Contents

GS 1 HISTORY5
A riverside citadel to an infamous prison for multiple empires: The 16th-century fort in shadow of Lal Qila5
The ancient history behind the maritime trade route between India and Europe5
75th anniversary of Operation Polo and 'Police Action' in Hyderabad9
GS 1 ART AND CULTURE10
Mona Lisa to Magna Carta, G20 venue to show 29 nations' heritage10
G20 Leaders' Summit: NGMA to host biggest showcase of rare antiquities from across the
country11
The Lord of Dance: History and symbolism of Shiva's Nataraja form12
Konark, the backdrop: Wheels of time keep changing13
105 antiquities smuggled out of India are back home from US, 16 more on the way14
Santiniketan on UNESCO's World Heritage List16
Six entrances of New Parliament, and their guardian animals17
Karnataka's sacred ensembles of Hoysalas inscribed on UNESCO world heritage list17
Hoysala temples on UNESCO heritage list: What sets the 'Sacred Ensembles' apart18
Science awards to get makeover as Rashtriya Vigyan Puraskar under 4 categories19
Adi Shankaracharya statue at Omkareshwar20
Curtains for old Parliament building: The Madhya Pradesh temple believed to have inspired it21
'2018: Everyone is a Hero' picked as India's Oscar entry
Waheeda Rehman conferred with Dadasaheb Phalke Award23
GS 1 SOCIAL ISSUES24
Women's representation low in key positions, professions and sectors24

	Nearly 69 lakh cancer deaths among Indian women were preventable: What a study says on gender and the disease
G	S 1 GEOGRAPHY27
	After large rainfall deficit in August, how India's reservoir levels are falling considerably27
	Why the earthquake in Morocco has caused so much damage
	For G20 leaders, a hamper full of India's rich crafts, organic produce
	Behind Libya's catastrophic flooding: Extreme weather, vulnerable geography, and crumbling
_	infrastructure
G	S 2 POLITY34
	Govt calls special session of Parliament later this month, gives no reason34
	Special session of Parliament: How it will work 34
	Kokborok, Tripura's language without a script 36
	1 nation, 1 election: Govt sets ball rolling, with panel under President Kovind36
	Govt notifies 1-nation, 1-election panel36
	One nation, one election plan: How the Constitution is amended, when do states get a say37
	3 mn EVMs, massive security and funds: Challenges in holding simultaneous polls
	1949 to 2020: How the bid to rename the country didn't exactly fly40
	India, that is Bharat: how the Constituent Assembly chose
	India, that is Bharat: A short history of the nation's names, from the Rig Veda to the Constitution of India
	What is the National Judicial Data Grid and how it could help courts43
	Lok Sabha is ageing, asking fewer questions, passing fewer Bills43
	Two House panels on women's Bill: Govt should decide quota within quota, review after 15 yrs47
	As Parliament turns 75, the 'backbone' that keeps it going — its secretariat48

Old Parliament building renamed San notifies speaker	
A look at women representation in pa	
Women's reservation: What is the roabefore it can be implemented	•
'Socialist' and 'secular': What do thes in the Constitution, and how did they part of the Preamble?	come to be
Before women's quota in Parliament Assemblies, the issue of delimitation: why is it needed	What is it,
Immunity of legislators from bribery	charges57
Bengaluru bandh on Sept 26: Why the water-sharing issue has flared up aga	•
Lok Sabha goes to a new home, two of probity still undecided	
Law panel favours enabling of e-FIRs	
Women's reservation Bill gets Preside becomes law	
GS 2 GOVERNANCE	62
Ayushman Bhav: May all be free of ill	ness62
What is the PM Vishwakarma scheme	e64
IAS officer, transferred over stadium r compulsorily retired by Govt	•
MHA allows Aadhaar authentication	
GS 2 INTERNATIONAL RELATIONS	66
BRICS is bigger now. Is it better too? .	66
Current green transition solutions dis and political realities, both internation	_
domestic	
What are the G20 'workstreams'?	
PM leaves for ASEAN, East Asia summ	•
Ready to grow roots: Saplings from 1 await G20 leaders	
China on mind, PM says laws apply to Pacific, flags territorial integrity	
G20 Summit in Delhi: Everything you	
India-Middle East-Europe mega econd What is the project and why is it bein	
G20 becomes G21 as India takes lead African Union to global table	

	Highlights of G20 New Delhi Leaders' Declaration: Ukraine War, financial markets, climate change and more
	Members commit to global food security and nutrition for all82
	G20 declaration on health: Mention of India's 3 priorities, digital push83
	African Union in G20: A look at the G20's latest member
	The importance of Saudi Arabia to India85
	India-Canada ties in numbers: Key indicators on immigration, trade and more
	Seven reasons why the India-Middle East-Europe corridor could chart bold new course in changing world
	What is the Five Eyes Alliance91
	Maldives elections on September 30: Why India is watching closely91
G	S 3 ECONOMY93
	Toyota's flex-fuel prototype: How it will work, what
	advantages it offers93
	What is one-hour trade settlement, which SEBI is planning to launch by March next year95
	UPI QR Code-Central Bank Digital Currency interoperability: How does it work and how do customers benefit?95
	Govt approves Rs 3,760 cr viability gap fund to promote battery energy storage system96
	What Delhi HC said on service charge: Use term 'staff contribution', amount can't be over 10% of bill97
	In declaration, leaders pledge to halve digital gender gap by 203098
	G20 Declaration: Members commit to equitable, inclusive, quality education99
	G20 leaders endorse safe deployment of digital public infrastructure, responsible use of AI99
	India set to allow cross-border bill payments via Bharat BillPay for NRIs in UK100
	Why India's falling cotton production is a worry . 100
	India-Europe Economic Corridor: What is the Partnership for Global Infrastructure Investment that is behind the project?
	G20 meet's climate action promise: Significant, but not enough

Transport Minister Nitin Gadkari mentions tax on diesel vehicles: Why is diesel under pressure?105
Singapore, US, UK top the outbound investment list, includes 3 tax havens107
With the announced India-Europe Economic Corridor, a look at India's supply chain opportunity108
India can now issue OIML certificates: What this means, its significance110
Banks must return your documents within 30 days of loan repayment: What the RBI has said and why111
State-of-the-art convention centre Yashobhoomi centre to be unveiled today112
Your personal data online: Five key questions answered
How Basmati in India is reaping the rewards of research
Bima Sugam: Is it a 'UPI moment' for insurance sector, and how will it benefit customers?116
'State of Working India' in 7 charts: On women in workforce, educated youth unemployment and more
Humans of Bombay vs People of India: What is copyright infringement and when does it apply? 121
THE Rankings 2024: IISc ranked best in India; Oxford University best in world123
Jewar Airport gets 'DXN' code: How the IATA assigns unique codes to each airport123
Why everyone's counting on the Census — and why a delay hurts124
S 3 ENVIRONMENT128
Biodiversity loss: 37,000 'alien species' introduced by human activities, says report128
Members agree to triple green energy capacity by 2030, cut CO2 emissions
PM formally launches Global Biofuels Alliance; 19 countries, 12 global bodies agree to join130
Why is 2023 so hot? A rare Pacific Ocean volcano could be a culprit130
Northeast's mithun gets 'food animal' tag and its meat a leg-up131
Why cruise boats have been banned in Madhya Pradesh131

	Swiss glaciers lose 10% of volume in worst two years on record
ì	S 3 SCIENCE AND TECHNOLOGY135
	Chandrayaan 3: Another payload detects sulphur presence
	ISRO puts rover in hibernation mode, hopes to extend mission's life
	New Covid-19 variant may be 'reason to worry': What is known about 'Pirola' so far136
	Chandrayaan-3 lander Vikram comes up with a surprise, makes a 'jump' on the Moon137
	Digene gel used for acidity and gas relief recalled in India: Doctors answer all queries138
	Central Empowered Committee: SC hands over its green watchdog committee to Environment Ministry
	Indore tops clean air survey among cities with million-plus population
	Without sperm or egg, how scientists grew whole model of human embryo140
	Japan Moon Mission takes off, landing in four to six months
	After a year's hold-up, Centre announces top national science prize for young talent141
	Nipah kills two in Kerala: What is this virus, why is it dangerous even though it doesn't spread fast 141
	Why has France banned sales of Apple's iPhone 12?
	As Apple supports NavIC, Centre considers making tech mandatory, offering additional incentives 143
	What the WHO report on hypertension says about India143
	NASA's first asteroid samples land on Earth after release from spacecraft145
	Indian Oil commences trial of green hydrogen- powered fuel cell buses in Delhi-NCR145
ì	S 3 DEFENCE147
	IAF takes delivery of first C295: How this deal kicks off 'Make in India' scheme for military aircraft 147
	Swavlamban-2023 on Oct 4-5: Underwater drones, carbon suits: Navy event to showcase new indigenous tech
ì	S 3 INTERNAL SECURITY148
	How global events put terrorism on G20's agenda

	As illicit trade booms, seizure mount: 3.5 tonnes of
	gold, 18 crore cigarette sticks and 90 tonnes of
	heroin caught in FY23149
P	INTERNATIONAL AFFAIRS153

P	Practice Questions	154
	for Armenia	153
	Nagorno-Karabakh's 120,000 Armenians will leav	/e
	Over 1000 dead as quake hits Morocco	153



GS 1 HISTORY

A riverside citadel to an infamous prison for multiple empires: The 16th-century fort in shadow of Lal Qila

#SalimgarhFort #Medievalindia #History #GS1



Salimgarh Fort

Built in 1546 by Sher Shah Suri's son Salim Shah Suri to protect the Sur kingdom's territory from Humayun's army, who had been dislodged from his throne six years prior, the fort was strategically located on a riverine island bulwarked by the Yamuna on one side and the Aravallis on another. However, the defence did not last for long and Humayun defeated Sikander Shah Suri in 1555 after returning from his self-imposed exile. Salim Shah never lived to see the fort being completed.

According to Alfred Frederick Pollock Harcourt's travelogues, so humiliated was Humayun by the betrayal of the Surs that he decreed **the fort be renamed to Nurgarh**. Few records exist of what happened to the fort between the reigns of Humayun and Shah Jahan.

During Jahangir's reign, a bridge was built connecting the fort to the mainland; before that, the jagir of the fort was handed over to a Mughal noble named Murtaza Khan during Akbar's reign.

Under the rule of Aurangzeb, it was converted into a prison where he infamously held his brother Murad Bakhsh after he helped the former win the war of succession against their elder brother and Shah Jahan's heir apparent Dara Shikoh. Aurangzeb's

daughter Zeb-un-Nissa also spent the last 20 years of her life writing poems of love and devotion, which were later compiled into the Diwan-i-Makhfi, whilst languishing in the cellars of the Salimgarh Fort.

The fort's role as a prison was briefly interrupted during the 1857 revolt. British civil servant Herbert Charles Fanshawe recounted in his book Delhi Past and Present how rebel soldiers marched from Meerut to Delhi to proposition the ailing Mughal emperor Bahadur Shah II to once more take up the helm of leadership over India. Bahadur Shah II would apparently hold regular durbars in the Salimgarh Fort, where the mutineers had set up camp. As the situation slowly devolved and the English took over, it was converted into an army camp.

During the Second World War, the fort was used to imprison Indian National Army soldiers who were subjected to unspeakable horrors and many were tortured to death.

Today, the fort sits quiet and unnoticed in the shadow of the grander, and more famed, Red Fort. Perhaps, with the premises being spruced up in light of the G20 Summit, the Salimgarh Fort will find new life and new visitors.

----N---E---X---T----

The ancient history behind the maritime trade route between India and Europe

#IndiaEuropeTrade #RedSeaTradeRoute #Arikamedu #Muziris #Berenike #RomanEmpire #AncientIndiaTradeRoute #SilkRoad #IMEC #PGII #WorldHistory #History #GS1

The India-Middle East-Europe Economic Corridor announced at the G20 Summit harkens to an ancient trade route between the subcontinent and the Roman Empire. The existence of this trade, which peaked in the early centuries of the common era, has been known for long; however, evidence of its scale — eclipsing the more romanticised overland Silk Road— has only recently emerged strongly.

What do we know about the ancient Red Sea trade route?



For years, we have known that there was trade between Rome and India in Antiquity. Sir Mortimer Wheeler was digging south of modern Pondicherry at Arikamedu in the 1930s and 40s, and established the existence of Indo-Roman trade in the 1st century CE. However, he incorrectly interpreted his finds solely in terms of Roman merchants trading to India: he failed to give Indian merchants and ship owners any agency in this trade, which they undoubtedly had.

Also, no one realised the scale of this trade. According to latest estimates, custom taxes on the Red Sea trade with India, Persia, and Ethiopia may have generated as much as one-third of the income of the Roman exchequer. The principal source for this striking figure is the Muziris Papyrus — a document taken out by an Alexandria-based Egypto-Roman financier for the purchase of goods from an Indian merchant based in far-away Muziris on the coast of Kerala.

The Papyrus gives precise details of one particular cargo sent to the **Egyptian port of Berenike from Muziris aboard the ship Hermapollon**. The total value of the goods — calculated as worth 131 talents, "enough to purchase 2,400 acres of the best farmland in Egypt" or "a premium estate in central Italy" — is jaw-dropping. And a single trading ship such as the Hermapollon could apparently carry several such consignments, each worth a small fortune.

And how much would the Roman Empire earn from such a cargo?

According to the **Muziris Papyrus**, the import tax paid on the cargo of almost nine million

sesterces was over two million sesterces. Working up from these figures, and the other receipts that have survived from the period, by the first century CE, Indian imports into Egypt were worth probably over a billion sesterces per annum, from which the tax authorities of the Roman Empire were creaming off no less than 270 million.

If the figures given on the Muziris Papyrus were correct — and there are no reasons to doubt them — then custom taxes raised on the trade coming through the Red Sea would alone have covered around one-third of the entire revenues that the Roman Empire required to administer its global conquests and maintain its vast legions, from lowland Scotland to the borders of Persia, and from the Sahara to the banks of the Rhine and Danube.

At the route's peak, in the 1st and 2nd century CE, we had this maritime highway linking the Roman Empire and India, through the Red Sea, with many hundreds of ships going in both directions each year.

What was being traded on this route?

There was a great demand across the Roman Empire for luxuries from India: from the cinnamon-like plant called malabathrum, whose leaves were pressed to create perfume, to ivory, pearls, and precious gemstones. A famous ivory figure of a voluptuously pouting yakshi fertility spirit, found in the ruins of Pompeii, can be dated to this period. In fact, the city once had a shop which apparently sold nothing but ivory products. There was also demand for "exotic" goods, such as wild animals like elephants and tigers.

And of course, there were spices. India's biggest export by far was pepper, large quantities of which have been found during excavations at Berenike, often in torpedoshaped pottery jars, each weighing more than 10 kg. In fact, by the end of the first century, Indian pepper became almost as readily available as it is today. Around 80 per cent of the 478 recipes included in the Roman cookbook of Apicius included pepper. Nonetheless, it remained an expensive treat.

The primary strike against Hyderabad state forces was led by Maj Gen Chaudhuri's division from the west aided by subsidiary and supporting thrusts from north, south and east of the state.

When did Hyderabad forces surrender?

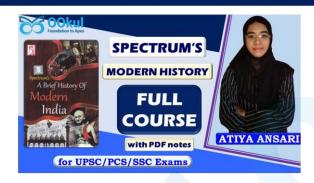
The Nizam of Hyderabad announced a ceasefire on September 17. On September 18, Maj Gen Chaudhuri entered Hyderabad city with his forces and Maj Gen El Edroos

surrendered to him. Maj Gen Chaudhuri was later appointed the Military Governor of Hyderabad.

Havildar Bachhitar Singh of 2 Sikh was awarded the first Ashoka Chakra of Independent India posthumously for his role in Operation Polo. He laid down his life on September 13, 1948, while advancing to Naldurg, which is now in Maharashtra but at the time was part of Hyderabad state.

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GS 1 ART AND CULTURE

Mona Lisa to Magna Carta, G20 venue to show 29 nations' heritage

#CulturalCorridorG20DigitalMuseum #Ashtadhyayi #GutenbergBible #CoatlicueStatue #Kosode #G20 #ArtandCulture #GS1

At the venue of the G20 Summit, all 29 countries will be represented through their art and culture — be it an **18th-century Qing dynasty** jar from China, a statue of Apollo from Italy or a copy of the **13th-century Magna Carta**. The second level of Bharat Mandapam, which holds the main summit room, will host an exhibition comprising showpiece artwork

from all participants in both digital and physical form, said officials in the Ministry of Culture.

Coming from the UK, the Magna Carta is a royal charter of rights agreed to by King John of England at Windsor on June 15, 1215.

India will be represented by a copy of the Panini Ashtadhyayi, a linguistic text that set the standard for how Sanskrit was meant to be written and spoken. Ashtadhyayi, which means eight chapters, was written by the scholar Panini towards the end of the fourth century BC.

Each of the 20 member countries and nine guest nations were requested by India to submit five objects — in physical or digital

format — which are considered cultural masterpieces or hold historical significance in their respective countries, said ministry officials.

Submissions were requested under five categories: 'object of cultural significance' (as a physical display), 'iconic cultural masterpiece' (as a digital display). heritage' (digital), 'intangible cultural 'natural heritage' (digital) and an 'artefact related to democratic practices' (physical or digital). The Culture Corridor has received participation and submissions from all 20 G20 members and 9 invitee countries, officials said.

The digital section will showcase the iconic Mona Lisa painting (France's submission), the Gutenberg Bible (earliest major book printed) from Germany, the Coatlicue statue (an Aztec sculpture) from Mexico, Abrahamic Family House (an interfaith complex in Abu Dhabi) from the UAE and the Kosode (a short-sleeved garment, the direct predecessor of the Kimono) from Japan.

The international project will be unveiled at Bharat Mandapam on September 9 and will open to the public after the leaders' summit. Envisioned as a G20 legacy project, this **Culture Corridor-G20 Digital Museum is a first-of-its-kind collaborative project** which has sought participation from G20 countries to create a "museum in the making".

The exhibit will also showcase a 12-foot digital cube which will display masterpieces as well as objects related to democratic practices.

----N---E---X---T----

G20 Leaders' Summit: NGMA to host biggest showcase of rare antiquities from across the country

#NationalGalleryOfModernArts

#MinistryOfCulture

#ArchaeologicalSurveyOfIndia

#NationalMuseum #AncientIndia

#GandharaSculptures #BuddhistCircuit

#ArtandCulture #GS1

IN THE summer of 2018, the Archaeological Survey of India (ASI) had stumbled upon a **4,000-year-old chariot during excavations in Uttar Pradesh's dusty hamlet Sanauli.**

The find, the ASI said, had the potential to "recalibrate" India's position on the map of ancient history. In fact, this chariot was found to have many similarities with those unearthed in Mesopotamia, shedding light on the progress the Indian civilisation had made at the time, on par with the 2000 BC Mesopotamia.

To highlight this to the world during the upcoming G20 Leaders' Summit, the remains of this chariot have been brought to **Delhi's National Gallery of Modern Art (NGMA)**, as part of an exhibition of hundreds of such landmark objects that aims to put India's civilisation glory on the world map.

On September 9, as talking heads of the world deliberate upon geopolitics, food security and mitigation of conflicts at Bharat Mandapam, less than 2 km away at NGMA, their spouses will inaugurate "an exhibition dedicated to India's civilisation prowess and artistic excellence", titled 'Roots and Routes: Past Present and Continuous', being put together by the Ministry of Culture.

The 500-piece exhibition will also display Indian antiquities and sculptures (some even 2,500 years old), pre-modern paintings and manuscripts, sourced from various central government museums and galleries and ASI's site museums, becoming the first-ever showcase that puts up all these priceless objects at one place. All the works being displayed here are originals from various government repositories.

The exhibits will take up almost the entire 12,000 square metres of exhibition space at **NGMA**, which is **one of the largest modern art museums in the world**.

Some works have been brought on loan from the Indian Museum in Kolkata, which is among the oldest museums in the country; the Government Museum in Chennai; the National Museum in Delhi; the Mathura Art Museum; and the Government Museum and Art Gallery in Chandigarh. The museum in Chandigarh has sent 19 Gandhara sculptures, three

She said women who detect any lumps during self-examination must consult a doctor immediately.

For cervical cancer, she said women between the ages of 25 and 65 years should get a pap smear test to check for pre-cancerous growth on their cervix. An HPV test — a test to detect the human papilloma virus that causes a majority of cervical cancers — can also be done every five or ten years, she said.

What can the government do?

One of the most important interventions needed, Shankar said, was **creating awareness among people, especially women, so they come forward for screening and seek care**. "When the government carried out an information campaign to tell people that Covid-19 vaccines can prevent deaths due to the infection, people turned up in large numbers to get the shot. The same is needed for cancer prevention."

Dr Shamsundar said that an HPV vaccination programme by the government, which is in the works, is likely to reduce the incidence of the common cancer in women. "The vaccine for HPV that causes cervical cancer is already available in the country and an indigenous one has also been developed. The government is working to include the vaccine in the universal immunisation programme for young girls. The vaccine has to be administered in women below the age of 25 years before sexual activity. It prevents the virus from entering the body," she said.

She added that the screening programme of the government at the level of primary health centres and sub-centres can also help in early diagnosis. "One of the challenges is that the patients are then lost for follow-up, because they have to go to higher centres for biopsy and then treatment. But, at least for cervical cancer, treatment can be provided by the nursing staff at the primary health centres itself, as is done in Bangladesh," she said.

Dr Shamsundar said removing pre-cancerous or cancerous lesions in the cervix can be quite easy. "Acetic acid — which is a dilute form of vinegar — can be put on the cervix of the women and the cancerous regions get highlighted in white. A small probe can then be used to either freeze or burn and destroy the tissue. It is not a complex procedure and can be done by trained nurses," she said.

What are the recommendations of the report?

The report said there is a need to regularly collect data on gender and social demographics for cancer health statistics. It called for developing, strengthening, and enforcing laws and policies that reduce exposures to known cancer risks.

Stating that cancer care and research is dominated by men who decide what is prioritised, funded, or studied, it called for equitable access to cancer research resources, leadership, and funding opportunities for women.

----N---E---X---T----

GS 1 GEOGRAPHY

After large rainfall deficit in August, how India's reservoir levels are falling considerably

#RainfallDeficit #WaterReservoirs #ElNino #CentralWaterCommission #Geography #GS1

The large deficit in rainfall in August, more than 35 per cent, has had an expected impact on the water storage in the country's reservoirs. The cumulative amount of water in the 150 large and important reservoirs fell below the

normal level in August — the first time this has happened since the beginning of the current southwest monsoon season.

The latest data from the **Central Water Commission (CWC)** show that these **150 reservoirs across the country had about 113 billion cubic metres (BCM)** of water as on August 31, **which was about 10% below the normal** — **or average of the last 10 years** — storage at this time of the year.

The biggest deficit is in the reservoirs of the southern states, where the rainfall deficiency in

August was the largest in the country. The 42 large reservoirs in this region together held about 53 BCM of water on August 31, which represents 49% of their combined capacity.

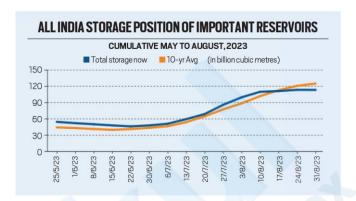
In the normal course, these reservoirs are full to about 67% of their combined capacity at this time of the year.

Since the bulk of India's annual rainfall — nearly 75% — comes during the four-month southwest monsoon season, these reservoirs are a crucial source of water supply for the rest of the year, catering not just to households and industrial uses, but also for power generation.

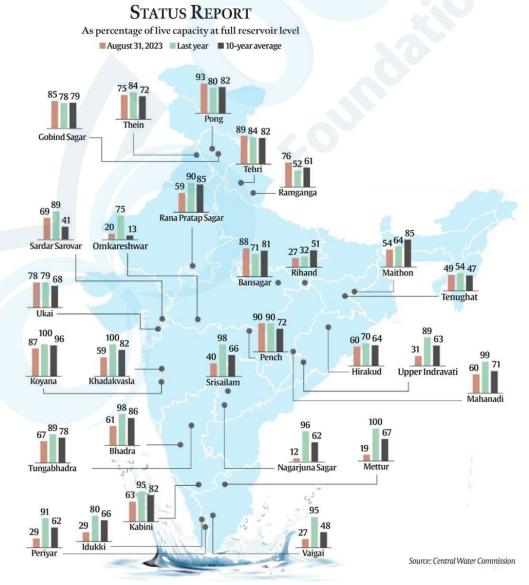
August is usually the month when these reservoirs see their storage levels going up. August is the year's second rainiest month, accounting for nearly 22% of the annual rainfall. July, the rainiest month, contributes 24%.

But August 2023 was the driest August in the more than 120 years for which records are

available. The month produced only about 162 mm of rain in the country as a whole, instead of the almost 255 mm that is expected, a deficiency of 36%.



Central India had a rainfall deficiency of 47%, while South India had a 60% deficit in August. The East and Northeastern region was the only one that received normal rainfall. This is also the only region where water levels in the reservoirs did not show a declining trend in August.



The dry August also resulted in an unexpected increase in power demand, mainly for irrigation activities. Power generation touched a record high in August, Reuters reported. Because water levels in the reservoirs were already precarious, this extra demand could not have been met through hydropower — it was, therefore, met through additional generation by coal-fired power plants.

The Reuters report said the **share of coal in India's total power generation increased to 66.7% in August, the highest for the month in six years**. The burning of extra coal is bad optics from the perspective of international climate change discussions, even though India has insisted that it would continue to rely on coal for its electricity demand in the foreseeable future.

The first half of September is expected to bring decent rainfall, especially in the southern region — and this might result in an improvement of the situation of the reservoirs. Many parts of South India have already experienced good rainfall in the first five days of the month.

The India Meteorological Department (IMD) has predicted that rainfall in September would not be more than 10% deficient, but the El Nin o in the equatorial Pacific Ocean, which is still gaining in strength, continues to be a major threat.

----N---E---X---T----

Why the earthquake in Morocco has caused so much damage

#IntensityOfEarthquake #MagnitudeOfEarthquake #Epicentre #Fault #DipAngle #StrikeSlipFault #NormalFault #ReverseFault #EarthquakeConcepts #Earthquake #Geomorphology #Geography #GS1

The most powerful earthquake ever recorded in Morocco struck late Friday night, killing more than 2,400 people and turning countless homes and buildings into rubble. The quake was of magnitude 6.8 with an **epicentre located in the Al-Haouz province**, in the Atlas Mountains of the historic city of Marrakech, according to

the US Geological Survey. Over the past 48 hours, at least two dozen aftershocks have hit the region with the strongest being magnitude 4.9, the agency added.

Shallow and dangerous

The USGS reported that the **epicentre of the Friday earthquake was roughly 18.5 km below the Earth's surface**, though Morocco's own seismic agency pegged the depth at 11 km.
Either way, it was a fairly shallow quake.

According to experts, such quakes are generally more dangerous as they carry more energy when they emerge to the surface when compared to quakes that occur deeper underneath the surface. While deeper quakes do indeed spread farther as seismic waves move radially upwards to the surface, they lose energy while travelling greater distances.

Apart from the depth, the magnitude of an earthquake is also an indicator of how destructive a quake could be. Magnitude tells how big the seismic waves are, while strength refers to the energy they carry.

Simply put, the seismic waves produced by a magnitude 6 earthquake have 10 times higher amplitude than the ones produced by a magnitude 5 earthquake. The energy differential is even higher, 32 times for every change of 1 in magnitude.

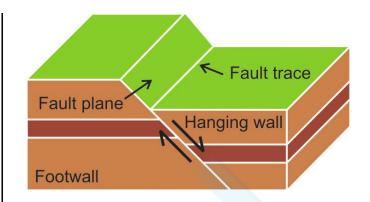
Why the quake occurred

While seismicity rates are indeed lower in the region, making earthquakes rarer, they are not completely unheard of. The 1960 quake, known as the Agadir earthquake, took place in coastal western Morocco. Not only this, earthquakes in the magnitude 6 range are more common in the "northern part of Morocco near the Mediterranean Sea," according to the USGS. For example, a magnitude 6.4 earthquake struck in February 2004 and a magnitude 6.3 in January 2016 rocked the region.

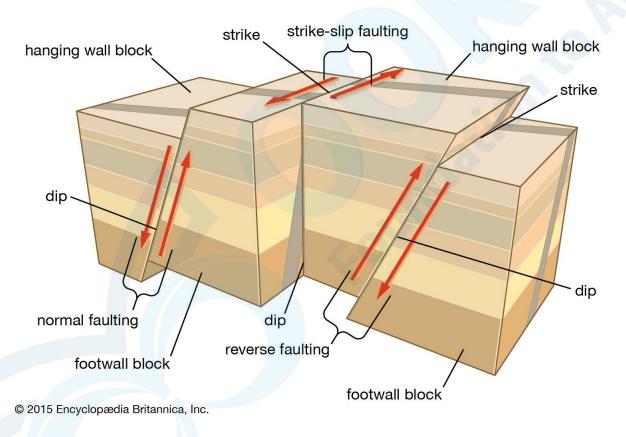
Such quakes occur due to the "northward convergence of the African plate with respect to the Eurasian plate along a complex plate boundary." With respect to Friday's quake, the USGS attributed it to

"oblique-reverse faulting at shallow depth within the Moroccan High Atlas Mountain range".

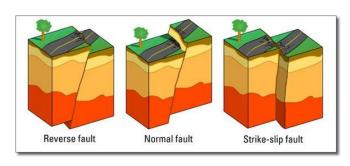
A fault is a fracture or zone of fractures between two blocks of rock. Faults allow the blocks to move relative to each other, causing earthquakes if the movement occurs rapidly. During a quake, the rock on one side of the fault suddenly slips with respect to the other.



Scientists use the angle of the fault with respect to the surface (known as the dip) and the direction of the slip along the fault to classify faults. Faults which move along the direction of the dip plane are dip-slip faults, whereas faults which move horizontally are known as strike-slip faults.



Oblique-slip faults show characteristics of both dip-slip and strike-slip faults. The term 'reverse' refers to a situation where the upper block, above the fault plane, moves up and over the lower block. This type of faulting is common in areas of compression — when one tectonic plate is converging into another.















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GS 2 POLITY

Govt calls special session of Parliament later this month, gives no reason

#ParliamentSpecialSession #Parliament #Polity #GS2

The government said a **special session of Parliament** was being convened from **September 18 to September 22.** It gave no reason for calling the session which would have five sittings.

Previously held such special sessions of Parliament

- On the occasion of the golden jubilee of Independence Day, held in 1997 from August 26 to September 1.
- The Modi government last convened a special session of Parliament on June 30, 2017 to mark the rollout of the Goods and Services Tax (GST).
- A special sitting was convened on November 26, 2015 to pay tribute to the Constitution and Dr B R Ambedkar.
- In 2002, the then BJP-led NDA government got the Prevention of Terrorism Bill passed at a joint sitting of the two Houses on March 26 since the

ruling alliance did not have the majority to get it cleared in Rajya Sabha.

 A midnight sitting was called on August 9, 1992, for the 50th anniversary of the 'Quit India Movement'.

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Special session of Parliament: How it will work

#SpecialSessionOfParliament #GovernmentOfIndiaAct1935 #SpecialSitting #EmergencyProvisions #Parliament #Polity #GS2

When does Parliament meet?

India's Parliament has no fixed calendar of sittings. In 1955, a Lok Sabha committee had proposed a timetable for parliamentary sessions. It recommended that the Budget session of Parliament begin on February 1 and go on till May 7, and the Monsoon session start on July 15 and end on September 15.

The committee suggested that the Winter session, the last session of the year, commence on November 5 (or the fourth day after Diwali, whichever is later) and finish on December 22. While the government agreed to this calendar, it was never implemented.

Who decides when Parliament meets?

The government determines the date and duration of parliamentary sessions. The Cabinet Committee on Parliamentary Affairs takes this decision. It currently has ten Ministers, including those for Defence, Home, Finance, Agriculture, Tribal Affairs, Parliamentary Affairs, and Information and Broadcasting.

The Law Minister and the Minister of State for External Affairs are special invitees to the Committee. The President is informed about the Committee's decision, who then summons Members of Parliament to meet for the session.

What does the Constitution say?

The Constitution specifies that six months should not elapse between two parliamentary sessions. This provision is a colonial legacy. The framers of the Constitution borrowed it from the Government of India Act of 1935. It allowed the British Governor General to call a session of the central legislature at his discretion, requiring that the gap between two sessions should not be more than 12 months.

Dr B R Ambedkar stated that the purpose of summoning the central assembly was only to collect taxes, and the once-a-year meeting was for the government to avoid scrutiny by the legislature. The Constituent Assembly reduced the gap between sessions to six months.

How did the Constituent Assembly reach this decision?

Some members of the Constituent Assembly wanted Parliament to meet throughout the year with breaks in between. Others wanted Parliament to sit for longer durations, and cited the examples of the British and American legislatures meeting for more than 100 days a year. One member wanted the presiding officers of the two Houses to be empowered to convene Parliament under certain circumstances.

Dr Ambedkar did not accept these suggestions. He thought that independent India's government would hold regular parliamentary sessions. He argued: "The clause as it stands does not prevent the legislature from being

summoned more often than what has been provided for in the clause itself. In fact, my fear is, if I may say so, that the sessions of Parliament would be so frequent and so lengthy that the members of the legislature would probably themselves get tired of the sessions."

How often do Lok Sabha and Rajya Sabha meet?

Before independence, the central assembly met for a little more than 60 days a year. This number increased to 120 days a year in the first 20 years after Independence. Since then, the sitting days of the national legislature have declined.

Between 2002 and 2021, Lok Sabha averaged 67 working days. The situation in state legislatures is much worse. In 2022, 28 state Assemblies met for 21 days on average. This year, Parliament has met for 42 days so far.

On multiple occasions, the conference of presiding officers has recommended that Parliament should meet for more than 100 days. The National Commission to Review the Working of the Constitution set up in 2000 made a similar recommendation.

Individual MPs have introduced private member Bills that stipulated increased sitting days for Parliament. Former Rajya Sabha MP Naresh Gujral, in his 2017 private member Bill, suggested that Parliament should meet for four sessions in a year, including a special session of 15 days for debating matters of urgent public importance.

If the 1955 recommendations of the Lok Sabha committee were accepted, Parliament would be in session for eight months every year. The US Congress and parliaments of Canada, Germany, and the UK are in session throughout the year, and their calendar of sitting days is fixed at the beginning of the year.

What is a special session of Parliament?

The Constitution does not use the term "special session". The term sometimes refers to sessions the government has convened for

specific occasions, like commemorating parliamentary or national milestones.

For the two Houses to be in session, the presiding officers should chair their proceedings. The presiding officers can also direct that the proceedings of their respective Houses would be limited and procedural devices like question hour would not be available to MPs during the session.

However, Article 352 (Proclamation of Emergency) of the Constitution does refer to a "special sitting of the House".

Parliament added the part relating to the special sitting through the Constitution (Forty-fourth Amendment) Act, 1978. Its purpose was to add safeguards to the power of proclaiming Emergency in the country. It specifies that if a Proclamation of Emergency is issued and Parliament is not in session, then one-tenth of Lok Sabha MPs can ask the President to convene a special meeting to disapprove the Emergency.

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Kokborok, Tripura's language without a script

#Kokborok #LanguageOfTripura #Languages #Polity #GS2

Last year, Union Home Minister Amit Shah pitched for Devanagari script for oral languages in the Northeast, the Roman Script for Kokborok Choba (RSKC), a conglomerate of 56 tribal organisations of Tripura, protested – Hindi has its place, it said, but tribal youth prefer the Roman script.

A decades-old tussle

Kokborok is the lingua franca of the bulk of Tripura's 19 tribal communities. It has a long history, and was **recognised as an official state language of Tripura in 1979**. It is now taught in 22 degree colleges of the state, and in Tripura Central University as well.

However, **Kokborok does not have its own script**, and there has long been an argument over whether it should be written in the Bengali or Roman script.

The erstwhile Left government had set up two commissions to examine the question. According to the RSKC, both commissions, led by the former MLA and tribal leader Shyama Charan Tripura, and the linguist Pabitra Sarkar, found that the Roman script was favoured by the majority of the state's tribal peoples.

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1 nation, 1 election: Govt sets ball rolling, with panel under President Kovind

#OneNationOneElection #SimultaneousElections #Elections #Polity #GS2

#RamNathKovind

Setting the ball rolling on its party's manifesto promise of working towards simultaneous Lok Sabha and Assembly elections in the country, the government Friday announced a committee that would submit its report to Parliament. While details of the committee's composition were not announced, it is learnt that **former President Ram Nath Kovind will head it**.

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Govt notifies 1-nation, 1-election panel

#OneNationOneElectionPanel #OneNationOneElection #SimultaneousElections #Elections #Polity #GS2



RAM NATH KOVIND Former President



AMIT SHAH Union Home Minister



GHULAM NABI AZAD Former Leader of Opp, RS



NKSINGH Ex-Chairman, 15th Finance Commission



SUBHASH C KASHYAP Ex-Secy Gen, Lok Sabha



HARISH SALVE Senior Advocate



SANJAY KOTHARI Former CVC



RANJAN CHOWDHURY Cong leader, LS

where the accused is not known, registration of e-FIR should be allowed for all cognizable offences".

To avoid false registration of e-Complaints/e-FIR and for the constructive use of the facility, it suggested verifications using e-authentication through OTP and mandating the uploading of valid ID proof, alongside a minimum punishment for such false e-complaints or e-FIRs.

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Women's reservation Bill gets President's assent, becomes law

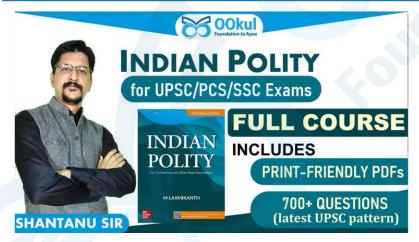
#WomenReservation #NariVandanAdhiniyam2023 #106AmendmentAct #Article111 #Polity #GS2 The landmark women's reservation Bill, which seeks to provide 33 per cent reservation to women in the Lok Sabha and state Assemblies, has now become a law after receiving the assent of President Droupadi Murmu.

Now, it will be officially known as the Constitution (106th Amendment) Act. According to the gazette notification, dated September 28, "It shall come into force on such date as the central government may, by notification in the Official Gazette, appoint."

According to a government source, the **Bill does not require ratification by the states since it doesn't change the actual number of seats that the states have in Parliament**. So state representation in Parliament remains unaffected.

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GS 2 GOVERNANCE

Ayushman Bhav: May all be free of illness

#AyushmanBhav #AyushmanApkeDwar #AyushmanSabha #AyushmanMela #GovernmentScheme #Governance #GS2

The government led by Prime Minister Narendra Modi started the Ayushman Bharat programme in 2018 to address the need for universal health coverage. It aims to provide

comprehensive healthcare services for everyone, no matter where they live or what their economic status.

Ayushman Bharat shifts from segmented healthcare to a holistic, need-based approach. It covers prevention, promotion and care across primary, secondary and tertiary levels through health and wellness centres (HWCs) and the Pradhan Mantri Jan Arogya Yojana (PM-JAY).

But it is not just about devising a new healthcare programme — the goal is to make sure everyone benefits. That is where the new campaign Ayushman Bhav, launched by President Droupadi Murmu on September 13, comes in. It focuses on comprehensive coverage, developing awareness about PM-IAY. creating health account IDs, and providing health services including disease screenings and management of multiple illnesses such as tuberculosis, hypertension, sickle cell disease and diabetes in villages as well as urban wards.

Ayushman Bhav's primary mission is to reach over 6.45 lakh villages and 2.55 lakh gram panchayats. It is designed in line with the antyodaya principle to make sure that no one is left behind in the quest for universal health coverage. To facilitate this, the campaign will have activities such as sewa pakhwada, which would include organ donation drives, cleanliness drives (swachhata abhiyan) and blood donation initiatives.

Strengthening the groundwork for delivery of healthcare services, this campaign broadens Ayushman Bharat's reach using three core pillars: Ayushman Apke Dwar 3.0, Ayushman Sabha, and Ayushman Mela. These pillars enhance service delivery by focusing on comprehensive coverage, collaborative awareness-building and community-centred efforts. Ayushman Apke Dwar 3.0 will build on the success of its earlier versions (1.0 and 2.0) by expanding Ayushman card distribution with enhanced utilisation of Ayushman Bharat services, ensuring widespread coverage.

Ayushman Sabhas will promote awareness of various healthcare schemes and services available in the country and will be spearheaded by the village health, sanitation and nutrition committees (VHSNCs). To advance the Ayushman Bhav initiative, Ayushman Melas will serve as an efficient platform to tackle a broad spectrum of health concerns, efficiently reaching a large audience and boosting healthcare service utilisation.

The Ayushman-Apke Dwar initiative will commence with an extensive country-wide drive on September 17 and run until December 31, ensuring the provision of Ayushman cards to around 60 crore

beneficiaries under the PM-JAY scheme. Through Ayushman Apke Dwar, every eligible family in the country will be registered for Ayushman cards. The primary objective of this pillar is to ensure that

every eligible beneficiary receives their Ayushman card, leaving no one without access to affordable healthcare services.

Ayushman Sabhas will convene on October 2 with a subsequent round taking place before December 31 spanning villages and urban wards. Ayushman Sabhas will serve as a platform for citizens to gain knowledge about communicable and non-communicable diseases and voice their concerns about healthcare services, promoting social accountability of healthcare systems and exemplifying the principle of "jan bhagidari se jan kalyan". These gatherings will include activities like distributing PM-JAY cards. showcasing empanelled hospitals, creating Ayushman Bharat Health Account IDs, screening services, and organising talks to raise awareness about various diseases with participation from MPs/MLAs, PM-JAY beneficiaries, Ayushman Bharat Health and Wellness Centres beneficiaries, and tuberculosis champions and more to motivate the community.

Ayushman Melas will be held every week at 1.6 lakh HWCs in villages. They will also take place at community health centres, organised by medical colleges at the block level. This will be pivotal to spreading awareness of healthcare services among vulnerable and impoverished populations. These melas, offering specialised services such as ENT, eye, and psychiatric care at the block level aim to enhance access to specialised care, build trust between the community and the health system, improve health-seeking behaviour and literacy, foster greater engagement with medical colleges and extend healthcare services to every ailing individual in need.

The anticipated outcome is the transformation of every village and urban ward into an Ayushman Gram Panchayat or Ayushman Urban Ward, advancing holistic and sustainable development at the grass roots level. The mission is to certify villages that achieve 100 per cent coverage of selected schemes under each pillar, including the distribution of Ayushman

GS 2 INTERNATIONAL RELATIONS

BRICS is bigger now. Is it better too?

#BRICS #BRICSmembers #BRICScountries #ImportanceOfBRICS #InternationalOrganisations #InternationalRelations #GS3

Leaders of Brazil, Russia, India, China and South Africa took a call last week to expand the BRICS grouping from five countries to 11.

The **Johannesburg declaration**, issued after the summit, said Argentina, Egypt, Ethiopia, Iran, Saudi Arabia and the United Arab Emirates (UAE) had been invited to become full members from January 1, 2024.

To understand the expansion and its implications, one must first understand the origins and evolution of BRICS.

Origin of BRICS

BRICS brings together five of the largest developing countries of the world, representing around 41 per cent of the global population, around 24 per cent of the global GDP, and around 16 per cent of global trade.

The acronym BRIC was first used in 2001 by Goldman Sachs in their Global Economics Paper, "The World Needs Better Economic BRICs". On the basis of econometric analyses, the paper projected that the four economies of Brazil, Russia, India, and China would be among the world's largest economies in the next 50 years or so.

As a formal grouping, BRIC started after the meeting of the leaders of Russia, India and China in St. Petersburg on the margins of the G8 Outreach Summit in 2006. The grouping was formalised during the first meeting of BRIC Foreign Ministers on the margins of the UNGA in New York in 2006.

The first BRIC Summit was held in Yekaterinburg, Russia, in 2009. It was decided to include South Africa at the BRIC Foreign Ministers' meeting in New York in 2010, and accordingly, South Africa attended

the 3rd BRICS Summit in Sanya, China, in 2011.

Expansion

The Johannesburg declaration said that BRICS countries had reached a consensus on the guiding principles, standards, criteria and procedures of the expansion process, but these have not been made public.

Indian officials said New Delhi took the lead in forging consensus on membership criteria and selection of new members. New Delhi's efforts were guided by its objective to incorporate Strategic Partners as new members.

India has strategic partnerships with four of the new six members — Saudi Arabia, UAE, Iran and Egypt.

By growing to a size of 11 members, BRICS has become larger than ASEAN (10 members) and Shanghai Cooperation Organisation (9).

But while many portrayed the new expanded grouping as an alternative to western blocs like the G7, **Delhi doesn't view this as an "anti-West" grouping**.

In fact, France, one of the P-5 (permanent members of the UN Security Council) countries which is also a member of G7, is learnt to have expressed interest in engaging with the BRICS more actively. Whether Paris becomes a member is a question to be agreed through consensus.

The new entrants are emerging economies with the potential to scale up. Many belong to the Global South or the developing countries, and want to hedge their bets in the increasingly polarised geopolitical landscape.

Africa and Latin America

From Latin America, despite Brazil's reluctance, regional rival Argentina was selected as a new member. With a Gross Domestic Product (GDP) of approximately US\$610 billion, Argentina is one of the largest economies in Latin America.

From Africa, Ethiopia and Egypt made the cut, over Nigeria, Algeria and Senegal.

According to the World Bank, Ethiopia is the second most populous nation in Africa after Nigeria, and one of the fastest-growing economies in the region, with an estimated 6.4% growth in FY 2021/22.

Egypt occupies a crucial geo-strategic location — 12 per cent of global trade passes through the Suez Canal — and is a key player in the region. An important economic powerhouse, it is an emerging economy with reforms brought in by the government led by President Abdel Fattah El-Sisi.

But both Argentina and Egypt have strong economic dependency ties with China.

Early this month, Beijing lent a helping hand to Argentina so that it could avert a default with the International Monetary Fund for the second time in 30 days. The cash-strapped country tapped almost \$3 billion of a Beijing currency swap line to pay the multilateral lender.

China's bilateral trade with Egypt is currently at \$15 billion, double that of India's \$7.26 billion in 2021-22. Sisi has been wooing Chinese investments, and has travelled to China seven times in the past eight years.

Ethiopia, a Christian-dominated country, is seen as a careful balancer of both the US and China.

Countries from Asia

Of the three Asian countries, **Saudi Arabia and UAE are strong partners of the US**, and along with Egypt, have close ties with Washington.

Iran, which has had a complicated relationship with the US, has been wooed by China in recent years.

The inclusion of Saudi Arabia and the UAE is expected to lead to more mobilisation of financial resources for the New Development Bank, the BRICS alternative for developing countries.

By including these four, BRICS has also addressed the question that no Muslim-majority country is in the grouping.

One important point is that Saudi Arabia, UAE, Iran, Egypt and Ethiopia share a common regional space. This might give salience to the West Asian and North African region, and the rivalries and geopolitical tensions here might play out in the grouping as well.

These contradictions within the member countries could limit the potential of BRICS.

Russia, China's stakes

With the expansion of the grouping, China is seen as trying to build its own bloc against the Western powers. But India has maintained that decisions have to be made "through consensus" — the guiding principle in the grouping — so that it is not completely led by Beijing.

In fact, this inclusion of six members has been projected as the first phase of the expansion, which leaves room for a second phase.

Russia, the other major player in the grouping, will host the next BRICS summit in Kazan in 2024. An expanded grouping of 11 members attending will work for Moscow, which has been facing diplomatic isolation. It will use the opportunity to portray Russia's relevance despite Western pressures.

For India, the Chinese challenge remains the most pertinent. Delhi has the unenviable task of guarding against the grouping being swayed by Beijing, which wants to pack it with countries indebted to China.

Name

For now, the name of BRICS will remain the same, since officials feel it is a brand in itself.

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Current green transition solutions disregard social and political realities, both international and domestic

#GreenEnergyTransition #ParisAgreement #InternationalCooperation #Environment #InternationalRelations #GS3 #GS2

Bima Sugam: Is it a 'UPI moment' for insurance sector, and how will it benefit customers?

#BimaSugam #IRDAI #InsuranceSector #Economy #GS3

What's Bima Sugam?

It's an online platform where customers can choose a suitable scheme from multiple options given by various companies. All insurance requirements, including those for life, health, and general insurance (including motor and travel) will be met by Bima Sugam. This platform will help in the settlement of claims, whether it's health coverage or death claims, in a paperless manner on the basis of policy numbers.

Details about insurance schemes are expected to be stored in the platform through the insurance repository initially. This will be followed by a listing of policies.

The overall budget for Bima Sugam has been hiked to Rs 200 crore from around Rs 85 crore. IRDAI has appointed a committee for the creation of the platform and now plans to go for requests for proposals (RFPs) soon to appoint a service provider for the platform. The service providers will be the technological partners for creating and running a platform to provide all the services in one place.

What's its role and utility for customers?

The proposed platform would act as a single window for the policyholder to manage his/her insurance coverage. It will provide end-to-end solutions for customers' insurance needs i.e., purchase, service, and settlement in a seamless manner.

It will facilitate insurance companies to access the validated and authentic data from various touch points on a real-time basis. The platform will interface for the intermediaries and agents to sell policies and provide services to policyholders, among others, and reduce paperwork. Commissions on policies are expected to come down, benefiting the customers. The cost of buying policies will come down, insurers say.

Currently, there are hundreds of insurance schemes in the life and non-life sectors. Customers have no idea who is offering the best deal and the pros and cons of different schemes. Bima Sugam will enable them to identify a suitable scheme for the customers in a single platform. They have to spend time talking to agents and visiting the websites of different insurers to select a suitable scheme.

Will the physical mode go away?

Customers will open an insurance account and the policies will be stored in this account, thus obviating the need for physical documents. Further, the paperwork involved in buying a policy will also come down. Settlement of claims and renewal of policies will also become faster as paperwork is reduced drastically, making it easier for the customers.

In short, identifying the right policy, buying it, settling the claims and renewals will be streamlined in online process. The process will be mostly on the lines of demat accounts and online trading in the case of stock markets.

When is Bima Sugam supposed to be up and running?

IRDAI initially wanted the Bima Sugam to be up and running by January 2023 but postponed it to August 1. It has now postponed the implementation to June 2024. Life insurance and general insurance companies will own a 47.5 per cent stake each, while brokers and agent bodies will own 2.5 per cent each.

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'State of Working India' in 7 charts: On women in workforce, educated youth unemployment and more

#LabourMarket
#StateOfWorkingIndia2023Report
#WomenParticipation #Unemployment
#Economy #GS3

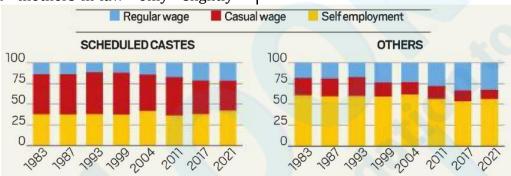
Between 2004 and 2018, there has been an upward trend of economic mobility for sons of fathers engaged in casual wage employment as they are now less likely to take up casual wage employment. Instead, sons of casual wage workers are now increasingly moving towards informal, semi-formal, and formal regular wage work. But there's a caveat—the upward trend has been weaker for Scheduled Caste (SC) workers as compared to general caste workers.

The presence of an employed mother-in-law is a major determinant of whether or not married women join the workforce. The presence of unemployed mothers-in-law in the same house significantly reduces the likelihood of married women being employed whereas the presence of employed mothers-in-law only slightly

reduces the likelihood, when compared to households where there are no mothers-in-law.

The 'State of Working India 2023' report was released by Azim Premji University's Centre for Sustainable Employment on Wednesday (September 20). It uses data sources like the National **Statistical** Office. including **Employment-Unemployment Surveys and** the Periodic Labour Force Surveys, and has revealed major trends in India's labour market. Here's a look at seven charts from the report on intergenerational mobility and women's workforce participation rates:

Chart 1: Changing composition of employment type, based on caste



Between 1983 and 2021, the proportion of regular wage workers belonging to the SC category has increased even though it is significantly lower than the proportion of regular wage workers belonging to the general caste category (described as "Others" in the graph).

In 2021, 32% of general caste workers were in regular wage employment as compared to 22% of SC workers.

There is also a **higher rate of self-employment amongst general caste workers as opposed to SC workers.** The report also looks at firm ownership data to conclude that general castes are over-represented to a greater degree in larger enterprises.

Chart 2a: Intergenerational mobility matrices over time disaggregated by caste, for SC/ST groups

SC/ST					
Year 2018					
Son's Employment		Fathe	er's employment		
son's employment	Formal RW	Semi-formal RW	Informal RW	Self-employed	Casual
Formal RW	38.6	0.2	2.2	3.0	2.0
Semi-formal RW	10.5	43.3	6.1	3.8	2.7
Informal RW	20.9	22.2	64.1	11.0	14.1
Self-employed	16.7	26.5	11.8	62.9	5.6
Casual	13.3	7.9	16.0	19.2	75.6
Col Sum	100	100	100	100	100

SC/ST Year 2004					
		Fathe	er's employment		
Son's Employment	Formal RW	Semi-formal RW	Informal RW	Self-employed	Casual
Formal RW	14.8	2.7	0.2	1.6	0.2
Semi-formal RW	7.0	14.4	0.8	1.4	1.0
Informal RW	23.4	18.8	70.4	5.0	5.6
Self-employed	37.8	45.1	19.7	74-7	6.7
Casual	17.0	18.7	8.8	17.4	86.5
Col Sum	100	100	100	100	100

Chart 2b on economic mobility for general groups

Others					
Year 2018					
		Fath	er's employment		
Son's Employment	Formal RW	Semi-formal RW	Informal RW	Self-employed	Casua
Formal RW	34.4	2.5	16.8	6.3	4-7
Semi-formal RW	17.6	50.0	12.5	9.1	7.6
Informal RW	15.7	21.7	50.4	14.3	22.6
Self-employed	28.5	25.0	15.1	64.0	12.1
Casual	3.9	0.9	5.2	6.5	53.0
Col Sum	100	100	100	100	100
Sandrick Market					
Others					
Others					
Others Year 2004		Fath	er's employment		
Others	Formal RW	Fath Semi-formal RW	er's employment Informal RW	Self-employed	Casua
Others Year 2004	Formal RW				Casua o.c
Others Year 2004 Son's Employment Formal RW		Semi-formal RW	Informal RW	Self-employed	0.0
Others Year 2004 Son's Employment Formal RW Semi-formal RW	17.3	Semi-formal RW	Informal RW 4.2	Self-employed 2.7	0.0
Others Year 2004 Son's Employment Formal RW Semi-formal RW Informal RW	17.3 9.7	Semi-formal RW 1.3 15.5	Informal RW 4.2 0.2	Self-employed 2.7 2.2	0.0 1.: 3-:
Others Year 2004 Son's Employment	17.3 9.7 11.2	Semi-formal RW 1.3 15.5 19.0	Informal RW 4.2 0.2 57.6	Self-employed 2.7 2.2 6.8	

In 2018, 75.6% of sons of SC/ST casual wage working fathers were themselves casual wage workers, a dip from 86.5% in 2004. A steeper fall is noticed for sons of general caste (described as "Others" in the graph) casual wage working fathers, to 53% in 2018 from 83.2% in 2004. In other words, economic intergenerational mobility has been more pronounced for general caste casual wage workers than for SC/STs.

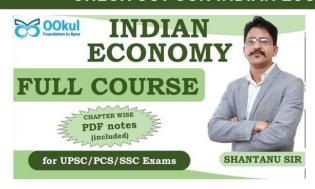
In 2018 as compared to 2004, sons of casual wage workers moved away from casual wage work to informal, semi-formal, and formal regular wage (RW) work. For instance, in 2004

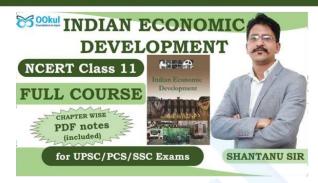
only 0.2% of SC/ST fathers in casual wage work had sons in formal RW work. In 2018, that number jumped to 2%. For general caste fathers in casual wage work, the number jumped from 0% to 4.7%.

The employment type with the highest intergenerational persistence, i.e., the highest probability that a father's son works in the same profession as him, is casual wage work. In comparison, formal RW work is much less persistent.

Chart 3: Industries showing an overrepresentation of Women, SCs

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GS 3 ENVIRONMENT

Biodiversity loss: 37,000 'alien species' introduced by human activities, says report

#InvasiveAlienSpecies #BiodiversityLoss #Environment #GS3 #AlienSpecies #Biodiversity

In the most extensive study on invasive species carried out till date, the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) in its new publication – the "Assessment Report on Invasive Alien Species and their Control" – has found that there are 37,000 alien species, including plants and animals, that have been introduced by many human activities to regions and biomes around the world, including more than 3,500 invasive alien species and that invasive alien species have played a key role in 60% of global plant and animal extinctions recorded.

The report, which was released on Monday, said that invasive alien species are one of the five major direct drivers of biodiversity loss globally, alongside land and sea use change, direct exploitation of organisms, climate change, and pollution.

The IPBES released its report following a weeklong plenary from August 28th, with representatives of the 143 member States which have approved the report. IPBES is an independent intergovernmental body established to strengthen the science-policy interface for biodiversity and ecosystem services, working in a similar way to the IPCC, which is the UN's climate science body. The study, which has taken place over a period of four years, has been by 86 leading experts from 49 countries, drawing on more than 13,000 references.

The report has noted that the number of alien species (species introduced to new regions through human activities) has been rising continuously for centuries in all regions, but are now increasing at unprecedented rates, with increased human travel, trade and the expansion of the global economy.

Not all alien species establish and spread with negative impacts on biodiversity, local ecosystems and species, but a significant proportion do – then becoming known as invasive alien species. About 6% of alien plants; 22% of alien invertebrates; 14% of alien vertebrates; and 11% of alien microbes are known to be invasive, posing major risks to nature and to people.

The report said that the annual costs of invasive alien species have at least quadrupled every decade since 1970, as global trade and human travel increased. In

2019, the global economic cost of invasive alien species exceeded \$423 billion annually.

The reduction of food supply, has been cited by the report as the most common impact of alien invasive species. For example, the European shore crab impacting commercial shellfish beds in New England or the Caribbean false mussel damaging locally important fishery resources in Kerala, by wiping out native clams and oysters. The Caribbean false mussel was originally from the Atlantic and Pacific coast of South and Central America, but are believed to have travelled to India via ships, later spreading to estuaries through smaller fishing vessels. Invasive alien species like Aedes albopictus and Aedes aegyptii spread diseases such as malaria. Zika and West Nile Fever, while others also have an impact on livelihood such as the water hyacinth in Lake Victoria in East Africa led to the depletion of tilapia, impacting local fisheries.

The IPBES report has further warned that warming temperatures and climate change could favour the "expansion of invasive species".

"Climate change is also predicted to increase the competitive ability of some invasive alien species, extending the area suitable for them and offering new opportunities for introductions and establishment. Invasive alien species can also amplify the impacts of climate change.

For example, invasive alien plants, especially trees and grasses, can sometimes be highly flammable and promote more intense fires,"it said.

The report found that 34% of the impacts of biological invasions were reported from the Americas, 31% from Europe and Central Asia, 25% from Asia and the Pacific and about 7% from Africa. Most negative impacts are reported on land (about 75%) – especially in forests, woodlands and cultivated areas – with considerably fewer reported in freshwater (14%) and marine (10%) habitats. Invasive alien species are most damaging on islands, with numbers of alien plants now exceeding the number of native plants on more than 25% of all islands.

Most countries (80%) have included targets related to managing invasive alien species in their national biodiversity plans. Only 17% specifically address the issue in national legislation, although more (69%) include it as a part of legislation in other areas. Nearly half of all countries (45%) do not invest in management of biological invasions.

In December last year, governments agreed to reduce the rate of introduction and establishment of invasive alien species by at least 50% by 2030 under target 6 of the Kunming-Montreal Global Biodiversity Framework.

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Members agree to triple green energy capacity by 2030, cut CO₂ emissions

#GreenEnergy #Environment #GS3 **#ParisAgreement**

Marking a major step forward in climate action, the G20 countries on Saturday promised to work towards **tripling the global renewable energy capacity by 2030**. If met, this single step could **avoid carbon dioxide emissions by seven billion tonnes between now and 2030**, according to an assessment by the International Energy Agency (IEA).

The G20 countries also committed themselves to making lifestyle changes to curb greenhouse gas emissions, agreeing on a cause being championed by India for the last few years.

Some more contentious climate-related issues, like a **commitment to phase-out all fossil fuels, on which there were major differences between the member countries, were left unaddressed.**

With current policies to fight climate change, the global greenhouse gas emissions in 2030 is expected to be about 24 billion tonnes more than what is required to keep alive the hopes of limiting global warming to within 1.5 degree Celsius. Tripling of renewable energy capacity could play a significant role in bridging this gap.

The declaration acknowledged that **not all countries needed to let their greenhouse gas emissions (GHG) peak by 2025.**

The G20 countries said they will work towards facilitating access to low-cost financing for developing countries for deployment of clean and sustainable energy choices. They also urged the developed world to scale up financial resources for climate action, and supported the calls for a revamp of the international financial institutions to facilitate energy transitions.

Importance of G20 agreements

Climate-related agreements at G20 are not internationally binding, certainly not for non-member countries. Climate decisions are taken at the annual UN climate change conference, which takes place towards the end of the year. But G20 countries have a lot of heft, and can influence decision-making at the climate conference.

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PM formally launches Global Biofuels Alliance; 19 countries, 12 global bodies agree to join

#GlobalBiofuelsAlliance #Biofuels #Biomass #Energy #Environment #GS3

The Global Biofuels Alliance (GBA) was formally launched on Saturday evening by Prime Minister Narendra Modi in the presence of leaders of a number of partner countries on the sidelines of the G20 Summit in New Delhi. The GBA has been in the works for some time now and is a key initiative and priority under India's G20 presidency. The alliance is aimed at facilitating international cooperation intensifying the use of sustainable biofuels, along with facilitating global biofuels trade and technical support for national biofuel programmes.

The GBA, the effort for which was spearheaded by India, the United States, and Brazil, has been launched with nine initiating members-India, the US, Brazil, Argentina, Bangladesh, Italy, Mauritius, South Africa, and the United Arab Emirates-while Canada and Singapore are **observer countries**. In all, 19 countries and 12 international organisations have already agreed to join the GBA.

Seven of the 19 countries are from the G20. four are among the G20 invitee countries, while eight are neither G20 members nor invitees. The World Bank. Asian Development Bank, World Economic Forum, International Energy Agency, International Energy Forum, International Renewable Energy Agency, and International Civil **Aviation Organization** are among organisations that have agreed to join the alliance.

Biofuels refer to renewable fuels derived from biomass-from plants or agricultural, animal, domestic, and industrial biowaste. Biofuels are significantly cleaner than the conventional fossil fuels.

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Why is 2023 so hot? A rare Pacific Ocean volcano could be a culprit

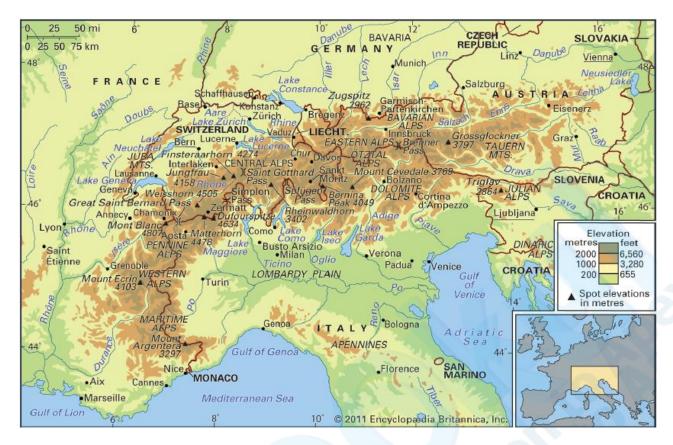
#VolcanicEruption
#HungaTongaHungaHaapai
#GlobalWarming #ClimateChange
#Environment #GS3

As the world swelters through record temperatures, scientists say an unusual culprit may be partly to blame: an **underwater volcanic eruption off Tonga in the South Pacific last year.**

While most big blasts cool the planet with a sundimming haze, the eruption of **Hunga Tonga-Hunga Ha'apai** in January 2022 blew the equivalent of 60,000 Olympic swimming pools of water into the stratosphere, high above the planet.

Water vapour is a natural greenhouse gas, trapping heat as it swirls around the globe. By contrast, major land eruptions— such as Pinatubo in the Philippines in 1991 — temporarily dim sunshine with an ashen sunshade before falling back to Earth.

The June-August period this year was the warmest on record worldwide by a puzzlingly wide margin, with heatwaves occurring from



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GS 3 SCIENCE AND TECHNOLOGY

Chandrayaan 3: Another payload detects sulphur presence

#RAMBHA #ILSA #SHAPE #SulphurOnMoon #Chandrayaan3 #ScienceandTechnology #GS3

ISRO released preliminary data from instruments called **RAMBHA and ILSA, both**

installed on the lander module, and another called APXS which is on the rover. It had earlier released data from instruments called ChaSTE and LIBS.

Chandrayaan-3 is carrying seven scientific payloads, four installed on the lander, two on rover, and one on the propulsion module that is going around the Moon in an orbit. ISRO has till now released data from five of these. It has also

mentioned that the **instrument onboard the propulsion module** — SHAPE or Solar-polarimetry of Habitable Planet Earth — has been functioning normally.

The seventh instrument, called LASER Retroreflector Array is a set of mirrors that will remain on the Moon for much longer duration. It does not collect any data on its own but is meant to reflect laser beams fired from Earth. Scientists use these kinds of experiments to accurately measure the distance of Moon from the Earth, for example.

RAMBHA or Radio Anatomy of Moon Bound Hypersensitive Ionosphere and Atmosphere is meant to measure the plasma density (concentration of ions and electrons) near the lunar surface. ISRO said initial assessment from the data collected by RAMBHA, an instrument developed by Space Physics Laboratory of Vikram Sarabhai Space Centre, indicated that the plasma near the lunar surface was "relatively sparse".

The Alpha Particle X-ray Spectroscope, or APXS, installed on the rover, detected signals of the presence of Sulphur and other minor elements. Earlier, LIBS had also collected data on the elemental composition of lunar surface, and found "unambiguous" confirmation of presence of Sulphur, through first-of-its-kind experiments.

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ISRO puts rover in hibernation mode, hopes to extend mission's life

#PragyanRover #Chandrayaan3 #ScienceandTechnology #GS3

Hoping to extend the life of the Chandrayaan-3 lander and rover, the Indian Space Research Organisation (ISRO) on Saturday said it had put Pragyan rover in an hibernation mode as the daylight time on Moon is coming to an end.

The Chandrayaan-3 lander and rover were expected to operate only for one Lunar day, which is equivalent to nearly 14 days on Earth. That is because the **electronics are not designed to withstand very low**

temperatures, less than -120 degrees Celsius, during the nighttime on the Moon. The nighttime too extends for as long as 14 days on Earth. But there is a possibility that the electronics are able to survive the low temperatures and are able to power themselves again once the sunshine is available. In fact, this happened on one of the Chinese lander missions a few years ago.

An ISRO scientist said it was possible that the payloads would revive but not certain. "We are trying to keep the receiver on the lander switched on and try to maintain the battery at an optimum temperature. Whether the systems wake up after the night will depend on whether the battery lasts throughout this period," he said.

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New Covid-19 variant may be 'reason to worry': What is known about 'Pirola' so far

#PirolaVariant #Covid19 #VirusMutations #RNAvirus #DNAvirus #ScienceandTechnology #GS3

An article published in the Yale Medicine Review on August 31 has noted the rise of Covid-19 infections in multiple countries, driven by a new Coronavirus variant called BA.2.86, which is informally being termed 'Pirola'.

While the report says that it is too early to know if this strain is any more transmissible than other ones, there may be a reason to worry. The report says it has "more than 30 mutations to its spike protein compared to XBB.1.5, a variant of Omicron that had been the dominant strain in the United States... The spike protein is how the coronavirus enters human cells."

Here's what we know so far.

Pirola has been witnessed in the US, the UK, and other countries, in unrelated cases.

According to Yale Medicine infectious diseases specialist Scott Roberts, MD, the high number of mutations is a point of concern here. He said in the report that this was similar to the number of mutations that differed between Delta, one of

INTERNATIONAL AFFAIRS

Over 1000 dead as quake hits Morocco

#HighAtlasMountains #InternationalAffairs #Morocco

The magnitude 7.2 earthquake struck in **Morocco's High Atlas mountains** on September 8.

Marrakech is due to host the annual meetings of International Monetary Fund (IMF) and World Bank in early October.

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Nagorno-Karabakh's 120,000 Armenians will leave for Armenia

#NagarnoKarabakh #Armenia #Azerbaijan #Caucasus #InternationalAffairs

The 120,000 ethnic Armenians of Nagorno-Karabakh will leave for Armenia as they do not want to live as part of Azerbaijan and fear ethnic cleansing.

The Armenians of Karabakh, a territory internationally recognised as part of Azerbaijan but previously beyond Baku's control, were forced to declare a ceasefire on Sept. 20 after a lightning 24-hour military operation by the much larger Azerbaijani military.

Nagorno-Karabakh, known as Artsakh by Armenians, lies in an area that over centuries has come under the sway of Persians, Turks, Russians, Ottomans and Soviets. It was claimed by both Azerbaijan and Armenia after the fall of the Russian Empire in 1917. In Soviet times it was designated an autonomous region within Azerbaijan.



As the Soviet Union crumbled, the Armenians there threw off nominal Azeri control and captured neighbouring territory in what is now known as the **First Karabakh War** (1988-1994).

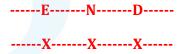
Caucasus

The Caucasus is a transcontinental region between the Black Sea and the Caspian Sea, mainly comprising Armenia, Azerbaijan, Georgia, and parts of Southern Russia. The Caucasus Mountains, including the Greater Caucasus range, have historically been considered as a natural barrier between Eastern Europe and West Asia.



Source: Wikimedia commons

Mount Elbrus in Russia, Europe's highest mountain, is situated in the Western Caucasus. On the southern side, the Lesser Caucasus includes the Javakheti Plateau and the Armenian highlands, part of which is in Turkey.



Practice Questions

1. Consider the following statements:

- 1. The point closest to Earth in the moon's elliptical orbit is called apogee.
- 2. A full moon occurs when the moon is directly opposite the sun as seen from Earth.
- 3. The blue colour of the moon appears due to the scattering of light.

How many of the statements given above are correct?

- A. Only one
- B. Only two
- C. All three
- D. None

2. Consider the following statements:

- 1. The point closest to Earth in the moon's elliptical orbit is called apogee.
- 2. A full moon occurs when the moon is directly opposite the sun as seen from Earth.
- 3. The blue colour of the moon appears due to the scattering of light.

How many of the statements given above are correct?

- A. Only one
- B. Only two
- C. All three
- D. None

3. With reference to the Aditya L-1 mission, consider the following statements:

- 1. It is India's first space-based mission to study the Sun.
- 2. The mission will be carried into space by the Geosynchronous Satellite Launch Vehicle (GSLV) in 'XL' configuration.
- 3. The spacecraft will finally be stationed in a halo orbit around the Lagrange point 1 (L1) of the Sun-Earth system.
- 4. The objective of the mission is to study the inner atmospheric layers of the Sun.

How many of the statements given above are correct?

- A. Only one
- B. Only two
- C. Only three
- D. All four

4. With reference to the Parliamentary Session, consider the following statements:

- 1. The Constitution specifies that six months should not elapse between two parliamentary sessions.
- 2. The Constitution uses the term "special session" which refers to sessions the government has convened for specific occasions, like commemorating

parliamentary or national milestones.

Which of the statement(s) given above is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

5. Consider the following:

- 1. Purchase of immovable property
- 2. Overseas deposits and maintenance of relatives abroad
- 3. Buying lotteries
- 4. Investment in equity/debt

How many of the above fall under the outflow Liberalised Remittances Scheme (LRS) category?

- A. Only one
- B. Only two
- C. Only three
- D. All four

6. Hakuto-R – the privately built lunar lander as in the news recently. The lander was built by which country?

- A. Japan
- B. South Korea
- C. North Korea
- D. China

7. Consider the following statements:

- 1. A bill pending in Parliament shall not lapse by reason of the prorogation of the Houses
- 2. A bill pending in the Council of States which has not been passed by the House of the People shall lapse on a dissolution of the House of the People.

Which of the statement(s) given above is/are not correct?