

General Studies-1

Monsoon in india:

What is the status?

In the fortnight since the start of the monsoon, India has recorded nearly 55 mm of rain, or 16% more than what's usual for this time of the year.

The bulk of it has been over south and central India, with the northeastern States so far registering a 24% deficit.

After an early onset and quick advance, the monsoon has stalled and will remain so for at least a week, say meteorologists.

Because the southern branch of the monsoon has stalled, it is causing heavy rain in Goa, coastal Karnataka and Kerala. The latter has seen 44 cm, nearly 49% more than what it gets in the first fortnight of June. This has led to widespread havoc.

Has lightning activity been high?

Lightning, according to the National Crime Records Bureau (NCRB), is the leading cause of accidental deaths in India attributable to the forces of nature.

The NCRB's most updated report, from 2015, says that of the 10,510 accidental deaths attributable to natural causes, 25.1% were due to lightning, 18.2% due to heat/sun stroke and 10.9% due to exposure to cold.

Therefore, in any given year lightning is a serious killer.

This year, however, May — which is not a monsoon month — saw nearly 300 deaths due to lightning in Uttar Pradesh, Bihar, Jharkhand and West Bengal.

Because of unusual convective activity, Even pre-monsoon rain can contribute to massive cloudbuildups and trigger widespread lightning strikes.

C.A From 18th June to 24th June 2018.

Can lightning forecasts be improved?

Lightning and thunderstorms are an extremely 'local' phenomenon with impact spreading no more than a few kilometres.

Also they tend to occur rather suddenly and are therefore beyond the range of the weather radars.

It is possible for the meteorological department to warn of the likelihood of thunderstorms and lightning over a district or a city about a day in advance but street-level or area-wise accuracy remains a stretch.

While the build-up of clouds is known to be a factor, much more improved weather modelling is required to give accurate warnings about an impending strike in, say, a small town or village.

The best way around this is precaution.

What's in store?

The IMD said in May that India would get 97% of the 89 cm it gets during the monsoon months.

Rainfall is expected to be normal in July at 101% of the historical average and 94% in August.

However, this does not quite capture the extreme variability of the monsoon. Like most years, some parts of the country are going to see dangerous floods and some regions a crippling drought. T

hough the monsoon has stalled for a while, experts have said that because there is no threat from major climate factors — like an El Nino — there are no large-scale deficiencies expected.

Biggest petroglyph site in Andhra Pradesh Discovered:

Kandanathi, a tiny village located about 5-km south of Yemmiganur mandal headquarters in the district, is the biggest petroglyph site in Andhra Pradesh, an exploration by an archaeology researcher of Yogi Vemana University has revealed.

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The petroglyphs had attracted the attention of scholars in 2015-16.

About the Site:

The site discovered has rock art with engravings, and peckings and bruising, predominantly of humped bulls and also of human figures, at Kandanathi dating back to the Mesolithic, Neolithic, and pre-historic periods.

Kandanathi has the first biggest explored petroglyph site in the State with the detection of nearly 200 engravings, peckings and bruising,

Maximum depictions are outlined. A few are flat wash, and the depicted figures are that of a tiger, streak of tigers, leopards, camels, bulls, elephants and horses, scenes of riders on bulls, camels and horses, hunting scenes with bow and arrow, sword and dagger etc.

Carnival scene

There was a carnival scene with humans playing musical instruments such as 'dolu' and 'kommu'.

There were several depictions of bulls with various sizes of horns and humps, and in association with riders.

In addition, there were plenty of figures of animals and humans drawn on boulders such as goats, monkeys, dogs etc.

About Kandanathi:

"Kandanathi is located at the foot of a hillock, locally called Nalla Kondalu, having hummocky masses varying from large blocks to boulders on which petroglyphs were depicted, and most of them are facing east.

The peak of the hillock has remains of a mutilated "buruju," possibly dating to the Vijayanagara period (1336-1670 AD).

The earliest discovery of petroglyphs (bruising) was on the Kuppallu Hill in Bellary district of Karnataka by Fawcett in the year 1892.

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Later, Bruce Foote had discovered some more bruising and engravings at the Kuggallu Hill site, he said.

Kurnool district is one of the richest zones of the prehistoric centres in the world for early human activities, and throws valuable insight into the past culture and cultural continuity to the archaeologist.

The petroglyphs at Kandanathi reveal the presence of the Boya community divided into many exogamous groups such as Mandla (herdsmen) and Yenubothula (buffalomen)..

What is a Petroglyph:

Petroglyphs are images created by removing part of a [rock](#) surface by incising, picking, carving, or [abrading](#), as a form of [rock art](#).

Petroglyphs are found worldwide, and are often associated with [prehistoric](#) peoples.

The word comes from the [Greek](#) word *petro-*, theme of the word "petra" meaning "stone", and *glyphein* meaning "to carve", and was originally coined in French as *pétroglyphe*.

Government to team up with Google for flood forecasting

Central Water Commission (CWC), India's apex technical organization in the field of Water Resources, has entered into a Collaboration Agreement with Google.

What are the Arrangements?

CWC would use state-of-the-art advances made by Google in the in the field of Artificial Intelligence, Machine Learning and geo spatial mapping for effective management of water resources particularly in the field of flood forecasting and dissemination of flood related information to the masses widely using the dissemination platforms developed by Google.

This initiative is likely to help crisis management agencies to deal extreme hydrological events in a better manner.

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Under this Agreement, CWC and Google will share technical expertise in the fields of artificial intelligence, machine learning, geospatial mapping and analysis of hydrological observation data to collaborate on

- (i) improving flood prediction systems, which will help provide location-targeted, actionable flood warnings,
- (ii) high priority research project utilizing Google Earth Engine to help visualize and improve flood management and
- (iii) a cultural project to build online exhibitions on the Rivers of India .

Benefits:

The initiative on flood forecasting is likely to meet the much awaited demand of the inhabitants of the flood prone areas for inundation warnings with sufficient lead time.

Till 2016, CWC was disseminating flood levels with maximum lead time of one day.

The collaborative arrangement is likely to result in saving of crore of rupees which otherwise would have to be spent by the government on acquiring high resolution DEM, high end computational resources and developing dissemination platforms widely used by the masses.

This would enable the Government as well as disaster management organisations to identify well in advance the locations and population, which are at risk from floods and require warnings and information.

This collaborative initiative is expected to be a milestone in flood management and in mitigating the flood losses.

About Central Water Commission:

- Central Water Commission is a premier Technical Organization of India in the field of Water Resources and is presently functioning as an attached office of the Ministry of Water Resources, River Development and Ganga Rejuvenation, Government of India.
- The Commission is entrusted with the general responsibilities of initiating, coordinating and furthering in consultation of the

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State Governments concerned, schemes for control, conservation and utilization of water resources throughout the country, for purpose of Flood Control, Irrigation, Navigation, Drinking Water Supply and Water Power Development. It also undertakes the investigations, construction and execution of any such schemes as required.

Page | 6

NATIONAL YOGA OLYMPIAD-2018 organized by NCERT begins in New Delhi today

A 3-day National Yoga Olympiad was inaugurated at the National Council of Educational Research and Training in CIET in New Delhi today by Mr. Eric Falt, Director and UNESCO Representative of the New Delhi Cluster Office for India, Bangladesh, Bhutan, Nepal, the Maldives and Sri Lanka.

This is the third consecutive year of National Yoga Olympiad of NCERT and this year about 500 students from 26 States and 4 RIEs are participating in the Olympiad as compared to the participation of students from 25 States/UTs last year.

Importance of Initiative:

Professor Saroj Yadav Dean, NCERT narrating the journey of Yoga Olympiad highlighted the importance of yoga in the development of physical, mental and spiritual health. She elaborated about the objectives, target group, yogic practices included and the criteria for judging.

She stressed that Yoga Olympiad is an instrument to generate awareness about yoga among children and building team spirit and confidence.

Two books – **Joy of Theatre** and **Sangeet**— training packages were released on the occasion

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'Adopt a Heritage' Scheme: Culture Ministry

Why in News?

In response to certain reports appearing recently in the media regarding 'Adopt a Heritage' Memorandum of Understanding (MoUs) pertaining to Red Fort being 'put on hold', the Ministry of Culture has clarified that 'Adopt a Heritage' Scheme of the Government of India is making good progress.

About the Scheme:

Implementing Body:

The scheme is being implemented by the Ministry of Tourism, Ministry of Culture and Archaeological Survey of India.

Aims:

The Project aims to develop synergy among all partners to effectively promote responsible tourism.

The schemes aims to involve public sector companies, private sector companies and corporate citizens/individuals to take up the responsibility for making our heritage and tourism more sustainable through development, operation and maintenance of world-class tourist infrastructure and amenities at ASI/ State heritage sites and other important tourist sites in India.

Focus Area:

The project primarily focuses on providing basic amenities like :

Cleanliness, public conveniences, drinking water, ease of access for differently abled and senior citizens, standardized signage, illumination and advanced amenities such as surveillance system, night viewing facilities, tourism facilitation center and an enhanced tourism experience that will result in more tourist footfalls, both domestic and foreign.

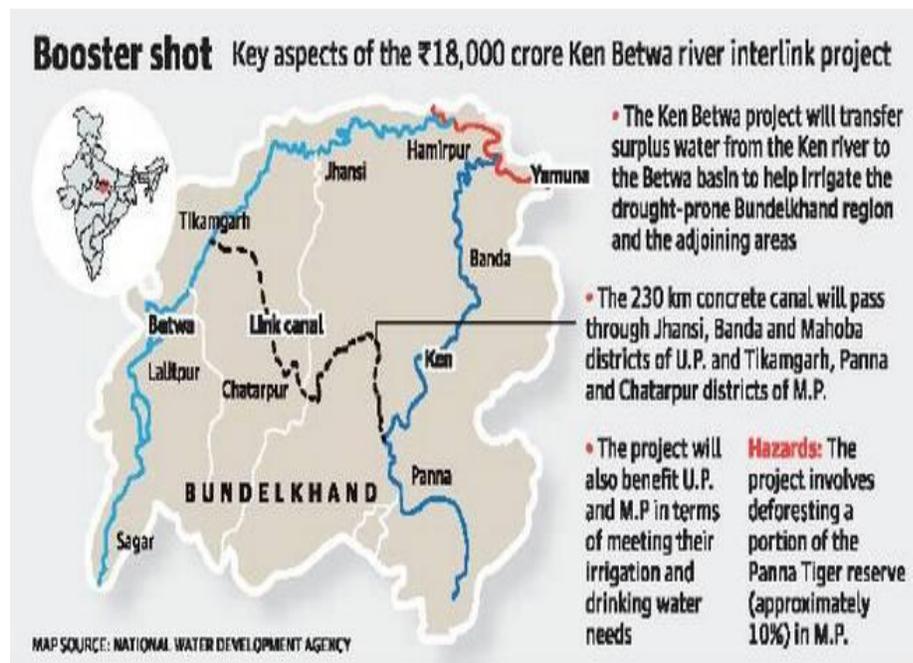
The response to the project has been very encouraging as the agencies who have come forward for adoption includes not only public and private industry/individuals but also schools and law firms.

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Ken Betwa River interlinking Project:

- The Ken-Betwa ILR project aims to transfer surplus water from the Ken River to the Betwa basin through concrete canal to irrigate India's worst drought-prone Bundelkhand region.
- It is India's first inter-State river interlinking project
- The main feature of the project is a 230-km long canal and a series of barrages and dams connecting the Ken and Betwa rivers. The key projects are Makodia and Dhaudhan dams.
- On completion, the multipurpose project will benefit Uttar Pradesh and Madhya Pradesh in terms of meeting irrigation, drinking water and electricity needs of people across 6 districts in the two states.

Page | 8



Significance of Project

- Ken-Betwa river interlinking project will irrigate India's worst drought-affected and drought-prone Bundelkhand region.
- It will irrigate 3.5 lakh hectares in Madhya Pradesh and 14,000 hectares of Uttar Pradesh, in Bundelkhand.

C.A From 18th June to 24th June 2018.

- It will benefit 5 districts of Madhya Pradesh (Chhatarpur, Raisen, Panna, Tikamgarh, and Vidisha) and 3 districts of Uttar Pradesh (Mahoba, Jhansi and Banda) by assured irrigation supply, domestic and industrial water supply and power.
- On the other hand, about 20000 people in 38 villages will be affected due to the submergence by Daudhan reservoir and Makodia reservoir.

Issues:

Disagreements over water-sharing and difficulty in acquiring non-forest land impede the Rs. 18,000-crore Ken- Betwa river interlink project.

The project, which involves deforesting a portion of the Panna Tiger Reserve in Madhya Pradesh, was accorded clearance by the National Wildlife Board on the condition that the land lost would be made good by acquiring contiguous, revenue land.

This is to ensure that wildlife corridors in the region aren't hit. "The M.P. government has said that they are facing major difficulties over this

Another hurdle is a dispute over how Uttar Pradesh and Madhya Pradesh — the two beneficiaries — will share water in the Rabi season.

While there's a 2005 agreement between Uttar Pradesh and Madhya Pradesh on how water would be shared, Madhya Pradesh said last year that these assumptions were no longer valid.

In theory, this could mean a completely fresh environmental appraisal.

World's tallest girder railway bridge:

Key facts:

- World's tallest girder railway bridge is being built in the North East as part of the upcoming 111-kilometres long Jiribam-Tupul-Imphal railway line.

C.A From 18th June to 24th June 2018.

- Bridge No.164 is being built across the valley of river Ijai near Noney and has been designed to take a maximum train speed of 120 kmph.
- The Jiribam–Tupul–Imphal railway line cuts across the lower Himalayan ranges necessitating series of tunnels through the hills and tall bridges across the deep valleys. The line will connect Manipur’s state capital Imphal to Jiribam which is on the western-most boundary of the state. Jiribam is an area that adjoins the Cachar district of Assam. As of now Manipur’s capital Imphal has no railway connectivity.
- It is located in Seismic Zone-V, making it highly vulnerable to earthquakes.

Page | 10

International Yoga Day:

Prime Minister Shri Narendra Modi will lead the 4th International Yoga Day Celebrations in Dehradun on June 21, 2018.

A series of Yoga related events are being organized across the world to mark the occasion.

This year, the theme is ‘Yoga for peace’.

Why was June 21 selected to be International Yoga Day?

June 21 is the longest day of the year in the Northern Hemisphere and has special significance in many parts of the world. Prime Minister Narendra Modi had proposed this date at the United Nations General Assembly 2014.

About Yoga:

Yoga is a group of [physical](#), [mental](#), and [spiritual](#) practices or disciplines which originated in [ancient India](#).

There is a broad variety of yoga schools, practices, and goals in [Hinduism](#), [Buddhism](#), and [Jainism](#).

Among the most well-known types of yoga are [Hatha yoga](#) and [Rāja yoga](#).

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The origins of yoga have been speculated to date back to pre-[Vedic Indian](#) traditions; it is mentioned in the [Rigveda](#), but most likely developed around the sixth and fifth centuries BCE, in ancient India's [ascetic](#) and [śramana](#) movements.

The chronology of earliest texts describing yoga-practices is unclear, varyingly credited to [Upanishads](#).

The [Yoga Sutras of Patanjali](#) date from the first half of the 1st millennium CE, but only gained prominence in the West in the 20th century.

Hatha yoga texts emerged around the 11th century with origins in [tantra](#).

Yoga gurus from India later introduced yoga to the West, following the success of [Swami Vivekananda](#) in the late 19th and early 20th century.

Therukoothu:

Why in News?

Shri Bavaani Amman Therukkoothu Nataka Manram, Kanchipuram, presented 'Alamugasooran Samhaaram', an unusual story of Arjuna being helped by Draupadi, who takes on the Kali avatara to kill the asura.

The show was organised on Sunday last as part of the Mahakumbabhishekam festival at Shri Thiruveedi Amman Temple, Medavakkam.

About Therukoothu:

Terukkuttu is a [Tamil street theatre](#) form practised in [Tamil Nadu](#) state of [India](#) and Tamil-speaking regions of [Sri Lanka](#).

Terukkuttu is a form of entertainment, a ritual, and a medium of social instruction.

The terukkuttu plays various themes. One theme is from the Tamil language versions of the [Hindu](#) epic [Mahabharata](#), focusing on the character [Draupadi](#).

C.A From 18th June to 24th June 2018.

The terms *Terukkuttu* and [Kattaikkuttu](#) are often used interchangeably in the modern times; however, historically the two terms appear to have distinguished, at least in certain villages, between two different kinds of performance: while *Terukkuttu* referred to mobile performances in a procession, *Kattaikkuttu* denotes overnight, narrative performances at a fixed performance space.

General studies-2

Governing Council of NITI Aayog

Why in News?

The fourth meeting of the Governing Council of NITI Aayog was held under the chairmanship of the Hon'ble Prime Minister Shri Narendra Modi at Rashtrapati Bhavan today.

The First Meeting was held on 8 February 2015, at which the Prime Minister laid down the key mandates of NITI Aayog such as fostering cooperative federalism and addressing national issues through active participation of the States.

About the Governing Council of NITI Aayog

The Governing Council of NITI Aayog comprises the Prime Minister of India, Chief Ministers of all the States and Union Territories with Legislatures and Lt. Governor of Andaman and Nicobar Islands, and four Union Ministers as ex-officio members and three Union Ministers as Special Invitees.

It is the premier body tasked with evolving a shared vision of national development priorities, sectors and strategies with the active involvement of States in shaping the development narrative.

The NITI Aayog has been mandated with fostering cooperative federalism through structured support initiatives and mechanisms with the States on a continuous basis, recognizing that strong States make a strong nation.

It seeks to design and assist the implementation of strategic, long-term policy frameworks and programme initiatives, and also monitor their progress and efficacy.

C.A From 18th June to 24th June 2018.

The Governing Council, which embodies these objectives of cooperative federalism, presents a platform to discuss inter-sectoral, inter-departmental and federal issues in order to accelerate the implementation of the national development agenda, in the spirit of *Ek Bharat Shrestha Bharat*.

Page | 14

India-UK Visa issue:

Britain's efforts to reform the visa application process for international students from a number of countries will not extend to India — a development that highlights recent strains in the bilateral relations between the two countries since Prime Minister Narendra Modi's visit to London earlier this year.

What is the Issue?

Announcing a wider overhaul of the U.K. [immigration](#) regime, the British government said it would be expanding the list of countries from which students would be able to provide reduced documentation when applying for Tier 4 student visas to include China and other countries, including Bahrain, Indonesia, and the Maldives. However, India was not on the list.

What does it mean for Indians?

While India remains the third largest country for whom student visas were granted in 2017 — an increase of 27% on the year before — the numbers remain sharply down on a longer term perspective.

In 2010, over 60,000 visas were granted to students from India.

What is Tier-4 Visa?

The UK operates a points-based immigration system underpinned by the principle of **visa** sponsorship.

A **Tier 4 visa** is issued to study in the UK. The sponsor for **Tier 4** purposes is the educational institution where the student will study. The **visa** is issued for a particular course at the institution.

C.A From 18th June to 24th June 2018.

What Might be the Reason?

The exclusion of Indian students from the reforms had to be seen in the context of the recent heightening of tensions and India's decision — at Sushma Swaraj' behest — not to sign an MoU on the return of illegal migrants that Britain had sought, during Mr. Modi's April trip.

During her visit to India in 2016, British Prime Minister Theresa May said the U.K. would consider an improved visa deal, "if, at the same time, we can step up the speed and volume of returns of Indians with no right to remain in the U.K."

International Classification of Diseases

The World Health Organization (WHO) on Monday released its new International Classification of Diseases (ICD-11).

About ICD:

The ICD is the foundation for identifying health trends and statistics worldwide, and contains around 55,000 unique codes for injuries, diseases and causes of death.

It provides a common language that allows health professionals to share health information across the globe.

It enables WHO to understand so much about what makes people get sick and die, and to take action to prevent suffering and save lives.

It is completely electronic and has a much more user-friendly format. And there has been unprecedented involvement of health care workers who have joined collaborative meetings and submitted proposals.

What is NEW about ICD?

ICD-11 will be presented at the World Health Assembly in May 2019 for adoption by Member States, and will come into effect on 1 January 2022.

The new ICD-11 also reflects progress in medicine and advances in scientific understanding.

C.A From 18th June to 24th June 2018.

The new ICD also includes new chapters, one on traditional medicine: although millions of people use traditional medicine worldwide, it has never been classified in this system.

Another new chapter on sexual health brings together conditions that were previously categorized in other ways (for instance gender incongruence was listed under mental health conditions) or described differently.

Gaming disorder has been added to the section on addictive disorders.

About WHO:

The **World Health Organization** is a [specialized agency of the United Nations](#) that is concerned with international [public health](#).

It was established on 7 April 1948, and is headquartered in [Geneva, Switzerland](#).

The WHO is a member of the [United Nations Development Group](#). Its predecessor, the Health Organization, was an agency of the [League of Nations](#).

Its current priorities include [communicable diseases](#), in particular [HIV/AIDS](#), [Ebola](#), [malaria](#) and [tuberculosis](#); the mitigation of the effects of [non-communicable diseases](#) such as sexual and [reproductive health](#), development, and aging; nutrition, [food security](#) and healthy eating; occupational health; substance abuse; and driving the development of reporting, publications, and networking.

The WHO is responsible for the [World Health Report](#), the worldwide World Health Survey, and [World Health Day](#).

Indo-US 2+2 Meet:

High-stake agreements

Of the three foundational defence pacts between India and the United States, only one has been signed

COMCASA: The Communications Compatibility and Security Agreement facilitates transfer of encrypted communication systems, and is a key requirement for the U.S. to share high tech military hardware

COMCASA and Basic Exchange and Cooperation Agreement (**BECA**), which facilitates exchange of geospatial information, are pacts not signed yet due to severe criticism

- It was feared that signing these agreements would mean compromising India's age-old military ties with Russia and access to their weaponry systems

LEMOA: Logistics Exchange Memorandum of Agreement. India signed the pact in 2016. The agreement gives militaries of both the nations access to each other's military facilities, without making it automatic or obligatory, mostly for the purposes of refuelling and replenishment



Indian and U.S. experts began a three-day consultations on Monday to find meeting points in bilateral relations in preparation for the first-ever meeting of the Ministers for External Affairs and Defence (2+2 Format) with their U.S. counterparts next month.

Key focus areas of the meeting

Finding a breakthrough in concluding the Communications Compatibility and Security Agreement (COMCASA), one of the four foundational agreements that helps the U.S. to intensify its defence cooperation with a partner nation.

Indications emerging from the U.S. side is that they are keen to stress the importance given to India in its Indo-Pacific strategy.

Apart from the foundational agreements, the U.S. is also keen on a broad based intelligence-sharing agreement with India as the two countries have vastly expanded their counter-terror cooperation.

C.A From 18th June to 24th June 2018.

In this context, the fourth foundational agreement, Basic Exchange and Cooperation Agreement for Geo-spatial Cooperation (BECA), will be significant.

COMCASA and BECA are the two foundational agreements that India is yet to sign.

It has already signed the General Security Of Military Information Agreement (GSOMIA) and the Logistics Exchange Memorandum of Agreement (LEMOA).

Benefits to India:

The most significant of them is LEMOA, which gives both nations access to each other's military facilities. But it does not make it automatic or obligatory

The COMCASA will facilitate transfer of encrypted communications systems.

The agreements are a key requirement by Washington for sharing hi-tech military hardware, especially armed drones which the U.S. is willing to supply to India.

Sale of armed drones is high on the agenda of the 2+2 dialogue.

There have been widespread expectations that a broad understanding could be reached ahead of the 2+2 dialogue.

Progress Made:

As part of improving high tech cooperation, India and the U.S. announced the ambitious Defence Technology and Trade Initiative and India was designated a major defence partner.

The U.S. Pacific Command (PACOM) was recently renamed Indo-Pacific Command (INDOPACOM), symbolic of the significance U.S. attaches to India in the region.

C.A From 18th June to 24th June 2018.

About 2+2 Dialogue:

- In foreign policy parlance, 'Two plus Two' is the term used for the institutionalisation of a dialogue mechanism between two countries consisting of the key ministries of defence & external affairs.
- The 2+2 format draws on a framework Japan used for its strategic interactions with the US, France, Russia and Australia.
- India & Japan too have a similar mechanism between them since 2010.

National Health Profile-2018

Shri J P Nadda, Union Minister of Health and Family Welfare released the National Health Profile (NHP)-2018 prepared by the Central Bureau of Health Intelligence (CBHI), here today.

About NHP:

The National Health Profile covers demographic, socio-economic, health status and health finance indicators, along with comprehensive information on health infrastructure and human resources in health.

Benefits of NHP:

Health Profile is a very important tool as it has helped in designing various programmes.

Data is an important source of navigation. It helps in understanding the goals, our strengths and weaknesses and it is also an important means to strategize.

Good compiled data enables the policymakers to make evidence-based policies and aids effective implementation of various schemes.

Health Profile will help future policy making to address the new challenges on our health system such as epidemiological and demographic transitions and health-impacting environmental changes.

National Health Resource Repository (NHRR) - Country's first ever national healthcare facility registry of authentic, standardized and

C.A From 18th June to 24th June 2018.

updated geo-spatial data of all public and private healthcare establishments was also launched.

Vision of the NHRR Project :

To strengthen evidence-based decision making and develop a platform for citizen and provider-centric services by creating a robust, standardized and secured IT-enabled repository of India's healthcare resources.

NHRR will be the ultimate platform for comprehensive information of both, Private and Public healthcare establishments including Railways, ESIC, Defense and Petroleum healthcare establishments.

This resource repository shall enable advanced research towards ongoing & forthcoming healthcare challenges arising from other determinants of health like - disease, environment etc.

The Indian Space Research Organisation (ISRO) is the project technology partner adhering to paramount Data Security.

Key expected outcomes of the NHRR project:

To provide comprehensive data on all health resources including private doctors, health facilities, chemists, and diagnostics labs, establish a National Health Resource Repository for evidence based decision making – aligned with Digital India mission.

To enhance the coordination between central and state government for optimization of health resources, making 'live' and realistic state Project Implementation Plans (PIPs) and improving accessibility of data at all levels, including State Head of Departments, thus, decentralize the decision making at district and state level.

Key benefits of the NHRR Project :

To create a reliable, unified registry of Country's healthcare resources showing the distribution pattern of health facilities and services between cities and rural areas.

C.A From 18th June to 24th June 2018.

Additionally, it shall generate real-world intelligence to identify gaps in health and service ratios, and ensure judicious health resource allocation and management.

It shall identify key areas of improvement by upgrading existing health facilities or establishing new health facilities keeping in view the population density, geographic nature, health condition, distance, etc.

Off-shore wind power

To give confidence to the wind industry, the Ministry has declared medium and long term target for off-shore wind power capacity additions, which are 5 GW by 2022 and 30 GW by 2030.

While this may look moderate in comparison to India's on-shore wind target of 60 GW and its achievement of 34 GW and solar target of 100 GW by 2022, this would still be challenging considering the difficulties in installing large wind power turbines in open seas.

It may be mentioned that offshore wind turbines are of much larger dimensions and capacities than onshore turbines.

Offshore wind power would add a new element to the already existing basket of renewable energy for the country.

Steps taken to promote Wind Energy:

The Ministry of New & Renewable Energy had notified National Off-Shore Wind Policy in October 2015 to realize the offshore wind power potential in the country.

Preliminary studies have indicated good wind potential for off-shore wind power both in southern tip of Indian peninsula and west coast.

Two regions where preliminary studies are conducted are off coast of Gujarat and that of Tamil Nadu.

For precise wind quality measurements one LiDAR has been installed near Gujarat coast which is generating data about quality of off-shore wind since November, 2017.

C.A From 18th June to 24th June 2018.

Surveys to understand the oceanographic and sea bed condition within identified zones off the coast of Gujarat and Tamil Nadu have been planned.

Globally there has been installation of about 17 to 18 GW of off-shore wind power led by countries such as UK, Germany, Denmark, Netherlands & China. Recent years have witnessed fall in off-shore wind tariff in some of these markets.

National Digital Library

The Union Human Resource Development Minister, Shri Prakash Javadekar launched the new digital initiative of HRD Ministry '**National Digital Library of India**' on the occasion of National Reading Day in New Delhi today.

About NDL:

This National Digital Library of India (NDLI) is a project of the Ministry of Human Resource Development under the aegis of National Mission on Education through Information and Communication Technology (NMEICT).

NDL is the **Single Window Platform** that collects and collates metadata from premier learning institutions in India and abroad, as well as other relevant sources.

It is a digital repository containing textbooks, articles, videos, audio books, lectures, simulations, fiction and all other kinds of learning media.

National Digital Library is a 24x7 ubiquitous knowledge resource that is accessible to anyone with internet access and it is built to enable the rise of Digital India.

Anybody can access the digital library anytime and anywhere absolutely free of cost and will contribute greatly to the Government's commitment towards "**Padhe Bharat Badhe Bharat**".

NDL is also available on the Mobile app available in three languages – English, Hindi and Bengali.

C.A From 18th June to 24th June 2018.

Objective of NDL:

- To make digital educational resources available to all citizens of the country to empower, inspire and encourage learning. National Digital Library of India is developed by IIT Kharagpur.

India & Tajikistan agree to enhance mutual cooperation for sustainable water development

India and Tajikistan have reaffirmed their commitment to promote bilateral relations and agreed to enhance economic cooperation, particularly in sustainable water development.

Republic of *Tajikistan and United Nations* are also jointly organizing a *high-level Conference on “International Decade for Action: Water for Sustainable Development, 2018-2028”*. The Conference will discuss key water related issues of sustainable development goals adopted by UN member countries.

International Decade for Action on Water for Sustainable Development, 2018-2028:

- In order to accelerate efforts towards meeting water-related challenges, the United Nations General Assembly declared 2018-2028 as the International Decade for Action “Water for Sustainable Development”.
- *The Water Action Decade commenced on World Water Day, 22 March 2018, and will end on World Water Day, 22 March 2028.*

Objectives:

- The objectives of the Decade focus on the sustainable development and integrated management of water resources for the achievement of social, economic and environmental objectives and on the implementation and promotion of related programmes and projects.
- It will also focus on the furtherance of cooperation and partnership at all levels in order to help to achieve

C.A From 18th June to 24th June 2018.

internationally agreed water-related goals and targets, including those contained in the 2030 Agenda for Sustainable Development.

- The Decade also highlights the importance of promoting efficient water usage at all levels, taking into account the water, food, energy, environment nexus; and stresses the importance of the participation and full involvement of all relevant stakeholders, including women, children, young people, older persons, persons with disabilities, indigenous peoples and local communities.

National Dam Safety Bill,

The Union Cabinet, in its meeting chaired by the Prime Minister Shri Narendra Modi on 13.6.18, approved the proposal for introduction of **Dam Safety Bill, 2018** in the Parliament.

The objective of this Bill is to help develop uniform, countrywide procedures for ensuring the safety of dams.

Over the last fifty years, India has invested substantially in dams and related infrastructures, and ranks third after USA and China in the number of large dams. 5254 large dams are in operation in the country currently and another 447 are under construction .

A badly maintained, unsafe dam can be a hazard to human life, flora and fauna, public and private assets and the environment.

About the Bill:

The provisions of the Dam Safety Bill 2018 will empower the dam safety institutional set-ups in both the Centre and States and will also help in standardizing and improving dam safety practices across the country.

The Dam Safety Bill, 2018 addresses all issues concerning dam safety including regular inspection of dams, Emergency Action Plan, comprehensive dam safety review, adequate repair and maintenance funds for dam safety, Instrumentation and Safety Manuals.

It lays the onus of dam safety on the dam owner and provides for penal provisions for commission and omission of certain acts.

C.A From 18th June to 24th June 2018.

Institutional framework

The institutional framework for dam safety as provided under the dam safety bill 2018 includes the following:

National Committee on Dam Safety(NCDS)

The Bill provides for constitution of a **National Committee on Dam Safety** which shall evolve dam safety policies and recommend necessary regulations as may be required for the purpose.

National Dam Safety Authority (NDSA)

The Bill provides for establishment of **National Dam Safety Authority** as a regulatory body which shall discharge functions to implement the policy, guidelines and standards for dam safety in the country.

State Committee on Dam Safety (SCDS)

The Bill provides for constitution of a **State Committee on Dam Safety by State Government.**

State Dam Safety Organization (SDSO)

The Bill provides that every state having specified number of dams will establish a State Dam Safety Organization which will be manned by officials with sufficient experience in the field of dam safety.

OFFENCES AND PENALTIES

The Bill provides for punishment / penalty if the dam safety provisions are not followed

- If a person obstructs any officer/employee or refuses to comply with any direction of the Central/ State Govt or NCDS/ NDSA/ SCDS/ SDSO, the action would be punishable with imprisonment upto 1 year, or/ and fine (2 years for loss of lives)
- If offence by any department of the Govt, the head of the department deemed to be guilty if offence committed with his knowledge.

C.A From 18th June to 24th June 2018.

- If offence by a company/body corporate, every person in charge of/responsible for conduct of business of company, deemed to be guilty.
- No cognizance of offence except on a complaint by Central/ State Govt or NCDS/NDSA/SCDS/SDSO.

Page | 26

US quits UNHRC:

The United States on Tuesday announced its withdrawal from the United Nations Human Rights Council (UNHRC) terming it “hypocritical and self-serving.”

Reason given by US:

U.S. Secretary of State Mike Pompeo and U.S. Ambassador to the United Nations Nikki Haley blamed the UNHRC for bias against Israel and refusing to eject members who are violators of human rights.

Announcing the decision at the State Department, the officials named Russia, China, Cuba and Egypt for thwarting U.S. efforts to reform the Council.

UNHRC was founded in 2006. Then President George W. Bush was dismissive of the body. Under President Barack Obama, the U.S. joined it in 2009.

Concerns:

- Rights groups have criticized the Trump administration for not making human rights a priority in its foreign policy. Critics say this sends a message that the administration turns a blind eye to human rights abuses in some parts of the world.
- The US withdrawal from the body could bolster countries such as Cuba, Russia, Egypt and Pakistan, which resist what they see as UN interference in sovereign issues.

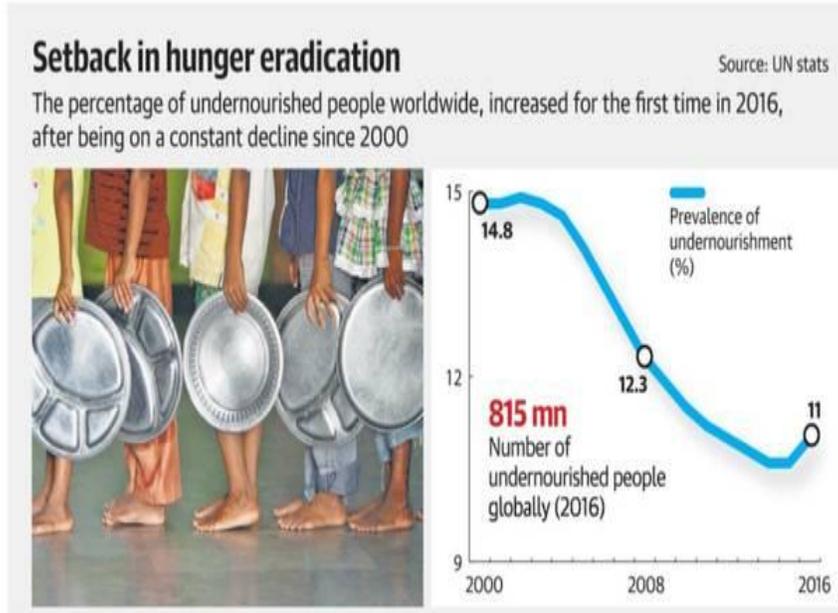
About UNHRC:

C.A From 18th June to 24th June 2018.

- The UN body was established in 2006 with the aim of promoting and protecting human rights around the globe, as well as investigating alleged human rights violations.
- It is made up of 47 member states, which are selected by the UN General Assembly on a staggered basis each year for three-year-long terms.
- Members meet around three times a year to debate human rights issues and pass non-binding resolutions and recommendations by majority vote.
- The council also carries out the Universal Periodic Review of all UN member states, which allows civil society groups to bring accusations of human rights violations in member states to the attention of the UN.
- **UN hunger Report:**
- The number of hungry people in the world has risen for the first time in more than a decade, according to a [United Nations](#) report released on Wednesday.
- There are now approximately 38 million more undernourished people in the world, rising from 777 million in 2015 to 815 million in 2016, the year for which the latest statistics are available.
- **Reasons for increasing hunger:**
- According to the UN's Sustainable Development Goals 2018 report, conflict is now one of the main drivers of food insecurity in 18 countries.
- Conflict, drought and disasters linked to [climate change](#) are among the key factors causing this reversal in progress," said the report.
- Violent conflicts also led to the forced displacement of a record high 68.5 million in 2017.
- [Economic losses](#)
- Noting the increasing impact of extreme events related to a changing climate, the report said economic losses attributed to disasters were estimated at over \$300 billion in 2017.

C.A From 18th June to 24th June 2018.

- This is among the highest losses in recent years, owing to three major hurricanes affecting the United States of America and several countries across the Caribbean.



Page | 28

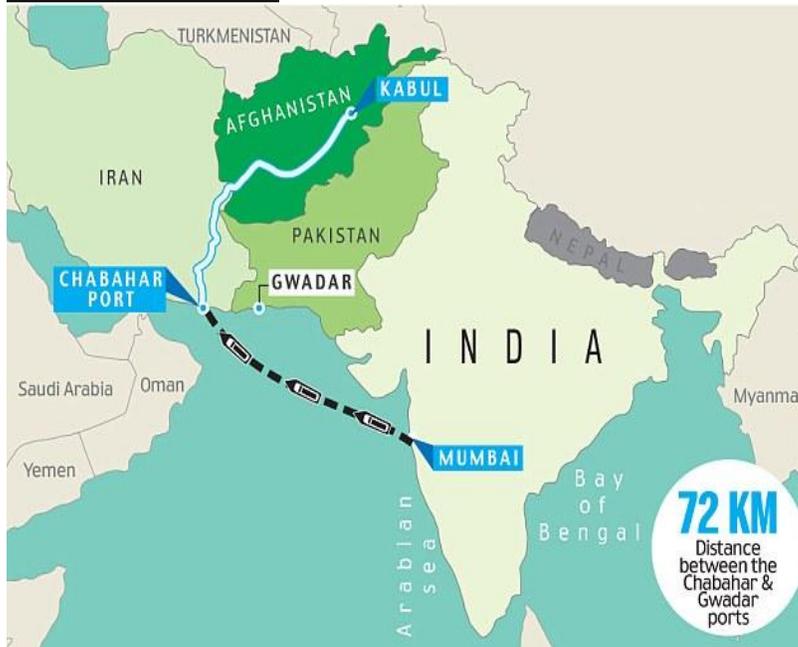
- **Other Developments:**
- South Asia, which includes India, has seen child marriage rates plunge, with a girl's risk of getting married in childhood dropping by 40% from 2000 to 2017.
- On the other hand, water stress levels for many countries in the region are above 70%, indicating fast-approaching water scarcity.
- More than nine out of 10 people living in urban areas around the world are breathing polluted air, with southern Asia scoring the worst in this area.
- While electricity and sanitation deficits in south Asia are still poor, the report noted efforts are being made to close the gap.
- [Sense of urgency](#)
- With just 12 years left to the 2030 deadline, we must inject a sense of urgency," said UN Secretary General Antonio Guterres in the foreword to the report.
- Achieving the 2030 Agenda requires accelerated actions by countries along with collaborative partnerships among governments and stakeholders at all levels.

C.A From 18th June to 24th June 2018.

- This ambitious agenda necessitates profound change that goes beyond business as usual.
-
- **India Trying to Make Chabahar Port in Iran Operational by 2019**
- Shri Nitin Gadkari, the Union Minister for Water Resources, River Development & Ganga Rejuvenation, Road Transport & Highways and Shipping said in Dushanbe yesterday, that India is trying to make Chabahar Port in Iran operational by 2019.

Page | 29

About Chabahr Port:



- **Chabahar Port** is a [seaport](#) in Chabahar located in southeastern Iran, on the [Gulf of Oman](#).
- It serves as Iran's only oceanic port, and consists of two separate ports named *Shahid [Kalantari](#)* and *Shahid [Beheshti](#)*, each of which has five berths.
- The [India-Iran-Afghanistan](#) three-way [memorandum of understanding](#) (MoU) plans have committed at least \$21bn to [Chabahar-Hajigak corridor](#), including \$85m for Chabahar port development by India,

C.A From 18th June to 24th June 2018.

- \$150m line of credit by India to Iran,
- \$8bn India-Iran MoU for Indian industrial investment in Chabahar Special Economic Zone, \$11-billion [Hajigak](#) iron and steel mining project awarded to seven Indian companies in central Afghanistan,
- and India's \$2bn commitment to Afghanistan for developing supporting infrastructure including the *Chabahar-Hajigaj railway*, with potential for several times more trade via connectivity to 7,200-km-long multi-mode [North-South Transport Corridor](#) (INSTC) connecting to Europe and Turkey, [R297 Amur highway](#) and [Trans-Siberian Highway](#) across Russia, and planned Herat to Mazar-i-Sharif railway providing access to [Turkmenistan](#), [Uzbekistan](#), [Tajikistan](#) and [Kyrgyzstan](#).
- **Benefits to India:**
- Chabahar Port also provides direct access to India's [Farkhor Air Base](#) in Tajikistan.
- Chabahar route will result in 60% reduction in shipment costs and 50% reduction in shipment time from India to [Central Asia](#).
- The trilateral transit agreement signed by India, Iran and Afghanistan allows Indian goods to reach Afghanistan through Iran.
- It links ports in the western coast of India to the Chabahar port and covers the road and rail links between Chabahar and the Afghan border

General Studies-3

GST leads to Formalization of Economy and Widening of Tax Base

Historic tax reform, the Goods and Service Tax (GST), has resulted in formalization of economy and consequently information flow would eventually augment not only the Indirect Tax collections but also Direct Tax collections.

C.A From 18th June to 24th June 2018.

How did GST helped?

In the past, the Centre had little data on small manufacturers and consumption because the excise was imposed only at the manufacturing stage while the States had little data on the activities of local firms outside their borders.

Under the GST, there will be now seamless flow of availability of common set of data to both the Centre and the States making Direct and Indirect Tax collections more effective.

There are early signs of tax base expansion. Between June and July 2017, 6.6 lakh new agents, previously outside the tax net, sought GST registration.

This is expected to rise consistently as the incentives for formalization increase.

Further, a segment of land and real estate transactions has also been brought into tax net.

This in turn would allow for greater transparency and formalization of cement, steel and other sales which earlier tended to be outside the tax net.

The formalization will occur because builder will need documentation of these input purchases to claim tax credit.

Objectives of GST:

The introduction of GST, a common Indirect Tax for both the States as well as the Central Government with its end to end digitization of all processes, is the biggest reform measure which is already creating more jobs in formal sector and eliminating transactions which are not recorded earlier in the books of accounts and thus, were outside the tax net so far.

GST is designed to bring about better tax compliance and transparency in tax system.

C.A From 18th June to 24th June 2018.

It is putting a premium on honesty. It would make increasingly difficult for those (who are liable to pay tax) to remain outside the tax net.

Trial of Dhanush Completed:

The indigenously upgraded artillery gun Dhanush has successfully completed final user trials and is ready for induction into the Army.

Dhanush is an upgraded version of the Swedish Bofors gun procured by India in the mid-1980s.

This was the third and final phase of user exploitation firings in which six Dhanush guns were fired in battery formation from May 31 to June 7, 2018 at the Pokhran field firing range.

The first phase of trials were conducted between July and September 2016 at the Pokhran and Babina ranges and the second phase was conducted between October and December 2016 at the Siachen base camp with three guns.

Tested in all terrains

During the trials, the guns travelled extensively in towed/ self-propelled mode in desert and high-altitude terrains with each gun clocking over 1,000 km demonstrating their mobility.

About Dhanush:

Indigenous firepower

A look at Dhanush, an upgraded version of the Swedish Bofors gun which was procured by India in the mid-1980s



It is a 155-mm, 45-calibre gun with a range of 36 km, and has demonstrated a range of 38 km with specialised ammunition. It is also compatible with all North Atlantic Treaty Organisation (NATO) 155 mm ammunition systems

SPECIFICATIONS

Length 45 caliber

Crew 6-8

Caliber* 155 mm

Breech: Screw type

Recoil: Electro-rheological/
Magneto-rheological

Elevation: -3 to 70 degree

RATE OF FIRE

Burst: 3 rounds in 15 seconds

Intense: 15 rounds in 3 minutes

Sustained: 60 rounds in 60 min

Maximum firing range 38 km

*(DIAMETER OF THE PROJECTILE IT SHOOTS)

As of now, the gun has over 80% indigenous content.

The imported systems include the power pack, parts of the electronic suite, and some seals and bearings.

RBI alters 'relative' definition

Why in News?

Concerned over funds sent abroad under the 'maintenance of close relative' category of the Liberalised Remittance Scheme (LRS), the Reserve Bank of India (RBI) has narrowed the definition of relatives to check the flow of funds.

The new definition:

RBI has aligned the definition of 'relative' with the definition given in Companies Act, 2013 instead of Companies Act, 1956. Hence, funds under the 'maintenance of close relative' category can be sent only to immediate relatives such as parents, spouses, children and their spouses.

C.A From 18th June to 24th June 2018.

What necessitated this move?

Outward remittances under maintenance of close relatives shot up to almost \$3 billion in 2017-18 from a mere \$174 million in 2013-14. In fact, funds sent under this category have more than doubled since 2015-16. Overall outward remittances under LRS went up to \$11 billion from \$1 billion in the same period.

About Liberalised Remittance Scheme (LRS):

Under LRS, all resident individuals can freely remit \$250,000 overseas every financial year for a permissible set of current or capital account transactions.

Permitted: Remittances are permitted for overseas education, travel, medical treatment and purchase of shares and property, apart from maintenance of relatives living abroad, gifting and donations. Individuals can also open, maintain and hold foreign currency accounts with overseas banks for carrying out transactions.

Not permitted: However, the rules do not allow remittances for trading on the foreign exchange markets, margin or margin calls to overseas exchanges and counterparties and the purchase of Foreign Currency Convertible Bonds issued by Indian companies abroad. Sending money to certain countries and entities is also barred. Under LRS, people can't send money to countries identified as 'non cooperative' by the Financial Action Task Force. Remittances are also prohibited to entities identified as posing terrorist risks.

Fifth Data Center to be Opened:

The Centre will set up the country's biggest data centre in Bhopal with a capacity to host five lakh virtual servers, Electronics and IT Minister Ravi Shankar Prasad said on Monday.

The data centre, which will take about two years to come up, will be set up by the National Informatics Centre (NIC), under the Ministry of Electronics and Information Technology (MeitY).

C.A From 18th June to 24th June 2018.

This will be the fifth National Data Centre after the ones at Bhubaneswar, Delhi, Hyderabad and Pune. These National Data Centres host government websites, services and applications.

What is the Need for Data Center?

India's digital ecosystem has got a momentum of its own and this process is going to be irreversible.

- As far as data privacy is concerned, we have always said that data must be protected, and India should become a good centre of data analysis..
- With the increased expectations from citizens for online services and the number of e-Governance Projects being launched by the Government, the Data Centre requirements are growing exponentially. There is a need to set up strategic infrastructure that facilitates high availability, quick scalability, efficient management & optimized utilization of resources.
- *To fulfil this requirement, NIC has set up state-of-the-art National Data Centres to provide services to the Government at all levels.* These Data Centres combine round-the-clock operations and management of systems with onsite skilled personnel. The National Data Centres host Government websites, services and apps.

About NIC

NIC, under the Department of Information Technology of the Government of India, is a premier Science and Technology Organization, at the forefront of the active promotion and implementation of Information and Communication Technology (ICT) solutions in the government.

[New Spider Species Discovered](#)

Scientists rediscovered after 150 years a rare species of spider, which was believed have become extinct, from Wayanad Wildlife Sanctuary (WWS) located in the Western Ghats region of Kerala.

C.A From 18th June to 24th June 2018.

About the Spider:

The spider belonged to the family of jumping spiders (Salticidae) and scientifically named as *Chrysilla volupes* .

There are iridescent bluish scales present in the top of head region of female and orange bands on both sides of the head. Dorsal surface of abdomen is shiny bluish black.

There are black annulations on the yellowish legs.

Eight black eyes are arranged in the front and sides of head region. Compared to female, male is lean.

About WWS:

Wayanad Wildlife Sanctuary) is an [animal sanctuary](#) in [Wayanad, Kerala, India](#).

It has an extent of 344.44 km² with four ranges namely Sulthan Bathery, Muthanga, Kurichiat and Tholpetty.

A variety of large wild animals such as [Indian bison](#), [elephant](#), [deer](#) and [tiger](#) are found there.

There are also quite a few unusual birds in the sanctuary.

In particular, [peafowl](#) tend to be very common in the area.

Wayanad Wildlife Sanctuary is the second largest wildlife sanctuary in Kerala.

Established in 1973, the sanctuary is now an integral part of the [Nilgiri Biosphere Reserve](#).

It is bounded by protected area network of [Nagarhole](#) and [Bandipur](#) of [Karnataka](#) in the northeast, and on the southeast by [Mudumalai](#) of [Tamil Nadu](#).

C.A From 18th June to 24th June 2018.

[World's oldest Sumatran orangutan dead](#)

The world's oldest known Sumatran orangutan has died in an Australian zoo aged 62, leaving behind 54 descendants, authorities said on Tuesday. Puan, described as the "grand old lady" of Perth Zoo, was euthanised on Monday due to age-related complications.

She had been at the zoo since 1968, and was officially recognised by Guinness World Records as the oldest of her species in 2016.

A *critically endangered species*, Sumatran orangutans rarely reach age 50 in the wild.

About Sumatran Orangutan:

The **Sumatran orangutan** (*Pongo abelii*) is one of the three species of [orangutans](#).

Found only in the north of the Indonesian island of [Sumatra](#), it is rarer than the [Bornean orangutan](#) but more common than the recently identified [Tapanuli orangutan](#), also of Sumatra.

Its common name is based on two separate local words, "orang" ("people" or "person") and "hutan" ("forest"), and translates as 'person of the forest'.

As of 2015, the Sumatran orangutans species only has approximately 7000 remaining members in its population.

The [World Wide Fund for Nature](#) is thus carrying out attempts to protect the species by allowing them to reproduce in the safe environment of captivity.

Invasive alien plants:

Why in News?

The Forest and Wildlife Department will launch a special drive with the support of the public to curb the wild growth of invasive alien plants which are posing a threat to the flora and fauna in the Wayanad Wildlife Sanctuary (WWS), a major habitat of Asiatic elephants in the country.

C.A From 18th June to 24th June 2018.

The spread of the exotic plants, including *Senna spectabilis*, *Maesopsis eminii*, *Mikania micrantha*, Lantana and Eupatorium, was posing a serious threat to the region.

Senna spectabilis is more dangerous than other exotic species owing to its fast growth.

Nearly 3,000 sq km of the region, including three forest divisions in Wayanad contiguous with the Nagarhole National Park and the Bandipur Tiger Reserve in Karnataka and the Mudumalai Tiger Reserve in Tamil Nadu, is infested with the invasive plants.

Sanctuary officials have launched an eco-restoration drive in the Kakkapadam forest area under the Muthanga forest range of the sanctuary, sources said.

What is IAS?

Invasive alien species (IAS) are species whose introduction and/or spread outside their natural past or present distribution threatens biological diversity.

IAS occur in all taxonomic groups, including animals, plants, fungi and microorganisms, and can affect all types of ecosystems.

While a small percentage of organisms transported to new environments become invasive, the negative impacts can be extensive and over time, these additions become substantial.

Foreign Direct Investment (FDI) in the mining sector

The Union Government has allowed 100 per cent Foreign Direct Investment (FDI) in the mining sector and exploration of metal and non-metal ores under the automatic route, which will propel growth of this sector.

C.A From 18th June to 24th June 2018.

Reasons for Liberalization:

Demand for iron and steel is set to grow, given the strong growth expectations for the residential and commercial building industry.

Exploration of the deep seated minerals needs to be focused.

Lot of work needs to be done and private sector must play role in exploration

There is large number of small players in the mining business. Now the time has come for the consolidation, either through consortium of miners.

In our country there is lot of low grade minerals. For example, bauxite reserve in Orissa, however there is huge reserve of low grade bauxite in Maharashtra and Gujarat also.

India is deficient in lithium and cobalt. These two minerals are required for electric vehicle which is one of the major missions of Government of India.

The government has initiated a proposal where NALCO, Hindustan Copper and MECL will form a joint venture to acquire lithium and cobalt mines abroad.

Panama Papers

Why in News?

The Finance Ministry said in a statement on Thursday, “The fresh release made in the media today under the ‘Panama Paper Leaks’ is being promptly looked into by the law enforcement agencies, under the aegis of the MAG already constituted for facilitating coordinated and speedy investigation.”

C.A From 18th June to 24th June 2018.

What are Panama Papers?

The **Panama Papers** are 11.5 million [leaked](#) documents that detail financial and attorney–client information for more than 214,488 [offshore](#) entities.

The documents, some dating back to the 1970s, were created by, and taken from, Panamanian law firm and [corporate service](#) provider [Mossack Fonseca](#), and were leaked in 2015 by an anonymous source.

The documents contain personal financial information about wealthy individuals and public officials that had previously been kept private.

While offshore business entities are legal , reporters found that some of the Mossack Fonseca [shell corporations](#) were used for illegal purposes, including [fraud](#), [tax evasion](#), and evading [international sanctions](#).

Discovery of a Sub-Saturn like Planet around a Sun-like star

A Team of scientists and engineers led by Prof. Abhijit Chakraborty of Physical Research Laboratory (PRL), Ahmedabad, discovered a sub-Saturn or super-neptune size planet (mass of about 27 Earth Mass and size of 6 Earth Radii) around a Sun-like star.

The planet will be known as EPIC 211945201b or K2-236b.

The discovery was made by measuring the mass of the planet using the indigenously designed “PRL Advance Radial-velocity Abu-sky Search” (PARAS) spectrograph integrated with 1.2m Telescope at PRL's Gurushikhar Observatory in Mount Abu, India.

Only 23 such planetary systems (including this discovery) are known to this date with masses between 10 and 70 Earth mass and size of 4 to 8 Earth radii with such precise measurement of mass.

This discovery is very important for understanding the formation mechanism of such super-Neptune or sub-Saturn kind of planets, that are too close to the host star and as well as planet formations around Sun-like stars.

C.A From 18th June to 24th June 2018.

With this discovery, India has joined a handful of countries, which have discovered planets around stars beyond our solar system.

About PARAS:

Further, PARAS is the first of its kind spectrograph in Asia, which can measure the mass of a planet going around a star.

Very few spectrographs exist around the world that can do such precise measurements.