

NEWS ANALYSIS

For Civil Services Exams

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Lead Article

When 2 rivers are legally living persons: some rights, some questions

For judicial purposes, living persons are “juristic persons” to which the law attributes personality for

On March 20 this year, Uttarakhand High Court declared that the rivers Ganga and Yamuna would be legally treated as “living people,” and as such, would enjoy “all corresponding rights, duties and liabilities of a living person.”

Five days earlier, for the first time in the world, a river in New Zealand, the Whanganui, was granted legal rights as a human being. It was a culmination of over a decade-long effort by the local Maori tribe. “The reason we have taken this approach is because we consider the river as an ancestor and always have,” the lead negotiator for the Whanganui iwi (tribe) told The Guardian.

In India, a division bench comprising Justice Alok Singh and Justice Rajiv Sharma, while adjudicating on a land acquisition case, observed that apart from a spiritual connect that Hindus share with the two rivers, the Ganga and Yamuna are central to the existence of half of the Indian population.

“The rivers have provided both physical and spiritual sustenance to all of us from time immemorial... They support and assist both the life and natural resources and health and well-being of the entire community. Rivers Ganga and Yamuna are breathing, living and sustaining communities from mountains to sea,” the bench opined.

For judicial purposes, living persons are “juristic persons” — any subject matter other than a human being — to which the law attributes personality for good and sufficient reasons. In other words, “for a bigger thrust of socio-political-scientific development, evolution of a fictional personality to be a juristic person becomes inevitable.”

Citing precedents [1969 (1) SCC 555 of *Yogendra Nath Naskar v Commission of Income Tax, Calcutta*] in which Hindu idols have been considered as a “juristic entity capable of holding property and of being taxed,” the division bench of Uttarakhand High Court, noted that with the development of society where the “interactions of individuals fell short to upsurge the social development, the concept of juristic person was

devised and created by human laws for the purposes of the society.”

The bench cited Articles 48 (A) — the state’s responsibility with respect to environment protection — and Article 51 A (g) — the fundamental duties of every citizen to protect and improve the natural environment — as grounds to pass such a judgment.

There is though a fundamental difference between New Zealand’s recognition of their third largest river as a living entity and that of Uttarakhand High Court according the status to two of India’s prominent rivers. It has led to questions being raised by various stakeholders here.

It pertains to the custodians appointed to act on behalf of the rivers. New Zealand has appointed two guardians — one from the crown and one from the Whanganui iwi tribe itself. In India, the three custodians are solely government authorities: the chief secretary of the state of Uttarakhand, the advocate general of the state of Uttarakhand and the director of the National Mission for Clean Ganga (NMCG).

These three, the bench noted, will serve as “the human face to protect, conserve and preserve the rivers and their tributaries” and the advocate general will represent all legal proceedings to protect the interest of the rivers.

Simply put, the conceptual and practical implication of the judgment is that it makes it easier for the three chosen authorities to take action against those who pollute the river.

Activists point to the lack of local representatives as custodians of the rivers and say that the judgment instead allows the polluter — which in several instances is the government itself — to act as custodians. “We think the judgment is actually directed just at policymakers and not the larger public,” Mallika Bhanot from Ganga Avahan, an NGO working for the conservation of Ganga, said. “The state of Uttarakhand should not be made custodians, they should be held responsible.”

The Uttarakhand government too is seeking clarity on the March 20 order. It recently said that it plans to approach the Supreme Court in this regard. The state government contends that since the river flows through five states, it could lead to “technical, geographical and administrative issues” in the implementation of the order. How can the chief secretary of Uttarakhand be held accountable if the river is

polluted in West Bengal, Bihar, Jharkhand or Uttar Pradesh, the state wants to know.

And two months after the order, the office of another of the custodians, the National Mission for Clean Ganga, has sought legal advice from the law ministry. "We want to know what implications it has for us?" an NMCG official said, adding the file has been stalled since the matter is sub-judice. The Ministry of Water Resources might extend this order to examine all other rivers in India too, he added.

National News

Survival of newborns: India ranks lower than Somalia

Healthcare access and quality index (HAQ), part of the Global burden of diseases has been released. The HAQ Index is based on death rates from 32 ailments that could be avoided by timely medical intervention.

What you need to know about GBD?

The Global Burden of Diseases, Injuries, and Risk Factors study is put together by the Institute for Health Metrics and Evaluation (IHME), an independent population health research centre associated with the University of Washington, along with a consortium of 2,300 researchers in more than 130 countries.

Performance of India:

- India is at 154th among 195 countries.
- India's healthcare access and quality (HAQ) index has increased by 14.1, up from 30.7 in 1990 to 44.8 in 2015.
- India lags behind Sri Lanka (72.8), Bangladesh (51.7), Bhutan (52.7) and Nepal (50.8) and ranks above Pakistan (43.1) and Afghanistan (32.5).
- As per the study, India has performed poorly in tackling cases of tuberculosis, diabetes, chronic kidney diseases and rheumatic heart diseases.
- The journal lists India among the biggest underachievers in Asia in health care access.
- The top five performers were Andorra (94.6), Iceland (93.6), Switzerland (91.8), Sweden (90.5), and Norway (90.5).
- Among the developed nations, those who did not perform well include the US and the UK.

Karnataka child marriage Bill finally gets President's nod

President Pranab Mukherjee has given his assent to the long-pending Prohibition of Child

Marriage (Karnataka amendment) Bill, 2016, giving greater powers to the police and increasing the penalty for child marriage.

What you need to know about the bill?

The amended Bill seeks to ensure zero tolerance towards child marriage, granting powers to policemen and enhancing penalties for those attending wedding ceremonies of minors. While the original legislation does not prescribe a minimum punishment for offenders, the amendment proposes rigorous imprisonment of one year. It also enables any police officer to take cognizance of the offence.

The Bill was drafted based on the recommendations of a core committee headed by Shivaraj V. Patil, former Supreme Court judge. Karnataka is among the States that record a high number of child marriages in the country (about 23% of the total, according to a recent survey).

Background:

The Bill was amended last year by the State Assembly and sent to the Centre. The Home Ministry, which acts as an administrative ministry for State Bills and legislation, after consulting other Central ministries, forwarded the Bill to the Presidential secretariat, sources in the State secretariat said. The State had been urging the Centre to pass the Bill at the earliest, in order to help it to eradicate the menace of child marriage in the next few years.

A large number of child marriage cases are reported from north Karnataka, including Dharwad, Belagavi, Bagalkot, Koppal, Raichur and Vijayapura districts.

'SEVA' App

The government has launched the Saral Eindhyan Vitaran Application (SEVA), developed **in-house by Coal India Limited (CIL)** for power sector consumers.

What you need to know about the app?

SEVA is a part of 'Digital India' initiative, which is **aimed at increasing the Consumer Connect as well as the Transparency and Accountability in Coal dispatch.**

The SEVA Dashboard provides summary of quantity of coal dispatched along with grades for the given day, month, and the latest yearly updates as well. It also provides information on rake movement including latest status of indents of rake, allotment and loading. This would help consumers making advance logistics planning.

The app has a dedicated backend team to monitor the status of specific grievances from consumers and take action on the feedback received on the

app. While much of the information on the SEVA Dashboard is available in open access, consumer specific data would be password protected.

Significance of this app:

The consumer friendly mobile app helps in tracking of coal dispatch to 118 Power Plants through Fuel Supply Agreement (FSA) of around 500 MT besides, dispatch through Special Forward E-Auction and Bridge Linkage from more than 200 dispatch points spread over eight states of the country.

By using this app the common man would be able to hold the Government accountable for the coal linkage allocations and would be able to check any pilferage or inefficiencies in coal consumption for power generation. This would, in turn, lead to rationalization of coal linkages and finally reduction in the power prices in the country. In near future, non-power sector mines would also be added in this App.

Preference to 'Make in India' in Government procurements

The Union Cabinet has approved a policy for providing preference to 'Make in India' in government procurements.

What you need to know about the new policy?

- The policy will be implemented through an Order pursuant to Rule 153(iii) of the General Financial Rules, 2017 to provide purchase preference (linked with local content) in Government procurements.
- Under the policy, preference in Government procurement will be given to local suppliers. Local suppliers are those whose goods or services meet prescribed minimum thresholds (ordinarily 50%) for local content. Local content is essentially domestic value addition.
- In procurement of goods for Rs. 50 lakhs and less, and where the Nodal Ministry determines that there is sufficient local capacity and local competition, only local suppliers will be eligible.
- For procurements valued at more than Rs. 50 lakhs (or where there is insufficient local capacity/ competition) if the lowest bid is not from a non-local supplier, the lowest-cost local supplier who is within a margin of 20% of the lowest bid, will be given the opportunity to match the lowest bid.
- If the procurement is of a type that the order can be divided and given to more than one supplier, the non-local supplier who is the lowest bidder will get half of the order and the

local supplier will get the other half if it agrees to match the price of the lowest bid. If the procurement cannot be divided, then the lowest cost local supplier will be given the order if it agrees to match the lowest bid.

- Small purchases of less than Rs.5 lakhs are exempted. The order also covers autonomous bodies, government companies/ entities under the government's control.
- The policy also requires that specifications in tenders must not be restrictive e.g. should not require proof of supply in other countries or proof of exports in respect of previous experience. They must not result in unreasonable exclusion of local suppliers who would otherwise be eligible, beyond what is essential for ensuring quality or creditworthiness of the supplier.
- The policy lays down a procedure for verification of local content relying primarily on self-certification. There will be penal consequences for false declarations. In some cases, verification by statutory / cost auditors etc. will be required.
- A Standing Committee in Department of Industrial Policy and Promotion will oversee the implementation of this order and issues arising therefrom, and make recommendations to Nodal Ministries and procuring entities.

Significance of this move:

The new policy will give a substantial boost to domestic manufacturing and service provision, thereby creating employment. It will stimulate the flow of capital and technology into domestic manufacturing and services.

It will also provide a further thrust towards manufacture of parts, components, sub-components etc. of these items, in line with the vision of 'Make in India'.

Cabinet approves phasing out Foreign Investment Promotion Board

The Union Cabinet has given its approval to the phasing out of Foreign Investment Promotion Board (FIPB). The proposal entails abolishing the FIPB and allowing administrative Ministries/Departments to process applications for FDI requiring government approval.

Phasing out of Foreign Investment Promotion Board

- Cabinet approves phasing out of Foreign Investment Promotion Board
- Now on, the work relating to processing and approval of applications for FDI will be handled by concerned Ministries/Departments
- In consultation with Department of Industrial Policy & Promotion, Ministry of Commerce
- Which will issue Standard Operating Procedure for processing of applications and decision of the Government under FDI policy
- Will improve attractiveness of India as an investment destination & result in more FDI inflow
- Will improve ease of doing business
- Will promote Minimum Government, Maximum Governance

Who will perform FIPB’s duties?

Henceforth, the work relating to processing of applications for FDI and approval of the Government thereon under the extant FDI Policy and FEMA, shall now be handled by the concerned Ministries/Departments in consultation with the Department of Industrial Policy & Promotion(DIPP), Ministry of Commerce, which will also issue the Standard Operating Procedure (SOP) for processing of applications and decision of the Government under the extant FDI policy.

Significance of this move:

With this, Foreign Investors will find India more attractive destination and this will result in more inflow of FDI. The move will provide ease of doing business and will help in promoting the principle of Maximum Governance and Minimum Government.

About FIPB:

The Foreign Investment Promotion Board (FIPB), housed in the Department of Economic Affairs, Ministry of Finance, is an inter-ministerial body, responsible for processing of FDI proposals and making recommendations for Government approval.

Main tasks:

- It considers and recommends foreign direct investment (FDI) which does not come under the automatic route.
- It provides a single window clearance for proposals on FDI in India.

FIPB comprises of the following Secretaries to the Government of India:

- Secretary to Government, Department of Economic Affairs, Ministry of Finance – Chairperson
- Secretary to Government, Department of Industrial Policy & Promotion, Ministry of Commerce & Industry
- Secretary to Government, Department of Commerce, Ministry of Commerce & Industry
- Secretary to Government, Economic Relations, Ministry of External Affairs
- Secretary to Government, Ministry of

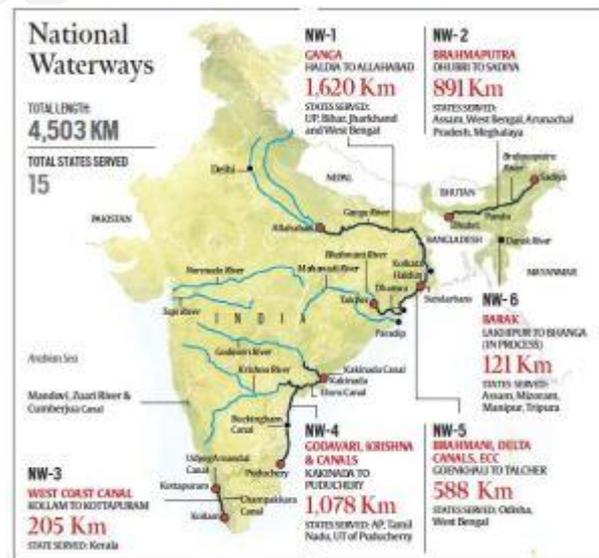
Overseas Indian Affairs.

On what basis decisions on FDI are taken by the FIPB?

The extant FDI Policy, Press Notes and other related notified guidelines formulated by Department of Industrial Policy and Promotion (DIPP) in the Ministry of Commerce and Industry are the bases of the FIPB decisions.

Fund for development and maintenance of National Waterways (NWs)

The Union Cabinet has accorded its approval today to a proposal jointly mooted by the Ministry of Shipping and the Ministry of Road Transport & Highways (MoRTH) for amendment of Central Road Fund Act, 2000 to allocate 2.5% of the proceeds of Central Road Fund (CRF) for development and maintenance of National Waterways (NWs) and a reduction in the share provided for development of National Highways. In this regard, the Central Road Fund (Amendment) Bill, 2017 would be moved by the Ministry of Road Transport & Highways in the ensuing Monsoon Session, 2017 of the Parliament.



Significance of this move:

The Inland Waterways Authority of India (IWAI) has estimated that approximately Rs. 25,000 crores would be required for development of identified projects on NWs till 2022-23. An allocation of 2.5% of CRF proceeds would provide approximately Rs.2000 crore per annum for the development and maintenance of NWs at existing rates of duties funding the CRF.

What you need to know about Central Road Fund?

The Central Road Fund was established by the government as per the Central road fund act

2000 to fund the development and maintenance of National Highways, State Highways and Rural roads.

- In order to mobilise the fund, the Central Road Fund Act 2000 proposed to levy and collect by way of cess, a duty of excise and duty of customs on petrol and high speed diesel oil.
- The fund is utilised for the development and maintenance of National highways, State roads, Rural roads and for provision of road overbridges/under bridges and other safety features at unmanned Railway Crossings.

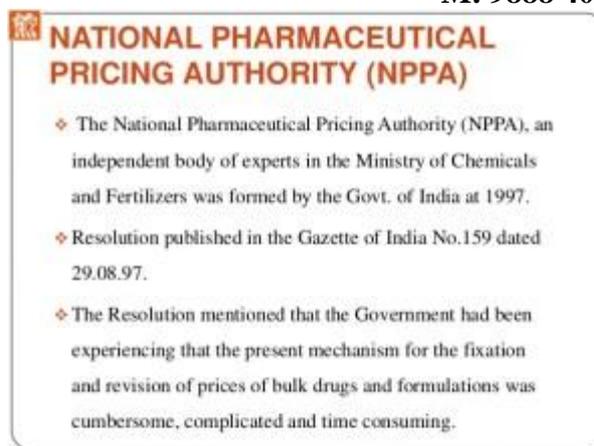
Dhola sadiya:

- It is the country's longest bridge located in Assam. It was recently inaugurated by PM Modi.
- This new, three lane, 9.15 kilometre bridge has been built over river Lohit, a tributary of the Brahmaputra, linking Dhola to Sadiya in Assam.
- It has been constructed on BOT Annuity basis at a total cost of Rs 2,056 crore, as part of the Arunachal Package of Roads and Highways under the Ministry's Special Accelerated Development Programme for North East (SARDP-NE). The objective was to bring the people of Assam and Arunachal Pradesh closer to each other.
- The bridge will also reduce the distance from Rupai on NH- 37 in Assam to Meka/Roing on NH-52 in Arunachal Pradesh by 165 KM. The travel time between the two places will come down from the current six hours to just one hour – a total five hour reduction. This will result in saving of petrol and diesel worth Rs 10 Lakh per day.

Prices of 31 more drugs capped

The National Pharmaceutical Pricing Authority (NPPA) has capped the prices of 31 more drugs.

- The notification brings under price control intrauterine devices used for birth control; Factor VIII, a life-saving medicine for haemophilic patients; morphine, a pain killer; and rifampicin, a powerful antibiotic used to treat infections such as tuberculosis and leprosy.
- With these 31 drugs, the NPPA has brought 791 medicines under price control. There are 829 drugs on the National List of Essential Medicines, 2015, all of which will be brought under price control.



Background:

The NPPA periodically revises prices of essential medicines under the Drug (Pricing Control) Order (DPCO) that has about 650 formulations under it. These prices can be increased by companies by a maximum of 10% depending on inflation.

National Pharmaceutical Pricing Authority (NPPA):

NPPA is an organization of the Government of India which was established, inter alia, to fix/revise the prices of controlled bulk drugs and formulations and to enforce prices and availability of the medicines in the country, under the Drugs (Prices Control) Order, 1995.

The organization is also entrusted with the task of recovering amounts overcharged by manufacturers for the controlled drugs from the consumers. It also monitors the prices of decontrolled drugs in order to keep them at reasonable levels.

Functions of National Pharmaceutical Pricing Authority:

- To implement and enforce the provisions of the Drugs (Prices Control) Order in accordance with the powers delegated to it.
- To deal with all legal matters arising out of the decisions of the Authority.
- To monitor the availability of drugs, identify shortages, if any, and to take remedial steps.
- To collect/ maintain data on production, exports and imports, market share of individual companies, profitability of companies etc, for bulk drugs and formulations.
- To undertake and/ or sponsor relevant studies in respect of pricing of drugs/ pharmaceuticals.
- To recruit/ appoint the officers and other staff members of the Authority, as per rules and procedures laid down by the Government.
- To render advice to the Central Government on changes/ revisions in the drug policy.

- To render assistance to the Central Government in the parliamentary matters relating to the drug pricing.

Important Decision of NCST

National Commission for Scheduled Tribes (NCST) has asked the Department of Personnel and Training to constitute a committee having minimum of two members from ST community to investigate any matter requiring penalty on employees belonging to Scheduled Tribes community.

- As per the recommendations of the commission if ST officers are not available in the Department or Ministry then ST officers from other Departments may be included in the committee.
- The commission has also asked the Department of Personnel and Training to issue instructions to all Departments and Ministries so that they take necessary action on the recommendations of NCST. If the Department face any problem than before approaching the High Court they should take permission of the concerned Ministry.

About NCST:

NCST as established by amending Article 338 and inserting a new Article 338A in the Constitution through the Constitution (89th Amendment) Act, 2003. By this amendment, the erstwhile National Commission for Scheduled Castes and Scheduled Tribes was replaced by two separate Commissions namely- (i) the National Commission for Scheduled Castes (NCSC), and (ii) the National Commission for Scheduled Tribes (NCST).

- The term of office of Chairperson, Vice-Chairperson and each member is three years from the date of assumption of charge. The Chairperson has been given the rank of Union Cabinet Minister and the Vice-Chairperson that of a Minister of State and other Members have the ranks of a Secretary to the Government of India.
- NCST is empowered to investigate and monitor matters relating to safeguards provided for STs under the Constitution or under other laws or under Govt. order. The Commission is also authorized to inquire into specific complaints relating to rights and safeguards of STs and to participate and advise in the Planning Process relating to socio-economic development of STs and to evaluate the progress of their development under the Union and States.
- The commission submits its report to the President annually on the working of safeguards and measures required for effective

implementation of Programmers/ Schemes relating to welfare and socio-economic development of STs

North Eastern Council

Plenary of the North Eastern Council was recently held under the chairmanship of Union Minister of State (Independent Charge) for Development of North Eastern Region (DoNER) Dr. Jitendra Singh.

Know about North Eastern Council:

In 1971, the Indian Central government set up the North Eastern Council by an Act of Parliament. The eight States of North East India viz. Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura and Sikkim, are members of the council, with their respective Chief Ministers and Governors representing them. Sikkim was added to the council in the year 2002. The headquarters of the council is situated in Shillong and functions under the Ministry of Development of North Eastern Region of the (Government of India).

- The Council is an advisory body and may discuss any matter in which the North Eastern States have a common interest and advise the Central Government as to the action to be taken on any such matter. This was done so as to take care of the economic and social planning of these states, as well as to provide mediation in the event of inter-State disputes.

SEBI targets participatory note norms

The Securities and Exchange Board of India (SEBI) plans to further tighten norms for issuance of offshore derivative instruments (ODIs) and participatory notes (PNs) as part of its overall effort to reduce the exposure investors take via such instruments in the Indian equity market.

Proposals:

SEBI has proposed levying a regulatory fee of \$1,000 on every foreign portfolio investor (FPI) that issues ODIs or PNs. SEBI-registered FPIs will have to pay this fee once every three years for each of their ODI subscribers.

The regulator has also proposed to prohibit ODIs from being issued against derivatives for speculative purposes. Currently, ODIs are issued against derivatives along with equity and debt.

What you need to know about P notes?

Participatory notes are the financial instruments through which individual foreign investors or hedge funds who do not want to disclose their identity can invest in Indian markets.

Registered foreign institutional investors (FIIs), foreign banks and brokerages based in India issue

P-notes to foreign investors and invest in Indian stocks on their behalf. Any dividends or capital gains collected from the underlying securities go back to the investors.

What are govt & regulator's concerns?

The primary reason why P-Notes are worrying is because of the anonymous nature of the instrument as these investors could be beyond the reach of Indian regulators. Further, there is a view that it is being used in money laundering with wealthy Indians, like the promoters of companies, using it to bring back unaccounted funds and to manipulate their stock prices.

International Comparison Programme (ICP)

India is participating in the current phase of International Comparison Programme (ICP) with reference to 2017.

What you need to know about International Comparison Programme?

The ICP is a worldwide statistical initiative led by the World Bank under the auspices of the United Nations Statistical Commission, with the main objective of providing comparable price and volume measures of gross domestic product (GDP) and its expenditure aggregates among countries within and across regions. Through a partnership with international, regional, sub-regional and national agencies, the ICP collects and compares price data and GDP expenditures to estimate and publish purchasing power parities (PPPs) of the world's economies.

In India, **Ministry of Statistics & Programme Implementation (MOSPI) will take up the price collection work in rural and urban areas** shortly all over the country.

Know about PPPs:

PPPs measure the total amount of goods and services that a single unit of a country's currency can buy in another country. The PPP between countries A and B measures the number of units of country A's currency required to purchase a basket of goods or services in country A as compared to one unit of country B's currency to purchase a similar basket of goods in country B. PPPs can thus be used to convert the cost of a basket of goods and service into a common currency while eliminating price level differences across countries. In other words, PPPs equalize the purchasing power of currencies. Due to large differences in price levels across economies, market exchange rate- converted GDP does not accurately measure the relative sizes of

economies and the levels of material well-being. PPPs make it possible to compare the output of economies and the welfare of their inhabitants in 'real' terms, thus controlling for price level differences across countries.

Uses of PPPs:

Sustainable Development Goals and Millennium Development Goals (United Nations).

Human Development Index (United Nations Development Programme).

Poverty rates at international poverty line, size of the economy, and price levels in the World Development Indicators (World Bank).

Country group aggregates and growth rates in the World Economic Outlook and country quota formula (International Monetary Fund).

Allocation of the European structural and investment funds (European Union).

Centre confirms 3 Zika cases in Gujarat

The Union Health Ministry has confirmed that three cases of Zika were reported from Ahmedabad in January. The information was made public five months after the cases were reported, as the World Health Organization (WHO) has now published a 'member state report' on its website. The health ministry, however, has said the outbreak has been contained.

An Inter-Ministerial Task Force set up under the Chairmanship of Health Secretary C.K. Mishra and a Joint Monitoring Group are already reviewing the global situation on Zika.

What you need to know about Zika?

Zika is spread mostly by the bite of an infected Aedes species mosquito (Ae. aegypti and Ae. albopictus). These mosquitoes bite during the day and night.

Zika can be passed from a pregnant woman to her fetus. Infection during pregnancy can cause certain birth defects.

There is no vaccine or medicine for Zika.

New book celebrates the Reang of Tripura

In an attempt to document and preserve the cultural and social diversity of the Reang, a unique and detailed publication by Lincoln Reang, titled 'Mapping with respect to Particularly Vulnerable Tribal Groups in Tripura', is being published by the Tribal Research and Cultural Institute, Government of Tripura.

What you need to know?

- Reang is a tribal community residing in Tripura.
- They practise Jhum cultivation and reside in 'tong ghar' (bamboo huts) that are built on a raised platform.
- Reang (also known as Riang) are among the 19 tribes of Tripura, the only one to be classified as a 'Particularly Vulnerable Tribal Group (PVTG)' in the State. The classification is based on their pre-agricultural level of technology and the low levels of literacy in the community. As per the 2011 census, the Reang population in Tripura numbers about 1,88,220.
- One of the main concerns today is the limited access to education.
- Traditionally, jhum (shifting) cultivation has been one of the primary agricultural activities of the Reang tribe. However, with land rights being granted, many members of the community have taken to ploughing or settled cultivation.
- Members of the Reang tribe are generally known to be shy and hardly ever depart from their traditional way of life. Till a few decades ago, they did not mix with people of other communities. However, over the past few years, changes have slowly started creeping into their way of life.

Anti-Ragging Mobile App Launched to Fight Ragging

- Human Resources Development Minister Prakash Javadekar has launched an Anti-Ragging Mobile App of the University Grants Commission (UGC) to help students register complaints against the menace of ragging in the country. Previously, students were required to visit the website to register a complaint against ragging. The new app will work on android platform and will facilitate students to register a complaint against ragging instantaneously. Students can log in and register their complaints immediately. The complaint will be sent to the concerned authorities for timely action and the action will be initiated immediately. As the records indicate that timely action had resulted in the decrease of ragging instances in campuses. This app is aimed at giving a feel of security to students.

International News:

Annual Meeting of African Development Bank

The 52nd Annual Meetings of the African Development bank are being held in **Gandhinagar**. This is the **first time that the Annual Meetings of AfDB are being held in India**. These Meetings are the Bank's largest annual event and serve to raise the profile of the institution on the global stage.

In addition to the Annual Meeting of the Board of Governors, these Meetings will bring together about 3000 delegates and participants, and will feature a number of official, knowledge, and side events. The Governors of the Bank are from the 54 African regional member countries and 27 non-regional member countries (including India).

The Annual Meetings provide a unique forum for representatives of government, business, civil society, think-tanks, academia and the media – from Africa and beyond – to debate key issues on Africa's development, and to discuss the Bank's performance in delivering on its mandate.

Reflecting the significance of agriculture in Africa and in the Bank's development work, the 2017 Annual Meetings will be held on the **theme: "Transforming Agriculture for Wealth Creation in Africa."**

What you need to know about AfDB?

The African Development Bank Group (AfDB) is a multilateral development finance institution established to contribute to the economic development and social progress of African countries.

The AfDB was founded in 1964 and **comprises three entities**: The African Development Bank, the African Development Fund and the Nigeria Trust Fund.

- The AfDB's mission is to fight poverty and improve living conditions on the continent through promoting the investment of public and private capital in projects and programs that are likely to contribute to the economic and social development of the region.
- **Governing**: The AfDB is controlled by a Board of Executive Directors, made up of representatives of its member countries.
- **Voting**: The voting power on the Board is split according to the size of each member's

share, currently 60%-40% between African (or “regional”) countries and “non-regional” member countries (“donors”). The largest African Development Bank shareholder is Nigeria with nearly 9% of the vote.

- **Representation:** All member countries of the AfDB are represented on the AfDB Board of Executive Directors. Member governments are officially represented at the AfDB by their Minister of Finance, Planning or Cooperation who sits on the AfDB Board of Governors. The AfDB Governors meet once a year to take major decisions about the institution’s leadership, strategic directions and governing bodies.
- **Unit of account:** The African Development Bank is using a Unit of Account which is registered as XUA as ISO 4217 standard currency code. It is not exchanged directly by individuals, it is used for accounting between state members.

India and AfDB:

India joined the African Development Fund in 1982, and became a member of the Bank in 1983. India is a non-regional member of the Bank. India and Africa share a great relationship, and have great degree of commonalities in terms of a shared history, and current challenges.

International Day of UN Peacekeepers

May 29th is the International Day of UN Peacekeepers. The International Day of Peacekeepers serves to honor the memory of UN Peacekeepers who have lost their lives, and pay tribute to all the men and women who have served and continue to serve in UN peacekeeping operations for their high level of professionalism, dedication and courage.

The **theme** for the 2017 International Day of UN Peacekeepers is “**Investing in Peace Around the World**”.

What you need to know about UN Peacekeeping?

United Nations Peacekeeping was created in 1948. Its first mission involved the establishment of the UN Truce Supervision Organization (UNTSO), which served to observe and maintain ceasefire during the 1948 Arab-Israeli War.

- UN Peacekeeping maintains three basic principles: Consent of the parties, impartiality and non-use of Force except in self-defence and defence of the mandate.
- The UN Peacekeepers are led by the

Department of Peacekeeping Operations (DKPO).

- There are currently 17 UN peace operations deployed on four continents.
- UN Peacekeepers are from diverse backgrounds, from areas all around the world. They include police, military and civilian personnel. They are often referred to as Blue Berets or Blue Helmets because of their light blue berets or helmets.
- The UN Peacekeeping Force won the Nobel Peace Prize in 1988.
- The United Nations Charter gives the United Nations Security Council the power and responsibility to take collective action to maintain international peace and security. For this reason, the international community usually looks to the Security Council to authorize peacekeeping operations

Joint Declaration of Intent between Germany and India regarding cooperation in the sector of alternative medicine

The Union Cabinet has approved the Joint Declaration of Intent (JDI) between Germany and India regarding cooperation in the sector of alternative medicine.

The financial resources necessary to conduct research, training courses, conferences / meetings will be met from the existing allocated budget and existing plan schemes of Ministry of AYUSH.

Significance of this move:

The signing of the JDI will enhance bilateral cooperation between the two countries in the areas of traditional/alternative medicine. Initiation of collaborative research, training and scientific capacity building in the field of alternative medicine under the JDI between the two countries would contribute to the enhanced employment opportunities in the AYUSH sector.

Siam Bharat:

It is the Indo-Thailand Humanitarian Assistance and Disaster Relief (HADR) Table Top Exercise 2017 held recently in Chiang Mai, Thailand between the Indian Air Force and Royal Thailand Air Force (RTAF).

The aim of the bilateral exercise is to evolve SOPs for planning and executing relief missions during unforeseen natural calamities like Tsunami, earthquakes, cyclones, floods etc. The objective is to enhance interoperability between both the Air Forces, while conducting combined air operations triggered by a crisis. The exercise

would assist in laying down procedures and establish decision support system at various stages of relief operations.

G7 summit

The leaders of the United States, Canada, Britain, France, Germany, Italy and Japan – countries collectively known as the Group of Seven (G7) – recently held a two-day summit in Taormina, Italy. The bloc meets annually to discuss a wide range of issues, including global economy, security and energy – and this year will be no exception.

- The leaders issued a collective statement at the close of the talks, saying that they have committed to “strengthening our collective energy security and ensuring open, transparent, liquid, and secure global markets for energy resources and technologies.”

What you need to know about G7?

The Group of Seven (G7) is an informal bloc of industrialised democracies. Its current members make up nearly 50% of the world economy, and represent more than 60% of net global wealth.

- It consists of Canada, France, Germany, Italy, Japan, the United Kingdom and the United States. EU is also represented.
- The G7 takes no mandatory decisions, and the meeting is billed as an opportunity to allow leaders to exchange ideas in key issues. A leaders’ declaration at the end of summit is not binding in nature.
- The presidency, which rotates among member states, is responsible for setting the agenda and arranging logistics.

Schemes, committees and programmes

Chitale Committee recommends several measures for Desiltation of Ganga

Chitale committee on Desiltation of Ganga submitted its report to the government recently. The committee was constituted in July 2016 by the Ministry of Water Resources River Development and Ganga Rejuvenation to prepare guidelines for desiltation of river Ganga from Bhimgauda (Uttarakhand) to Farakka (West Bengal).

Important recommendations made:

- Study reach wise sediment transport processes.
- Establish annual sediment budgets to guide de-silting activities.

- Prepare annual reports (Sand registry) describing the previous de-silting/ dredging activity and a technical institute may be entrusted to conduct the sediment budget.
- Morphological and flood routing studies should be carried out to examine and confirm the necessity of the de-silting of the reach under consideration.
- It is necessary to provide the river sufficient areas of flood plain and lakes along the river to moderate the flood level.
- The de-silting of lakes, etc., should be in such a manner that the sediment continuity is maintained and should not lead to head cut that creates safety issues for the river crossings, water intakes or river training works locally, downstream or upstream.
- The area freed from the development in the form of oxbow lakes should be used for flood moderation rather than reclaiming it for other purposes.
- Embankments, spurs and river training measures provided to protect the banks should not encroach upon the flood plains and delink the lakes, flood plains and other riverine environment from the river.
- De-silting of the confluence points, especially with huge silt carrying tributaries, such as Ghagra, Sone, etc., may be necessary to make confluence hydraulically efficient.
- The proposed de-silting of any river reach need to be justified bringing out clearly the flooding caused due to siltation along with technical comparisons of the alternative flood mitigation measures with “do nothing” or “proposed de-silting/ dredging” being other options.
- Agricultural practices along the river flood plains should be such that it does not disturb the passage of flood by increasing the resistance to flow causing aggradations.
- Any bridges across River Ganga which are causing large afflux (more than 1% of normal depth) should be modified to reduce the afflux, which in turn will also reduce the sediment deposition and erosion of banks on the upstream.

Why it is hard to study desiltation process?

The committee in its report says erosion, sediment transport and siltation are very complex phenomena. It is impossible to apply a “one-size-fits-all” approach to sediment management and control, because the issues involved are frequently very regionally-specific. Local factors such as topography, river control structures, soil and water conservation measures, tree cover, and riparian land-use or land disturbance (for example

agriculture, mining, etc.) can have a large impact on sediment loads in rivers. River control structures (such as reservoirs), soil conservation measures and sediment control programmes can cause downstream sediment loads to decrease, while factors such as land disturbance (clearing of vegetation, for example) or agricultural practices can cause increased sediment loads. At the same time, indiscriminate de-siltation works may result into more harm to ecology and environment flow. Thus, there is a need to evolve Guidelines, better broad principles, which should be kept in mind while planning and implementing de-silting works.

Start Up -Definition changes

In order to promote entrepreneurship in the country, the Government of India has amended the definition of a Startup. The changes are an effort to ensure ease of starting up new businesses to promote the Startup ecosystem and build a nation of job creators instead of job seekers.

Background:

Startup India was launched by the Government of India on 16th January, 2016 to build a strong ecosystem for nurturing innovation and Startups in the country to drive economic growth and generate large scale employment opportunities.

The following significant changes have been made to the definition of Startups:

- **Age of Startup increased:** Taking into account the long gestation period by Startups to establish, an entity shall be considered as a Startup up to seven years from the date of its incorporation/ registration (from earlier 5 years). However, in the case of Startups in the Biotechnology sector, the period shall be up to ten years from the date of incorporation/ registration.
- **No Letter of Recommendation required:** No letter of recommendation from an incubator/industry association shall be required for either recognition or tax benefits
- **Potential of Job and Wealth Creation:** The scope of definition has been broadened to include scalability of business model with potential of employment generation or wealth creation.

Slum Yuva Daud

It was recently organized in Delhi to mark the beginning of the Adopt Slum Campaign.

Who initiated?

It was initiated by the Ministry of Youth Affairs & Sports and Nehru Yuva Kendra Sangathan (NYKS).

- **Participation:** the campaign will involve groups like NSS, public schools, RWAs, NGOs, rotary clubs etc.

- The NYKS has adopted slums across 11 districts and will work for their overall development with young volunteers.

Know about NYKS:

Nehru Yuva Kendras were established in the year 1972 with the objective of providing rural youth avenues to take part in the process of nation building as well providing opportunities for the development of their personality and skills.

In the year 1987-88, **Nehru Yuva Kendra Sangathan(NYKS) was set up as an autonomous organization under the Government of India, Ministry of Youth Affairs and Sports**, to oversee working of these Kendras.

NYKS is the largest grassroots level youth organization; one of its kind in the world. It channelizes the power of youth on the principles of voluntarism, self-help and community participation.

The basic objective for creation of youth clubs is to render community support through developmental initiatives involving activities with particular focus on youth empowerment.

Darwaza Band for open defecation

The centre has launched an aggressive new campaign titled 'Darwaza Band' **to promote toilet use and freedom from open defecation across the country's villages.**

What you need to know about the campaign?

The campaign is produced by the Ministry of Drinking Water and Sanitation under Swachh Bharat Mission.

The campaign has been supported by the World Bank and is being rolled out countrywide immediately after the launch.

It is designed to encourage behaviour change in men who have toilets but are not using them.

Background:

Behaviour change has been the focus of Swachh Bharat Mission, which is being pursued through a countrywide comprehensive IEC(Information-Education-Communication) programme. Communication campaigns have been taken up both, at the central and State levels, for promoting sustained use of toilets and for sustaining the Open Defecation Free status achieved.

Environment and ecology

Action plan for Pampa conservation

A seven-point action plan for the conservation of pampa has been chalked out. The document, named Pampa Declaration, delineates a comprehensive plan to be implemented with the active involvement and support of the government and the public.

 <p>PROJECT Sewerage system Sewage treatment plants Bathing ghats Community toilets</p> <p>The fresh tranche of funds will be used for upgradation of the sewage treatment plant at Pampa and</p>	sanctioned in 2003
	UTILISATION CERTIFICATE for 12 years approved
	CENTRAL SHARE SLASHED to 50% of project cost
	PROJECT TO BE COMPLETED by March 2017
GRANT-IN-AID of Rs.5 crore	

Highlights of the action plan:

- The salient features of the declaration include bestowing living entity status to river Pampa; the constitution of a River Management Board for the governance of the river; documentation of livelihood along the river basin; publication of periodic status report of flood plains and wetlands and formation of tributaries, micro watersheds, and ponds linked to the river every five years.
- It also calls for digitising biodiversity reports with the support of students from institutions and colleges affiliated to Mahatma Gandhi University, implementation of green protocol for containing the pollution of the river and for the conservation of the Pampa ecosystem.
- The declaration calls upon the government to create an additional standing committee on environment at the local bodies to ensure participation of local government institutions in the governance of the river.

Know about pampa river:

Pampa is the third longest river in Kerala after Periyar and Bharathappuzha and the longest river in the erstwhile princely state of Travancore. Sabarimala temple dedicated to Lord Ayyappa is located on the banks of the river. The river is also known as ‘Dakshina Bhageerathi’ and ‘River Baris’.

Smallest nation joins solar alliance

The world’s **smallest republic, the tiny island nation of Nauru** — has become the sixth country to ratify the International Solar Alliance (ISA) Framework pact initiated by the Indian and French Governments at the climate change summit held at Paris in 2015.



- Five more nations, from Africa, — Comoros, Cote d’Ivoire, Somalia, Ghana and Djibouti — have committed to sign the pact during the ongoing meeting of the African Development bank in India.

What you need to know about Nauru?

Formerly known as Pleasant Island, Nauru is an island country in Micronesia in the Central Pacific. With 10,084 residents in a 21-square-kilometre area, Nauru is the smallest state in the South Pacific and third smallest state by area in the world, behind only Vatican City and Monaco.

Know about ISA:

India launched the International Solar Alliance (ISA) at the CoP21 Climate Conference in Paris. The alliance brings together developed and developing countries, governments and industries, laboratories and institutions in a common enterprise.

The main aims of ISA include reducing financial risk across a larger global market, encouraging cooperation on technology, building capacity, and increasing energy access.

All the countries, located fully or partly between the tropics of Cancer and Capricorn, have been invited to join the Alliance.

The new body will function from the National Institute of Solar Energy in India, Gurgaon. The Union Government of India has announced that it will provide land and \$30 million to form a secretariat for the Alliance, and also support it for five years.

After 84 years, cobra lily blooms again

The incredibly rare **Arisaema translucens**, more commonly remembered as the cobra lily, was recently rediscovered in the western Nilgiris after 84 years. It was last collected in 1932.



What you need to know about cobra lily?

- Barely a few hundred cobra lily plants are left in the wild and they can be found only in a small area measuring less than 10 square kilometres in the Nilgiris.
- This is probably the only member of the Arisaema family to have a translucent spathe.

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- The **Toda tribals of the Nilgiris** have an embroidery motif known as the ‘podwarshk’, which resembles it.

Threats:

Likely to have been quite common once, cobra lilies have vanished in the past decades along with the disappearance of the shola tree patches in which they were found. Prized for their beauty around the world, cobra lilies are at even greater risk of extinction from the commercial trade in exotic plants.

“Ozone2Climate” Technology Roadshow

In a first, Ministry of Environment, Forest and Climate Change, along with the UN Environment OzonAction’s Compliance Assistance Programme, recently organized an **“Ozone2Climate”** Technology Roadshow, post Kigali Amendment to the Montreal Protocol, on the sidelines of the South Asia National Ozone Officers Annual Network Meeting – 2017 in Agra. Over 200 refrigerant technicians, ozone officers, business representatives and government officials attended the Roadshow.

- The Technology Roadshow was organized for the first time as part of the annual network meeting for Ozone Officers of South Asia.
- The “Ozone2Climate Technology Roadshow” had 13 exhibitors that promoted ozone and climate-friendly alternative technologies to HCFCs and HFCs in the refrigeration and air-conditioning (RAC) sector.
- The Technology Roadshow showcased current refrigeration and air conditioning equipment designed to be more energy efficient, hence with a double benefit of saving money for consumers, and with a much lower impact on the environment.

Kigali conference:

The negotiations at Kigali were aimed at including Hydrofluoro Carbons (HFCs) in the list of chemicals under the Montreal Protocol with a view to regulate their production and consumption and phase them down over a period of time with financial assistance from the Multilateral Fund created under the Montreal Protocol.

- The Kigali amendments to the Montreal Protocol will, **for the first time, incentivise**

improvement in energy efficiency in case of use of new refrigerant and technology. Funding for R&D and servicing sector in developing countries has also been included in the agreed solutions on finance.

- The Kigali Amendment to the Montreal Protocol is **legally binding** and will **come into force from 1 January 2019**. Under Kigali Amendment, in all 197 countries, including India have agreed to a timeline to reduce the use of HFCs by roughly 85% of their baselines by 2045.

All signatory countries have been divided into three groups with different timelines to go about reductions of HFCs. These include:

- Wealthy, developed countries, such as the United States and the European Union, will start to limit their use of HFCs within a few years and make a cut of at least 10% from 2019.
- Rapidly developing countries, including many in Latin America, will freeze their use of HFCs starting in 2024.
- Developing countries, specifically India, Pakistan, Iran, Iraq and the Gulf states, will freeze their use starting in 2028.

Global Platform for Disaster Risk Reduction

The 2017 Global Platform for Disaster Risk Reduction is being held in Cancun, Mexico. The Global Platform is the most important international forum dedicated to the disaster risk reduction agenda, and this will be the first time it has been staged outside Geneva.

- The 2017 Global Platform will mark the first opportunity for the international community to review global progress on the implementation of the Sendai Framework for Disaster Risk Reduction, which was adopted in Japan in 2015. More than 5,000 participants are expected, including policy makers and disaster risk managers.

What you need to know about the Global Platform for Disaster Risk Reduction?

The Global Platform for Disaster Risk Reduction is a biennial forum for information exchange, discussion of latest developments, knowledge and partnership-building across sectors, with the goal of improving implementation of disaster risk reduction

through better communication and coordination amongst stakeholders.

Its core function is to enable governments, NGOs, scientists, practitioners, and UN organizations to share experience and formulate strategic guidance for the implementation of global disaster risk reduction agreements: the 2005 Hyogo Framework for Action and its post-2015 successor the Sendai Framework.

About Sendai Framework:

The “Sendai Framework for Disaster Risk Reduction 2015-2030” was adopted during the Third UN World Conference on Disaster Risk Reduction held in Sendai, Japan in March, 2015.

- It is the first major agreement of the post-2015 development agenda, with seven targets and four priorities for action.
- It was endorsed by the UN General Assembly following the 2015 Third UN World Conference on Disaster Risk Reduction (WCDRR).
- The Framework is for 15-year. It is a voluntary and non-binding agreement which recognizes that the State has the primary role to reduce disaster risk but that responsibility should be shared with other stakeholders including local government, the private sector and other stakeholders.
- The new Framework is the successor instrument to the Hyogo Framework for Action (HFA) 2005-2015: Building the Resilience of Nations and Communities to Disasters.
- The implementation of the Sendai Framework involves adopting integrated and inclusive institutional measures so as to work towards preventing vulnerability to disaster, increase preparedness for response and recovery and strengthen resilience.

The Seven Global Targets:

- Substantially reduce global disaster mortality by 2030, aiming to lower average per 100,000 global mortality rate in the decade 2020-2030 compared to the period 2005-2015.
- Substantially reduce the number of affected people globally by 2030, aiming to lower average global figure per 100,000 in the decade 2020 -2030 compared to the period 2005-2015.

- Reduce direct disaster economic loss in relation to global gross domestic product (GDP) by 2030.
- Substantially reduce disaster damage to critical infrastructure and disruption of basic services, among them health and educational facilities, including through developing their resilience by 2030.
- Substantially increase the number of countries with national and local disaster risk reduction strategies by 2020.
- Substantially enhance international cooperation to developing countries through adequate and sustainable support to complement their national actions for implementation of this Framework by 2030.
- Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to the people by 2030.

The Four Priorities for Action under the Framework:

Understanding disaster risk.

Strengthening disaster risk governance to manage disaster risk.

Investing in disaster risk reduction for resilience.

Enhancing disaster preparedness for effective response and to “Build Back Better” in recovery, rehabilitation and reconstruction.

See-through’ frog is at risk of extinction:

A newly identified frog species — with transparent skin through which its beating heart is visible — is under threat of extinction.

What you need to know?

The frog (*Hyalinobatrachium yaku*), discovered in the Amazonian lowlands of Ecuador, has unique physical and behavioural traits.

Males guard the eggs, which are attached below a tree’s leaves, until they hatch and fall on the water stream below.

Not all glass frogs have hearts that are visible through the chest. In some, the heart itself is white, so you don’t see the red blood.

What’s the threat? Drying and polluting streams. If the stream dries up, or becomes polluted, the frogs can’t survive, and other more resilient creatures may be next.

A fish that can father a near clone of itself:

Scientists have discovered a fish carrying genes only from its father in the nucleus of its cells.

What you need to know?

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- These genes are found in a type of fish called *Squalius alburnoides*. They are thought to have arisen from hybridisation between females of one species, *Squalius pyrenaicus*, and males of another species, now extinct, that belonged to a group of fish called *Anaocypris*.
- To sustain its population, *Squalius alburnoides* mates with several other closely related species belonging to the *Squalius* lineage.
- These fishes normally inhabit rivers in Portugal or Spain.
- This is the first documented instance in vertebrates of a father producing a near clone of itself through sexual reproduction — a rare phenomenon called androgenesis.

Fact Box: Tropical Cyclone “Mora”

- A deep depression in the Bay of Bengal has been declared intensified into a tropical cyclone named Mora. This is second cyclone in the Bay of Bengal after Maarutha, which helped bring in the Monsoon earlier by a week over Andaman & Nicobar Islands. The tropical Cyclone Mora is likely to hit Bangladesh coast in next 24 hours and expected to cause heavy rains in West Bengal and North East Indian states. It may also help to pull monsoon faster over mainland.

About 2017 North Indian Ocean cyclone season

- Every year, the North Indian Ocean cyclone season extends roughly between April to December with two peaks in May and November. This season includes cyclones in Bay of Bengal and Arabian sea, apart from Indian Ocean in northern hemisphere. The first cyclone of 2017 season was Cyclone Maarutha which was formed in April, 2017 triggering heavy rainfall in Sri Lanka, Myanmar and India’s Andaman & Nicobar Islands. Apart from other damages, three people were killed in Myanmar by Cyclone Maarutha. Cyclone Mora is second such cyclone in the Indian Ocean.

Naming of Tropical Cyclone

- Tropical cyclones are classified into three main groups, based on intensity: tropical depressions, tropical storms, and a third group of more intense storms, whose name depends on the region. If a tropical storm in the North-western Pacific reaches hurricane-strength winds on the Beaufort scale, it is referred to as a typhoon. If a tropical storm passes the same benchmark in the Northeast

Pacific Basin, or in the Atlantic, it is called a hurricane. Neither “hurricane” nor “typhoon” is used in either the Southern Hemisphere or the Indian Ocean. In these basins, storms of tropical nature are referred to simply as “cyclones

Dual onslaught on earth: Global warming and local urban heating

According to a recent study, the world’s cities may be as much as eight degrees Celsius warmer by 2100 due to a **dual onslaught of global warming and localised urban heating**.

- The projection is based on the worst-case-scenario assumption that emissions of planet-warming greenhouse gases continue to rise throughout the 21st century. For the latest study, researchers used data from the world’s 1,692 largest cities for the period 1950 to 2015.

Highlights of the study:

- The top quarter of most populated cities, in this scenario, could see the mercury rise 7 degrees Celsius or more by century’s end, said a study in the journal *Nature Climate Change*.
- For some, nearly 5 degrees Celsius of the total would be attributed to average global warming.
- The rest would be due to the so-called urban heat island (UHI) effect, which occurs when cooling parks, dams and lakes are replaced by heat-conducting concrete and asphalt — making cities warmer than their surrounds.
- The top 5% (of cities per population) could see increases in temperatures of about 8 degree Celsius and larger.

Effects of this temperature rise:

Such a temperature spike can have dire consequences for the health of city-dwellers, robbing companies and industries of able workers, and putting pressure on already strained natural resources such as water.

UHI “significantly” increases city temperatures and economic losses from global warming. With the warming of cities, the median city, right in the middle of the range, stands to lose between 1.4% and 1.7% of GDP per year by 2050 and between 2.3% and 5.6% by 2100. For the worst-off city, losses could reach up to 10.9% of GDP by 2100.

Background:

Cities cover only about 1% of the earth's surface but produce about 80% of gross world product and account for around 78% of energy consumed worldwide. They produce more than 60% of global carbon dioxide emissions from burning coal, oil and gas for fuel.

Way ahead:

Local actions to reduce UHI — such as planting more trees or cooling roofs and pavements, can make a big difference in limiting warming and minimising costs.

Sankhyiki Bhawan:

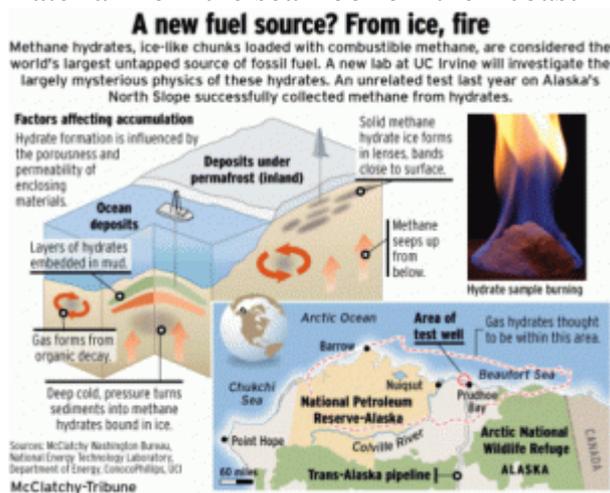
It is the newly inaugurated office of the NSSO. The new building houses all divisions under one roof. Now, with all Divisions under one roof, it will improve coordination of various work at a very closer level resulting speedier and better output.

Established in 1950, the National Sample Survey Office conducts nation-wide large-scale sample surveys to obtain comprehensive and continuing information relating to social, economic, demographic, industrial and agricultural aspects.

Science and Technology

Ecological concerns over combustible ice

Commercial development of the globe's huge reserves of a frozen fossil fuel known as "combustible ice" has moved closer to reality after Japan and China successfully extracted the material from the sea floor off their coastlines.



What you need to know about combustible ice?

Combustible ice is a frozen mixture of water and concentrated natural gas. Technically known as methane hydrate, it can be lit on fire

in its frozen state and is believed to comprise one of the world's most abundant fossil fuels.

- **Where its found?** Methane hydrate has been found beneath seafloors and buried inside Arctic permafrost and beneath Antarctic ice. Estimates of worldwide reserves range from 280 trillion cubic metres up to 2,800 trillion cubic metres, according to the U.S. Energy Information Administration. That means methane hydrate reserves could meet global gas demands for 80 to 800 years at current consumption rates.
- Yet efforts to successfully extract the fuel at a profit have eluded private and state-owned energy companies for decades.
- Methane hydrate is an attractive energy source due to its high energy density: one cubic meter of combustible ice contains about 164 cubic meters of regular natural gas. This high energy density is due to the fact that methane is trapped within the hydrate crystal structure and greatly compressed.

Concerns:

There are environmental concerns. If methane hydrate leaks during the extraction process, it can increase greenhouse gas emissions. The fuel also could displace renewables such as solar and wind power

NASA tribute: New species named after Abdul Kalam:

- NASA scientists have named an organism discovered by them after APJ Abdul Kalam. Researchers at NASA's Jet Propulsion Laboratory (JPL) discovered the bacteria on the filters of the International Space Station and named it *Solibacillus kalamii* to honour the late Indian President, who was a renowned aerospace scientist.
- Even as it orbits the earth some 400 kilometres above, the ISS is home to many types of bacteria and fungi which co-inhabit the station with the astronauts who live and work on the station.

Juno Spacecraft Reveals Spectacular Cyclones At Jupiter's Poles

NASA's Juno spacecraft has spotted giant cyclones swirling at Jupiter's north and south poles.

- During the flybys, observations and data showed Jupiter's previously unseen poles. Bright ovals at the poles were revealed to be gigantic cyclones spanning 870 miles. Juno was also able to probe the cloud cover and discover wells of ammonia that form giant and violent weather systems in the deep atmosphere.
- The giant cyclones at the poles are also new to researchers. Further study could reveal whether these are like the Great Red Spot, which has been observable for at least 300 years, or more ephemeral.
- Juno also revealed that Jupiter's magnetic field is 10 times stronger than the strongest magnetic field on Earth and twice as strong as anticipated, exceeding researchers' expectations.

About Juno:

Juno was launched in 2011 on a mission to study Jupiter's composition and evolution. It's the first spacecraft to orbit Jupiter since Galileo. Juno spacecraft successfully entered Jupiter's orbit recently, after a five year journey.

- The primary goals of the \$1.1 billion mission are to find out whether Jupiter has a solid core, and whether there is water in the planet's atmosphere — something that may not only provide vital clues to how the planet formed and evolved, but also to how the solar system we live in came into existence.
- At the end of its mission, Juno will dive into Jupiter's atmosphere and burn up — a "deorbit" manoeuvre that is necessary to ensure that it does not crash into and contaminate the Jovian moons Europa, Ganymede and Callisto.

Other details:

- The Juno spacecraft — named after the Roman goddess and wife of Jupiter — is packed with nine instruments capable of peering into the planet's heart.
- It will fly 2,600 miles above the cloud tops — 3,000 miles closer to the surface than any other mission has ever achieved.
- Juno became the first spacecraft to cruise this far out into the solar system powered solely by the sun, beating Europe's Rosetta spacecraft. A trio of massive solar wings sticks out from Juno like blades from a

windmill, generating 500 watts of power to run its nine instruments.

- Juno, built by Lockheed Martin, is an armored spacecraft — its computer and electronics are locked in a titanium vault to shield them from harmful radiation. Even so, Juno is expected to get blasted with radiation equal to more than 100 million dental X-rays during the mission.

Airlander 10, World's Largest Aircraft, Completes Test Flight:

- The world's largest aircraft has successfully completed a test flight, bringing the massive helium-filled airship one step closer to commercial use.
- The hybrid aircraft dubbed the Airlander 10 combines technology from airplanes, helicopters and airships.
- It is designed to fly at altitudes of 6,100 meters for up to five days when manned. With a length of 92 metres, it is the largest aircraft currently flying.

'BlessU-2':

It is a robot priest that beams lights from its hands and grants automated 'blessings' to people. It was recently launched in Germany.

Indian researchers develop 3D bioprinted cartilage

For the first time, Indian researchers have been able to achieve a measure of success in developing cartilages that are molecularly similar to the ones seen in human knees. Scientists have printed cartilage using bioink.

What you need to know?

The bioink has high concentration of bone-marrow derived cartilage stem cells, silk proteins and a few factors. The chemical composition of the bioink supports cell growth and long-term survival of the cells. The cartilage developed in the lab has remained physically stable for up to six weeks. Just like cells are surrounded by proteins inside our body, the cells in the engineered cartilage are also surrounded by bioink that has a similar composition.

Benefits of 3D printed cartilage:

While the cartilage found in the knee is an articular cartilage that is typically sponge-like and has a huge load-bearing capacity, the ones produced in the lab so far are of a different kind — transient cartilage. Unlike articular cartilage,

transient cartilage becomes bone cells and, therefore, brittle within a short time. As a result, the engineered cartilage loses its capacity to bear huge load that is typically encountered in the knee.

But the 3D bioprinting approach adopted by the researchers allows the high concentration of bone-marrow derived cartilage stem cells present in the bioink to gradually convert to chondrocyte-like cells (specialised cells which produce and maintain the extracellular matrix of cartilage).

Defence

Defence buys model comes into force

The government's ambitious Strategic Partnership (SP) model for promoting Indian private industry participation in defence manufacturing has come into effect.

What you need to know about SP model?

Under the "Strategic Partnership" model, the government will shortlist and then pick Indian companies to join forces with foreign firms to supply fighter jets, helicopters, armoured vehicles and submarines. For each platform, one private sector strategic partner will be chosen.

Seen as a major initiative, the strategic partnership model aims to create a vibrant defence manufacturing ecosystem in the country through involvement of both the major Indian corporates as well as the MSME sector.

More Akash systems for Army

The Defence Ministry has decided to cancel the Army's global contest for Short Range Surface to Air Missile (SR-SAM) systems and instead procure two additional regiments of the indigenously developed Akash missile systems.

- The decision was taken at a recently held meeting of the Defence Acquisition Council (DAC) chaired by Defence Minister Arun Jaitley.
- **Know about Akash Missile:**

The Akash missile is India's first indigenously designed, developed and produced air defence surface-to-air missile system.

 - Akash is a supersonic short range surface-to-air missile capable of neutralising aerial threats.
 - The asset of this missile system is its capability to neutralise multiple aerial

targets coming from different directions at the same time.

- The maximum range of this missile is 25 kilometres and can neutralise targets at a maximum altitude of 20 kilometres. It is meant for neutralising medium range air targets flying at low or medium height.
- An Akash missile regiment has six launchers with three missiles each. This defence system consists of surveillance and tracking radars, control centres and ground support systems. This all weather missile system can work from both static and mobile platforms.
- Akash has been indigenously built. It is a result of 96% indigenisation, with the design being developed by the Defence Research and Development Organisation and built by Bharat Dynamics Limited along with the involvement of Bharat Electronics Limited.

ATR of DRDO:

- The Defence Minister Shri Arun Jaitley recently inaugurated the newly built Aeronautical Test Range (ATR) of the Defence Research & Development Organisation (DRDO) at Chitradurga in Karnataka.
- It is aimed at creating conditions for research, which will in turn develop the type of human resource in the country required in the field of aeronautical testing. The range will cater to the needs of DRDO for testing of indigenously developed aeronautical systems.
- The ATR is the first of its kind range in the country exclusively meant to conduct flight-tests of indigenous unmanned and manned aircrafts, developed by the DRDO.
- This outdoor testing and evaluating facility has been set up by the Aeronautical Development Establishment (ADE), one of the premier laboratories of the DRDO.

Appointments

WHO elects Ethiopia's Tedros Adhanom Ghebreyesus as its new director general:

- Ethiopia's former health minister has been elected to serve as the next director-general of the World Health Organization — the first African picked to lead the global health agency.
- Appointment: The World Health Assembly is the legislative and supreme body of WHO. Based in Geneva, it typically meets

yearly in May. It appoints the Director-General every five years.

Economy

Paytm Payments Bank

Paytm has finally rolled out its Payments Bank, which is an almost-complete banking solution offered by the company. The digital wallet and e-commerce service provider received the final license from RBI for the bank last week. With the launch, Paytm is transferring all wallets to the new Paytm Payments Bank.

- Under the new banking system, wallets and accounts will be two separate entities. In order to be a part of the banking system, the user will have to open a bank account with Paytm.

What is a Payments Bank?

A Payments bank is similar to any other bank except it operates on a smaller scale. The Reserve Bank of India (RBI) introduced it in 2014 to increase the scope of financial inclusion to small savings account holders, low income households, small businesses, unorganised sector entities and migrant labour force.

Key facts on payment banks:

- Customers can deposit only up to Rs 1,00,000.
- Payments bank can issue ATM/debit cards but not credit cards.
- Payments and remittance services through various channels can be done.
- Customers will be able to buy insurance and mutual funds.
- Bank would not carry out lending activities.
- With this, the network of 1,54,000 post offices (including 1,30,000 rural post offices) will be offering banking services to the masses in the country.
- Payments banks are targeting migrant labourers, low income households, small businesses, and other unorganised sector entities.
- Initial capital required for a Payments bank is Rs 100 crore.
- Eligibility: Existing pre-paid payment instrument issuers, individuals, professionals, NBFCs, corporate business correspondents, telecom companies, super-

market chains, real estate sector cooperatives that are owned and controlled by residents and public sector entities may apply.

- Promoter's contribution initially must be 40% for the first 5 years. For foreign holding, it is up to 74% of paid-up capital, on a par with private banks.
- The banks must maintain CRR, minimum 75% of demand deposits in government bonds of up to one year and maximum 25% in current and fixed deposits with other scheduled commercial banks for operational purposes and liquidity management.

Awards

National Award for Social Understanding and Upliftment of Weaker Sections

The President of India Shri Pranab Mukharjee presented the "Dr. Ambedkar National Award for Social Understanding and up-liftment of Weaker Sections for the year 2011, 2012 and 2014" at a function here today. The function was organized by The Ambedkar Foundation under Ministry of Social Justice and Empowerment.

Awardees:

- The award for the year 2011 was presented to Professor S.K. Thorat on New Delhi for his contributions towards the upliftment of the downtrodden.
- The award for the year 2012 was presented to Samta Sainik Dal for its extraordinary services.
- The award for the year 2014 was jointly presented to Shri Babu Lal Nirmal of Rajasthan for his extraordinary contributions in upholding the rights of poor persons in rural and urban areas of Baran District and to Amar Sewa Sangam of Tamil Nadu for its extraordinary services being extended for the welfare of the marginalized population of the society including the physically and mentally challenged persons.

Know about the award:

Dr. Ambedkar National Award for Social Understanding and Upliftment of Weaker Sections was instituted by the Government

of India in the year 1992, in pursuance of a decision of the Centenary Celebrations Committee of Babasaheb Dr. B.R. Ambedkar headed by the then Prime Minister of India.

- As per its Code of Procedure, the Award is given for outstanding contribution to the promotion of Social Understanding and for the Upliftment of the Weaker Sections in India.
- A Jury constituted for the purpose considers the achievements of the individuals and organizations nominated / recommended for the Award by the prescribed authorities.
- The efforts made towards integrating the weaker sections into the mainstream of Indian society, working for their socio-economic and educational upliftment is the primary consideration in identifying the Awardee.
- As per the Code of Procedure of the National Award, one Award each year is presented to individuals or organizations. The Award is presented jointly or shared by more than one recipient or organization as may be considered by the Jury to be equally deserving of recognition in the year. The award consists of a citation and Rs. 10.00 lakh as cash prize.

Sangeet Natak Akademi Award for Govinda Bhat

Yakshagana artiste Surikumeri K. Govinda Bhat has been chosen for the Kendra Sangeet Natak Akademi Award for 2016. He is among the nine artistes chosen for the award in theatre category.

Know about the Sangeet Natak Akademi:

- The Sangeet Natak Akademi – India’s national academy for music, dance and drama – is the first National Academy of the arts set-up by the Republic of India. It was created by a resolution of Government of India.
- It was set up in 1952.
- The academy functions as the apex body of the performing arts in the country to preserve and promote the vast cultural heritage of India expressed in music, dance and drama.
- It also works with governments and art academies in states and territories of the country.

- The academy Renders advice and assistance to the government of India in the task of formulating and implementing policies and programmes in the field. It carries a part of the responsibilities of the state for fostering cultural contacts between regions in the country, as well as between India and the world.
- The Akademi Awards are the highest national recognition conferred on eminent artistes.
- Each year the Academy awards Sangeet Natak Akademi Fellowships, Ratna Sadsya, to distinguished individuals for their contribution to the field of arts, music, dance and theatre.
- Ustad Bismillah Khan award is given to young artists for their talent in the fields of music, dance and drama

Indian Scientist Shrinivas Kulkarni Wins Prestigious Dan David Prize

Indian scientist Shrinivas Kulkarni has won the prestigious Dan David prize as a recognition for his contributions made in the field of astronomy. Shrinivas Kulkarni, a professor of astrophysics and planetary science at California Institute of Technology in Pasadena, is a pioneer in the field of time-domain astrophysics. He has been credited for building and conducting the Palomar Transient Factory, which is a large-area survey of the night sky that has turned up with thousands of stellar explosions. Shrinivas kulkarni would share the award with Andrej Udalski of the University of Warsaw and Neil Gehrels of NASA for their discoveries on time-domain astrophysics in the “Future” category of the prize. With this award, Shrinivas Kulkarni will join other prominent Indians who have won the Dan David prize like noted author Amitav Ghosh, music conductor Zubin Mehta and renowned chemist CNR Rao.

Dan David Prize

The Dan David Foundation was established in 2000 by the late Dan David, an international businessman and philanthropist. Three Dan David prizes of \$1 million each are awarded each year in the categories of “Past,” “Present” and “Future” to people who have made exemplary contributions to humanity in the field of sciences, humanities, or for their work

in civil society. The recipients in the “Past” category are chosen from the field of history, archaeology, paleontology, biography, etc.;. The recipients in the “Present” category are chosen from arts, media, policy, economics, etc. The recipients in the “Future” category are chosen from one of the exact or natural sciences. The prize mandates the laureates to donate 10% of their prize money to provide scholarships for graduate or post-graduate researchers in their respective fields.

Hollywood Actor Emma Watson bags first ever ‘genderless’ award Hollywood actor Emma Watson has received the first-ever Genderless Acting Award for the Best Actor category at the MTV Movie and TV Awards. This is the first ever genderless award that doesn’t separate nominees based on their sex. The 2017 edition of the MTV Movie & TV Awards were held on May 7, 2017, in Los Angeles, California. It was the 26th edition of the awards. The MTV Movie & TV Awards is a film and television awards presented annually to winners decided online by the general public. Emma Watson is a British actress, model, and activist. She is famous for her role as Hermione Granger in the Harry Potter film series.

Miscellaneous

In NTD fight, the end in sight

Around the world, nearly 1.6 billion people are affected by a group of diseases so ignored that the term used to refer to them is called neglected tropical diseases (NTDs).

What you need to know about NTDs?

Neglected tropical diseases (NTDs) are a diverse group of communicable diseases that prevail in tropical and subtropical conditions in 149 countries and affect more than one billion people, costing developing economies billions of dollars every year. They mainly affect populations living in poverty, without adequate sanitation and in close contact with infectious vectors and domestic animals and livestock.

Concerns:

Neglected tropical diseases (NTDs) affect over 1.5 billion of the world’s most impoverished people, including 875 million children. They cause severe pain, long-term disability, and are

the cause of death for over 170,000 people per year. Amongst children, infection leads to malnutrition, cognitive impairment, stunted growth, and the inability to attend school. Adults suffer from social isolation and are unable to work, and anaemia caused by NTDs increases the risk of maternal mortality.

What needs to be done?

The Indian government has set itself the target of eliminating kala-azar and filariasis by 2017, and leprosy by 2018. With such ambitious targets, sustained research must remain an integral component of disease elimination programmes. Besides basic research — the discovery of new facts about a disease, vaccines and drugs — new strategies are needed to make an impact.

- For programmes to succeed, it is important to maintain constant vigilance through robust surveillance and reporting mechanisms. Partnerships with diverse stakeholders including the private sector, community-based organisations, and community leaders are specifically useful in creating awareness, improving case detection, treatment completion and, most importantly, managing stigma associated with these diseases.
- While tackling NTDs, it will be important to remember that along with timely diagnosis and treatment access in unreached areas, focussing on the fundamentals of preventive interventions, nutrition, safe drinking water, sanitation and hygiene are essential in fast-tracking the ultimate goal of elimination.

India is no. 2 stainless steel producer in the world:

India has emerged as the second largest stainless steel producer in the world after China. India toppled Japan in the year 2016 according to the figures disclosed by International Stainless Steel Forum at a conference held in Tokyo, Japan, recently.

A women-only tour package unveiled:

- In what is being touted as the first of its kind by a State-run tourism corporation in the country, the Karnataka State Tourism Development Corporation (KSTDC) has decided to offer a ‘women’s special’ tour package.

- The package, a three-day, two-night tour of Mysuru and Kodagu, promises to be a unique experience for women travellers.

International Day for Biodiversity:

- The International Day for Biodiversity (IDB) 2017 was celebrated all over the country on May 22, by different States and various organisations.
- The International Day for Biological Diversity was first established in 1993, when the 29th of December was selected to serve as the day to educate the world of the importance of Biodiversity. This was later changed to the 22 of May in 2000. Too many winter holidays were interfering with countries holding meaningful celebrations.
- 2017 Theme: “Biodiversity and Sustainable Tourism”

First Tejas Express:

- Indian Railways has introduced India’s first high speed, air-conditioned Tejas Express between Chhatrapati Shivaji Terminus Mumbai and Karmali.
- Tejas Express is a state of the art train capable of running at the speed of 200 kmph with ultra modern amenities run between Mumbai and Karmali.

Iran’s presidential election:

Hassan Rouhani has been re-elected as the President of Iran. He was elected as president for his first term in 2013. He won 2013 elections by pledging to end Iran’s isolation and improve civil rights at home.

India’s first uterine transplant performed

India’s first uterine transplant performed was recently performed by Pune doctors. First successful transplant in the world was done in 2012 in Sweden.

Background:

In India, infertility prevalence is between 3.9%-16.8% of the population of child bearing women. Among the reasons, uterine factor is the cause in 20% of cases. The uterine factor can be due to causes like congenital absence of uterus, uterine malformations, genital tuberculosis and surgical removal of uterus for cancers.

However, few are opposed to such surgeries because of the ethical issues involved in it:

- Removing the uterus from a live donor exposes the person to surgical risk.

Involves too many surgical steps for the recipient.

The transplant is not a life saving procedure.

- It also discourages other methods like adoption and surrogacy.

New Bill to deter offenders’ escape

The government has invited comments on ‘Fugitive Economic Offenders Bill, 2017’ that seeks to deter economic offenders from fleeing the country by attaching and confiscating properties owned by them in India.

- The Bill makes provisions for a special court under the Prevention of Money Laundering Act to declare a person a ‘Fugitive Economic Offender’.

Background:

The issue of loan defaults has been stressed as a critical issue burdening the Indian economy. The proposed ‘Fugitive Economic Offenders Bill, 2017’ comes against the background of India seeking the extradition of liquor baron Vijay Mallya from the U.K. for defaulted loans to banks.

Need for a law in this regard:

There have been several instances of economic offenders fleeing the jurisdiction of Indian courts, anticipating the commencement, or during the pendency, of criminal proceedings. The absence of such offenders from Indian courts has several deleterious consequences—first, it hampers investigation in criminal cases; second, it wastes precious time of courts of law; third, it undermines the rule of law in India.

Who is a fugitive economic offender?

A Fugitive Economic Offender is a person who has an arrest warrant issued in respect of a scheduled offence and who leaves or has left India so as to avoid criminal prosecution, or refuses to return to India to face criminal prosecution.

Joint HADR Exercise:

The Annual Joint Humanitarian Assistance and Disaster Relief (HADR) Exercise involving multiple agencies and being conducted by Indian Navy’s Western Nava Command has commenced at Naval Station Karwar.

- Named as “KARAVALI KARUNYA”, the exercise, which involves both professional exchange and actual disaster response mechanisms is set on a Tsunami disaster scenario.

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