

GENERAL STUDIES-1

INDIAN CULTURE

RAENG OF TRIPURA

Why in news?

To document and preserve the cultural and social diversity of the Reang tribe, a publication named 'Mapping with respect to Particularly Vulnerable Tribal Groups in Tripura', is being published by the Tribal Research and Cultural Institute, Government of Tripura.

About the tribe

- Reang is a tribal community residing in Tripura.
- They practise Ihum cultivation
- Reside in 'tong ghar' (bamboo huts) that are built on a raised platform.
- Of 19 tribes of Tripura, they are the only one to be classified as a 'Particularly Vulnerable Tribal Group (PVTG)'. The classification is based on their pre-agricultural level of technology and the low levels of literacy in the community.
- They have limited access to education.
- With land rights being granted, many members of the community have taken to ploughing or settled cultivation.
- They are 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.



GOVINDA BHAT

- Yakshagana artiste Surikumeri K. Govinda Bhat
- Kendra Sangeet Natak Akademi Award for 2016.

Sangeet Natak Akademi:

 India's national academy for music, dance and drama – is the first National Academy of the arts set-up by the

Awards conferred

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.
- Republic of India. It was created by a resolution of Government of India in 1952.
- 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.
- Works with governments and art academies in states and territories of the country.
- 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.

SOCIAL ISSUES AND INDIAN SOCIETY

CHILD MARRIAGES: RAJASTHAN TAKES THE LEAD

Report: Prepared by Young Lives in coordination with the National Commission for Protection of Child Rights (NCPCR)

Pointers



- Rajasthan has highest incidence of child marriages in the country
- Followed by Meghalaya, Arunachal Pradesh, Bihar.
- No marriage below 10 years of age was reported across the country.
- There is a minor decline of 0.1% in the marriage of minor girls.
- The decline in rural India, between 2001 and 2011 Census, was marginally higher than in the whole of the country.

The incidence of child marriage among girls increased substantially in urban India in the same periodre

PHYSICAL AND WORLD GEOGRAPHY

CYCLONE MORA:

• Formed in the east-central part of Bay of Bengal

GENERAL STUDIES-2

INDIAN POLITY

SC'S TAKE ON PREVENTIVE DETENTION

Supreme Court has observed that preventive detention after branding after terming a person as a 'goonda' merely because the normal legal process is ineffective and time-consuming is illegal.

Definition

The imprisonment of a person with the aim of preventing them from committing further offences or of maintaining public order.

<u>Only grounds for Preventive</u> <u>detention</u>

- 1. Security of state.
- 2. Maintenance of public order.
- 3. Maintenance of supplies and essential services and defence.
- 4. Foreign affairs or security of India.



Constitutional provisions

It is the most contentious part fundamental rights. Article 22 (3) of the Indian constitution provides that "if a person is arrested or detained under a law providing for preventive detention, then the protection against arrest and detention under Article 22 (1) and 22 (2) shall not be available."

Concerns raised by the apex court

- Seriously affects the liberty of the citizen. Hence, preventive detention cannot be resorted to when sufficient remedies are available under the general laws of the land.
- The order of preventive detention, though based on the subjective satisfaction of the detaining authority, affects the life and liberty of the citizen under Articles 14, 19, 21 and 22 of the Constitution.
- The power being statutory in nature, its exercise has to be within the limitations of the statute, and must be exercised for the purpose the power is conferred.
- If the power is misused, or abused and is based on grounds beyond the statute, it will stand vitiated as being corrupt exercise of power.

GOVERNANCE ISSUES AND POLICIES

CATTLE TRADE LAWS

The recently notified Prevention of Cruelty to Animals (Regulation of Livestock Markets) Rules of 2017 contravene the provisions of the Prevention of Cruelty to Animals Act of 1960 — under which it has been notified.

New rules

The government placed restrictions on the sale of cattle in a livestock market for purposes of slaughter and religious animal sacrifices.

• Sale of cattle in markets only to verified "agriculturists", who have to give an undertaking to authorities that cattle will not be sold or



- slaughtered for meat. Nor shall the animal be used for sacrifices. The animal will be used only for farming.
- Takes away the rights of the owner to even sell the carcass of an animal dying of "natural causes". The rules prescribe that the carcass will be incinerated and not be sold or flayed for leather.

Older law:

The Prevention of Cruelty to Animals Act, 1960 does not impose any such restriction. It does not ban a cattle owner to sell the carcass of his animals for leather. The 1960 Act intends to "prevent the infliction of unnecessary pain or suffering on animals".

- One of the functions of the Animal Welfare Board of India (AWBI) under the Act is to "advise the government or any local authority so as to not inflict unnecessary pain or suffering in the pre-slaughter stages as far as possible, and animals are killed, wherever necessary, in as humane a manner as possible."
- The Act further recognises slaughter for food and does not categorise it as cruelty.

SC Observations

When a PIL petition came up for hearing, the court had specifically noted how Section 28 of the Act mandates that "nothing contained in this Act (1960 Act) shall render it an offence to kill any animal in a manner required by the religion of any community."

The restriction on trade of cattle or carcasses in livestock markets will have to be considered in the context of the fundamental right to occupation, trade or business under Article 19 (1) (g) to see whether it is "reasonable."

Possible Challenges:

Rules cannot be used to bring within its purview a subjectthat has been specifically excluded by the act.

Besides, many states have questioned the centre's unilateral decision on cattle, which is a state subject.

NORTH EASTERN COUNCIL



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

Backgrounder to the council

In 1971, the Indian Central government set up the North Eastern Council by an Act of Parliament.

<u>Members:</u> Eight States of North East, with their respective Chief Ministers and Governors representing them. Sikkim was added to the council in the year 2002.

Headquarters: Shillong

Functions:

- 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.

NATIONAL COMMISSION FOR SCHEDULED TRIBES (NCST)

Why in news?

National Commission for Scheduled Tribes (NCST) 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.

Backgrounder

NCST was 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).

Composition

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.

Functions

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.

It is also authorized 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.

LEGALIZING GAMBLING

Why in news?

The Law Commission has sought views from the public and stakeholders on legalizing gambling and betting. The views would contemplate on these issues to be "morally correct or not in the Indian circumstances". The inputs are to shed light on the aforesaid activities conducted clandestinely across the country which are the cause of ruin for many families by rendering them bankrupt. It also wants to generate opinion on the feasibility of foreign betting.

Issues at hand



- Families are rendered bankrupt and many are behind bars.
- Online gambling and betting is very difficult to curb.
- A lot of money is involved in illegal gambling business, creating a
 parallel economy by converting legally earned money into black
 money that is drained to gambling operators in other countries
 online.

Legal aspect

Gambling is regulated under an archaic law, the Public Gambling Act of 1867. It is a state subject. There is no uniformity in the State laws and most of these laws do not cover online or virtual gambling, The Information Technology Act of 2000 vaguely prohibits online transmission and publication of material which "corrupt" persons.

SANKHYIKI BHAWAN: NEW OFFICE OF NSSO

It is the newly inaugurated office of the NSSO with all divisions under one roof. It will improve coordination resulting in 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.

WELFARE SCHEMES AND DEVELOPMENTAL GROUPS NAAC WINS QUALITY AWARD



National Assessment and Accreditation Council (NAAC) of India was

bestowed with the prestigious International Award of Asia Pacific Quality Network (APQN) --"APQN Quality Award 2017 for International Co-operation in Quality Assurance."

It's an award for quality assurance of higher education.

NAAC

- An organisation that assesses and accredits institutions of higher education in India.
- Autonomous body funded by University Grants Commission
- Headquartered in Bangalore.
- Established in 1994 based on recommendations of National Policy in Education (1986).

DARWAZA BAND CAMPAIGN

Launched by the centre to promote toilet use and free the villages from open defecation.

<u>Implementing ministry:</u> Ministry of Drinking Water and Sanitation under Swachh Bharat Mission.

- The campaign is being supported by the World Bank.
- It encourages behaviour change in men who have toilets but are not using them.

Behaviour change has been the focus of Swachh Bharat Mission, which is being pursued through a countrywide comprehensive IEC(Information-Education-Communication) programme.

BETI BACHAO BETI PADHAO

<u>Implementing ministry:</u> Ministry of Women & Child Development (MWCD), Ministry of Health & Family Welfare and Human Resource Development



Why in news? MWCD issued a clarification stating that **the BBBP scheme** has no provision for individual CASH TRANSFER COMPONENT.

About the scheme

Beti Bachao Beti Padhao scheme focuses on challenges the patriarchal mindsets, strict enforcement of PC&PNDT Act, aims to advance girl education ultimately focusing on issues of women empowerment on a life cycle continuum.

It is not a DBT (Direct Benefit Transfer) scheme.

- Launched in 2015 at Panipat in Haryana.
- Objective of promoting gender equality and the significance of educating girls.
- Endeavour to improve the Child Sex Ratio through multi sectoral interventions including prevention of gender biased sex selection and promoting girls' education and her holistic empowerment.

INDIA AND ITS INTERNATIONAL RELATIONS

EMIGRATE PROGRAMME OF MEA

Why in news?

The United Arab Emirates raised a red flag with the Ministry of External Affairs over the eMigrate programme citing "sovereignty issues."

Backgrounder

Upon receiving multiple complaints from workers about mistreatment, the MEA in 2015 set up a database initiative called the eMigrate programme to collate extensive information on emigrants as well as foreign employers, their companies and recruiting agents.

Issue

This collection of data is being termed as violation of sovereignty by the UAE. The concerns are not restricted to India's database of foreign

employers in that country, but includes the eMigrate programme's mandate to inspect premises of UAE companies, which they want stopped immediately.

Other Gulf countries, including Saudi Arabia, had also raised issues with the eMigrate system way back.

Concern for India

India has seen a job crunch in the Gulf markets in the past few years.

While India retained the top position as a recipient of remittances, it saw the biggest year-on-year decline of in 2016.

MINESWEEPER DEAL

After protracted negotiations, India and South Korea are set to finalise the deal for 12 minesweepers for the Indian Navy.

- The minesweepers or Mine Counter Measure Vessels are the ships that would be manufactured in India under Transfer of Technology.
- Minesweepers are crucial to detect mines and explosives planted by the enemy targeting our ships at our harbours.

Importance of the deal

Minesweepers use sonar systems to detect mines planted on the seabed or mines that float at predetermined depths.

Presently Indian navy has ageing minesweepers which will be retiring by 2018 end. Earlier efforts to procure new MCMVs have been delayed.

INDIA's SEZs in BANGLADESH



India plans to invest in Bangladesh via three mega Special Economic Zones (SEZ) exclusively for Indian companies. However, this has hit a road bump.

Where?

Mongla, Bheramara and Mirsarai

Why?

Indian companies pointed out several constraints, major ones being inadequate infrastructure and lack of uninterrupted power supply

Alternative spots sought

For better connectivity and business prospects, India sought alternative sites close to the Chittagong Port and the capital city of Dhaka.

Backgrounder:

India and Bangladesh had inked a Memorandum of Understanding (MoU) in 2015 for cooperation on establishing Indian SEZs in Bangladesh.

SEZ

A Special Economic Zone (SEZ) is a region that more liberal economic laws with an aim to foster development, promote rapid economic growth by providing tax and business incentives for attracting foreign technology along with investment. These are also known as "favorite Investment destinations" for foreign establishments.

Incentives and facilities

- Duty free import/domestic procurement of goods for development, operation and maintenance of SEZ units
- 100% Income Tax exemption on export income for SEZ units for first 5 years, 50% for next 5 years
- Exemption from minimum alternate tax.
- External commercial borrowing by SEZ units upto US \$ 500 million in a year without any maturity restriction through recognized banking channels.
- Exemption from Central Sales Tax and Service Tax.
- Single window clearance for Central and State level approvals.
- Exemption from State sales tax and other levies as extended by the respective State Governments.

The construction of these SEZs and Indian investment in the zones were to be facilitated through concessional Line of Credit extended by India to Bangladesh.

INDO-RUSSIAN ENGAGEMENT FOR NUCLEAR PLANT



India and Russia have signed the agreement on setting up two more units of Kudankulam Nuclear Power Plant (KKNPP) in Tamil Nadu. The talks had started for 5th and 6th unit at Kudankulam in 2015 itself.

Issue

KKNPP ran into hurdles due to protests against the project. However, the government has managed to take the project ahead. Over the years, four reactor units were built and operationalised. The plant hasn't yielded the promised power during warranty testing.

Details of New units

The two reactor units will be built and installed jointly by the Nuclear Power Corporation of India Ltd and Atomstroyexport. The latter is a subsidiary of Rosatom–regulatory body of Russian nuclear complex. Each of the

units will have a power generation capacity of 1,000 MW.

Kudankulam Nuclear Power Plant:

Situated in Koodankulam in the Tirunelveli district of the southern Indian state of Tamil Nadu.

• The reactors are pressurised water reactor of Russian design.

The plant will become the largest nuclear power generation complex in India producing a cumulative 2 GW of electric power.

INTERNATIONAL AFFAIRS

<u>Pressurized water reactors</u> (PWRs):

They are one of three types of light water reactor (LWR), the other types being boiling water reactors (BWRs) and supercritical water reactors (SCWRs).

- In a PWR, the primary coolant (water) is pumped under high pressure to the reactor core where it is heated by the energy released by the fission of atoms.
- The heated water then flows to a steam generator and the steam flows to turbines which, in turn, spins an electric generator.
- In contrast to a boiling water reactor, pressure in the primary coolant loop prevents the water from boiling within the reactor.
- All LWRs use ordinary water as both coolant and neutron moderator.



G-7 SUMMIT

Members: United States, Canada, Britain, France, Germany, Italy and Japan. EU is also represented.

Backgrounder:

- The bloc meets annually to discuss global economy, security and energy.
- It 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.
- The decisions here are not binding and it is a forum for exchange of ideas
- The presidency, which rotates among member states, is responsible for setting the agenda and arranging logistics.

2017 *summit*

Held at: Taormina, Italy

The collective statement committed to "strengthening our collective energy security and ensuring open, transparent, liquid, and secure global markets for energy resources and technologies."

INTERNATIONAL DAY OF UN PEACEKEEPERS

Date: May 29th

Why?: 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.

2017 theme: "Investing in Peace Around the World".

Backgrounder on UN Peacekeeping

Established: 1948.



First mission: Establishment of the UN Truce Supervision Organization (UNTSO) to observe and maintain ceasefire during the 1948 Arab-Israeli War.

Principles of UN Peacekeeping

- 1. Consent of the parties
- 2. Impartiality
- 3. Non-use of Force except in self-defence and defence of the mandate.

Important facts

- 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.

GENERAL STUDIES-3

INDIAN ECONOMY

ABOLITION OF FIPB



Why in news?

Foreign Investment Promotion Board (FIPB) which saw its inception soon after liberalization, will be abolished. The move has been hailed as positive one for the inflow of investments from abroad at a time when the rest of the world is turning protectionist.

Backgrounder:

The FIPB was set up in the first half of 1990s as an inter-ministerial mechanism to look in to investment proposals from abroad.

- FIPB works under finance ministry's department of economic affairs.
- FIPB's main function was to vet Foreign Direct Investment (FDI) proposals in India which went on the government's approval route.
- It had the power to consider and recommend FDI.
- It also provided inputs for FDI policy-making.

Composition:

- 1. Secretary, Department of Economic Affairs, Ministry of Finance was the chairman of the board
- 2. Secretary, Department of Industrial Policy & Promotion, Ministry of Commerce & Industry
- 3. Secretary, Department of Commerce, Ministry of Commerce & Industry,
- 4. Secretary, Economic Relations, Ministry of External Affairs,
- 5. Secretary, Ministry of Overseas Indian Affairs.

Reasons for abolition:

- Lot of paperwork required by the institution from a person filling a proposal. Was becoming redundant with more than 90-95 per cent of investment coming in through the automatic route.
- FIPB was amongst the last controls in the era of liberalization. Also it had too many secretaries almost acting like middlemen
- The abolition will reduce red-tapism, ease of doing business will improve making India an attractive destination for FDI.

What about the approval then?



The Department of Industrial Policy and Promotion under the Commerce Ministry will formulate a standard operating procedure(SOP) to process foreign direct investment applications in 11 sectors that are still not in the automatic FDI approval list.

The department would have to be consulted by line ministries, empowered to take 'independent' decisions on investments proposed in their domains.

Criticism

- 90% of investment flowing in already does not require an FIPB nod as it comes in through the automatic route.
- The efficacy of the new mechanism will be determined by the ability of individual ministries to exercise 'discretionary' powers without fear, favour or the cover provided by a collective decisionmaking body.
- Cumbersome rules, not the FIPB, have been responsible for a less than enthusiastic response from foreign investors in some sectors.
 - Despite allowing 100% FDI in food retail, rules prohibit foreign players from using a small fraction of their shelf space for non-food items, affecting investment plans. This, in a sector that can create millions of jobs and boost farm incomes. On the other hand, archaic land acquisition and labour laws continue to make it difficult for large factories to come up.

Conclusion/take away

The abolition of the FIPB is a part of the government's efforts to make India more investor friendly, alongside time-bound resolution of insolvency.

PARTICIPA
TORY NOTE
NORMS

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.

Why in news?

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.

Securities and Exchange Board of India (SEBI) in a bid to tighten norms for issuance of offshore derivative instruments (ODIs) and participatory notes (PNs) so as to reduce the exposure of investors in the Indian equity market.

What norms is SEBI talking about?

- SEBI has proposed levying a regulatory fee on every foreign portfolio investor (FPI) that issues ODIs or PNs.
- 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.

Concerns

• Anonymous nature of the instrument and beyond the reach of Indian regulators.

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.

INDIA LOSES THE FASTEST-GROWING ECONOMY TAG

India lost its fastest-growing major economy tag in the fourth quarter of 2016-17, with GDP growth coming in at 6.1% compared with China's 6.9% in the same period.

Sectors	2016-17 Q3 growth*	2016-17 Q4 growth
Agriculture, forestry & fishing	6.9	5.2 🐺
Mining & quarrying	1.9	6.4 👚
Manufacturing	8.2	5.3 🌷
Construction	3.4	-3.7 🐺
Trade, hotels, transport	8.3	6.5 👃

^{*}QUARTERLY ESTIMATES OF GVA AT BASIC PRICES FOR 2016-17 (AT 2011-12 PRICES)



Gross value added (GVA) growth was 6.6% for 2016-17 and 5.6% in the fourth quarter, compared with 7.9% in 2015-16 and 8.7% in Q4 of that year.

 The data indicates that post-demonetisation there has been a slowdown. The GDP growth rate is slightly higher (than GVA growth) because of a more than proportionate increase in indirect tax net of subsidies. But the GDP also shows a reduction in Q3 and

Q4 numbers compared with the beginning of the year. So demonetisation has clearly had a tangible and adverse impact.

Looking deeper, GVA growth slowed in almost every sector in Q4 of 2016-17 compared to the growth witnessed in the corresponding period of the previous year.

INTERNATIONAL COMPARISON PROGRAMME (ICP)

Why in news?

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

Details

The ICP is a worldwide statistical initiative led by the World Bank under the United Nations Statistical Commission

• Objective of providing comparable price and volume

Purchasing power parity(PPP)

PPPs measure the total amount of goods and services that a single unit of a country's currency can buy in another country. PPPs can thus be used to convert the cost of a basket of goods and services 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).

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- measures of gross domestic product (GDP) and its expenditure aggregates among countries within and across regions.
- It partners with international, regional, sub-regional and national agencies.

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.

AGRICULTURE AND CROPPING PATTERNS

ODISHA'S FIRST MEGA FOOD PARK

Set up by: M/s MITS Mega Food Park Pvt. Ltd.

Place: Rayagada.

Implementing ministry: Ministry of Food Processing Industries

Mega food parks



To boost the food processing sector by value addition and reducing food wastage at every stage of the supply chain

Particularly focuses on perishables

The scheme aims at providing a mechanism to link agricultural production to the market by bringing together farmers, processors and retailers to increase farmers' income and creating employment opportunities in rural sector.

How the scheme works?

- It has a cluster based approach based on a hub and spokes model.
- It includes creation of infrastructure for primary processing and storage near the farm in the form of Primary Processing Centres (PPCs) and Collection Centres (CCs) and common facilities and enabling infrastructure at Central Processing Centre (CPC).
- The scheme is demand-driven and would facilitate food processing units to meet environmental, safety and social standards.
- Mega Food Park project is implemented by a Special Purpose Vehicle (SPV) registered under the Companies Act.
- State Government/State Government entities/Cooperatives applying for setting up a project under the scheme are not required to form a separate SPV.
- The financial assistance for Mega Food Park is provided in the form of grant-in-aid at 50% of eligible project cost in general areas and at 75% of eligible project cost in NE Region and difficult areas (Hilly States and ITDP areas) subject to maximum of Rs. 50 crore per project.

INDUSTRY, INFRASTRUCTURE AND INVESTMENT INLAND WATERWAYS AUTHORITY OF INDIA

Why in news?

The IWAI organized a road show in association with the Ministry Of Development of North Eastern Region (DoNER) in Guwahati to contemplate on the major issues linked with developing the rivers of the North East as viable and sustainable means for cargo and passenger transportation.

NE waterways:

Of the 106 new National Waterways notified in 2016 under the National Waterways Act, 19 are in the North East.

The GoI is consistently endeavoring to promote waterways as a more cost effective, economically viable and environment friendly mode of transport. Efforts have been underway to develop IWT in the North East Region.

Backgrounder:

IWAI is a statutory authority headquartered in Noida, UP.

It builds necessary infrastructure for waterways, surveying the economic feasibility of new projects, also overlooks administration.

SCIENCE AND TECHNOLOGY

ZIKA IN INDIA

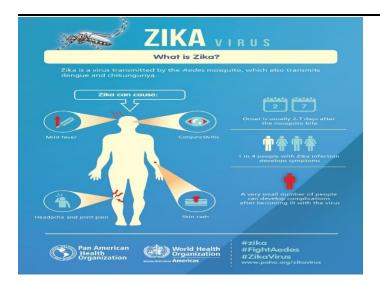
Three cases of Zika were reported from Ahmedabad in the World Health Organization (WHO) 'member state report'. The health ministry acknowledged the outbreak and said the outbreak had been contained.

Backgrounder

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.





3D-PRINTED CARTILEGE

Why in news?

Indian researchers achieved a measure of success in developing cartilages that are molecularly similar to the ones seen in human knees. Scientists printed cartilage using bio-ink.

Details

The bio-ink has high concentration of bone-marrow derived cartilage stem cells, silk proteins. This chemical composition supports cell growth and long-term survival of the cells. 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:

The cartilage found in the knee is an articular cartilage that is typically sponge-like, which has a huge load-bearing capacity. But the ones produced in the lab known as transient cartilage becomes bone cells and become brittle within a short time, thus losing the capacity to take load.

But the 3D bioprinting approach allows the high concentration of bonemarrow derived cartilage stem cells solving the problem.



'SEE-THROUGH' FROG

A newly identified frog species, Hyalinobatrachium yaku, with transparent skin is under threat of extinction.

- Found in the Amazonian lowlands of Ecuador, it has unique physical and behavioural traits.
- Males guard the eggs
- Drying and polluting streams are the threats.

RS145556679* GENE

A unique gene variant in people living in isolated Greek villages that protects them from heart diseases despite enjoying a high-fat diet.

• It is associated with lower levels of both 'bad' natural fats

AKASH

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 multiple aerial threats from different directions.
- The maximum range of this missile is 25 kilometres and can neutralise targets at a maximum altitude of 20 kilometres i.e low and 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.

AERONAUTICAL TEST RANGE (ATR)

The newly built Aeronautical Test Range (ATR) of the Defence Research & Development Organisation (DRDO) at Chitradurga in Karnataka was inaugurated.

- It is aimed at creating conditions for research and 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.

SUBMARINE KALAVARI

It is first of the six Scorpene submarines being built in India under technology transfer from France.

Details

Kalvari is named after a deep-sea tiger shark. It is part of the ambitious Project 75 of Indian Navy's submarine program.

- All the six submarines under this projects will be indigenously built at Mumbai's Mazagaon Dockyard Ltd.
- These attack submarines have diesel propulsion and an additional air-independent propulsion.
- Operates in all theatres including the Tropics.
- It can undertake anti-surface warfare, anti-submarine warfare, mine laying, intelligence gathering, surveillance, etc.



Its superior stealth capability enables it to cripple the enemy using precision guided weapons. The attack can be launched with torpedoes, as well as tube launched anti-ship missiles, whilst underwater or on surface.

ENVIRONMENT

BICYCLE PATROLS IN DELHI

Objective

Focusing on prevention of crime alongside making the city green, the Delhi police has undertaken an initiative for patrolling the parks, congested lanes and other public places using bicycle patrols

<u>Advantages</u>

Cycle patrols can reach traditional patrol vehicles cannot.

They make almost no noise and hence will also be utilized for patrolling during odd hours when the residents are taking rest.

Main focus will be parks where citizens including senior citizens and women go for morning and evening walks. They will also be introduced in the University campus areas and near schools/colleges.

With zero environmental costs and additional health benefits for the riders, it will usher in the concept of 'Policing by community involvement'.

The bicycle patrols will be in 'buddy pairs' and are equipped with standard police communication equipment which will operate in 'handsfree mode'

CITIES TO GET HOTTER

A recent study in the journal Nature: Climate change, the world's cities may be as much as eight degrees Celsius warmer by 2100 with the assumption that

Urban heat island effect occurs when cooling parks, dams and lakes are replaced by heatconducting concrete and asphalt —

making cities warmer than their

surrounds

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emissions of planet-warming greenhouse gases continue to rise throughout the 21st century.

Causes

Dual onslaught of global warming and localised urban heating.

• Nearly 5 degrees Celsius rise would be attributed to average global warming and the rest to the so-called urban heat island (UHI) effect