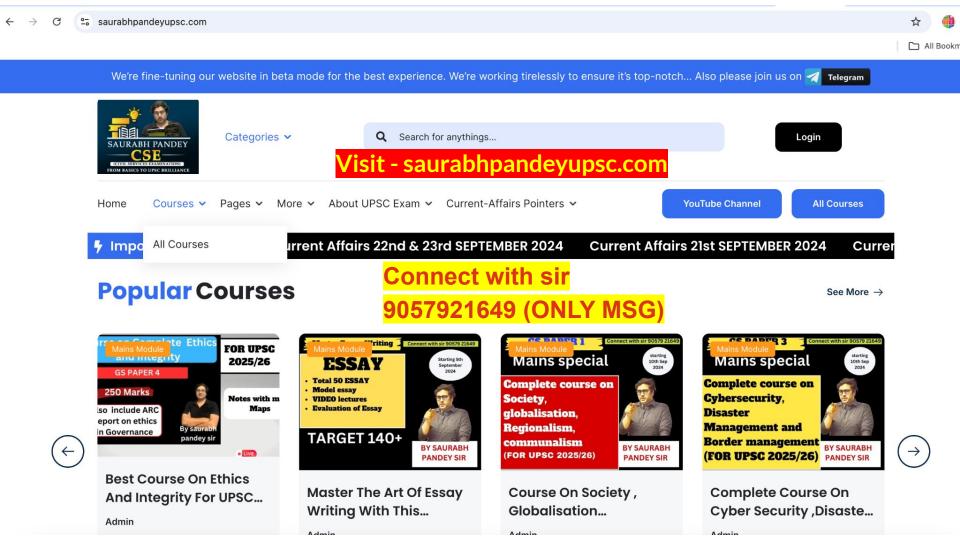








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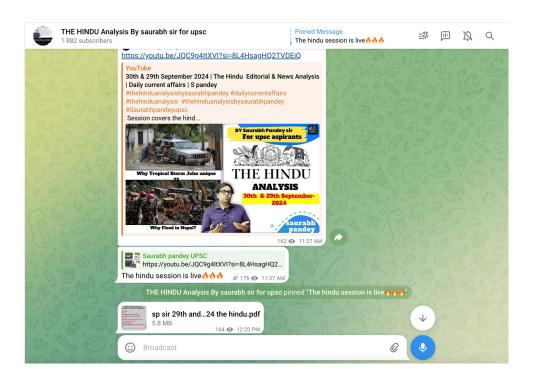


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