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DAILY CURRENT AFFAIRS



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S.NO.	TOPIC
1.	R21/MATRIX-M MALARIA VACCINE
2.	BAIGA TRIBAL GROUP GETS HABITAT RIGHTS IN CHHATTISGARH
3.	THE INFORMATION TECHNOLOGY (INTERMEDIARY GUIDELINES AND DIGITAL MEDIA ETHICS CODE) AMENDMENT RULES, 2023 (IT RULES)

R21/MATRIX-M MALARIA VACCINE

SOURCE: [TH](#)

WHY IN NEWS?

- The R21/Matrix-M malaria vaccine is now endorsed by the World Health Organization (WHO).
- **Developed by the University of Oxford and the Serum Institute of India**, it utilizes Novavax's adjuvant technology.
- Currently, this **malaria vaccine is approved for use in Ghana, Nigeria, and Burkina Faso**.
- **It's the second malaria vaccine** endorsed by WHO, after the **RTS, S/AS01 vaccine** received approval in 2021.
- **Both the R21 and RTS, S vaccines target the deadliest malaria parasite, P. falciparum**, which is highly prevalent in Africa.

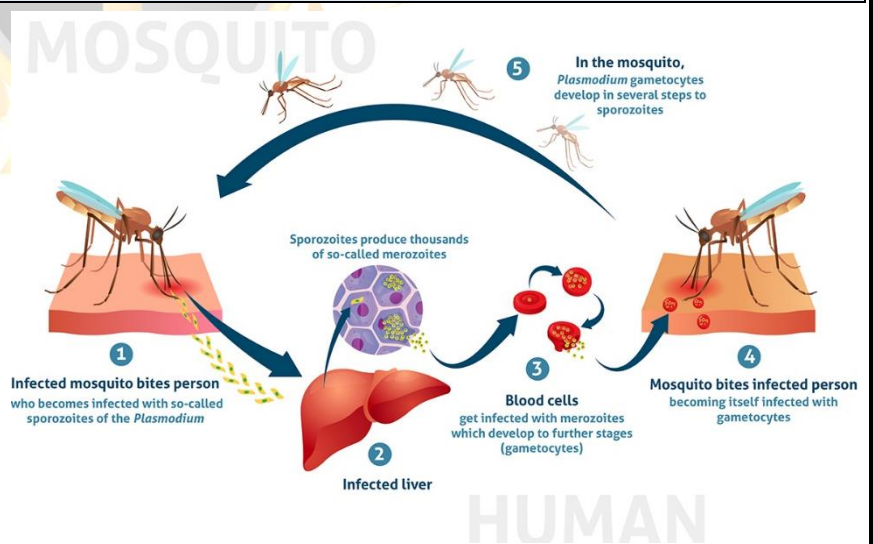
WHAT IS ADJUVANT?

- An adjuvant is a component within a vaccine that amplifies the immune system's reaction to the vaccine.
- **Enhanced Immune Response:** Adjuvants aid the immune system in more effectively identifying the vaccine contents and retaining this recognition over an extended period, thus potentially prolonging vaccine protection.
- **Matrix-M Adjuvant Origin:** Matrix-M adjuvant is sourced from **saponins**, which are naturally-occurring substances present in the bark of Chile's Quillaja saponaria tree. Saponins have a historical application in medicine.

ABOUT MALARIA:

- Malaria is a feverish illness **caused by Plasmodium parasites transmitted through bites of infected female Anopheles mosquitoes**.
- It's not contagious and doesn't spread from person to person.
- There are various Plasmodium parasite types, but only **5 affect humans**.

1. **PLASMODIUM FALCIPARUM:** mostly in Africa, is the most common and deadly malaria parasite.
2. **PLASMODIUM VIVAX:** mainly in Asia and South America, causes milder symptoms but can stay dormant in the liver for up to 3 years, leading to relapses.
3. **PLASMODIUM OVALE:** less common, is found in West Africa, often residing in the liver for years without causing symptoms.
4. **PLASMODIUM MALARIAE:** rare and primarily in Africa, causes a unique form of malaria.
5. **PLASMODIUM KNOWLESII:** very rare, is found in parts of Southeast Asia.





DISEASE BURDEN:

- **Malaria Statistics:** As per the World malaria report, the tally of malaria cases reached 247 million in 2021, a slight increase from the 245 million recorded in 2020. Similarly, estimated malaria-related deaths in 2021 totalled 619,000, slightly down from 625,000 in 2020.
- **Malaria Deaths Concentration:** Approximately 50% of global malaria fatalities were concentrated in four African nations, namely Nigeria (31.3%), the Democratic Republic of the Congo (12.6%), United Republic of Tanzania (4.1%), and Niger (3.9%).

INITIATIVES TO CURB MALARIA:

INITIATIVES TO CONTROL MALARIA BY WHO

Global Technical Strategy (2016–2030) goals	Reduce malaria case incidence and mortality rates by at least: <ul style="list-style-type: none"> • 40% by 2020 • 75% by 2025 • 90% by 2030
'E-2025 Initiative'	WHO identifies 25 countries for potential malaria eradication by 2025.
High Burden to High Impact (HBHI) initiative	Initiated by WHO in 11 high malaria burden countries, including India.
INDIAN GOVERNMENT INITIATIVES:	
Target for Malaria Elimination	Government of India aims to eliminate malaria in India by 2027.
National Framework for Malaria Elimination (NFME)	Developed and launched in 2016, aligned with Global Technical Strategy (GTS) for malaria elimination.
Malaria Elimination Research Alliance-India (MERA-India)	Established by the Indian Council of Medical Research (ICMR) as a partnership for malaria control.

NEED FOR MALARIA VACCINE IN INDIA:

- ❖ **Malaria Vaccine Limitations:** The existing malaria vaccines do not effectively target the type of malaria prevalent in India caused by Plasmodium vivax parasites. These vaccines are designed primarily for Plasmodium falciparum, the deadliest malaria parasite.
- ❖ **Malaria Situation in India:** India has witnessed a significant 85.1% reduction in malaria cases and an 83.36% decrease in malaria-related deaths from 2015 to 2022. Nevertheless, India still accounts for 83% of malaria cases in Southeast Asia. The country has now entered a lower-endemic phase, reporting fewer than 100 malaria-related deaths in the last few years.
- ❖ **Cost-Benefit Analysis:** Prior to implementing any vaccination program, a thorough cost-benefit analysis is crucial. The World Health Organization (WHO) has assessed the cost-effectiveness of malaria vaccines in high-burden countries, but in low-burden countries like India, vaccination may not be as cost-effective.
- ❖ **Milder Malaria Variant:** Plasmodium vivax, which is prevalent in India, is not as severe as other malaria variants.

WAY FORWARD:

- **Success without Vaccines:** Some countries with a history of high malaria burden, such as Sri Lanka, the Maldives, and China, successfully eliminated malaria through comprehensive control measures without relying on vaccines.
- **Accelerating Control Measures:** India should prioritize the acceleration of control measures under the National Vector Disease Control program.



BAIGA TRIBAL GROUP GETS HABITAT RIGHTS IN CHHATTISGARH

SOURCE: [IE](#)

WHY IN NEWS?

- The **Baiga Particularly Vulnerable Tribal Group (PVTG)** became the second to get habitat rights in Chhattisgarh, after the Kamar PVTG.
- There are **seven PVTGs in Chhattisgarh**, who live in 17 of the state's 33 districts.
- These are **Kamar, Baiga, Pahadi Korba, Abujhmediya, Birhor, Pando and Bhujia**.

ABOUT PARTICULARLY VULNERABLE TRIBAL GROUPS (PVTGS):

- **PVTGs Among Tribal Groups:** Particularly Vulnerable Tribal Groups (PVTGs) are more susceptible to vulnerability compared to other tribal communities.
- **Declaration of PVTGs:** Based on the recommendations of the **Dhebar Commission**, the Government of India declared 52 tribal groups as Particularly Vulnerable Tribal Groups (PVTGs) in 1975.
- **Current Count:** Currently, there are **75 PVTGs identified among the 705 Scheduled Tribes in India**.
- **Geographical Distribution:** PVTGs are distributed across 18 states and one Union Territory in the country, as per the 2011 census. Among these, Odisha has the highest number of PVTGs, with more than 2.5 lakh individuals belonging to these groups.
- **Characteristics of PVTGs**
 - **Population:** PVTGs typically have stagnant or declining populations.
 - **Technology:** Their technological practices are often at a pre-agricultural stage.
 - **Literacy Level:** Literacy rates among PVTGs are extremely low.
 - **Economy:** These groups typically operate at a subsistence level in terms of their economic activities.

ABOUT BAIGA PVTG:

- The Baiga people are an ethnic group residing in central India, and they are classified as one of the Particularly Vulnerable Tribal Groups (PVTGs).
- Historically, the Baiga people led a semi-nomadic lifestyle and engaged in slash-and-burn cultivation.
- Today, their livelihood primarily depends on minor forest produce.
- They practice a form of shifting cultivation known as "Bewar."
- Mahua holds significant importance in the Baiga culture, serving as both food and an intoxicating beverage derived from the fermentation and distillation of Mahua tree flowers.
- Tattooing is a vital cultural practice among the Baiga, with specific tattoos reserved for various occasions, ages, and body parts.
- In the event of a death within a Baiga family, they typically vacate the house and construct a new one.

UNDERSTANDING HABITAT RIGHTS:

- **What are Habitat Rights:** Habitat rights recognition grants the community specific rights concerning their customary habitation area, encompassing socio-cultural practices, economic and livelihood resources, knowledge of biodiversity and ecology, traditional natural resource utilization, and the protection and conservation of their natural and cultural heritage.
- **Preservation of Tradition:** Habitat rights serve to safeguard and promote traditional livelihoods and ecological knowledge that have been transmitted through generations.
- **Coordination of Schemes:** These rights facilitate the coordination of various government schemes and initiatives from different departments, empowering Particularly Vulnerable Tribal Group (PVTG) communities to develop their habitats.



- **Legal Basis:** Habitat rights are conferred to PVTGs under Section 3(1) (e) of the Forest Rights Act, 2006, also known as the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act.
- **Definition of Habitat:** As per Section 2(h) of the Forest Rights Act, "habitat" encompasses customary habitat areas, including those in reserved forests and protected forests of primitive tribal groups, pre-agricultural communities, and other forest-dwelling Scheduled Tribes.

USE OF HABITAT RIGHTS

- **Halting Development Activities:** Habitat rights enable PVTGs to protect their habitats from harmful developmental activities. While the title may not be equivalent to private property ownership, consent and consultation with the gram sabha are required for any development work.
- **Legal Protection:** Forest rights granted under the Forest Rights Act are legally protected under various laws, including the Forest Conservation Act, Land Acquisition law of 2013, and the SC/ST Prevention of Atrocities Act, providing an added layer of legal protection.
- **Grievance Resolution:** In cases where development activities impede their habitat rights, the concerned tribal group can address the matter with the administration under the Forest Rights Act. If not resolved, the matter may be taken to court.

RECOGNITION OF HABITAT RIGHTS

- **States with Recognition:** Out of the 75 PVTGs in India, only three have been granted habitat rights. The Bharia PVTG in Madhya Pradesh was the first, followed by the Kamar tribe, and now the Baiga tribe in Chhattisgarh.
- **Consultation and Declaration:** According to the Ministry of Tribal Affairs (MoTA) guidelines, traditional tribal leaders are consulted to determine the extent of their culture, traditions, and occupation. The government corroborates this information before officially declaring a habitat.

EKLAVYA MODEL RESIDENTIAL SCHOOL (EMRS)

- ❖ **Initiation:** EMRS was established in the academic year 1997-98 with the primary objective of delivering quality education to children hailing from Scheduled Tribes (ST) in remote regions.
- ❖ **Holistic Development:** These schools place significant emphasis not only on academic instruction but also on the comprehensive development of the students.
- ❖ **Capacity:** Each EMRS can accommodate up to 480 students, offering education from Class VI to XII.
- ❖ **Funding:** The establishment of EMRS is facilitated through grants provided under Article 275(1) of the Constitution.

EKLAVYA MODEL DAY BOARDING SCHOOLS (EMDBS)

- ❖ **Introduction:** In regions where the population density of ST is notably higher in identified Sub-Districts (90% or more), there are proposals to establish Eklavya Model Day Boarding Schools (EMDBS) on an experimental basis.
- ❖ **Purpose:** The EMDBS initiative intends to provide additional educational opportunities to ST students who seek schooling without the need for residential facilities.



THE INFORMATION TECHNOLOGY (INTERMEDIARY GUIDELINES AND DIGITAL MEDIA ETHICS CODE) AMENDMENT RULES, 2023 (IT RULES)

SOURCE: [THE HINDU](#)

WHY IN NEWS?

- The Bombay High Court recently **reserved its verdict on a set of petitions challenging the constitutionality** of the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Amendment Rules, 2023 (IT Rules).
- These rules allow for the **establishment of a Fact Check Unit (FCU)** under the **Ministry of Electronics and IT (MEiTY)** to identify and address "**fake or false or misleading**" online content related to the **Central Government's activities**.

REASONS OF FAKE NEWS:

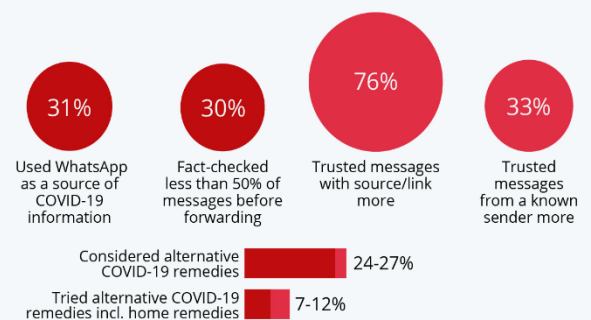
- **Wide Accessibility**
 - ✓ Social media platforms **allow anyone to publish information quickly and easily**.
- **Speed of Sharing**
 - ✓ Fake news **spreads rapidly through social media**, making it difficult to contain.
- **Anonymity**
 - ✓ Many users can share fake news **anonymously**.
- **Lack of Verification**
 - ✓ The fast pace of social media often leads to **minimal fact-checking**.

IMPACT OF FAKE NEWS IN INDIA:

- **Fake news can have far-reaching consequences in India, including:**
 - ✓ **Undermining trust** in information sources.
 - ✓ Sparking **public unrest and violence**.
 - ✓ **Damaging the reputation of individuals, organizations, or the government**.
 - ✓ **Misleading the public on critical issues** like health, politics, and more.
- **Political Manipulation**
 - ✓ Fake news is often **used for political purposes**.
 - ✓ It can be used to spread false information about **political opponents, influence election outcomes, and manipulate public perception**.
 - ✓ During elections, **fake news can create confusion and influence voters**.
- **Social Unrest:**
 - ✓ Fake news has led to **incidents of social unrest and violence**.
 - ✓ False information shared on social media or messaging apps can **quickly escalate into communal clashes or riots**.
 - ✓ Rumors and fake news have been linked to incidents of **mob violence**.
- **Economic Impact**
 - ✓ Fake news can **harm businesses and the economy**.
 - ✓ False rumors about companies or products can lead to a **loss of trust and financial repercussions**.
- **Digital Literacy**

COVID & WhatsApp Cause Surge of Fake News in India

Survey results about COVID-19 and fake news in India (2020)



Survey of 1,137 Indians

Source: Bapaye & Bapaye. Demographic Factors Influencing the Impact of Coronavirus-Related Misinformation. JMIR (2021)



- ✓ It highlights the need for digital literacy and critical thinking. With the proliferation of fake news, it's essential to educate the public on how to verify information and discern credible sources from unreliable ones.
- **Media Credibility:**
 - ✓ Fake news can erode trust in mainstream media. When misinformation is widespread, people may begin to question the credibility of all news sources, including legitimate ones.

INFORMATION TECHNOLOGY AMENDMENT RULES, 2023:

➤ Amendment to IT Rules 2021

- ✓ The 2023 IT Rules amended the **Information Technology Rules 2021**.

➤ Fact Checking Unit

- ✓ The amendment **empowers the MEITY to establish a FCU** responsible for **identifying fake, false, or misleading content** related to the Central Government's business.

➤ Obligatory for Intermediaries

- ✓ **Prohibition of Harmful Content:** Online platforms are **not permitted to host harmful** unapproved **online games** and their advertisements.
- ✓ **Content Verification:** Intermediaries must not disseminate false information about **the Indian government**, as determined by a **fact-checking unit**.

- ✓ The fact-check unit can identify content as fake or misleading.

- ✓ **Removal of Fake Content:** **Online intermediaries, including social media platforms** and internet service providers, must make "**reasonable efforts**" **not to host Central Government-related content** identified as fake by a fact-check unit, risking the loss of safe harbor protection.

➤ Self-Regulatory Bodies

- ✓ **Registration Requirement:** Online gaming **platforms must register with a Self-Regulatory Body (SRB)** to **assess the permissibility of games and ensure they don't involve gambling or betting elements**.
- ✓ They must **adhere to legal standards, safety precautions, and parental controls**.

➤ Losing Safe Harbor

- ✓ If information is marked as fake by the fact-check unit, intermediaries must remove it.
- ✓ **Failure to do so could result in the loss of safe harbor protection**, exposing them to litigation **related to third-party content**.

Key IT Rules, 2021

✚ Social Media Diligence:

Mandates social media platforms to exercise greater diligence in monitoring the content on their platforms.

✚ User Safety and Dignity:

Intermediaries must promptly remove or disable access to content that violates individual privacy or contains explicit material, impersonation, or morphed images.

✚ Educating Users:

Privacy policies must educate users not to circulate copyrighted material or defamatory, racially or ethnically objectionable, paedophilic, or threatening content. They should not undermine the unity, integrity, defense, security, sovereignty, or friendly relations of India or violate any contemporary law.



CONCERNS ABOUT THE AMENDMENT RULES:

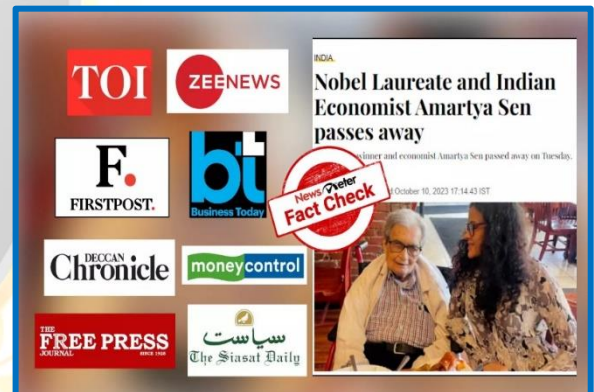
- **Undefined Terms:**
 - ✓ Lack of clear definitions, particularly regarding "fake news" and the term "any business," granting the government unchecked authority.
- **Ambiguity:**
 - ✓ Absence of clarity on what constitutes false or misleading information and the qualifications and procedures for the fact-check unit.
- **Censorship and Content Removal:**
 - ✓ Concerns about the government's power to decide the legitimacy of content and the authority to censor and compel intermediaries to take down content.
- **Supreme Court's Perspective:**
 - ✓ The rules appear to contradict the principles set in the **Shreya Singhal vs. Union of India (2015)** case regarding speech limitations.

SOCIAL MEDIA	DIGITAL MEDIA & OTT PLATFORMS
<p>Rules Seek To Empower Users Of Digital Platforms & Ensure Accountability</p> <p>1] Tighter timelines to take down unlawful content, assist law enforcement</p> <p>2] Identify first originator of a message that causes identified offence</p> <p>3] Stricter rules for bigger platforms, including local presence</p> <p>4] Voluntary user verification mechanism</p>	<p>Seek to address concerns over digital content through...</p> <p>1] Self regulation & self-classification of content - universal, adult etc</p> <p>2] Code of ethics - To follow prescribed guidelines</p> <p>3] Three-tier grievance redressal mechanism</p> <p>4] Subjects digital news media to same laws as traditional media</p>
<p>IN CASE OF NON COMPLIANCE...</p>	
<p>Intermediary will lose its safe harbour from user content</p>	<p> LIABLE to punishment under IT Act or IPC</p>

WAY FORWARD:

Addressing fake news from an ethical and just perspective involves implementing strategies that respect freedom of expression while combating misinformation effectively in the following ways:

- **Strengthen Media Literacy Programs:**
 - ✓ The Indian government, along with civil society organizations, can promote media literacy programs in schools and communities.
 - ✓ For instance, initiatives like **Media Smart in the UK** educate individuals about recognizing and verifying information sources.
- **Promote Responsible Journalism:**
 - ✓ The **Society of Professional Journalists' Code of Ethics** emphasizes accuracy and truth.
 - ✓ Encouraging media outlets to adhere to such ethical standards is critical in maintaining credibility.
- **Fact-Checking Initiatives:**
 - ✓ Organizations like **Alt News** have been actively debunking fake news stories in India.
 - ✓ Collaborative efforts with such fact-checking organizations can help ensure a more informed public.
- **Social Media Accountability:**
 - ✓ Platforms like Facebook and Twitter should continue efforts to identify and flag false information.
 - ✓ Transparency about algorithms that prioritize content can enhance public trust.
- **International Cooperation:**
 - ✓ Encourage international collaboration to address fake news, as misinformation often crosses borders.
 - ✓ Initiatives like the **European Union's Code of Practice on Disinformation** aim to bring tech companies and stakeholders together to combat fake news.
- **Protect Whistle-blower**
 - ✓ Implement laws and safeguards to protect individuals who expose fake news, thereby encouraging the reporting of misinformation.
- **Encourage Ethical Reporting on social media:**
 - ✓ Promote responsible social media usage, encouraging users to fact-check information before sharing.





"Share with care"

Prelims Specific

<i>Cyber Attack Method</i>	<i>Description</i>
<i>Phishing</i>	Fraudulent attempts through emails to capture personal and financial information.
<i>Cyber Stalking</i>	Repeated use of electronic communications to harass or frighten someone.
<i>Identity Theft</i>	Pretending to be someone else to commit fraud or crimes in their name.
<i>Denial of Service (DoS)</i>	Attempts to make computer, server, or network resources unavailable to authorized users.
<i>Ransomware</i>	Encrypts files and holds data hostage , demanding a ransom for decryption.
<i>Botnets</i>	Networked computers used for spam, viruses, and malicious activities under remote control.
<i>Whaling</i>	Cybercriminals impersonate senior figures at organizations to target important individuals.
<i>Spoofing</i>	Pretending to be something else to gain trust, access systems, steal data , or spread malware.
<i>Browser Hijacking</i>	Unintended modification of browser settings by malware without user permission.
<i>Pharming</i>	Redirects users to fraudulent websites while appearing to be legitimate.
<i>Skimming</i>	Secretly obtaining data from an unknowing end user , often in close proximity.
<i>Spamming</i>	Sending unsolicited commercial emails to numerous recipients or newsgroups.
<i>Espionage</i>	Obtaining data and information without the owner's permission and knowledge.
<i>Computer Virus</i>	Program that enters computers to damage/alter files , replicate itself, and cause harm.
<i>Worms</i>	Malicious programs that self-replicate on local drives and network shares.
<i>Trojan Horse</i>	Destructive program that appears as a genuine application, opens backdoors, and allows unauthorized access.

UPSC PYQ

What is "Virtual Private Network"? [2011 - I]

- (a) It is a private computer network of an organization where the remote users can transmit encrypted information through the server of the organization.
- (b) It is a computer network across a public internet that provides users access to their organization's network while maintaining the security of the information transmitted.
- (c) It is a computer network in which users can access a shared pool of computing resources through a service provider.
- (d) None of the statements (a), (b) and (c) given above is correct description of Virtual Private Network.