

# KSG

An Institute For **IAS** Exam...



# CURRENT CONNECT

**Mains Content Enrichment Article By Dr. Nitin Shakya CSE 2018**

**" Get your Mains Answers evaluated through this Copy"**

# ECONOMIC SURVEY 2018-19

## INDIAN ECONOMY: A SNAPSHOT

### GDP Growth

At constant prices



\*Provisional estimates

\*\*Projected

### Fiscal Deficit

% of GDP



\*Provisional actual

### Inflation

Average, in %



### Foreign Trade

Good and Services (%)



\*Provisional estimates

### Foreign Exchange Reserves

In US \$ billion



March End

### Agriculture, Forestry & Fishing

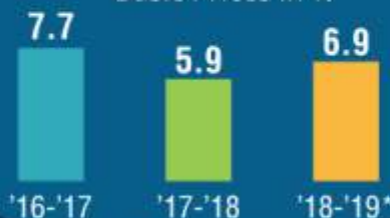
Growth Rate of GVA at Basic Prices in %



\*Provisional estimates

### Industrial Growth

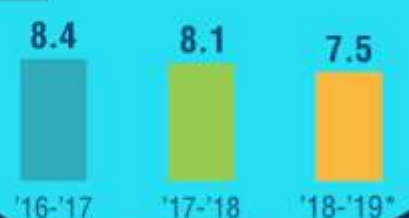
Growth Rate of GVA at Basic Prices in %



\*Provisional estimates

### Services

Growth Rate of GVA at Basic Prices in %



\*Provisional estimates



/PIB\_India



/PIBHindi



/pibindia



/pibindia



/pibindia.wordpress.com



/pibindia



pib.gov.in

KBK

## **ABOUT CURRENT CONNECT**

It gives us immense pleasure to present an innovative approach to master current affairs. Current is a passing wind and diverse issues happen at the same time. It is to an extent chaotic. Newspapers, magazines and various other sources report the chaos per se. With our experience of current affairs we have tried to give “the current” a medium to travel. It is the syllabus of the UPSC with their components that are the medium through which the “Current is Passed” to the readers. Ever since the new syllabus of the UPSC came into existence, current has been gaining significance both at prelims as well as mains examination. This book is meant to cover current affairs and related questions arising from those events. We have not only covered the current events for their factual contents but also presented it in such a way that any question asked from that topic gets covered. Moreover, topics are also “peppered” with the relevant facts/key concepts that are related to the theme. We have also given questions for practice both, subjective and objective, so that candidates are oriented to the examination mode. It is a collection covering myriad source yet in a manageable size. To use this book we recommend you to master the components of general studies (GS) syllabus as broken into rows and columns (provided in the beginning after preface). Each cell comprising of the portion of GS becomes the connect for the current and every news subsequently covered guides the reader to the address of the syllabus. It is logical to expect that same issue may be connected to more than one topic of the syllabus. Further, the news also has some additional vistas opened for the readers by adding a box with a title “PEPPER IT WITH” where we expect the students to build further around the theme.

We are also trying to reach the remotest part of the country with our spirit and zeal of “Mains Answer Writing”, which has been admired by students, CSE rankholders and other scholars. Continuing in line with the effort, we have started with programs like 7 Question (7Q) Challenge, Shell Points, Stock Points, Content Enrichment Booklet etc.

When it comes to evaluation, we are altogether at a different level. We are also reaching every nook and corner with this expertise for the aspirants of CSE. Now you can write a Mains Answer and get it evaluated from our Expert Team and can get Feedback. Drop a mail at [evaluation@ksgindia.com](mailto:evaluation@ksgindia.com) for registering yourself in our race to perfection. Don't wait, it's your golden chance to crack this exam and fulfill your passionate dream.

**Team KSG**

## INDEX

### POLITY

National Investigation Agency (Amendment) Bill, 2019 .....	7
Article 341 .....	8
Electronically Transmitted Postal Ballot System (ETPBS).....	8
Draft Model Tenancy Act 2019.....	9
New Code on Wages .....	10
Single Water Tribunal .....	11
Special Human Rights Court in each District .....	13
Cabinet approves The Transgender Persons (Protection of Rights) Bill 2019 .....	14
Pocso Act Death Penalty .....	14

### SCHEMES

Silk Samagra .....	15
PARAMARSH Scheme.....	17
Swadesh Darshan Scheme .....	18
The Restructured National Bamboo Mission.....	19
Ethanol Blended Petrol (EBP) Programme .....	20
Pradhan Mantri Gram Sadak Yojana-III (PMGSY-III) - Rural road Connectivity .....	22
Scheme for Trans-discipline Research for India's Developing Economy (STRIDE) .....	23
Atal Community Innovation Centre (ACIC) program .....	24
LaQshya .....	25
One Nation one Ration Card .....	26

### SOCIAL ISSUES

Food and Nutrition Security Analysis, India, 2019 .....	28
WHO Guidelines on Self Care Interventions for Health .....	29
Right to Education for Children with Disability .....	30
Broadband Readiness Index for States.....	33
Global Multidimensional Poverty Index.....	34
Safeguarding the Intellectual Property Rights.....	35
State of Food Security and Nutrition in The FAO Report 2019 .....	36
National Digital Health Blueprint Released by Health Ministry .....	37

### ECONOMY

Urban Haats .....	38
Utkarsh 2022.....	38
Insurance Sector in India .....	39
Huawei and 5G Rollout in India: Economics of 5G and Race to 'Spy Digital Ecosystem'.....	40
Urea sector towards Self Sufficiency .....	42
Banking Regulations in India Stricter Than Basel Norms .....	43
Free Trade and Warehousing Zones .....	45
One Nation One Grid.....	45
Working Group on Core Investment Companies .....	46

### BUDGET

Annual Financial Statement .....	47
Making Cashless Economy Pocket-Friendly .....	51
Overseas Bond and India.....	53

### INTERNATIONAL RELATIONS

Kulbhushan Jadhav and the ICJ Verdict .....	54
India-Caught Between US and Iran Tangle .....	56

Indo-Pacific Dialogue Forum.....	58
U.N Palestine Refugee Agency .....	58
Non-Aligned Movement.....	59
RCEP Free Trade.....	60
H.R.1044 - Fairness for High-Skilled Immigrants Act of 2019.....	61
India Russia Strategic Economic Dialogue .....	62
India-UK Joint Economic and Trade Committee .....	62
Port Integrity Campaign .....	63

### **ENVIRONMENT**

MOSAic Mission .....	63
Jalyukta Shivar Abhiyaan .....	64
Artificial Coral Reefs and Coral Rehabilitation Programme.....	65
Tamil Yeoman declared Tamil Nadu's state butterfly .....	67
Dracaena Cambodiana .....	67
ILO report on impact of Global Warming in Labour .....	68
Plastic Recycling and Waste Management .....	69
Ganges River Dolphin.....	71
Electric and Hybrid Vehicles.....	72
Floods in India .....	74
Direct sale of Bio diesel .....	75

### **SCIENCE & TECHNOLOGY**

Chandrayaan-2.....	76
Gaganyaan Programme .....	77
Design, Manufacture and Deployment of Navic Systems.....	78
Radiation Technology for Sewage Treatment .....	80
Google's Project Dragonfly .....	81
Hayabusa-2: Japanese Spacecraft Makes Final Touchdown on Asteroid .....	82
Creation of Gaganyaan National Advisory Council.....	83
Ploonet .....	85

### **AGRICULTURE**

Feminization of Agriculture .....	85
Zero Budget Natural Farming .....	86
Organic Farming in India .....	88
Tree Based Farming in The Country .....	90

### **SECURITY**

Military Exercise and Operation.....	91
Fighting Naxalism-Biggest Internal Security Threat.....	92
New Security Initiative.....	92

### **ART & CULTURE**

"Find the Incredible You" Campaign.....	93
Lord Jagannath Car Festival .....	93
Markandeshwar Temple In Maharashtra.....	94
Indian Side of Kailash Mansoravaron Tentative List of World Heritage Sites of India .....	94
Handloom Marketing Assistance (HMA) Scheme for Marketing of Arani Silk Saree .....	95
Miscellaneous .....	95
Concept Clearing Assignment .....	98
P.T. Oriented Questions .....	99

## Education

### DATA

1. **Only 0.7% of India's GDP** is spent on higher education
2. Only **Half of all students** who enter primary school make it to the upper primary level and less than half that get into the 9-12 class (MHRD)
3. **Low GER of 25%** (as per All India Survey on Higher Education (AISHE) in comparison of USA (86%), China (43%) **(Problem of Iniquitous Access)**
4. Largest no. of youth and adult illiterates in the world
5. Insufficient Financing and delayed fund flows-Currently at 3.5% Earlier policies and committees have endorsed an expenditure of 6% of GDP
6. Even after 8 years only 8% school complying with the norms of RTE, with 20 of the 34 states & UTs falling below this national average (CAG report's finding)
7. With **65% of students enrolled in public schools**, need of the hour is to comprehensively reform and revitalise this sector
8. Recently the government has approved the proposal for expanding the scope of HEFA by tasking it to mobilise Rs 1,00,000 crore for Revitalizing Infrastructure and Systems in Education (RISE) by 2022 along with enhancing the its capital based to Rs. 10,000 crore.
9. With a **literacy rate of 77 percent**, India lags behind other BRICS nations which have literacy rates above 90 percent.
10. In the Union Budget for the financial year 2018-19 Education sector has witnessed **an increase of almost 4% in terms of funds allocation.**

#### Education for All

SDG-4 on education requires ensuring equitable, inclusive and quality education with promotion of lifelong learning opportunities for all by 2030.

#### Annual Status of Education Report (ASER) 2018

The survey shows the prevalence of learning deficit and the poverty of basic reading and arithmetic skills among students in Indian schools.

The governments and civil society need to focus on three aspects-

- (i) a bigger spending on education maybe 6% of GDP instead of the present 2.7%
- (ii) political willingness to improve education,
- (iii) a drastic change in the quality of teacher education.

### Constitutional Provisions:

- **Article 21**-A free and compulsory education of all children in the age group of six to fourteen years.
- **Article 28**- freedom as to attendance at religious instruction or religious worship in educational institutions.
- **Article 29**-equality of opportunity in educational institutions.
- **Article 30**- right of the minorities to establish and administer educational institutions.
- **Article 45**- Provision for free and compulsory education for children.
- **Article 46**- promotion of education and economic interests of the scheduled caste, scheduled tribes and the weaker sections of society.
- **Article 350 A**- facilities for instruction in mother tongue at primary stage.

### Legal provisions:

- The Right of Children to Free and Compulsory Education (RTE) Act, 2009.

### Fundamental Duties

- Fight against illiteracy: Who is a parent or guardian to provide opportunities for education to his child or ward, as the case may be, between the age of six to fourteen years

### RELATED SC JUDGEMENTS AND CASES

- Right to Education - Mohini Jain v state of Karnataka
- The constitutional basis for regulating the fees charged by private schools
- was considered by the Supreme Court in
- **T.M.A. Pai Foundation v. State of Karnataka (2002).**

### KEY PHRASES

- ✓ RTE focuses exclusively on inputs (teacher, infra, building) rather than outcomes (improved learning levels)
- ✓ Crisis of credibility
- ✓ Commercialisation of education
- ✓ Hollowing out of the public school
- ✓ 4Ds of education- Demand, Demography, Deregulation, Democracy
- ✓ Degree shop'
- ✓ Islands of excellence
- ✓ politicization of Education
- ✓ Over regulated and under governed
- ✓ skill Capital
- ✓ From Right to Education to Right to learning
- ✓ Massification of higher education
- ✓ Opportunity Cost of Education. (School education isn't employable enough)

### IMPORTANT COMMITTEES

1. **Gopalaswami Committee-** to select India's 20 world -class 'Institutes of Eminence' (10 public and 10 private Higher Educational Institutions), is a progressive move in this direction
2. **TSR Subramaniam committee-** recommendation on restricting no detention policy till class 5, and following remedial coaching from Class 6th onwards
3. **Kothari commission- (1964-66)** The Education Policy of 1968, based on the recommendations of the, decided that Indian public expenditure on education must be 6% of gross domestic product (GDP).

### QUOTES

Since ancient times, it is said "**Sa Vidya ya Vimuktaye**," which means that with education we finally attain salvation. This small Sanskrit phrase essentially the thought and essence of Value Education that is relevant in all perspectives.

**Swami Vivekananda:** "if we want to make our students as a moral human being school curriculum is one of the best ways to serve this purpose"  
**Mahatma Gandhi:** "Education means all-round drawing out of the best child and man-body, mind, and spirit"

### A Shloka from Chanakyaniti-

*'माता शत्रु पिता वैरी यने बालो न ठित; न शोभते सभा मध्ये वाको यथा'*

(The parent who does not facilitate and guide their child for studies is like the greatest enemy of the child. The presence of an uneducated person in the company of educated people is a goose in the company of swans.

"Learning gives creativity, creativity leads to thinking, thinking provides knowledge and knowledge makes you great"- **Dr. Abdul Kalam.**

### BEST PRACTICES FROM STATES

1. **Migration Card** and Migration Monitoring Software: Tracking and educating migrant children in Gujarat
2. **Porta Cabins:** Residential schools for children in LWE-affected areas of Chhattisgarh
3. **Pratibha Parv:** Strengthening quality of education in government schools of Madhya Pradesh
4. **Tamil Nadu** follows the fee fixation model whereby a government committee is empowered to verify and approve fee for schools.
5. **Karnataka** is for a formula that caps fees for schools by way of framing rules under its school education legislation.

### BEST PRACTICES ON INTERNATIONAL LEVEL

**Australia-** Incentives to teachers taking rural hardship postings, 20-plus years of schooling

**Japan-** Intense focus on academics starting at age 6( low primary level drop- out rate of 0.2 percent)

**Finland-** Mandatory 15-minute break for every hour of five- hour school day, No grades until fourth grade

S.N.	1	2	3	4	5	6	7	8	9	10	11
GS- I	Culture-Art Forms, Literature and Architecture from ancient to modern times.	Indian history significant events, personalities, issues and the Freedom Struggle	Post independence issues, National boundary and disputes	Indian society features, globalization and diversity	Women - issues and developments	Urbanization - problems and remedies	Distribution of industries and resources - India and world	Geophysical phenomena such as earthquakes, Tsunami, Volcanic activity, cyclone etc	Culture-Art Forms, Literature and Architecture from ancient to modern times.		
GS- II	Indian constitution- Amendments, acts and bills.	Legislative, executive and judicial processes.	Constitutional, non-constitutional, judicial, quasi judicial, administrative and other types of bodies.	Federal structure and local bodies. Their powers and functions.	Government policies and various governance issues like transparency, accountability and - governance	Committees and schemes.	Non-government issues, self-help groups and role of civil society	Vulnerable sections of our society and social sector issues and initiatives.	International Relation-India and other countries, various Indian and international agreements, effects of other countries on India and international institutions.		
GS- III	Various measures to boost Indian economy- planning, policies, management.	Government budgeting and issues related to budget.	Agriculture, animal husbandry and transport	Food security- measures to boost food security and food processing, issues related to land- land reforms	Industries and infrastructure their growth and investment model	Space and technology, IT space, robotics and computer	Disease, biotechnology and human welfare	Innovations, intellectual property, Awards, POI and other import and aspects of S&T	Environment and disaster: government initiatives, various judgment, pollution, degradation and conservation efforts	International agreements and works of various international bodies, awards, effort by individuals and misc.	Challenges to internal security, Various Security forces and agencies and their mandate. Cyber security, money laundering and its prevention.
GS- IV	Ethical issues related to family, society, education, Corruption etc.	Ethics in public and private administration	Issues	Related laws and rules	Governance/e-Governance	Ethics in international issues	Personalities and their teachings	Other important topics			
Mis.											

## National Investigation Agency (Amendment) Bill, 2019

### News Excerpt

Recently, Parliament has passed **National Investigation Agency (Amendment) Bill, 2019** which amends the earlier **National Investigation Agency Act 2008**. The bill seeks to broaden the NIA's powers and is based on the policy of zero tolerance against terrorism.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

### Pre-Connect

- **National Investigation Agency Act 2008** was passed by the parliament in the wake of the Mumbai terror attack which had claimed 166 lives.
- It led to the enactment of National Investigation Agency in 2009 with headquarter in New Delhi.
- NIA plays the role of the national counter terrorism law enforcement agency.

### Analytica

#### Benefits

- Recent amendments in the NIA act will expand its powers to probe cases of **cybercrime and human trafficking** which was earlier restricted to terrorism and security threat only.
- It will strengthen country's resolve to fight against terrorism and vociferous tendencies which are impediment in the peace and progress of the nation.
- It will expand the agency's jurisdiction to investigate offences committed outside India, such as the Easter day bombings in Sri Lanka.

#### Other Anti Terrorism Laws in India

- ❖ Unlawful Activities (Prevention) Act, 1967 (UAPA) and proposed amendment
- ❖ The Maharashtra Control of Organised Crime Act, 1999 (MCOCA)
- ❖ Prevention of Terrorism Act, 2002 (Repealed in 2004)
- ❖ Section 66F of IT Act, 2000

### Concerns

- ✓ The recent amendment provides more teeth to NIA which might be misused against any individual or community.
- ✓ Apprehensions are that the government is stepping towards 'Police State' and NIA along with recently amended

### Salient features of NIA Amendment Bill, 2019

#### Scheduled offences:

The Act specifies a list of offences such as the Atomic Energy Act, 1962, and the Unlawful Activities Prevention Act, 1967 which are to be investigated and prosecuted by the NIA.

The Bill seeks to allow the NIA to investigate the following offences, in addition:

- (i) human trafficking,
- (ii) offences related to counterfeit currency or bank notes,
- (iii) manufacture or sale of prohibited arms,
- (iv) cyber-terrorism, and
- (v) offences under the Explosive Substances Act, 1908.

#### Jurisdiction of the NIA:

- The officers of the NIA have the same powers as other police officers in relation to investigation of such offences, across India.
- NIA can now investigate scheduled offences committed outside India, subject to international treaties and domestic laws of other countries.
- The central government may direct the NIA to investigate such cases, as if the offence has been committed in India.
- The Special Court in New Delhi will have jurisdiction over these cases.

#### Special Courts:

- The amendment state that the central government may designate Sessions Courts as Special Courts for the trial of scheduled offences.
- The central government after consultation with Chief Justice of the concerned High Court can designate sessions Court as a Special Court.
- Further, state governments may also designate Sessions Courts as Special Courts for the trial of scheduled offences.

UAPA Bill and Biotechnology Bill may furnish the authorities with unbridled power.

- ✓ It is noted that many of the major cases handled by NIA are yet to reach a conclusive end.

### Way Forward

Considering the contemporary challenges posed by the terrorism across the world has even raised the vitality of strengthening the counter terrorism structure in the country. The powers granted to the NIA should only be used to accomplish the purpose and other challenges of the modern world and not to violate the rights granted by the constitution to the citizens of this country.

#### PEPPER IT WITH

Counter Terrorism Law Enforcement Agency, NIA Courts, Code of Criminal Procedure

## Article 341

### News Excerpt

The row erupted over Uttar Pradesh government's decision to include 17 OBC communities in the list of Scheduled Castes. Central Government has claimed decision as unconstitutional, as **power of inclusion and exclusion in Scheduled Caste lies with the parliament** and not with the state legislature.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

### Pre-Connect

- As per Census 2011, Scheduled Castes constitute 21.1 percent of UP's population. On the other hand, OBCs comprises around 2/5th of state population.
- This is not the first time as in 2005 too, the ruling government of the time passed the first order to include 11 of these castes.
- In 2017 also, the Allahabad High Court stalled the then ruling government's decision to include the 17 MBCs into the SC list and ordered not to issue caste certificates to 17 castes.

#### PEPPER IT WITH

Mandal Commission, National Commission on Scheduled Caste, SC verdict on creamy layer, Census 2011

### Constitutional Provision

- Under article 341(1), the President of India, **after consultation with the Governor**, may specify, "the castes, races, tribes or parts of groups within castes or races, which shall be deemed to be Scheduled Castes.
- But **Article 341 (2)** provides that any subsequent inclusion or exclusion can be effected through **an Act of Parliament**.

### Analytica

- Inclusion in SC list will lead to the fulfilment of a 15-year-old demand by these 17 caste groups.
- Inclusion in the SC's list will help these socially and economically backward castes to get the benefits of reservation.
- Shifting of these 17 castes from OBC will leave more space in OBC quota for remaining OBC caste groups as these castes make up around 15 percent of state's population.
- It will negatively impact SC reservation as this move will dilute SC reservation quota and hence their growth aspirations.

### Way forward

Though inclusion of 17 OBC communities into SC has been done to provide benefits to the marginalised caste group but at the same time it should not violate the procedures provided in the constitution.

## Electronically Transmitted Postal Ballot System (ETPBS)

### News Excerpt

Election commission of India (ECI) introduced **Electronically Transmitted Postal Ballot System (ETPBS)** for the service voters in armed forces or deployed outside India. A record highest number of 18,02,646 were enrolled as Service Electors in 2019 and out of which 10,84,266 e-postal ballots were received in return, indicating highest ever 60.14% turnout.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

### Pre-Connect

**Service Voter:** Persons working in Central Forces under Arms Act and Government officials deployed in Embassies outside the country are classified as Service Voters and are provisioned for online enrolment.

**ETPBS** entitled service voters to cast their vote using an electronically received postal ballot from anywhere outside their constituency. The voters who make such a choice will be entitled for Postal Ballot

**PEPPER IT WITH**  
SVEEP Plan, Proxy Voting, Model Code of Conduct (MCC)

delivered through Electronic Media for a particular election.

ETPBS is **developed by Election Commission of India with the help of Centre for Development of Advanced Computing (C-DAC)**, for the use of the Service Voters.

### Features

It is a fully secured system, having two layers of security. Secrecy is maintained through the use of OTP and PIN and no duplication of casted Electronically Transmitted Postal Ballot (ETPB) is possible due to the **unique QR Code**.

### Eligibility

- Service voters, other than those who opt for proxy voting (Classified service voter)
- Wife of service voter who ordinarily resides with him.
- Overseas voter

### Benefits

- One-way electronic postal ballot will help save processing time, resources and avoid human errors and hence bring efficiency and transparency in electoral system.
- ETPBS has empowered and ensured all eligible service electors with their constitutional power to vote while performing their duty for the nation.
- The purpose of the online system was to create convenient and easy-to-use online system for Defence personnel to become service voters and to enhance Service Voter turnout which was just 4% in 2014.
- This system will facilitate creation of service voter electoral roll data.

### Way Forward

Election commission of India has organised several awareness programmes including '**Accessible Elections Campaign**' to ensure participation of older and divyang voters along with incorporation of technology like ETPBS to enhance the service voter's participation will not only strengthen the electoral process but also the notion of democracy.

### Accessible Elections

In 2019 general elections, ECI undertook initiatives to ensure participation of 6.25 million Persons with Disabilities (PwDs) registered within an electorate of 910 million.

### Initiatives for the ease of PwDs

- ❖ All polling stations were equipped with sign language expert, signage and transport facility.
- ❖ For registration of voter's mobile application and door to door registration drives were organised.
- ❖ Braille signage on Electronic Voting Machine and Electors Photo Identity Card (EPICs) were provided for ease of voters.
- ❖ In mountainous and hilly terrains of Uttarakhand, Himachal, J&K initiative of DivyangSarathi and DivyangDolis was rolled out to facilitate PwDs and senior citizens.

## **Draft Model Tenancy Act 2019**

### News Excerpt

The Ministry of Housing and Urban Affairs has released the draft Model tenancy act for public consultation. It aims to regulate rental housing by a market-oriented approach.

### Pre-Connect

- **Transfer of Property Act, 1882:** The matters, which are not covered by state legislations, are governed by this act, which is central legislation dealing with the matters between tenants and landlords.
- According to the **census 2011** nearly **1.1 crore houses were lying vacant in the country** and making these houses available on rent will complement the vision of '**Housing for All**' by 2022.

### Highlights of the Model Act

- **Security deposit** has been capped to a maximum of two months' rent in case of residential property, and a minimum of one month's rent in the case of non-residential property.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
V											

### **PEPPER IT WITH**

Real Estate (Regulation and Development) Act, 2016 (RERA)

- **Grievance redress mechanism:** The landlord is entitled to get a compensation of double of the monthly rent for two months and four times of the monthly rent thereafter if a tenant does not vacate the premises after tenancy has been terminated by order, notice or as per agreement.
- **Agreement in writing** would be compulsory for taking or letting any premises on rent.
- The landlord cannot indulge in mid-term hike in rentals or cut-off or withhold essential supplies or services like electricity, water, etc.
- The property owner must give prior notice of three months before revising the rent value.
- **Norms for increasing rent:** The draft Act also tries to address the issue of how rent can be increased. Section 9(2) of the model law provides that rent can either be increased according to the terms and conditions mentioned in the agreement, or the land owner shall be required to give a notice in writing three months before the revised rent comes into effect.

In case of a dispute, landlords and tenants will have to approach the rent authority for settlement. In case they are not satisfied with the order of the authority, they can challenge it in the rent court/rent tribunal within 30 days from the date of the order.

### Why India needs Rental legislation?

- ✓ The rental market in India remains quite underdeveloped despite acute housing shortage. Simultaneously, the vacancy levels of homes in India have been on the rise. These vacant homes could clearly feed the rental market across the country, but various factors have created roadblocks:
- ✓ **Lack of rental policy:** In the absence of a sound rental policy and proper rental contract implementation, tenant-landlord conflicts remain unresolved. Property owners find it challenging to evict tenants if they fall back on rent or misuse the property. To avoid dealing with these complications, homeowners often choose to leave their houses vacant rather than rent them out.
- ✓ **Low rental yield:** The rental yield accrued from residential property in India remains low and does not exceed single digit figures for major cities. There is no major incentive for homebuyers to invest in a second or third home as the rental income is not attractive enough.
- ✓ **Lack of demand in far-flung areas:** Vacancy rates increase as we move further away from the denser urban areas. There are very few takers for homes in the most far-flung areas. Even if rents are very low in these areas, many of these areas are simply not liveable because they lack the necessary infrastructure.

### Challenges

- The cap on the security deposit can become a pain-point for many landlords — in cities like Bengaluru, a 10-month security deposit (with some scope for negotiation) was the accepted norm.
- If a tenant defaults or causes significant damage to a property, a two-month security deposit may not cover the expenses the property owner incurs in repair.
- While the government lays down the basic policies, the exact rules will likely change within each State since land is a State subject.

### Way Forward

Despite these challenges, The Model Tenancy Act must be lauded and is a step in the right direction. It provides a clear roadmap for states to follow and tweak according to their local conditions and market.

## New Code on Wages

### News Excerpt

Recently, **Lok Sabha passed the Code on Wages Bill, 2019**, which amends and consolidates laws relating to wages/bonus and universalises the provisions of minimum wages and timely payment of wages to all employees irrespective of the sector and wage ceiling.

### Pre-Connect

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

**The Code on Wages Bill** was earlier introduced in the **Lok Sabha** on August 2017 and was referred to Parliamentary Standing Committee which submitted its Report in December 2018. However, owing to the dissolution of 16th Lok Sabha, the Bill has lapsed. Therefore, a fresh Bill namely **The Code on Wages Bill, 2019** has been drafted inter alia, after considering the recommendations of the Parliamentary Standing Committee and other suggestions of the stakeholders.

### Key Features

- The Code on Wage universalizes the **provisions of minimum wages** and **timely payment of wages to all employees** irrespective of the sector and wage ceiling. This would ensure **"Right to Sustenance"** for every worker and intends to increase the legislative **protection of minimum wage from existing about 40% to 100% workforce. Introduction of statutory Floor Wage** to be computed based on minimum living conditions will extend qualitative living conditions across the country to about 50 crore workers.
- The methodology to fix the minimum wages has been simplified and rationalised **by doing away with the type of employment** as one of the criteria for fixation of the minimum wage. The minimum wage fixation would primarily be based on geography and skills. It will substantially reduce the number of minimum wages in the country from existing more than 2000 rates of minimum wages.

### What New Code on Wages Bill does?

**The Code on Wages Bill, 2019, subsumes** relevant provisions of the **Minimum Wages Act, 1948, the Payment of Wages Act, 1936, the Payment of Bonus Act, 1965 and the Equal Remuneration Act, 1976.**

The code on wages is one of the four codes that would **subsume 44 labour laws** with certain amendments to improve the ease of doing business and attract investment for spurring growth. The four codes will deal with wages, **social security, industrial safety and welfare, and industrial relations.**

### Analytica

- The law will benefit around 40%** of the country's total population, i.e. **50 crore workers.** This is because the Minimum Wages Act, which is one of the four existing labour laws within the Wage Code Bill, does not cover 60% of the workers. It also aims to bring all domestic workers and not just the **MNREGA** workers under its ambit.
- The bill has provision for **no gender discrimination** in either recruitment or payment of wages and thus has the potential to increase women labour force participation rate in the country.
- Under the Wage Code, the **minimum wage will be determined** by taking into account the **labourers' primary skills and the geographical area** they are working in. It is this removal of the 'type of employment' criteria that enables the government to drastically bring down the categories of wages.

### Why India Needs a Wage Code

**62%**

of the workforce is made up of casual workers who need a right to minimum wage

Present minimum wage system is complex with states fixing rates for 1,709 scheduled employments, and Centre for 45

**33%**

of wage workers were paid less than the indicative minimum wage in 2009-10, according to Labour Ministry

### PEPPER IT WITH

Universal Basic Income (UBI), MGNREGA, Labour Rights and Reforms

### Single Water Tribunal

#### News Excerpt

The Union Cabinet decided to **amend the Inter-State River Water Disputes Act, 1956**, to ensure faster and more efficient adjudication of river water disputes between riparian States. As per the proposed amendment, all

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

Inter-State river water disputes will be handled by a **single national level tribunal in place of multiple tribunals** currently exists in the country.

### Pre-Connect

Inter-state River Water Disputes Act, 1956 (IRWD Act) was passed by the parliament of India under Article 262 of Constitution to settle the water disputes that would arise in the use, control and distribution of an interstate river or river valley.

### Why the amendment?

- The number of inter-state water disputes is on the rise due to **an increase in demand for more water by states**.
- **Time consuming process:** Out of the nine tribunals set up to adjudicate such disputes, only four have given their awards and the time taken to do so ranged from seven to 28 years. The Ravi-Beas Water Disputes Tribunal has been at it for 33 years, the Cauvery Tribunal for 29 years.

Till now 9 water dispute tribunals have been established in India. Some of them are:

- Godavari water dispute Tribunal (1969)
- Krishna water dispute Tribunal (1969)
- Narmada water dispute (1969)
- Ravi and Beas water tribunal (1986)

### Why so delay?

- No strict time limit for adjudication as the central government kept extending tenure of the tribunals indefinitely, even though they were to resolve disputes within 5 years.
- No time limit for publishing the report of a tribunal
- No upper limit for retirement of the chairperson or other members
- In case of any vacancy, the Chief Justice of India has to nominate a person which took time and caused considerable delays
- Absence of data on river basins

#### **PEPPER IT WITH**

The Dublin Statement on Water and Sustainable Development, Hydropolitics and Hydropsychology, Integrated Water Resources Management (IWRM), Blue Peace, UN-Water

### Thematic Connect

The new bill seeks to provide **two tier resolution mechanism** i.e.-

- **Dispute Resolution Committee (DRC)** - to be headed by a secretary-level officer of the central government with experts from relevant fields.
- If the committee fails, then the dispute will **go to a centralized (single standing) tribunal with multiple benches** - instead of the multiple tribunals that exist now.
- The decision of the tribunal **would be final**, binding on states and have the "same force as an order of the Supreme Court". However, in case the dispute persists, the matter could be **referred back for reconsideration**.
- The decision of the tribunal can, nevertheless, be challenged before the Supreme Court through special leave petitions.

### Appointments

- The tribunal would have a chairman, a vice-chairman and six members - three judicial and three experts. They would be appointed by the central government on the recommendation of a selection committee, which would comprise of the Prime Minister, Chief Justice of India, ministers for law and justice and Jal Shakti.
- The central government may appoint two or more experts (to be called assessors) serving in the Central Water Engineering Service and of the Chief Engineer rank.

### Retirement

The term of office of the chairperson and vice-chairperson would be five years or until the age of 70 years. That of the other members would be co-terminus with adjudication of dispute or until 67 years.

### Time limit

The maximum time allowed for the DRC would be 18 months, for the tribunal 3 years and for

reconsideration another 18 months - taking the total to six years.

### Basin-wise data

The Bill also provides for a transparent data collection system at the national level for each river basin, the lack of which has been felt for a long time.

### Way forward

- ✓ Environmental concern with respect to the increasing water demand with the rise in population and in the process of industrialization. So policy reform related to the water crisis is a need of the hour.
- ✓ Awareness and Data collection is the need of the hour for the prevention of water disputes in future.

## Special Human Rights Court in each District

### News Excerpt

The **Supreme Court** recently sought a response from the Central government, the States and the Union Territories on the prolonged delay for over a quarter of a century to establish exclusive human rights courts in each district and appointing special public prosecutors in them.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

### Pre-Connect

- **The Human Rights Act, 1993** had called for the **establishment of special courts in each district** to conduct speedy trial of offences arising out of violation and abuse of human rights.
- **Section 30** of the Act envisages that a State government, **with the concurrence of the Chief Justice of High Court**, by notification, specifies for each district a court of session as a court of human rights for the speedy trial of violation of rights.
- **Section 31** of the Act provides the State government to specify and appoint a special public prosecutor in that court.

### Why Human Rights Courts are needed?

- From 2001 to 2010, the National Human Rights Commission (NHRC) recorded that 14,231 persons died in police and judicial custody in the country. Large majority of these deaths are a direct consequence of torture in custody.
- To uphold and protect the basic and fundamental rights of an individual is an indispensable obligation upon the State.
- Setting up human rights courts will provide the victims of human rights abuse a quick and efficacious access to justice.
- Setting up Human Rights Courts will bring the judiciary into action to play a supportive and auxiliary role in transforming human rights into reality.

### Analytica

- ✓ Each and every state should recognize the importance for setting up of the Human Rights Courts

### National Human Rights Commission

- ❖ Established in 1993 under the Protection of Human Rights Act (PHRA), 1993 as amended by the Protection of Human Rights (Amendment) Act, 2006.
- ❖ It is in conformity with the **Paris Principles**, adopted at the first international workshop on national institutions for the promotion and protection of human rights held in Paris in 1991, and endorsed by the General Assembly of the United Nations.
- ❖ The NHRC is an embodiment of India's concern for the promotion and protection of human rights.
- ❖ Section 2(1)(d) of the PHRA defines Human Rights as the rights relating to life, liberty, equality and dignity of the individual guaranteed by the Constitution or embodied in the International Covenants and enforceable by courts in India.

### PEPPER IT WITH

The Universal Declaration of Human Rights (UDHR), UN Human Rights Council (UNHRC), United Nations Convention against Torture (UNCAT), Amnesty International, UN Watch, Vienna Declaration and Programme of Action (VDPA)

which will indeed work very efficiently for the protection and promotion of the Human Rights based violation issue and trying up for the speedy trial for the concern to the Human Rights which are being put up or taken from the vulnerable.

- ✓ The offences which are prescribed under the criminal law must move towards the criminal courts and the offences not mentioned under the law of crimes should be given a place under the human rights courts as they too constitute the gross violations of the human rights arena.
- ✓ India is in the extraordinary need of an elaborate setup such as the Human Rights Courts, to provide for the bilateral as well as smooth functioning of the system of justice in India.

## Cabinet approves The Transgender Persons (Protection of Rights) Bill 2019

### News Excerpt

The Union Cabinet has approved the proposal to introduce The Transgender Persons (Protection of Rights) Bill, 2019. The Bill will be introduced in the ensuing Session of Parliament. The Bill provides a mechanism for their social, economic and educational empowerment.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

### Pre-Connect

In 2014, the Supreme Court in **NALSA v. Union of India** ruled that transgender people should be recognized as a third gender and enjoy all fundamental rights, while also being entitled to specific benefits in education and employment.

### Key Features

- The Bill prohibits the discrimination against a transgender person, including denial of service or unfair treatment in relation to: (i) **education**; (ii) **employment**; (iii) **healthcare**; (iv) **access to, or enjoyment of goods, facilities, opportunities available to the public**; (v) **right to movement**; (vi) **right to reside, rent, or otherwise occupy property**; (vii) **opportunity to hold public or private office**; and (viii) **access to a government or private establishment in whose care or custody a transgender person is**.
- **Definition of Transgender:** The Bill defines a transgender person as one whose gender does not match the gender assigned at birth. It includes **trans-men and trans-women, persons with intersex variations, gender-queers, and persons with socio-cultural identities, such as kinnar and hijra**.

Transgender health issues will no longer be classified as mental and behavioural disorders under big changes to the **World Health Organization's** global manual of diagnoses.

### DO YOU KNOW

As per the Census of 2011, the total population of Transgender in India is 4.88 lakh.

### Analytica

Transgender community is among one of the most marginalized communities in the country because they don't fit into the stereotypical categories of gender of 'men' or 'women'. Consequently, they face problems ranging from social exclusion to discrimination, lack of education facilities, unemployment, lack of medical facilities and so on.

### What challenges do transgender people face?

- **Discrimination** is the major problem of Transgender. They are discriminated in terms of **education, employment, entertainment, justice** etc.
- These people are treated badly or oppressed by others. They are prone to struggle for social justice because of their identity as Transgender
- They are forced to enter the profession of prostitutions by their community, friends or relatives. Even, in some cases, it is seen that their parents are involved in it.
- Like normal people, they are not entitled to take education in schools and colleges.

### PEPPER IT WITH

Intersex Variation, Gender Identity, Gender-queers, NALSA Vs. Union of India, LGBTQIA+, Transphobia

## Pocso Act Death Penalty

### News Excerpt

Recently, the Union Cabinet has approved amendments to strengthen the Protection of Children from Sexual Offence (POCSO) Act and included the death penalty for aggravated sexual assault on children. The amendments also provide for levy of fines and imprisonment to curb

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

child pornography.

### About the POCSO Act

The Act has come into force in 2012, along with the rules framed under the Act. The Act is a comprehensive law to provide for the protection of children from the offences of sexual assault, sexual harassment and pornography, while safeguarding the interests of the child at every stage of the judicial process by incorporating child-friendly mechanisms for reporting, recording of evidence, investigation and speedy trial of offences through appointment of Special Public Prosecutors and designated Special Courts.

#### Impact:

- The amendment is expected to discourage the trend of child sexual abuse by acting as a deterrent due to strong penal provisions incorporated in the Act.
- It intends to protect the interest of vulnerable children in times of distress and ensures their safety and dignity.

The amendment is aimed to establish clarity regarding the aspects of child abuse and punishment thereof.

### Analytica

**National Crime Records Bureau's Crime in India, 2016** report reveals that **94.6%** of all cases registered under rape and rape read with penetrative sexual assault of children were committed by people known to the victim, such as immediate family, relatives, neighbours, employers/co-workers, or other known persons.

**The fear of the death penalty will** serve as a pressure upon children and their families to turn hostile, as the trauma and guilt of sending someone they know to the gallows is a very heavy burden. This will also severely impact the reporting of child sexual abuse by children with disabilities if they are being sexually abused by their caregivers.

### Way Forward

Establishment of Special Courts and investment in infrastructure, people, and training along with the implementation of a robust Victim and Witness Protection Program will provide the much-needed framework for ensuring support and protection to child victims of sexual offences, enabling both higher conviction rates and greater levels of healing and rehabilitation of child victims.

**The Protection of Children from Sexual Offences (Amendment) Bill, 2019**



Total of 1,66,882 pending POCSO cases in India

The Govt has sanctioned 1023 fast-track courts for POCSO cases

18 states so far have consented to set up these courts by 2021

Child pornography defined and made punishable

The MHA has launched a special online portal called "The Investigation Tracking System for Sexual Offences"

There is a National Database for Sexual Offenders setup in 2018

There are 7 Central, 32 state and 75 regional Forensic labs

Training and skill building programs for Investigative, Prosecution and Medical Officers

Punishment under POCSO Bill leads to imprisonment upto 20 years/lifetime

#### PEPPER IT WITH

National Commission for Protection of Child Rights (NCPCR), National Child Policy 2013, UN Convention on the Rights of the Child

## Silk Samagra

### News Excerpt

**Silk Samagra is an Integrated Central Sector Scheme for Development of Silk Industry (ISDSI). It is being implemented by the Government of India through Central Silk Board (CSB). It has a total outlay of Rs. 2161.68 crore for three years (2017-18 to 2019-20) for the overall development of silk industry in the Country. Its objective is to scale up production by improving the quality and productivity of silk industry.**

### Objectives of ISDSI

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

- **Achieve self-sufficiency in silk production by 2022.**
- Development of improved host plant varieties and disease resistant silkworm breeds through R&D intervention.
- **Improve production of highest grade quality of silk.**
- Promote production of improved cross-breed silk and substitute import of **bivoltine silk to increase its domestic production.**
- **Encourage silkworm by-product (Pupa)** for cosmetic application & product diversification into non-woven fabric, Silk denim, Silk knit.
- Collaboration **with IITs, CSIR, IISc & International Institutes on Sericulture in Japan, China, Bulgaria for research and NIIFT, NID for design and product development.**

### Expected Benefits from ISDSI

- **Increase Silk Production from the level of 30,348 MTs during 2016-17 to 38,500 by end of 2019-2020.**
- Production of high grade silk to register 82% increase by 2022; making India self-reliant in production of silk.
- **Scheme will benefit 85 lakh people** dependent on silk sector, generate additional employment to about 15 lakh people.
- **Women, SC/ST and other weaker sections** of society across the country including LWE and NER to gain livelihood opportunities.



### Analytica

**India is the second largest producer of silk in the world** and the total raw silk production in the country increased by 10.52 per cent during 2018-19. **Silk, the queen of all fabrics** is historically one of India's most important industries. India produces a variety of silk called **Mulberry, Tasar, Muga and Eri** based on the feeding habit of the cocoons.

### Socio-economic Development from Sericulture Sector

- ✓ **In Employment generation:** Sericulture is the part of the agriculture activities in the state. More than 60 lakh people are engaged in various sericulture activities. It generates more employment opportunities when compared to other industries, especially in rural and semi-urban areas.
- ✓ **Low gestation:** About 12000 to 15000 investment is enough for undertaking mulberry cultivation and silkworm rearing in one acre of irrigated land. Mulberry takes only 6 months to grow for commencement of silkworm rearing mulberry once planted will go on supporting silkworm rearing year after year for 15- 20 years depending on the management provided.
- ✓ **High returns and Women Empowerment:** Around 60 percent women are employed in down-stream activities of sericulture in the country. This achievement is possible because sericulture sector involves women participation starting from mulberry garden management,

KEY CONCERNS
● Getting the law in place with strong deterrents on data leakage and misuse.
● How to ensure data protection and privacy compliance at costs that do not add to the patient burden and in turn do not end up denying access to healthcare.
● If the citizen is to be in control on his or her data, then what about granting flexibility on the use of the medium for data transfer – including through the use of mobile phones / Whatsapp?
● Clean plan on the quantum of funds required.
● Ensuring interoperability and dealing with the legacy IT systems that are already in place.

leaf harvesting and silkworm rearing.

- ✓ **Ideal Programme for Weaker Sections of the Society:** Sericulture is an ideal programme for weaker sections of the society because it involves low gestation, higher returns. Acres of mulberry garden and silkworm rearing can avoid large number of labourers and save wages in the sericulture sector of the state. Tasar silkworm process can offer supplementary gainful employment for tribals compared to other sericulture activities.
- ✓ **Eco- friendly Activity:** Sericulture sector is an eco- friendly activity because as a perennial crop with good foliage mulberry contributes to soil conservation and provides greenery. Waste from silkworm rearing can be recycled as inputs to garden. Development programmes initiated for Mulberry plantation are mainly in upland areas where unused cultivable land is made productive.

#### PEPPER IT WITH

Muga silk, Mulberry silk,  
Tasar silk, Eri silk, Chiffon fabric,  
Cocoons, Silk Worms

### Conclusion

**Sericulture is one the most important segments of agriculture and allied industry sector.** This is an important labour intensive activity and agro- based industry with potential for large scale employment.

## PARAMARSH Scheme

### News Excerpt

Ministry of Human Resource and Development has launched a new scheme “**PARAMARSH**” for mentoring NAAC Accreditation aspirant institutions.

### Pre-Connect

- The quality of higher education Institutions in India has been one of the worst in the world.
- The **Rastriya UchcharSikhsha Abhiyan** launched in 2013 has helped in growth of Higher education in India.
- For the quality of institution, the Government **has made it mandatory** for institution to get certified by **NAAC**.
- However, most of the colleges in the country have not been able to achieve Accreditation certificate and such institutes are called the Accreditation aspirant institutions.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

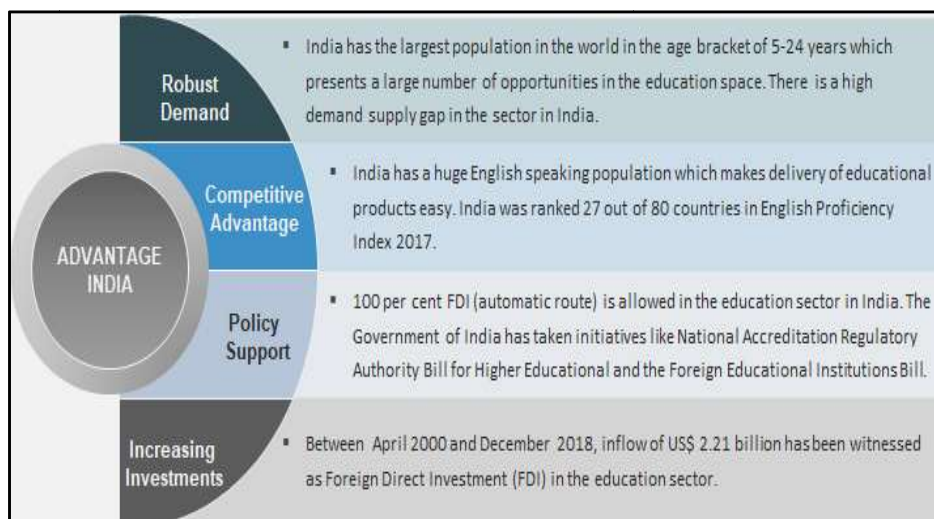
### About NAAC

It is an autonomous body that assesses and accredits higher education institutions (HEIs) in India. It assesses the higher learning institutes on the basis of seven parametres.

The NAAC accreditation does not cover distance education units of HEIs and offshore campuses.

### Details

- Paramarsh Scheme is a new initiative for **mentoring the non-accredited institutions to enable them gets accredited by 2022.**
- It will be based on “**Hub & Spoke**” model wherein the Mentor Institution, called the “Hub” is centralized and will have the responsibility of guiding the Mentee institution



through the secondary branches the “Spoke” through the services provided to the mentee for self-improvement.

- The mentor institution should be NAAC accredited with Grade A having an overall score 3.26 and above.
- These institutes will also be given **financial aid** by government for this purpose.
- It will also facilitate **sharing of knowledge, information and opportunities** for research collaboration and faculty development in Mentee Institutions.
- Scheme will target **1000 Higher Education Institutions** for mentoring with a specific focus on quality as enumerated in the UGC “Quality Mandate”

### Significance

- ✓ **Centralized control over operational efficiency**, resource utilization to attain overall development of the mentee institution.
- ✓ Will lead to **enhancement of overall quality** of the Mentee Institutions and improve its profile as a result of improved quality of research, teaching and learning methodologies.
- ✓ Mentee Institution will also have **increased exposure and speedier adaptation to best practices**.

### Analytica

- The Government of India has taken several steps including opening of IIT's and IIM's in new locations as well as allocating educational grants for research scholars in most government institutions. Furthermore, with online modes of education being used by several educational organisations, the higher education sector in India is set for some major changes and developments in the years to come.
- The Paramarsh scheme is a paradigm shift in improving the quality of higher education in India. The spoke and hub model for this purpose can create a significant web of knowledge transfer and research.
- The mentor institutes will get exposure **in working in new environments and opportunities for increased collaboration** while the mentee institutions will be benefitted with the **knowledge and experience share by the hub institutions**.
- However the **financial constraints for the mentee institutes** for developing its infrastructure and improve teaching staff can be few bottlenecks.

#### PEPPER IT WITH

Gross Enrolment Ratio, Atal Innovation Mission, Skills Acquisition and Knowledge Awareness for Livelihood Promotion (SANKALP), Skill Strengthening for Industrial Value Enhancement (STRIVE)

## Swadesh Darshan Scheme

### News Excerpt

To tap the huge potential hidden in the tourism sector and creating a sustainable employment, Government of India, Ministry of Tourism (MoT) started Swadesh Darshan Scheme (Central Sector Scheme).

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

### Objectives of the Scheme

- Making tourism as a major engine of economic growth and job creation.
- Developing world class infrastructure in the circuit/destinations.
- Community based and pro-poor tourism development.
- Creating awareness among the local communities about the importance of tourism.
- Employment generation by actively involving the local communities.

### Thematic Circuits:

1. **Buddhist circuit:** It includes the most important

The Incredible India "Find the Incredible You" campaign released globally by the Ministry of Tourism during 2018-19 was declared winner of the PATA (Pacific Asia Travel Association) Gold Award 2019 in the “Marketing - Primary Government Destination” category.

- pilgrimage destinations for Buddhist tourists.
2. **Coastal Circuit:** This circuit includes all the coastal states and Islands.
  3. **Desert Circuit:** This circuit includes Thar Desert to the arid lands of Kutch to the valleys of dry and cold Ladakh and Himachal.
  4. **Eco Circuit:** It includes nature and environment friendly destinations.
  5. **Heritage Circuit:** This circuit includes all the 38 world heritage sites.
  6. **Himalayan Circuit:** It includes entire Northern Border of the Country. It is also important strategically.
  7. **Krishna Circuit:** It includes the places associated with the legends of Lord Krishna across various states.
  8. **North East Circuit:** This circuit promotes the tourist centric development in North Eastern states.
  9. **Ramayana Circuit:** This circuit includes the places associated with the legends of Lord Rama.
  10. **Rural Circuit:** It aims to give boost to the rural economy and provide glimpse of True India to the tourists.
  11. **Spiritual Circuit:** It includes all the major religious destinations and some micro-religious places.
  12. **Sufi Circuit:** Sufi Circuit in India aims at celebrating the age old Sufi tradition of the country. Attracting massive footfalls across the golden triangle, Maharashtra, Bihar and other locations, sufi circuit is one of the key development thrusts of the Ministry of Tourism.
  13. **Tirthankara Circuit:** This circuit includes the places having significance with Jain Tirthankars.
  14. **Tribal Circuit:** It aims to provide personal glimpse into the world of India's vibrant tribal traditions, culture, festivals, craftsmanship, art and ritual.
  15. **Wildlife Circuit:** It is aimed at Sustainable, Ecological, and Nature Centric development across the National and State Wildlife sanctuaries.

### Analytica

- Tourism as an industry is full of opportunities. India is a large market for travel and tourism.
- Total contribution by tourism sector to India's GDP is Rs.15.24 trillion (USD 234.03 billion) which is expected to reach Rs.32.05 trillion (USD 492.21 billion) by 2028.
- Government started branding and marketing initiatives like '**Incredible India!**' and '**Atithi Devo Bhava**' to give thrust to tourism sector.
- This scheme fosters **social integration** without comprising upon the environmental concerns and provides unique experiences to the tourists.

### **PEPPER IT WITH**

SevaBhoj Yojana, National Tourism Policy 2002, Sustainable Tourism, Niche Tourism

## **The Restructured National Bamboo Mission**

### News Excerpt

Recently, the restructured National Bamboo Mission (NBM) has been launched this year with the approval of Cabinet Committee on Economic Affairs (CCEA) under the National Mission for Sustainable Agriculture (NMSA) for implementation.

### Pre-Connect

**National Bamboo Mission (NBM)** started as a Centrally Sponsored Scheme in 2006-07, was mainly emphasizing on propagation and cultivation of bamboo, with limited efforts on processing, product development and value addition.

**NBM was subsumed under Mission for Integrated Development of Horticulture (MIDH)** during 2014-15 and continued till 2015-16.

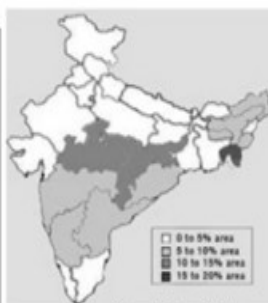
### Objective of National Bamboo Mission

- To increase the area under bamboo plantation in non-forest Government and private lands to supplement farm income and contribute towards resilience to climate change as well as availability of quality raw material for industries.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

## Bamboo: the Wonder Grass

- ❑ Fastest Growing Plant on this planet
- ❑ Globally more than 1200 species
- ❑ Abundantly found in Asia
- ❑ More than 1500 applications
- ❑ Traditional Forest Resource and Source of Livelihood
- ❑ India – the second richest country in terms of sp. diversity with 136 species after China
- ❑ 9.57 million hectares (12.8% of the total area under forests)
- ❑ The annual production of bamboo in India is about 4.6 million tonnes most of which is Unutilized



Source: National Bamboo Mission

State/region	Area %	Growing stock %
North East	28.0	66
Central India	20.3	12
Maharashtra	9.9	5
Orissa	8.7	7
AP	7.4	2
Karnataka	5.5	3
Others	20.2	5

## Holistic Development of Bamboo Sector

Cabinet approves restructured National Bamboo Mission

₹1290 crore allocated for FY 2018-19 and FY 2019-2020

To establish about 4000 treatment/product development units

To bring more than 1 lakh hectares area under plantation

To benefit about 1 lakh farmers as well as local artisans and persons engaged in bamboo sector

Promote skill development, capacity building and awareness generation

- To improve post-harvest management through establishment of innovative primary processing units near the source of production, primary treatment and seasoning plants, preservation technologies and market infrastructure.
- To promote product development keeping in view market demand, by assisting R&D, entrepreneurship & business models at micro, small and medium levels and feed bigger industry.
- To promote skill development, capacity building, awareness generation for development of bamboo sector from production to market demand.
- To re-align efforts so as to reduce dependency on import of bamboo and bamboo products by way of improved productivity and suitability of domestic raw material for industry, so as to enhance income of the primary producers.

### Analytica

The Bamboo Mission covers both the forest as well as non-forest areas. In forest areas, the bamboo development will be function of **the Forest Development Agencies (FDA)** and the **Joint Forest Management Committees (JFMCs)**. However, in case of Non-Forest Areas, the **Bamboo Development Agencies (BDAs)** will be nodal agency.

The new scheme will directly, **benefit the farmers, local craftsman and associated people who work in the bamboo sector**, inclusive of the associated industries. The scheme would help in cutting down on the import of bamboo products and in enhancing the income of the farmers.

**PEPPER IT WITH**  
CCEA, MIDH, NMSA FDA,  
JFMCS, BDAs, RATTAN

## Ethanol Blended Petrol (EBP) Programme

### News Excerpt

Ethanol blending percentage has **increased to 6.20%** as compared to 0.67% in supply year 2012-13. **Ethanol purchase has risen** about 127.5 crore litre in the current supply year. **Oil marketing companies (OMC)** have allocated 268.73 crore litres for year 2018-19.

### Pre-Connect

- **Ethanol Blended Petrol (EBP) Programme:** It was launched by the **GoI in 2003** on pilot basis to **promote the use of alternative** and environmental friendly fuels. This initiative seeks to reduce **import dependency** for **energy requirements**.
- **Cabinet Committee on Economic Affairs:** (CCEA) has made it mandatory for OMCs - Bharat Petroleum, Hindustan Petroleum and Indian Oil Corporation to **blend 5% ethanol with petrol**.
- **Pradhan Mantri JI-VAN Yojana:** Under the **scheme Rs 1800 crore has been allocated** to provide financial support for **Integrated Bioethanol Projects using lingo cellulosic biomass and other renewable feedstock**.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

- **Viability Gap Funding:** In February, the Cabinet had approved a scheme to provide Rs 1969 crore for **2G ethanol projects** over the next six years. It will help **reduce crop burning** by **converting agricultural residues** to ethanol which will help in **reducing pollution**.
- **Soft Loans for Infra Capabilities:** Loans were granted to sugar mills at subsidised rates for setting up **ethanol capacity**. Centre also announced around **6 % interest subsidy** (on loans for building ethanol capacity). Due to this, industry submitted about 260 projects to the government.
- **Target for OMCs:** Under the EBP programme, the Centre has asked the **OMCs to target 10 % blending of ethanol with petrol by 2022**.
- **National Policy on Biofuels 2018:** Empowered **National Biofuel Coordination Committee (NBCC)** to allow conversion of **surplus quantities of foodgrains, vegetables** for production of ethanol during an agriculture crop year **when there is projected oversupply of foodgrains**.

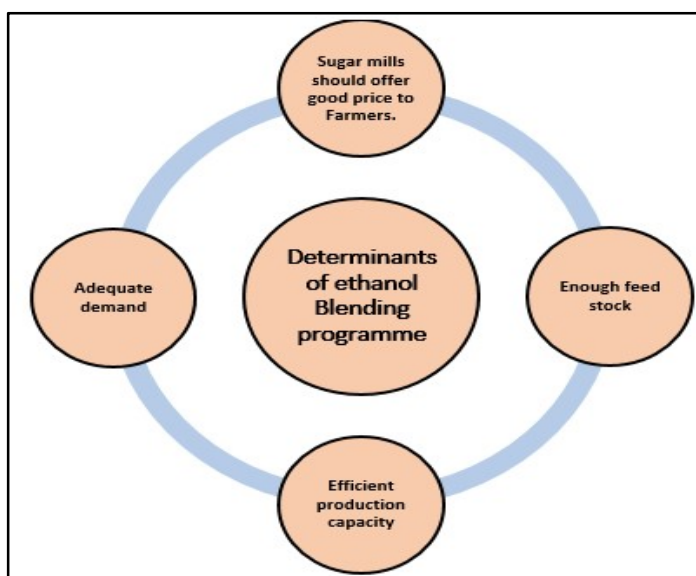
**Ethanol is an agro-based product**, mainly produced from a by-product of the sugar industry, namely molasses.

**ISSUE:** In years of surplus production of sugarcane, when prices are depressed, the sugar industry is unable to make timely payment of cane price to farmers.

**Objective:** EBP seeks to achieve blending of Ethanol with motor spirit with a view to reducing pollution, conserve foreign exchange and increase value addition in the sugar industry enabling them to clear cane price arrears of farmers.

### Analytica

- **OMCs were not geared up** to blend ethanol in all the depots throughout country, mainly because **ethanol must be stored separate** from petrol, and blended only before giving it to the retailer in the market. So, OMCs needed to **build tanks in all the oil depots to increase their ethanol storage capacity**. This required time as well as huge investment.
- It will be **beneficial** for **oil companies** even if they purchase ethanol at a higher price, the **government tax on ethanol is much lower than that on petrol**. Total cost for ethanol would come to an average of ₹55-60/litre. Whereas, they will be **selling the ethanol blended petrol** at about **₹70/litre** at the retail pump.
- Sugar Industry may prefer to convert **cane juice directly into ethanol** without **making sugar** to fetch **maximum profit**. Such a move would **become an ecological disaster as well as economically imprudent** as sugarcane is a **cost & water-intensive** crop. **Sugar mills may prefer to sell ethanol to distilleries or could divert it to industrial Process**. This move needs to be **discouraged and closely monitored** otherwise purpose to initiate such paradigm shift will prove catastrophic.
- **Converting surplus or damaged food grains** into biofuel will **directly benefit the farmers**, who are in distress today. Move will diversify the opportunities for farmer to fetch Income. It can pave way to **double farmers Income**. Declining **demand for transport fuel** could lead to **reduced demand for ethanol**, if Electric Vehicle introduce it may **unsustain farmer income** with externalities.
- **Centre has linked the ethanol price** to the **cost of production of sugar**, based on the cane



- ❖ **Blending ethanol** with fuel raises the **octane number of petrol**.
- ❖ A **higher octane number** means **engines can burn** the same amount of **petrol to extract more energy**.
- ❖ Standardised octane number for **petrol in India is 91**.

price or FRP (Fair and Remunerative Price). **Sugar Mills have to plan their ethanol production, plus oil companies have to finalise a tender for 12 months at one go.** Scenario of **unpredictable price** distort the **equilibrium in ethanol supply demand chain** which impact farmer as well as all stakeholders negatively.

- CCEA has also allowed **import of ethanol**, if **OMCs face any shortage** of the biofuel in the domestic market for **blending purpose**. Hence **Issue of Importing oil bills remain**, it could get worse **if OMCs prefer to import cheap-ethanol**.
- **States** are not **fully on board**, charging fees such as **import and export fee** on ethanol moved to/from the States. Delhi continue to charge a levy on ethanol, and are controlling its movements. **State governments imposed heavy taxes on ethanol** which widely used in the **liquor industry** to get **maximum revenue**.
- If Fuel compositing **crosses the 10 % blending target**, there may be a need to make changes in **car engines, especially in old vehicles**, to achieve **policy target** convince the auto manufacturers would be **major obstacle**.
- **NBCC** has approved the **procurement of ethanol produced from surplus quantities** of maize, jawar and bajra. India is **still suffering from mal-nutrition and Hunger**. Instead of universal food coverage converting **food grains into ethanol is not a prudent move**.
- Bio-fuels like ethanol can help us to conform to **stricter emission norms with less pollution**.

### Conclusion

- **Ethanol blending** in petrol is **an effective way** of **increasing** domestic petrol availability without degrading environment. The expertise for **cellulosic and lingo-cellulosic bio-mass** is still in the evolving stage which needs to be upgraded and further **refined for commercial operation**.
- There is **threat of undue exploitation** of the **liberalised** regime by existing sugar-based ethanol units. Methanol blending in petrol could be another alternative, but again supply is a problem.
- **Costing:** The cost of **additives required** to achieve **this rating** is built into the price of petrol. At present, **blending of ethanol** without changing the **octane level** at the refinery increases the **octane rating by 2 excessive points**, costing an additional ₹1.60 per litre of petrol.
- **Ethanol availability is constrained by procurement price** variation and the lack of distilleries, according to the domestic industry. The **procurement price of ethanol** must fixed by the centre before **every sugar season during ethanol supply year**.

**PEPPER IT WITH**  
Energy Crop, Dual-Fuel or  
Flex-Fuel Vehicles, Biofuel

### Pradhan Mantri Gram Sadak Yojana-III (PMGSY-III) - Rural road Connectivity

#### Pre-Connect

PMGSY is intended to foster rural road connectivity across the country, and to improve access.

- **Progress under PMGSY:** Over-all **5,99,090 Km road length** has been constructed till April 2019, under the **scheme since commencement** (inclusive of PMGSY-I, PMGSY-II and RCPLWEA Scheme). **97% of the eligible and feasible habitations** have already been connected by **all-weather road**.
- **PMGSY-III scheme:** It was announced **in the Budget Speech** for the **year 2018-19**.
- **PMGSY-I:** It was launched in **2000** with an objective to **provide single all-weather road** connectivity to **eligible unconnected habitation** of designated population. (500+ in plain areas and 250+ in North-East, hill, tribal and desert areas).
- **Road Connectivity Project for Left Wing Extremism Area (RCPLWEA):** GoI launched **RCPLWEA in 2016** as '**separate vertical**' under **PMGSY** to provide all-weather road connectivity with necessary culverts and cross-drainage structures in **44 districts (35 are worst LWE affected districts and 09 are adjoining districts)**, which are critical from **security and communication point of view**. Under the Scheme, 5,066 Km road length has been sanctioned.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

#### Analytica

- **PMGSY involves consolidation** of Through Routes and Major Rural Links connecting habitations to **Gramin Agricultural Markets (GrAMs)**, Higher Secondary Schools and

- Hospitals as well as chances to **explore economic opportunities**.
- **Construction of bridges** upto 150 m in plain areas and 200 m in Himalayan and NE States proposed, as against the existing provisions of 75 m and 100 m in plain areas and Himalayan and NE States respectively. **Geographical terrain** will remain a major **challenge for construction** and climatic alteration like flash-floods **will pose maintenance challenges**.
  - **Dependency over States:** States shall be asked to enter into a **Memorandum of Understanding (MoU)** before launching of PMGSY-III in the concerned State for providing adequate funds for maintenance of roads constructed **under PMGSY post 5-year construction maintenance period**. In case of **State's dissent**, it would **hamper the rural connectivity**. Several States are also **running similar type of scheme**. PMGSY may add **Fiscal burden** for such states. Grass root Corruption may deteriorate road Quality in absence of feedback system.
  - The funds would be shared in the ratio of 60:40 between the Centre and State for all States except **for 8 North Eastern and 3 Himalayan States** (Jammu & Kashmir, Himachal Pradesh & Uttarakhand) for which it is **90:10**. **BIMARU** states may demand for similar provisions.

### Way Forward

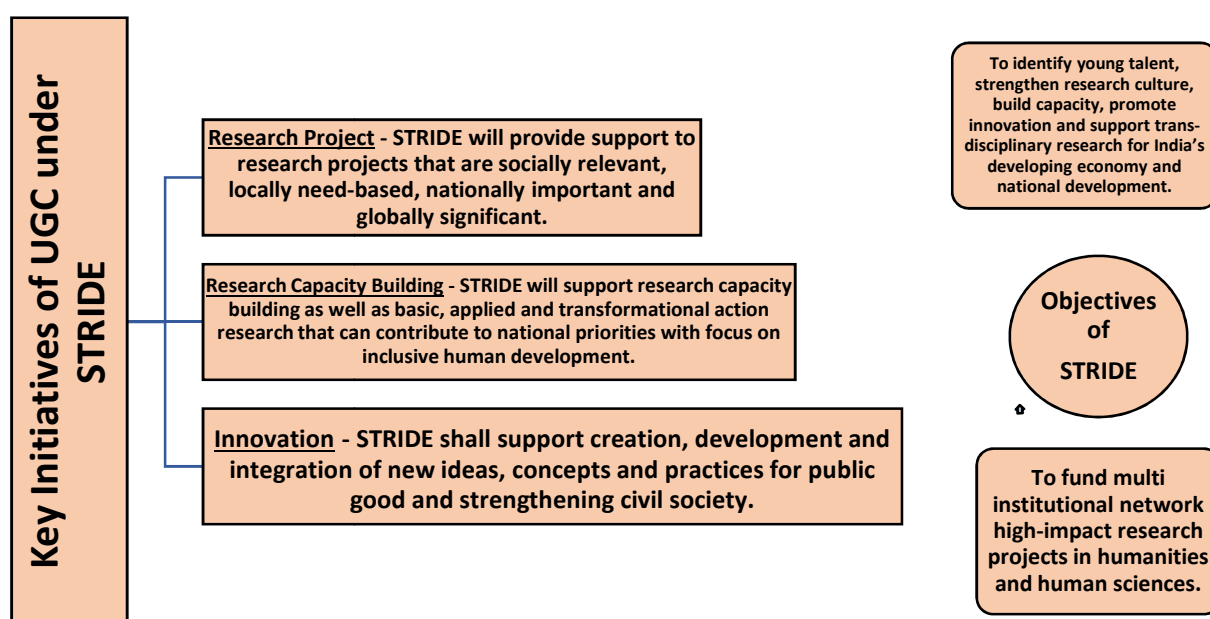
- ✓ To minimize **corruption and to facilitate socio-economic development** robust feedback mechanism must be placed in **benefitted areas** especially in tribal areas. **Participation of women as well as youth should be ensured in feedback chain**.
- ✓ **Centre should provide alternative financial resource** to States so that burden on **States shall be less**.
- ✓ **Hilly regions are undergoing induced-migration**, local **preference** should be given in case of supplying raw materials, labour requirements etc.

## Scheme for Trans-discipline Research for India's Developing Economy (STRIDE)

### News Excerpt

**UGC announced new Initiative** - Scheme for Trans-disciplinary Research for India's Developing Economy (**STRIDE**), to boost **research culture and innovation** in colleges and Universities **among student-faculty** in India.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											



**Analytica**

- **National Innovation Foundation** has a database of over **3 lakh technological ideas** from over **608 districts** waiting to be explored. **STRIDE scheme** will help students and faculty to undertake **collaborative research** to explore these **knowledge resources for India's developing economy**. The ten **grand challenges facing the humanities in India** described in report to MHRD are part of **thrust areas identified for funding under STRIDE**.
- It will **offer prospect** to build **multi-sectoral linkages between university-government-community-industry** for national development. **STRIDE** will give major impetus to **high impact research in Humanities and Human Sciences**.
- **Trans-disciplinary research** generates **knowledge through use of multi and inter-disciplinary concepts and integrates new theories among science and society**.
- **Trans-disciplinary research** is a team effort of **investigators** from diverse disciplines to create new conceptual, theoretical, methodological innovations that integrates and transcends beyond **discipline-specific approaches to address a common problem**. **Trans-disciplinary research goes beyond mere production of knowledge and extends to the practical use of the knowledge outside academic striving**.
- **STRIDE took attention** to the societal impact of knowledge enunciating as what should be the main **aim of research**. It creates **unity of intellectual frameworks** beyond the **disciplinary perspectives** and solve **problems by going beyond the boundaries of disciplines to involve various stakeholders**.
- **Focus on Humanities and Human Sciences** will **boost quality research** on Indian languages and **knowledge systems**.

**PEPPER IT WITH**

Atal Innovation Mission (AIM), Shodhganga, Atal Tinkering Labs

**Atal Community Innovation Centre (ACIC) program****Perspective**

ACIC would encourage the '**spirit of socially inclusive innovation**' in the country's specific areas that lack the **pre-requisite infrastructure** and to expedite **innovation ecosystem**. It seeks to address industry challenges especially for MSMEs and will channelize the **creative energies** of **researchers** to find solutions.

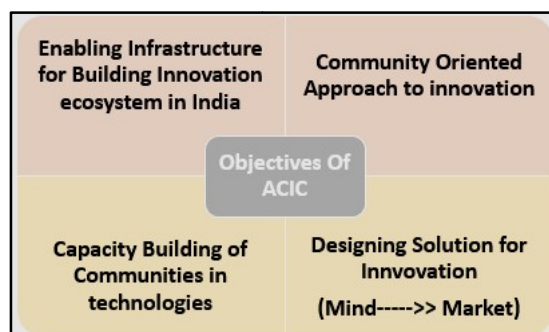
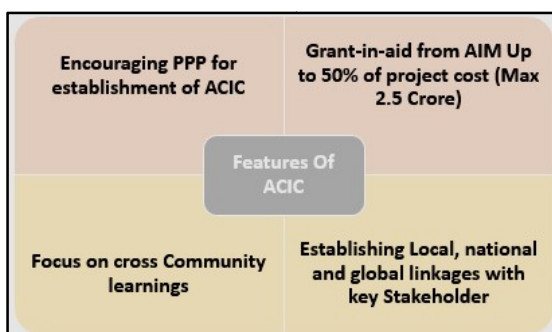
GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

**Key Highlights**

- ACIC programme focus **over 484 districts**, to boost the skill development and employment opportunities in unserved/underserved regions of India.
- ACIC is intended to **encourage equitable distribution of essential infrastructure** for stimulating **innovation across** the country and encourage the participation of their R&D in the innovation.

Steel Ministry through ACIC Establish **4 centres of excellence** at IIT Mumbai, Chennai, Kharagpur and BHU Varanasi.

Move will attract talent for research leading to M. Tech. and PhD as well as addressing some of the critical issues which industry is facing.



## Analytica

- ACIC is '**design-led innovative thinking project**' which will avail cutting-edge innovation platforms across all corners of our country, with a focus on **aspirational districts, tribal areas, tier 2 and 3 cities and to North-east and J&K**. It will give impetus to the skill development and employment opportunities.
- ACIC can serve as **channel** between the **knowledge base standing communities** and the **advanced technical ecosystem** prevalent in the **market base**, acknowledge the needs of society.
- ACIC's approach should focus on **community-oriented problemsolving** through small ideas with a big impact. It will ensure '**rural innovation society**'. Program should be linked to every **Panchayati Raj Institutions** to help '**grassroots level innovators**' and become part of the policy framework and leverage their creativeness to translate their products/services into **innovation led commercial utilization for society**.
- ACIC will become a conduit for **CSR funding** by **private and public sector** firms in addition to **direct funding through AIM**. **CSR funding** is **volatile** may limit fund availability, **may undermine innovation ecosystem**. **Exclusion** for grant in case of **project worth more than 2.5 crore** may hamper **critically important innovations**.
- India will become the largest consumer of fossil fuel in the next 15 years, so there is a dire need to reduce India's crude oil import bill. **ACIC may provide innovative methods**, which would help India in reducing its **fossil fuel imports**.
- ACIC must emphasis on **Waste to Wealth**, ACIC program should **encourage innovation potential for domestic power** sector by using real strength of non-fossil and sustainable sources of energy.
- Initiative would transform India as '**Technology led Start-up nation**' and improve the ranking of India in '**Global Innovation Index**'. India can become **5 trillion \$ economy by 2022**. Such innovation environment would reduce the distance between **lab and land**.

## Way Forward

- ✓ **ACIC should** focus on **utilizing local resources**, such as non-fossilised bio-mass, to meet the **mounting energy demand of the country**.
- ✓ If India is find solutions that can be adopted by the world then India will move from **poverty to a middle income nation** within the **next two decades**.
- ✓ **Fund availability** must bridge by additional **Government led schemes** or **incentivize**. It will ensure **reliability and sustainability** of 'Innovation Ecosystem'.
- ✓ **ACIC should** encourage **female participation** with supplementary efforts especially in tribal areas to reflect **social Inclusiveness**.

## LaQshya

### News Excerpt

Recently, Government of India has launched "**LaQshya**" (**Labour room Quality improvement Initiative**) to improve quality of care in labour room and maternity operation theatres in public health facilities. It's a multipronged approach focused at **Intrapartum and immediate postpartum period**.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

### Aim

To reduce preventable maternal and new-born mortality, morbidity and stillbirths associated with the care around delivery in Labour room and Maternity Operation Theatre and ensure respectful maternity care.

### Objective

- To reduce maternal and **new-born mortality** & morbidity due to **hemorrhage, retained placenta, preterm, preeclampsia and eclampsia, obstructed labour, puerperal sepsis, new-born asphyxia, and new-born sepsis**, etc.

### PEPPER IT WITH

Pradhan Mantri SurakshitMatritva Abhiyan (PMSMA), PM Matru Vandana Yojana (PMMVY), National Health Mission (NHM), Janani Suraksha Yojana (JSY)

- To improve Quality of care during the delivery and immediate post-partum care, stabilization of complications and ensure timely referrals, and enable an effective two-way follow-up system.
- To enhance satisfaction of beneficiaries visiting the health facilities and provide **Respectful Maternity Care (RMC)** to all pregnant women attending the public health facilities.

### Analytica

#### Concerns

World Health Organisation recently revealed some startling facts about maternal deaths in India. Their report revealed that every five minutes, at least one Indian woman dies during pregnancy and child birth. Of the 529,000 maternal deaths occurring every year, 136,000 or 25.7 per cent take place in India.

#### Benefits

- The Program will improve quality of care for pregnant women in labour room, maternity Operation Theatre and Obstetrics **Intensive Care Units (ICUs) and High Dependency Units (HDUs)**.
- The LaQshya program is being implemented at all **Medical College Hospitals**, District Hospitals and **First Referral Unit (FRU)**, and **Community Health Centre (CHCs)** and will benefit every pregnant woman and new-born delivering in public health institutions.
- To strengthen critical care in Obstetrics, dedicated Obstetric ICUs at Medical College Hospital level and Obstetric HDUs at District Hospital are operationalized under LaQshya program.
- The Quality Improvement in labour room and maternity OT will be assessed through **NQAS (National Quality Assurance Standards)**. Every facility achieving 70% score on **NQAS will be certified as LaQshya** certified facility. Furthermore, branding of LaQshya certified facilities will be done as per the NQAS score.

### Conclusion

India has come a long way in improving maternal survival as Maternal Mortality Ratio (MMR) has reduced **from 301 maternal deaths in 2001-03 to 167 in year 2011-13, an impressive decline of 45% in a decade**. India is further committed to ensuring safe motherhood to every pregnant woman in the country.

## One Nation one Ration Card

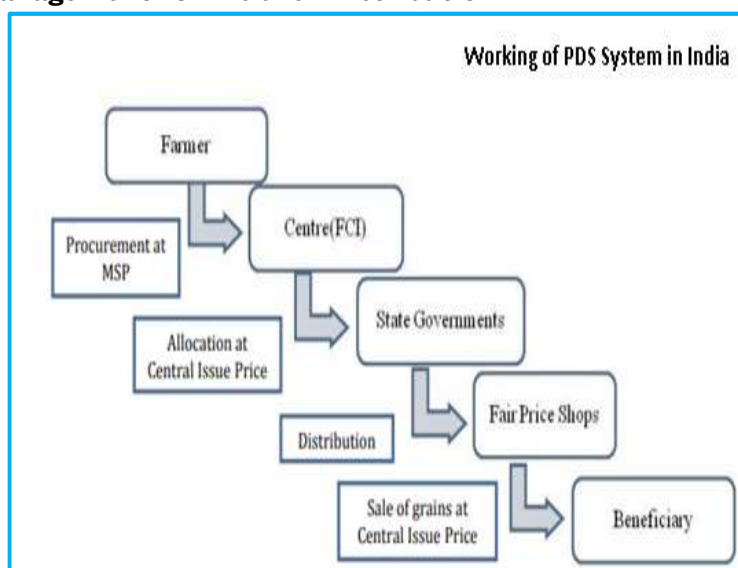
### News Excerpt

To sustain the reforms brought in by scheme on 'End to End Computerization of Targeted Public Distribution System (TPDS) Operations', the Department of Food & Public Distribution has launched a new scheme namely "**Integrated Management of Public Distribution System (IM-PDS)**" for implementation during 2018-19 and 2019-20.

### Pre-Connect

- The food rationing and PDS system started in 1940s (During Famine) and was revived in 1970s as a universal food entitlement programme for Indian citizens.
- Targeted Public Distribution System (TPDS) was started in 1997 to provide food to the people below poverty line under subsidised rate from the ration shops.
- The TPDS was introduced to remove the **intermediaries and fake beneficiaries of the food** as

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											



**this was cited the main problem of public distribution system.**

- **The national food security act 2013** provides for **right to food as a legal entitlement** for two-thirds of poor households in India.
- Expert studies have shown that **PDS suffers from nearly 61% error of exclusion and 25% inclusion of beneficiaries**, i.e. the misclassification of the poor as non-poor and vice versa. Another challenge is the leakage of food grains during transportation to the ration shop and from the ration shop itself into the open market.
- Many reforms have been done in this regard including the **end to end computerization of the whole public distribution system, GSP tracking, digitization of ration cards etc.**
- Under the PDS scheme till now the beneficiaries must be of the same state where the Ration Card has been issued to avail the facility of the subsidized food. The beneficiaries had to obtain new ration card in case they migrate to different state.

### Highlights of the scheme

- The objective of the scheme is to introduce nation-wide portability of ration card holders under National Food Security Act, 2013 (NFSA), to lift their entitlement food grains from any FPS in the country without the need to obtain a new ration card, by integrating the existing PDS systems/portals of States/UTs with the Central systems/portals, etc.
- The system shall be applicable to the ration card holders under NFSA act. **The Integrated Management of PDS (IMPDS)** system has to be implemented in every state by 2020.
- Beneficiaries are required to show **their Aadhaar card** to buy Foodgrains from any ration shop in the country.
- To ensure that one member of a family after shifting to another place does not buy the entire family quota in one go, a maximum limit of buying will be fixed.

### Significance of the scheme

- ✓ It will help the migrant labors and seasonal migrants in majority which is around 10 crores according to the data.
- ✓ It will help **remove multiple ration card holder and remove fake card holders.**
- ✓ Provide nutritional needs to the poor especially the migrants through **fortified food distribution.**
- ✓ Other benefits like **the ICDS Scheme, mid-day meal scheme, Janani Suraksha Yojna** etc can be modeled on this scheme.

#### **PEPPER IT WITH**

Food Corporation of India,  
Minimum Support of Price,  
Shanta Kumar Committee,  
Wadhwa Committee Report

### Challenges

- Exact **data** of the migrating poor from one state to another so that the **resource allocation is proper and FPS are not overburdened.**
- Digitization of ration card may **exclude person who is migrating alone** or the **vulnerable person left behind during migration.**
- **Aadhar linkage and POS machines at FPS:** Still 11% of the poor beneficiaries are to be linked with aadhar and also around 33% of the FPS do not have a POS machines.

### Analytica

- The one nation one ration scheme includes various possibilities in future which will reduce the biggest problem of targeted public distribution system in India.
- Already most of the states **have intra –state portability of ration cards.** This scheme will help the migrants of different states to receive subsidized food as promised by the NFSA act 2013.
- The one nation one card has the potential to change the way we think and to transform the entire delivery system of TPDS.
- A complete automation based on information technology of the TPDS in a time bound manner is the need of the hour.

## Food and Nutrition Security Analysis, India, 2019

### News Excerpt

A report titled **Food and Nutrition Security Analysis, India, 2019** prepared by the UN World Food Programme in collaboration with the Ministry of Statistics and Programme Implementation was recently released.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

### Major Findings

India has long been home to the largest number of malnourished children in the world. Some progress has been made in reducing the extent of malnutrition.

- The proportion of children with chronic malnutrition decreased from 48% percent in 2005-06 to 38.4% in 2015-16.
- The percentage of underweight children decreased from 42.5% to 35.7% over the same period.
- Anaemia in young children decreased from 69.5% to 58.5% during this period.

### Analytica

- This report aims to give a clear picture on the availability of food stock and economic capacity of the population to access food.
- Amartya Sen noted famines are caused not by shortages of food, but by inadequate access to food. And for the poor and marginalised, access to food is impeded by social, administrative and economic barriers.
- The report primarily questions why despite rapid economic growth, declining levels of poverty, enough food to export, and a multiplicity of government programmes, malnutrition amongst the poorest remains high.
- Children and their mothers from the poor and marginalized sections are considered as less than the equal citizens who are meant to be an underclass and are undeserving of government efforts to provide them food and lift them out of poverty.
- The report shows the poorest sections of society caught in a trap of poverty and malnutrition, which is being passed on from generation to generation. Mothers who are hungry and malnourished produce children who are stunted, underweight and unlikely to develop to achieve their full human potential.
- Undernutrition can affect cognitive development by causing direct structural damage to the brain and by impairing infant motor development. This in turn affects the child's ability to learn at school, leading to a lifetime of poverty and lack of opportunity.
- These disadvantaged children are likely to do poorly in school and subsequently have low incomes, high fertility, and provide poor care for their children, thus contributing to the intergenerational transmission of poverty.

### The Capability Approach

Capabilities are the substantive freedoms a person enjoys to lead the kind of life he has reason to value.

By investing in people, we enable growth and empower them to pursue many different life paths, thus developing human capabilities.

The most basic capabilities for human development are: to lead long and healthy life, to be knowledgeable (educated), to have access to the resources and social services needed for a decent standard of living, and to be able to participate in the life of the community.

### PEPPER IT WITH

Global Hunger Index, Global Food Security Index, Food Fortification, Comprehensive Food Security and Vulnerability Analysis, National Family Health Survey 2015- 16 (NFHS-4)

### Efforts so far

- ✓ **The National Nutrition Mission** (PoshanAbhiyaan) aims to reduce stunting by 2% a year, bringing down the proportion of stunted children in the population to 25% by 2022.
- ✓ **National Food Security Act (2013):** The Act legally entitles up to 75% of the rural population and 50% of the urban population to receive subsidized food grains under Targeted Public Distribution System. About two thirds of the population therefore is covered under the Act to receive highly subsidized food grains.
- ✓ **Mid Day Meal for School children**
- ✓ **Food Fortification:** Fortification is the addition of key vitamins and minerals such as iron,

iodine, zinc, Vitamin A & D to staple foods such as rice, milk and salt to improve their nutritional content.

- ✓ The **Integrated Child Development Service (ICDS) Scheme** providing for supplementary nutrition, immunization and pre-school education to the children is a popular flagship programme of the government.

### Way Forward

While on one side, the Government is aiming to turn India into a \$5 trillion economy in the next five years, on the other side there is a large section of society, the poorest two-fifths of the country's population, that is still largely untouched by the modern economy which the rest of the country inhabits. As one part of the country lives in a 21st century economy, ordering exotic cuisines over apps, another part struggles with the most ancient of realities: finding enough to eat to tide them over till the next day.

## WHO Guidelines on Self Care Interventions for Health

### News Excerpt

The World Health Organization (WHO) has launched its first guidelines on self-care interventions for health in response to an estimate that by 2035 the world will face a shortage of nearly 13 million healthcare workers.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

### Pre-Connect

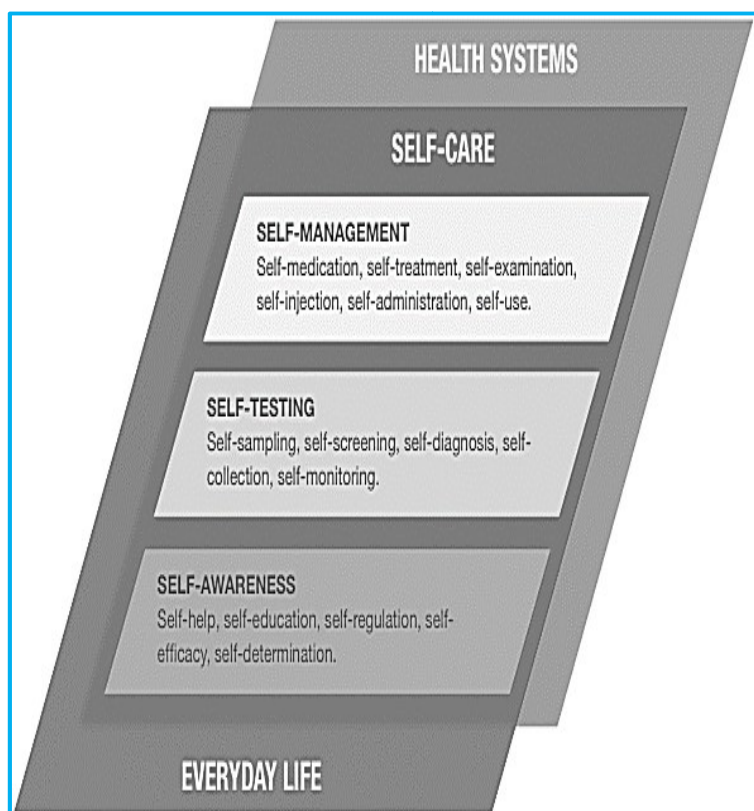
- A record 130 million people are currently in need of humanitarian assistance, and disease outbreaks are a constant global threat.
- An estimated shortage of 18 million health workers is anticipated by 2030 worldwide.
- At least 400 million people worldwide lack access to the most essential health services.
- Every year 100 million people are plunged into poverty because they have to pay for health care out of their own pockets.

### Reports published by World Health Organization (WHO)

World Health Statistics, Global Tuberculosis Report, Ambient Air Pollution Report.

### About

- WHO defines self-care as “the ability of individuals, families and communities to promote health, prevent disease, maintain health, and to cope with illness and disability with or without the support of a healthcare provider.
- The scope of self-care as described in this definition includes health promotion; disease prevention and control; self-medication; providing care to dependent persons; seeking hospital/specialist care if necessary; and rehabilitation including palliative care.
- The Basic purpose of this guidance is to develop a people-centric, evidence-based normative guideline that will support individuals, communities and countries with quality health services and self-care interventions, based on PHC strategies, comprehensive essential service packages etc.



## Analytica

- ✓ Self-care interventions for health are among the most promising and exciting new approaches contributing to universal health coverage (UHC). Self-care is therefore comprised of actions within an individual's control to manage health, including non-communicable diseases or sexual and reproductive health.
- ✓ With the increase of non-communicable diseases such as diabetes, cancers, cardiovascular and chronic lung diseases, self-care can play a vital role in preventing and reducing underlying risk factors, optimizing treatment and managing complications.
- ✓ Self-care for non-communicable diseases is not new and WHO has developed interventions for primary health care in low-resource settings. For instance, WHO recommends self-measurement to monitor blood pressure for the management of hypertension in patients where the affordability of the technology has been established.
- ✓ Improving access, equity and safety of health care lies at the heart of self-care. For instance, the potential of digital health in self-care is limited for vulnerable populations who may not be able to access the new technologies.

## Where does India Stand in this Regard?

India has some distance to go before making self-care interventions for sexual and reproductive health freely available to women.

- **Self-Diagnosis:** Home-based pregnancy testing is the most commonly used self-help diagnostics in India.
- **Self-Medication:** Interventions include self-managed abortions using approved drugs—morning-after pills taken soon after unprotected sex, and mifepristone and misoprostol taken a few weeks into pregnancy — that can be had without the supervision of a health care provider.
- **HIV Self-Test Kit:** One of the reasons why people shy away from getting tested for HIV is stigma and discrimination. The home-based testing provides privacy. Despite the WHO approving the HIV self-test to improve access to HIV diagnosis in 2016, we are still in the process of validating it for HIV screening.

## Way Forward

- Self-care intervention in health system empowers and enables people to manage their health in ways that are often beyond the reach of the health system.
- Self-care interventions have the potential to increase individuals' autonomy and self-efficacy in making decisions about their own care.
- As with all healthcare interventions, the way in which self-care initiatives are financed and managed is key to their success.
- It is also important to note that self-care should not be seen as a replacement for sustainable and high-quality health services. Nor is it deemed a shortcut to universal health coverage, rather a complementary component of overall healthcare.
- Where self-care and healthcare intersect, there is potential for transformative beneficial impact on the health of individuals and populations.

### PEPPER IT WITH

Universal Health Coverage (UHC), Ayushman Bharat, Preventive Healthcare, Public Health 2.0

## Right to Education for Children with Disability

### News Excerpt

**State of the Education Report for India 2019: children with disabilities-** A joint report by UNESCO and the Tata Institute of Social Sciences recommends structural, funding and attitudinal changes to ensure that no child is left out of the right to education.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

## Pre-Connect

- Article 21 A declares that the State shall provide free and compulsory education to all children of the age of six to fourteen years in such a manner as the State may determine.
- This provision was added by the 86th Constitutional Amendment Act of 2002.
- 86th Constitutional Amendment Act of 2002 changed the subject matter of Article 45 in directive principles. It now reads—'The state shall endeavour to provide early childhood care and education for all children until they complete the age of six years'.

### Key International declarations and political commitments



## Major Findings

- There are more than 78 lakh children with disabilities in the country between 5-19 years. Only 61% of them were attending an educational institution. About 12% had dropped out, while 27% had never been to school at all.
- Three-fourths of the children with disabilities at the age of five years and one-fourth between 5-19 years do not go to any educational institution.
- Only 61 percent of CWDs aged between 5 and 19 were attending an educational institution compared to the overall figure of 71 percent when all children are considered.
- Around 12 percent of CWDs dropped out of school, which is comparable with the overall percentage of dropouts among all children. 27 percent of CWDs never attended any educational institution, as opposed to the overall figure of 17 percent when the entire child population is taken into account.
- The percentage of children attending schools is the lowest among those with multiple disabilities, mental illnesses and mental retardation.

### PEPPER IT WITH

Accessible Indian Campaign, Rights of Persons with Disabilities (PwD) Act, 2016, UN Convention on the Rights of Persons with Disabilities, Assistive Technology, Sugamya Pustakalaya

## Analytica

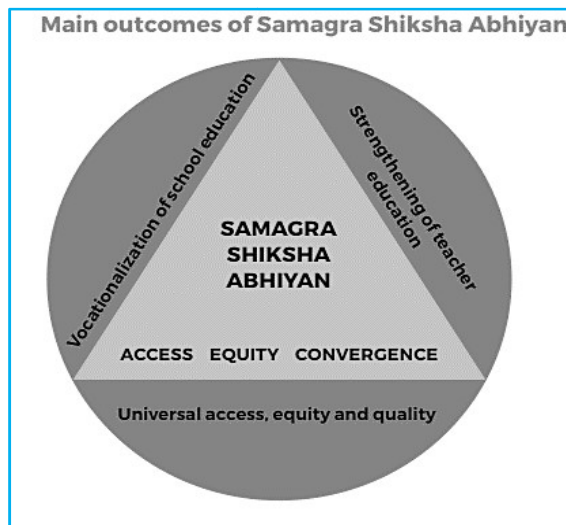
- ✓ **Gender divide:** In terms of enrolments, there are fewer girls with disabilities in schools than boys. The reason is the attitude of rejection towards girls and the fear of sexual abuse and stigma attached to them. Parents still too often do not want to spend time and effort on girls as compared to boys.
- ✓ **Home based education:** In most part of the rural India, parents opt for home based education. It has been argued that if a parent opts for the home based education, chances are that the child may not be getting an education at all.
- ✓ The Right to Education Act mandates enrolment, but not the provision of resources needed for the actual education of a child with disabilities.
- ✓ **Training teachers:** A combination of socio-cultural and systemic factors underline negative attitudes of both parents and teachers towards inclusion. There is a lack of training on special education, under-resourced classrooms; fear of affecting the academic performance of the whole class prevents teachers from encouraging inclusivity in the classroom.
- ✓ **Data Availability:** There is a need to strengthen data systems for effective planning, implementing and monitoring besides establishing a coordinating mechanism under MHRD for effective convergence of all education programmes for CwDs.
- ✓ **Inter-state Disparity:** Besides the decline in enrolment through successive levels of schooling, there is also variation in school attendance between states. Goa and Kerala have higher percentage of CwDs attending schools while Odisha and West Bengal have more

children dropping out of schools than the national average. Northeastern states have a poor track record, with not even a third of CwDs having attended a school.

### Efforts by the Government

India has made partial progress in harmonizing its national laws with the requirements of UN Convention on the Rights of Persons with Disabilities (UNCRPD). However, both the RTE Act and its amendment in 2012 fall short, as they do not include provisions relating to the core guiding principles of United Nations Convention on the Rights of the Child (UNCRC) (that are reiterated under UNCRPD).

- **Samagra Shiksha Abhiyan:** has proposed to treat school education holistically without segmentation from pre-nursery to Class 12. The vision of the Scheme is to ensure inclusive and equitable quality education from pre-school to senior secondary stage in accordance with the Sustainable Development Goal (SDG) for Education.
- The right to education is available to all citizens including the disabled. Article 29(2) of the Constitution provides that no citizen shall be denied admission into any educational institution maintained by the State or receiving aid out of State funds on the ground of religion, race, caste or language.



### Provisions related to education under the Right of Persons with Disabilities Act, 2016 (RPWD)

- India is a signatory to the United Nation Convention on the Rights of Persons with Disabilities (UNCRPD). Once a country ratifies a Convention, it is legally obliged to bring its laws and policies in alignment with the Convention. It is in line with this principle that the Rights of Persons with Disabilities Act, 2016 has been developed as per the guiding principles of the UNCRPD.
- The Act lays thrust on full participation and equality of the persons with disabilities and provides for their education, employment, creation of barrier free environment, social security, etc.
- Government funded educational institutions as well as the government recognized institutions will have to provide inclusive education to the children with disabilities (CWDs).
- To provide inclusive education, the Act mandates the appropriate Governments and local bodies
  - ✚ Admit CwD without discrimination and provide education and opportunities for sports and recreation activities equally with others.
  - ✚ Make building, campus and various facilities accessible.
  - ✚ Provide reasonable accommodation according to the individual's requirements.
  - ✚ Provide necessary support individualised or otherwise in environments that maximise academic and social development consistent with the goal of full inclusion.
  - ✚ Ensure that the education to persons who are blind or deaf or both is imparted in the most appropriate languages and modes and means of communication.
  - ✚ Detect specific learning disabilities in children at the earliest and take suitable pedagogical and other measures to overcome them.
  - ✚ Monitor participation, progress in terms of attainment levels and completion of education in respect of every student with disability.
  - ✚ Provide transportation facilities to the children with disabilities and also the attendant of the children with disabilities having high support needs.

### Way Forward

- ▽ Amend the RTE Act to better align with the RPWD Act by including specific concerns of education of children with disabilities.

- ▽ Establish a coordinating mechanism under MHRD for effective convergence of all education programmes of children with disabilities.
- ▽ Ensure specific and adequate financial allocation in education budgets to meet the learning needs of children with disabilities.
- ▽ Strengthen data systems to make them robust, reliable and useful for planning, implementation and monitoring.
- ▽ Enrich school ecosystems and involve all stakeholders in support of children with disabilities.
- ▽ Massively expand the use of information technology for the education of children with disabilities.
- ▽ Give a chance to every child and leave no child with disability behind.
- ▽ Transform teaching practices to aid the inclusion of diverse learners.
- ▽ Overcome stereotypes and build positive dispositions towards children with disabilities, both in the classroom and beyond.
- ▽ Foster effective partnerships involving government, civil society, the private sector and local communities for the benefit of children with disabilities.

### The National Digital Communication Policy, 2018 (NDCP, 2018):

#### Key Objectives:

- ❖ Broadband for all;
- ❖ Creating four million additional jobs in the Digital Communications sector;
- ❖ Enhancing the contribution of the Digital Communications sector to 8% of India's GDP from ~ 6% in 2017;
- ❖ Propelling India to the Top 50 Nations in the **ICT Development Index of ITU** from 134 in 2017;
- ❖ Enhancing India's contribution to Global Value Chains; and
- ❖ Ensuring Digital Sovereignty.

In pursuit of accomplishing these objectives by year 2022, the NDCP, 2018 envisages three Missions:

1. **Connect India:** Creating Robust Digital Communications Infrastructure.
2. **Propel India:** Enabling Next Generation Technologies and Services through Investments, Innovation and IPR generation.
3. **Secure India:** Ensuring Sovereignty, Safety and Security of Digital Communications.

## **Broadband Readiness Index for States**

### News Excerpt

The Department of Telecom (DoT) and the Indian Council for Research on International Economic Relations (ICRIER) recently signed a Memorandum of Understanding (MoU) to develop a Broadband Readiness Index (BRI) for Indian States and Union Territories (UT). **The first estimate will be made in 2019** and subsequently every year until 2022.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

### Pre-Connect

- **The National Digital Communication Policy (NDCP) 2018** acknowledged the need for building a robust digital communications infrastructure leveraging existing assets of the broadcasting and power sectors including collaborative models involving state, local bodies and the private sector.
- The policy recommended that a BRI for States and UTs be developed to attract investments and address Right of Way (RoW) challenges across India.

### Analytica

- BRI index will appraise the condition of the underlying digital infrastructure and related factors at the State/UT level.
- Such an exercise will provide useful insights into strategic choices made by States for investment allocations in ICT programmes.
- In the spirit of competitive federalism, the index will encourage states to cross learn and jointly participate in achieving the overall objective of digital inclusion and development in India.

- The framework will evaluate a state's relative development and will also allow for better understanding of a state's strengths and weaknesses that can feed into **evidence-based policy making**.
- The BRI consists of two parts. **Part I** will focus on **infrastructure development** based on the measurement of nine parameters.
- **Part II** consists of **demand side parameters** which will be captured through primary surveys.
- This will be a first of its kind exercise that will comprehensively measure the development of telecom infrastructure at the sub national level.

**PEPPER IT WITH**

Digital India Programme, Bharat Net Project, National e-Governance Plan (NeGP), The Inclusive Internet Index

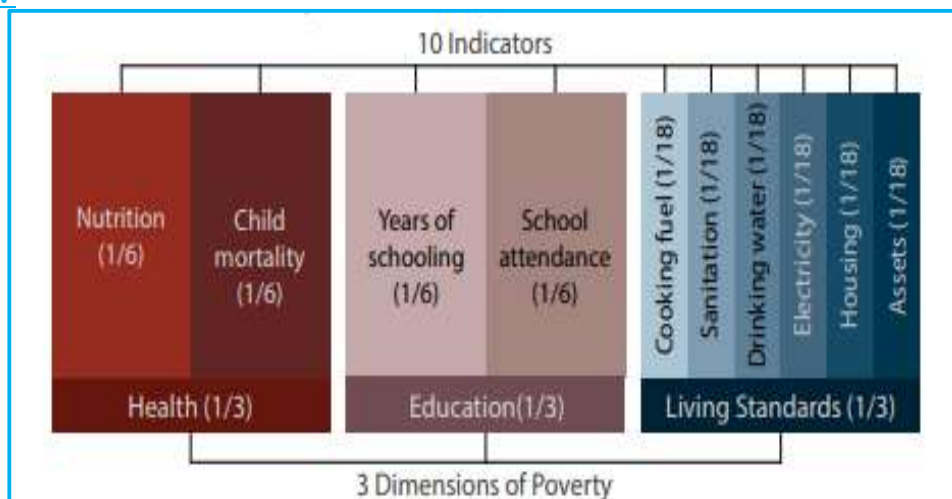
**Global Multidimensional Poverty Index****News Excerpt**

UN Development Programme recently released the 2019 global Multidimensional Poverty Index (MPI). According to United Nations report, **India lifted 271 million people out of poverty between 2006 and 2016**, recording the fastest reductions in the multidimensional poverty index values during the period with **strong improvements in areas such as “assets, cooking fuel, sanitation and nutrition**.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

**What is Global MPI?**

- An international measure of acute multidimensional poverty **covering over 100 developing countries**.
- It complements traditional monetary-based poverty measures by capturing the acute



deprivations that each person faces at the same time with respect to education, health and living standards.

- The MPI assesses poverty at the **individual level**. If someone is deprived in a third or more of ten (weighted) indicators, the global index identifies them as **'MPI poor'**, and the extent or intensity of their poverty is measured by the percentage of deprivations they are experiencing.
- The global MPI is developed by **Oxford Poverty and Human Development Initiative (OPHI)** with the **UN Development Programme (UNDP)** for inclusion in UNDP's flagship *Human Development Report* since 2010.

**PEPPER IT WITH**

Human Poverty Index (HPI), World Happiness Report, Sarvodaya and Antyodaya, Better life Index by OECD, Gini Coefficient, Economically Weaker Section (EWS), Bottom of the Pyramid concept, Oxfam World Inequality Index

**Key Findings of Global MPI 2019 Report**

- Across 101 countries, **1.3 billion people**—23.1 percent—are multidimensionally poor.

- Two-thirds of multidimensionally poor people live in **middle-income countries**.
- **Half of the 1.3 billion multidimensionally poor people are children** under age 18.
- In **South Asia** 22.7 percent of children under age 5 experience intrahousehold inequality in deprivation in nutrition.

### India Specific Findings

Among the 10 selected countries for which changes over time were analysed, India and Cambodia reduced their MPI values the fastest — and they did not leave the poorest groups behind. India's MPI value reduced from 0.283 in 2005-06 to 0.123 in 2015-16.

Noting the examples of pro-poor reduction, where the poorest regions improved the fastest, the report said that Jharkhand in India reduced the incidence of multidimensional poverty from 74.9% in 2005-06 to 46.5% in 2015-16.

India significantly reduced deprivations in all 10 indicators.

### Way Forward

To fight poverty, one needs to know where poor people live. They are not evenly spread across a country, not even within a household. We need to have an approach through which those furthest behind move up the fastest.

## Safeguarding the Intellectual Property Rights

### News Excerpt

The Government has taken several steps that have led to an improvement in patent filing, as also for safeguarding the Intellectual Property Rights (IPR).

### Pre-Connect

National IPR Policy for India was adopted by the Government of India in May, 2016, as a vision document that lays the future roadmap of IPRs in India. The Cell for IPR Promotion and Management (CIPAM) has been set up to coordinate the implementation of the National IPR Policy.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

### The Government has taken following steps, inter alia, to enable and assist start-ups for filing of patents.

1. Under the amended Patents Rules, 80% patent fee reduction has been provided for Start-ups as compared to large companies.
2. Under the Scheme for Facilitating Start-ups Intellectual Property Protection (SIPP), 208 Patent Agents have been empanelled as facilitators by the Controller General of Patents, Trademarks and Designs, to provide assistance to Start-ups in the preparation and filing of their patent applications and, subsequently, during the stage of prosecution of applications before the Patent Office. Fees of the facilitators are paid by the Government as per the norms of the scheme.
3. Startups are also eligible for getting the processing of their patent applications expedited.

### Analytica

#### What is Intellectual Property Rights (IPR)?

**Intellectual Property Rights** are legal rights governing the use of creations of the human mind. The recognition and protection of these rights is of recent origin. Patents, designs and trademarks are considered as industrial property.

#### What IPR Does?

IPR is required to safeguard creators and other producers of their intellectual commodity, goods and services from:

(1)**Copyright and Related Rights**, (2)**Right of traders in their trademarks**, (3)**Right of manufacturers & producers on geographical indication in relation to such products and produce**, (4)**Right of designers for their distinctive design striking to the eye**, (5)**Patents**, (6)**Right of computer technologist for their layout design of integrated circuits**, and (7)**Right of businessmen for protection of their undisclosed information on technology and management**, by granting them certain time-limited rights to control the use made of the manufactured goods. It gives protection to original ideas and avoids the commercial exploitation of the same.

#### PEPPER IT WITH

National IPR Policy, 2016;  
International Intellectual  
Property Index,  
Bioprospecting, Fair Use

## State of Food Security and Nutrition in The FAO Report 2019

### News Excerpt

FAO Has Published Its Report on Food Security and Nutrition 2019.

### Pre-Connect

- **The State of Food Security and Nutrition in the World report 2019** was jointly prepared by the Food and Agriculture Organization of the United Nations (FAO), the International Fund for Agricultural Development (IFAD), the United Nations Children's Fund (UNICEF), the World Food Programme (WFP) and the World Health Organization (WHO).
- **The report considers the period from 2017** to monitor progress towards the targets of **ending hunger** and **ensuring access to food by all** (SDG Target 2.1) and **of eliminating all forms of malnutrition** (SDG Target 2.2).
- This report has traditionally tracked world hunger using **the prevalence of undernourishment (PoU)**, one of the indicators used to monitor global progress towards SDG Target 2.1.
- This year, for the first time, another indicator of the global SDG monitoring framework: **the prevalence of moderate or severe food insecurity based on the Food Insecurity Experience Scale (FIES)** was used. The 2030 Agenda, by including this indicator, **recognizes that food insecurity is more than hunger**.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

#### PEPPER IT WITH

Green Revolution, Operation Flood, National Food Security Act (NFSA), 2013; World Food Program, Zero Hunger Challenge, Global Hunger Index, Hidden Hunger, Global Nutrition Report, HUNGaMA Report

### Highlights of the Report

- The pace of decline in world hunger has stopped since 2015 and is stagnant at slightly less than 11%.
- Meanwhile, the number of people who suffer from hunger has slowly increased. As a result, more than **820 million** people in the world were still hungry in 2018.
- **Status and extent of hunger in the world:** Hunger is on the rise in almost all African sub-regions, **making Africa the region with the highest prevalence of undernourishment**, at almost **20 percent**. Hunger is **also slowly rising in Latin America and the Caribbean**, although its prevalence is still **below 7 percent**. In Asia, Western Asia shows a continuous increase since 2010, with more **than 12 percent of its population undernourished today**.
- Over **2 billion** people **do not have regular access to safe, nutritious and sufficient food**, including 8 percent of the population in **North America and Europe**.
- **Problem of Overweight and obesity** continue to increase in all regions, particularly among school-age children and adults. In 2018, an estimated 40 million children under five were overweight. In 2016, 131 million children 5–9 years old, 207 million adolescents and 2 billion adults were overweight
- **Uneven pace of economic recovery** and **continuing poor economic performance** in many countries after the 2008–2009 global economic downturn are also undermining efforts to end hunger and **malnutrition**.
- The number of **stunted children has declined by 10 percent** over the past six years, but this rate of reduction is too slow to achieve the 2030 target of a 50 percent reduction in the

#### The food and nutrition security analysis , India report

- ❖ The highest levels of stunting and underweight are found in Jharkhand, Bihar, Uttar Pradesh, Madhya Pradesh, Gujarat and Maharashtra.
- ❖ Among social groups, the prevalence of stunting is highest amongst children from the Scheduled Tribes (43.6 percent), followed by Scheduled Castes (42.5 percent) and Other Backwards Castes (38.6 percent).
- ❖ Prevalence of wasting is highest in Jharkhand (29.0%) and above the national average in eight more States (Haryana, Goa, Rajasthan, Chhattisgarh, Maharashtra, Madhya Pradesh, Karnataka and Gujarat).

#### PEPPER IT WITH

HUNGAMA Report, World food program

number of stunted children.

### Analytica

The report focuses on not only the **problems of Malnutrition** but also **moderate food insecurity** that affects people who have had to reduce the quality or quantity of what they eat due to lack of money or other resources.

The findings show the **need for the government to pay more attention to different aspects of food availability instead of just focusing on producing more.**

**The problem of hunger has to be tackled on two fronts:**

- 1. Safeguarding food security and nutrition:** this has to be done by economic and social policies that help counter the effects of economic slowdowns or downturns, including guaranteed funding of social safety nets and ensuring universal access to health and education.
- 2. Tackling existing inequalities at all levels:** through multi-sectoral policies that make it possible to more sustainably escape from food insecurity and malnutrition.

### The policies must be

- A. Short term:** Countries need to protect income and purchasing power, particularly for the most affected households, through social protection programmes, including cash transfers and school feeding; public works programmes that help reduce unemployment; health sector policies that protect the poor against catastrophic out-of-pocket healthcare costs; and, if needed, policies aimed at reducing excessive volatility of food prices
- B. Long term:** Countries need to invest wisely during periods of economic booms to reduce economic vulnerabilities and inequalities; build capacity to withstand shocks; maintain health and other social expenditures; use policy tools to create healthier food environments; and quickly recover when economic turmoil erupts.

### Way Forward

Such policies will provide a platform for structural transformation in the economy especially with countries that are highly dependent on primary commodities for their economic growth like India. If implemented with full capacity these policies will surely help India to achieve the long pending need for hunger free and nourished India. It will not improve the **social condition of people** but also **help the country economically** as the report mentions that under **nutrition will reduce Gross Domestic Product (GDP) by up to 11 percent in Africa and Asia, while obesity costs USD 2 trillion annually, largely driven by the value placed on lost economic productivity, plus direct healthcare costs worldwide.**

## National Digital Health Blueprint Released by Health Ministry

### News Excerpt

Recently, **Union Minister of Health and Family Welfare** released the **National Digital Health Blueprint** report in the Public domain. It will strengthen the Digital India campaign and accelerate India's efforts towards UHC.

### Pre-Connect

India had proposed the **m-Health resolution at WHA (World Health Assembly)** in 2016. It was the first of its kind. After that the Government of India approved the **National Health Policy 2017 (NHP 2017)** with the vision of providing Universal Health Care. A few of the on-going initiatives in Digital Health being implemented by **MoHFW** include **Reproductive Child Healthcare (RCH)**, **Integrated Disease Surveillance Program (IDSP)**, **eHospital**, **e-Shushrut**, **Electronic Vaccine Intelligence Network (eVIN)**, **National Health Portal (NHP)**, **National Identification Number (NIN)**, **Online Registration System (ORS)**, **MeraAspatal (Patient Feedback System)** and **National Medical College Network (NMCN)**.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

### VISION

*To create a National Digital Health Eco-system that supports Universal Health Coverage in an efficient, accessible, inclusive, affordable, timely and safe manner, through provision of a wide-range of data, information and infrastructure services, duly leveraging open, interoperable, standards-based digital systems, and ensuring the security, confidentiality and privacy of health-related personal information."*

### PEPPER IT WITH

Telemedicine, National Essential Diagnostics List (NEDL), Drug Resistance, Delhi Declaration on digital health for sustainable development

## Urban Haats

### News Excerpt

Minister of Textiles recently informed about Urban Haats scheme in a written reply in Rajya Sabha.

### Analytica

- The objective of the scheme is to setup a permanent marketing infrastructure in big towns/ metropolitan cities to provide direct marketing facilities to the handicrafts artisans/handloom weavers.
- The scheme is implemented through State Handicrafts/Handlooms Development Corporations/Tourism Development Corporations/ Urban Local Bodies with sufficient financial resources and organizational capacity to implement the project.
- The financial ceiling for Urban Haat is Rs. 300 lakh for each unit. 80% of the admissible amount is borne by the Office of the Development Commissioner (Handicrafts) and 20% contributed by the implementing agency.

### Problems associated with urban haats

In a recent report “**Review of Urban Haats**”, parliamentary Standing Committee highlighted following issues;

- The Urban Haats lack proper infrastructure.
- Many times Urban Haats get cancelled due to inadequate response from the implementing agencies.
- The unavailability of land at a good location as a cause of concern. Mostly the haat is located outside the city and so the local customers don't come.
- The event does not get promoted well and hence does not get the due attention.
- Participants have to arrange for their accommodation, food and other expenses on their own. The Daily Allowance amount given to them is too less to manage these expenses.

#### PEPPER IT WITH

Trade Facilitation Centre, Border Haats, Khadi and Village Industries Commission (KVIC), Micro Small and Medium Enterprises (MSMEs)

### Conclusion

The functionalities of **urban haats** make them **themoest democratic markets**. Unfortunately, haats have not caught the deserved attention. Infrastructural issues in Urban Haats discourage many potential buyers and sellers from coming to such markets. Self Help Groups (SHGs), NGOs along with the concerned government authorities should work together with planned approach to develop such urban haats and create enthusiasm about them in public at large.

## Utkarsh 2022

### News Excerpt

The Reserve Bank of India (RBI) board recently finalized a three- year roadmap “Utkarsh 2022” to improve regulation and supervision, among other functions of the central bank.

### Analytica

- Utkarsh 2022 is a **medium term strategy** in line with the global central banks’ **plan to strengthen the regulatory and supervisory mechanism of the Central Bank**.
- The idea behind Utkarsh 2022 is that the central bank plays a proactive role and takes preemptive action to avoid any crisis like IL&FS
- An internal committee was formed under the chairmanship of former Deputy Governor **Viral Acharya**, to identify issues that needed to be addressed over the next three years.
- Other matters discussed by the committee included issues relating to currency management and payment systems.

#### PEPPER IT WITH

Internal Ombudsman Scheme 2018, 19<sup>th</sup> Financial Stability Report (FSR), Basel Norms for Banking, Central Bank Independence

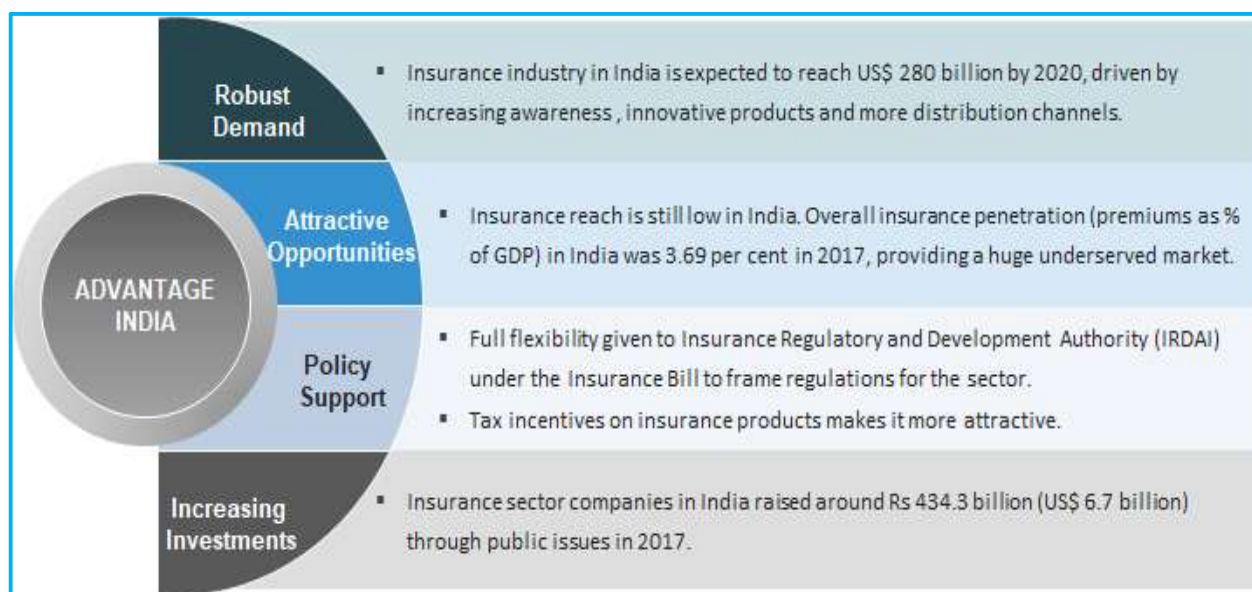
## Insurance Sector in India

### News Excerpt

The Budget 2019-20 permitted foreign companies to own up to 100 per cent in insurance intermediaries, including insurance agents, brokers, loss assessors and surveyors, from the 49 per cent. It is aimed to attract more foreign direct investment into the industry.

### Pre-Connect

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											



### Arguments in favor

- It will bring capital for companies investing in technology solutions which is to help Indian insurance sector achieve better penetration rates which **at 3.6% is much lower than the global average of over 6.1%.**
- 100% FDI in insurance sector will give rise to more players in the segment & will eventually bring in competitive rates, which is healthy for the industry
- India is an underinsured market, especially in rural areas. The proposed 100 per cent FDI in this segment will help the sector with the required capital infusion into the intermediaries segment that can expand their distribution networks in the rural areas as well.
- The capital infusion will also help with driving innovation and improving product offerings in the sector.
- With more money coming in, the insurance companies will be able to create more jobs to meet their targets of venturing into under insured markets through improved infrastructure, better operations and more manpower.

#### Regulatory Sandbox (RS) for the insurance sector

- ❖ The IRDAI recently came out with draft regulations for the creation of a regulatory sandbox to allow a conducive environment for **insurtech and fintech companies** to carry innovation in the insurance space.
- ❖ **The draft highlights four areas**—distribution, products, underwriting and claims—where sandbox can bring in innovation in terms of customization and new developments.
- ❖ RS usually refers to live testing of new products or services in a controlled/test regulatory environment for which regulators may (or may not) permit certain regulatory relaxations for the limited purpose of the testing.
- ❖ The RS is potentially an important tool which enables more dynamic, evidence-based regulatory environments which learn from, and evolve with, emerging technologies.

### Arguments Against

- The lack of capital support to public sector general insurers.
- It might benefit just the top two to three global insurance brokers already present in the country and will increase foreign dominance in the insurance intermediary space.
- It may also increase outflows from the country as foreign players tend to repatriate their profits.
- **Insurance is a capital-intensive sector.** When the insurance FDI was hiked in 2015, there was an expectation that almost Rs 60,000 crore would flow into the sector. However, the actual flows were less than half of the number.

### The Insurance Regulatory and Development Authority of India (IRDAI)

- ✱ Based on the recommendations of the **Malhotra Committee report**.
- ✱ 1999- Constitution of IRDAI as an autonomous body.
- ✱ April, 2000- Statutory status to IRDAI.
- ✱ key objectives of the IRDA include promotion of competition so as to enhance customer satisfaction through increased consumer choice and lower premiums, while ensuring the financial security of the insurance

### Conclusion

The move to allow 100 percent FDI for insurance intermediaries is a positive one and will help in the long-term and holistic development of the industry. However, the impact of this FDI decision will see an increase in insurance protection only if it is complimented by tax breaks both at the individual level as well as at the goods and services tax level. Nonetheless an increase in FDI would help bring more investment, enabling companies to expand operations and create more jobs.

### PEPPER IT WITH

Risk Management, Contract Theory, Farm Insurance, Pradhan Mantri FasalBima Yojana (PMFBY)

## Huawei and 5G Rollout in India: Economics of 5G and Race to 'Spy Digital Ecosystem'

### News Excerpt

India has shown concern over **Huawei** to participate in the **5G network trial for 5G services** on the issue of **National security**. The final decision is pending.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

### Pre-Connect

**5G is set to establish 'hyper-connectivity'** for the global network of sensors, robots, and autonomous vehicles through sophisticated artificial intelligence (AI) and deep machine learning.

- **Global Scenario:** 5G will have a profound effect on country's economic performance and GDP. In **2016, mobile technologies** and services generated **4.4 % of GDP globally**. This has been estimated to grow to over **4.9 % of global GDP**.
- **Indian Scenario:** 5G mobile services are expected to create over **\$27 billion business opportunities for India by 2026** with multiplication effect over Jobs.
- **GOI formed a panel** to decide whether to allow **Huawei to participate in the 5G trials** in the country. Government proposed to roll out 5G by 2020.
- **Spectrum for 5G** is likely to be auctioned in **October** and the **5G High-Level Forum** envisages the technology to be deployed in the country by **2020**.

### How Big is Huawei?

With **20% of all 5G patents in the world**, Huawei has **grabbed 50 commercial 5G contracts globally**. It came under the **scanner** due to **allegations of 'spying'** on behalf of the **Chinese government**.

### 5G Through India's Perspective-

- **Internet economy:** India is expected to touch the USD 155 billion mark contributing to around 5% to the GDP. This is likely to grow by 1.5-1.75 times in next 2-3 years. It is

believed that **India's digital economy** has the potential to reach USD 1 trillion by the year 2025. **\$13 billion** is the addressable **revenue opportunity** for mobile operators in the country. Allowing many players in domain will increase competitiveness and choice of services.

- **Fiscal aspects:** Government expects to raise Rs 5.83 lakh crore (\$83.8 billion) from its latest round of 5G airwaves auction.
- **Economic aspects:** Panel set up by the Department of Telecommunications prepared a roadmap for the rollout of 5G which stated that 5G services would have a cumulative economic impact of more than **\$1 trillion by 2035**.
- **Readiness to adopt Industry 4.0 through Digital India:** 5G will reshape the implementation of Digital India as it encompasses a wide variety of applications. Such as autonomous vehicles, factory robotics etc. yield out economic benefit in long term.
- **Hyperconnectivity for Infrastructure:** 5G networks will enable radical advances in, machine learning networks, clean energy technologies, advanced medical equipment, and smart cities in Indian context.
- **Tool of Social Transformation:** hyper connectivity will ensure better implementation of Aadhaar enabled Services for Social security, Pension services, banking operations etc.
- **Human development aspects:** Penetration of internet will boost financial inclusion, targeted delivery of services, promote culture of startups, lead to growth in formal and informal jobs etc.

#### USA v/s China (Digital Trade War)

##### Controversy-

- ❖ **US** holds an **advantage** in **tele-communication technologies** particularly semi-conductors, enterprise software and hardware. **America's current trade war** with China is all about the **future of technologies like 5G** and in other words **battle to 'spy digital ecosystem' at both regional level as well as global level**.
- ❖ **Monopoly** over **digital network** could have facilitated **Huawei for 'Data-Spying'**.
- ❖ US banned Huawei from bidding on US government contracts.
- ❖ Last year, the Pentagon banned Huawei and ZTE phones from being sold at **US military bases**.
- ❖ It is clearly a **strategic race to capture 'digital (Internet) networks'** of countries by entities which **allow the spy-country** to access **data without cognizance of Users**, Monitoring the movement of critical documents and instructions.

#### Analytica-

- ✓ **5G mobile value chain** alone could **generate up to \$3.5 trillion** in revenue in 2035 and support up to 22 million jobs.
- ✓ **Digital Rivalry-** Race to install 5G mobile networks reflects **geopolitical rivalry** to harness political and economic fortunes for decades to come.
- ✓ **Data is 'Sovereign asset'** which moves through controlled networks. It is assumed that Entity which has control over **'digital network & traffic data'** may influence sovereignty of another country (in financial, strategic and economic terms). This raises alarm over embracing of 5G as it will multiply such processes. In the absence of Data regulation in India, it could prove catastrophic for the economy either directly or indirectly.
- ✓ Level of **vulnerability and exposure** of **'People's-Data'** in such cases remain very high. Issues like erosion of privacy, surveillance and theft of documents may occur.
- ✓ **Existing 4G network is fragmented**, distressed through network lag, Call drops, issue of slow speed without constant connectivity also remain a challenge. In such scenario rolling out 5G would be detrimental to **debt-ridden service provider companies**. Consequently, it may lead to wiping out **Millions of jobs**

#### PEPPER WITH IT

Data Localization, NETRA, NATGRID, B N Shrikrishna Committee, Free Energy in 5G, DoT, TRAI, CERT

Digital India,' 'BharatNet' and 'Smart Cities', along with high rate of fiberisation across various parts of India have given a boost to telecom companies.

and may create problem of NPA.

### Way Forward

- 5G offers a pool of opportunities but protection & regulation of **'Individual data-flow'** to prevent any chances of **'digital-spying'** is must and **the need of contemporary times**. In India a Data regulation authority must be established **immediately**.
- **Robust 'Cybersecurity ecosystem'** must be built to counter **'Spying of digital ecosystem'** and Government must **enact suitable laws** to give effect to it.
- **Fair licensing policy & Spectrum bidding** must be rolled out to create a level playing field for all stakeholders.
- In case of rolling out 5G, Service provider should **avoid 'predatory pricing' model** to capture **market with exponential growth**. Such acts create instability and prove unsustainable **as people may lose job**. It should create new jobs rather than **pulling-off** people from **existing 4G market**.
- Equipments imported for 5G network must be **'self-certified'** and it should be ensured that any storing and monitoring of Data is not performed by such apparatus. Utilization of energy or wave parameter must remain up to the standard level as many experts raise concern over **impact of 5G on health**.

## Urea sector towards Self Sufficiency

### News Excerpt

To focus on increasing indigenous urea production and to make India self-sufficient in urea production, GoI is reviving 5 closed fertilizer plants. GoI has set the goal to wipe out urea imports completely by 2022.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

### Pre-Connect

- **Economic importance of Urea:** Agriculture is the backbone of Indian economy. The nutrient is must for efficient farming output. Agriculture contributes around 16% to GDP with 54% (approximately) share in employment. **Trend:** In the last 3 years, **India imported urea of 63.12 lakh metric tonne (LMT)** with an average expenditure of Rs 12,797.31 crores. Average total **indigenous production** of urea in last three years was around **241 LMT** and the total consumption (sales) was **305.48 LMT approximately**. The gap was fulfilled by imports.
- **Fiscal Scenario:** The production cost of gas-based urea is about Rs 900 per 45-kg bag, farmer receives it for Rs 242 (approx.), at a discount of over 70%. Gap is indirectly filled by GoI by way of subsidy. Nearly Rs 70,000 crore annually is spent by Central Government on fertilizer subsidies.
- **Policy:** GoI announced New Investment Policy in 2012 and revised it in 2014 to facilitate fresh investment in the urea sector.
- **Distorted market:** Urea sector is highly regulated with multiple layers which creates parallel black market. Only agricultural urea is subsidized which creates incentives to divert **subsidised urea to industrial process and cross border illegal trafficking**. It creates **artificial Supply shortage in urea chain, impacts fiscal as well as revenue aspect with many externalities for farmers**.
- **DBTL Reform:** Of the 99.5% people who bought fertilizer, 80.3% used Aadhaar authentication, 6.4% Aadhaar enrolment ID and Kisan Credit Card, while 12.8% bought through manual transaction. Aadhaar plugs leakages and reduce transaction time.

### Neem Coated Urea

- ❖ All domestic producers must produce 100% Neem Coated Urea.
- ❖ All Imported urea is also neem coated.

### Advantages

- ✚ Improvement in soil health.
- ✚ Reduction in costs.
- ✚ Reduction in pest and disease attack.
- ✚ An increase in yield
- ✚ Check diversion of subsidized urea

### Significance of the move

**World's biggest importer of urea** intends to produce as much as it consumes within **five years**. **Self-sufficiency** has long been a **goal of the Indian government**.

- GoI is considering revival of ailing plants, restarting closed units, expanding existing projects and building new ones. It will have a significant impact on Jobs, technology utilization, and ultimately over agricultural production. It could pave the way for doubling farmer's income.
- **Import reduction** through **self-sufficiency** will assure the balance of payment in favour, macro-economic stability, currency stability, timely delivery to farmers with quality regulations for agricultural production.
- **Domestic manufacturing would** give a boost to 'make-in-India' campaign.

### Way Forward

Recent reforms in fertilizer sector, including Neem-coating to prevent diversion of subsidized urea to non-agricultural uses, gas-pooling to induce efficiency in production, and JAM are steps in the right direction which impact both the sides of the value chain.

- ✓ **Need for demand-side Innovation:** To reduce overall demand for Urea.
  - To limit the use of urea by way of Organic farming and Zero based budget farming.
  - To analyze optimum nutrient required by the soil through soil health card scheme.
- ✓ **Prevent Supply-side leakages:** To augment supply-side limitations.
 

Channels of Leakages will minimize if govt. **adopts 'optimum pricing model'** for new plants with use of **JAM at end-user in distribution chain.**
- ✓ **Competence Expertise:** Emphasis must be on improved efficiency through concentrated absorption of indigenous technologies, optimum utilization of Raw materials, and timely-delivery of urea in formal market.
- ✓ **Governance of PSUs:** Robust feedback and Grievance redressal mechanism must be put in place and Corruption must be checked. Otherwise in the long run, new or existing plant will meet with the same fate through which they will be pulled-out.

#### PEPPER WITH IT

CCEA, Fiscal Deficit, Revenue Deficit, PSUs, N:P:K ratios, JAM, DBTL, Organic farming, Zero Budget base farming, Soil Health card scheme

## Banking Regulations in India Stricter Than Basel Norms

### News Excerpt

The **Regulatory Consistency Assessment Programme (RCAP)**, part of the Basel committee, has found Indian banking regulations stricter than the Basel III norms.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

### Pre-Connect

- Basel accords are set of banking regulations set up by **Basel committee on banking resolution** formed in 1974.
- The accords are designed to ensure that financial institutions have enough capital on account to meet obligations and absorb unexpected losses.
- Indian banks have already adopted the BASEL II norms.
- RBI has given deadline to all the banks to adhere to Basel III norms by March 31, 2020.
- Under Basel III, a bank's tier 1 and tier 2 capital must be a minimum of 8% of its risk-weighted holdings. The minimum capital adequacy ratio, also including the capital conservation buffer, is 10.5%.
- Capital adequacy is a measure of a bank's financial strength expressed as a ratio of capital to risk-weighted assets.

### Findings by the RCAP

- **Few norms in the Indian banking system are even more stricter than prescribed in the Basel III norms.**
- Indian banks as per RBI direction are required to **maintain 5.5 per cent Common Equity Tier 1 (CET 1) as against 4.5 per cent** required under the Basel III framework. The Reserve Bank of India's (RBI) norms on **large exposures for banks (LEX)** are not only compliant with the Basel requirements but more strict.

- While Basel large exposures framework limits the sum of all exposures of a bank to a single counter party **to 25% of Tier 1 capital**, Indian regulations establish the large exposure limit at **20%**.
- **Banks' exposures to global systemically important banks** are subject to stricter limits, in line with the letter and spirit of the Basel Guidelines,
- The **scope of application of the Indian standards is wider** than just the internationally active banks covered by the Basel framework.

### Analytica

While the strict regulations are in line with the Basel III norms, they have both positive and negative impact on Indian economy.

#### **Positive impacts:**

- ✓ **Reduces chances of collapse of banks:** in the current scenario when the **NPAs are risings** and there are **willful defaulters**, these strict norms have allowed the banks to maintain their credibility in the market.
- ✓ It has saved Indian banks from getting **succumbed to the 2008 financial crisis**.
- ✓ **Restriction on formation of further NPAs:** the banks are not free to provide further loans that helps them to avoid further problems of NPAs.
- ✓ **Crowding out of weaker banks:** having high quality asset requirements due to stricter norms will have transformational impact by weeding out the weaker banks from the market which stress the whole banking system.

#### **Negative Impacts:**

- ✓ **Fewer funds for private sector:** Reduces the ability of private companies to generate funds to **increase** their scale of economy.
- ✓ **Tussle between the central government and**

**RBI:** Focus of government policy to generate **consumption led growth** and to spur the economy is not working because of lack of liquidity in the market.

Implementing stricter norms, undoubtedly insulates **Indian banks against domestic and financial shocks, consequently reducing spillover risks** from the financial sector to the overall economy. However, for healthy financial system, Indian banks should quickly adopt the basel III norms as prescribed deadline of RBI and the Government must recapitalize these banks so that the banks can fulfill the criteria for meeting the capital adequacy ratio.

#### Basel I

The first Basel Accord, known as Basel I, was issued in 1988 and focused on the **capital adequacy of financial institutions**. The capital adequacy risk (the risk that an unexpected loss with hurt a financial institution), categorizes the assets of financial institutions into five risk categories (0%, 10%, 20%, 50% and 100%). Under Basel I, banks that operate internationally are required to have a **risk weight of 8% or less**.

#### Basel II

The second Basel Accord, called the Revised Capital Framework but better known as Basel II, served as an update of the original accord. It focused on three main areas:

1. Minimum capital requirements,
2. Supervisory review of an institution's capital adequacy and internal assessment process,&
3. The effective use of disclosure as a lever to strengthen market discipline and encourage sound banking practices including supervisory review.

Together, these areas of focus are known as the **three pillars**.

#### Basel III

In the wake of the Lehman Brothers collapse of 2008 and the ensuing financial crisis, the BCBS decided to update and strengthen the Accords. The BCBS considered poor governance and risk management, inappropriate incentive structures, and an overleveraged banking industry as reasons for the collapse. In November 2010, an agreement was reached regarding the overall design of the capital and liquidity reform package. This agreement is now known as Basel III.

#### **PEPPER IT WITH**

Base Rate, Marginal Standing Facility, Development and Growth

## Free Trade and Warehousing Zones

### News Excerpt

Ascendas India Trust has agreed to forward purchase a warehouse development in the Arshiya **Free Trade Warehousing Zone** in Panvel

### About FTWZ

- Free Trade Warehousing Zone is a Special Economic Zone wherein mainly **trading and warehousing** and other activities related thereto are carried on. It is a **deemed foreign territory within the geography of India** for the purpose of tariff and trade.
- The Special Economic Zones Act, 2005 and the Special Economic Zones Rules, 2006** are the legal framework for FTWZ. Instructions are also issued by the Ministry of Commerce & Industries from time to time to clarify various operational aspects of FTWZ.

### Advantages of FTWZ

- **Tax Free Zones:** for the ease of doing business these zones are exempted from service tax and custom duties. There is exemption of re-export of imported goods.
- **Advanced Infrastructure:** They have advanced building and warehouse features of international standards.
- **Hinterland and Port Connectivity:** FTWZ are strategically located in the places which are easily reachable from ports and also goods can be easily transported to hinterland.
- **Flexibility of transactions** in any free convertible currency.

### Significance

The FTWZs will provide significant impetus to the import and export markets as they provide necessary support to the markets. Having warehouses in each zone will **make it easier** to get **Customs clearances**, to dispatch imported goods, to retail outlets across India. The retail markets can plan their inventory better and save more on the transportation cost.

The FTWZs would be suitable for **units that have large import content** in their manufacturing operations, and good domestic and export market potential for their sales. Such units can store the **goods in the warehouses duty-free and sell to domestic or international customers as and when feasible**.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

#### PEPPER IT WITH

Free Trade Zone, Special Economic Zone, Industrial Corridors

## One Nation One Grid

### News Excerpt

One nation one grid was proposed in the union budget 2019-2020.

### Pre-Connect

- With **100 per cent electrification target being achieved**, the government's focus is now to provide consistent electricity at affordable rates.
- In the past any schemes such as the **UDAY scheme, pradhanmantrisahajbiji har gharyojna** etc have been implemented for this purpose.
- The Indian Power system for planning and operational purposes is divided into five regional grids.

### Thematic connect

- The concept of one national grid was established in nineties where the five regional grids were to be interconnected.
- Therefore the **national grid** was created with the plan to exchange surplus power.
- In spite of achieving the interconnection of the regional grids into a national grid, there are still structural bottlenecks for delivering power to general public at affordable prices.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

- This will be implemented under the **saubhagya scheme** also known as **Pradhan mantra Sahaj Bijili har gharyojna**.
- The policy will have provisions for imposing penalty on discoms resorting to gratuitous load-shedding instead of buying more power from producers.

### Analytica

The inter-connectivity of the grids into national grid will have the following advantages-

- ✓ The most important benefit of synchronizing all regional grids is that it reduces pressure on already scarce natural resources, **by transferring power from resource-centric regions to load-centric regions**.
- ✓ It will also **facilitate power trading across regions**, thus, establishing a vibrant electricity market.
- ✓ Further, **there will be only one power frequency across the nation**.

### Challenges ahead

- **Stressed Discom sector:** Even after the implementation of UDAY scheme in 2015, the power distribution sector is still not free from debts. A Niti Aayog review of the plan just revealed that government departments and local bodies have run up electricity bills of Rs 41,386 crore in the first nine months of 2018-19.
- **Unviable tariff policy for large users of electricity:** Cross subsidy surcharges, undesirable duties on open access sales or captive generation for industrial and other bulk power consumers has to be reformed.

### Way forward

According to IEA given the large population, distances, and low affordability, 100% electrification has been a stupendous task, but to spur the productivity that will boost the economic well being and the microbusiness in the villages, the power should be available to them at affordable rates. The regulators of the power will have to manage power distribution system in India so that in addition to affordability to consumers the discom companies do not default and fall into debts.

### Evolution of National Grid

- ❖ Grid management on regional basis started **in sixties**.
- ❖ Initially, State grids were inter-connected to form regional grid and India was demarcated into 5 regions namely Northern, Eastern, Western, North Eastern and Southern region.
- ❖ In October 1991 North Eastern and Eastern grids were connected.
- ❖ In March 2003 WR and ER-NER were inter-connected.
- ❖ August 2006 North and East grids were inter-connected thereby 4 regional grids Northern, Eastern, Western and North Eastern grids are synchronously connected forming central grid operating at one frequency.
- ❖ On 31st December 2013, Southern Region was connected to Central Grid in **Synchronous mode** with the commissioning of 765kV Raichur-Solapur Transmission line thereby achieving 'ONE NATION'- 'ONE GRID'- 'ONE FREQUENCY'.

### **PEPPER IT WITH**

Energy Security, Hydroelectric Power generation, National Solar Mission, Soubhagya Scheme, Uday Scheme

## **Working Group on Core Investment Companies**

### News Excerpt

RBI forms working group to review regulatory framework for core investment companies

### Pre-Connect

RBI **had introduced a separate framework** for the regulation of systemically **Core investment companies** in August 2010, **recognizing the difference in the business model of a holding company relative to other non-banking financial companies**.

### About the Working Group

- It is a six-member committee — headed by **Tapan Ray**, non-executive Chairman, Central Bank of India and former Secretary, Ministry of Corporate Affairs.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

- The aim of the committee is to examine the **current regulatory framework for CICs in terms of adequacy, efficacy and effectiveness of every component thereof and suggest changes.**
- It will also assess the appropriateness of and suggest changes to the **current approach of the RBI towards registration of CICs**, including the **practice of multiple CICs** being allowed within a group.
- The working group will also suggest measures to **strengthen corporate governance and disclosure requirements for CICs** and assess the adequacy of **supervisory returns submitted by CICs** and suggest changes.

### Analytica

Over the years, corporate group structures have become more **complex involving multiple layering and leveraging, which has led to greater inter-connectedness with the financial system through their access to public funds.** Further, in light of recent developments, there is a **need to strengthen the corporate governance framework of CICs.**

### Core investment companies

Core Investment Company (CIC) is a non-banking financial company carrying on the business of acquisition of shares and securities and which (a) holds not less than 90 per cent of its net assets in the form of investment in equity shares, preference shares, bonds, debentures, debt or loans in group companies and (b) its investments in the equity shares in group companies constitutes not less than 60 per cent of its net assets as on the date of the last audited balance sheet.

### **According to the framework in 2010:**

- ❖ The companies with assets less than 100 crores are not required to take license from the RBI
- ❖ CIC with asset more than 100 crores but not without access to public funds are not required to register and get certificate from the RBI.
- ❖ CICs with access to public funds and assets more than 100 crore are in the category of systematically important core investment companies and are required to acquire certificate from RBI for functioning in India.

### **PEPPER IT WITH**

Angel Funds, Venture Capital, Unicorns

## **Annual Financial Statement**

### Constitutional Provisions

- Annual Financial Statement** is as per the **Article 112 of the constitution.**
- Finance bill** is as per the **Article 110 of the Constitution.**
- Demands of Grants** is as per the **Article 113 of the Constitution.**
- Appropriation bill** is as per the **Article 114 of the constitution.**

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

### Key Highlights

#### Macro Economics Perspective

- Fiscal deficit **of 3.3% of GDP and GDP growth rate of 7%.**
- The Government will undertake strategic sale of PSUs. It will also continue to consolidate PSUs in the non-financial space also.
- The Government is also considering to retain PSUs in Government control, even if the stake holding goes below 51%.
- In comparison to the revised estimates of 2018-19, **direct taxes are budgeted to increase only by 17.5% and indirect taxes by only 15%.** Hence some sort of realism is inbuilt into the Budget.
- Direct tax collections increased by **78% from Rs. 6.4 lakh Cr in 2013-14 to Rs. 11.4 lakh Cr in 2018-19**

#### On Investments and Businesses Front

### On Taxes Front

- PAN and Aadhaar will become interchangeable.
- Special Additional Excise Duty and Road & Infrastructure Cess each are Proposed to be increased by Re. 1, on petrol and diesel.
- The Road & Infrastructure Cess will increase to Rs. 9 per litre for both the fuels.
- Basic Customs Duty is increased on items such as **Cashew Kernels, PVC, Vinyl Flooring, Tiles, Marble Slabs, CCTV Camera, IP Camera etc.** this is to give thrust to Make in India Initiative. It is also proposed to remove exemptions from Customs Duty for certain electronic items being manufactured in India.
- It is proposed to enhance surcharge on individuals **having taxable income from Rs. 2 Cr to Rs. 5 Cr and Rs. 5 Cr and above, so that effective tax rates will increase by around 3% and 7% respectively.** The increase is expected to earn Rs. 12,000 Cr, a year.
- It is proposed to increase customs duty on **Gold and other precious metals from 10% to 12.5%.**
- **Sabka Vishwas** Legacy Dispute Resolution Scheme proposed for quick closure of service tax and excise related litigations.

- India's Sovereign External Debt to GDP is less than 5% and the Government will be increasing its external borrowing programme.
- Minimum public shareholding in listed companies **will be increased from 25% to 35%.**
- Credit Guarantee Enhancement Corporation to be set up in 2019-20.

### Steps to Promote Start-Ups

- Start-ups will not be subject to any **scrutiny in respect to valuation**, fundsraised by start-ups **will not require any scrutiny by the IT Department.**
- Capital gains exemptions from sale of residential house for investment in start-ups extended till FY21.

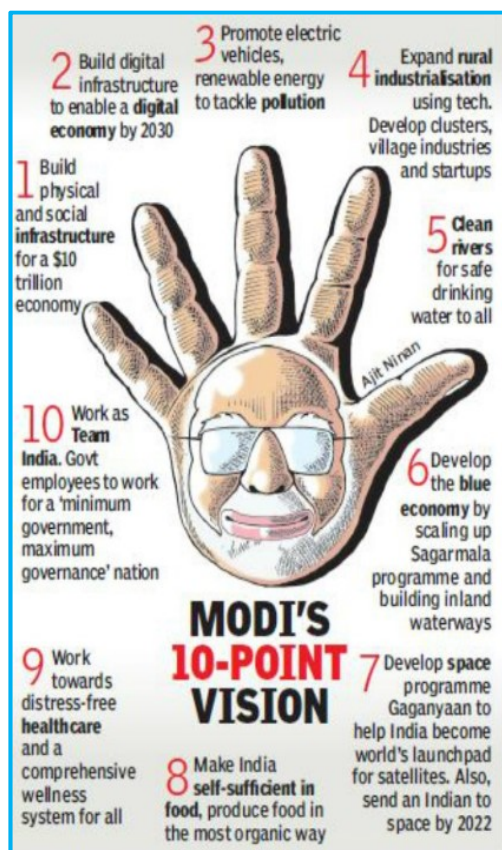
### Banking Sector

- **NPA**s of commercial banks have come down by Rs. 1 lakh crore. Number of Public Sector Banks reduced by 8 through consolidation.
- **Rs. 70,000 Cr in recapitalization of Public Sector Banks (PSBs)** will lead to creditgrowth.

### On NBFCs

- Government will provide one time six months partial credit guarantee forPublic Sector

### India's 10- point 'Vision for the Decade'



Banks for the purchase of pooled assets of financially sound NBFCs. It would help NBFCs raise funds from PSU banks.

- **RBI will get more powers to regulate NBFCs.**
- RBI can supersede NBFC Board for a maximum period of 5 years and an administrator can be appointed.
- The Budget has done away with the Debenture Redemption Reserve for public issues by NBFCs.

#### Steps to Promote MSMEs

- **Rs. 350 Cr has been allocated for FY-2019-20 for 2% Interest Subvention** for all GST-registered MSMEs on fresh or incremental loans.
- Payment platform for filing of bills for MSMEs and payment on the platform itself to eliminate delays in Government payments.
- Scheme of Fund for Upgradation and Regeneration of Traditional Industries' (**SFURTI**) **with focus on bamboo, honey and khadi clusters**, will set up 100 new clusters to enable 50,000 artisans to join the economic value chain during 2019-20.

#### Infrastructure Front

- Investment of **Rs. 50 Lakh Cr between 2018 and 2030 towards building railway infrastructure.**
- Vision for \$ 5 trillion economy driven by investment to create virtuous cycle.
- **Bharatmala Phase 2** is going to be launched to develop State Road Networks also.
- Number of Operational Airports crossed **100 under UDAAN.**
- **Jal Marg Vikas Project** and **Sagarmala** will improve logistics, reduce transportation costs and increase competitiveness.
- **Pradhan Mantri Gram Sadak Yojana** completion target advanced from 2020 to 2019. 97% of targeted habitations have already been covered 30,000 km was built using green technology.

#### Steps to Promote Digital Payments

- **TDS of 2%** on cash withdrawals exceeding Rs. 1 Cr in a year from bank accounts, to discourage business payments in cash and also to give thrust to the digital payments.
- Businesses with an annual turnover of over Rs. 50 Cr can offer payment options like **BHIM UPI, UPI-QR Code, Aadhaar Pay** etc., and no charges or **Merchant Discount Rate (MDR)** would be imposed on them or their customers.

#### Agriculture Sector

- **Pradhan Mantri Matsya Sampada Yojana (PMMSY)** to establish robust fisheries management framework.
- Zero Budget Natural Farming is proposed as a model for farmers.
- 10,000 new Farmer Producer Organisations will be developed.

#### Social Sector

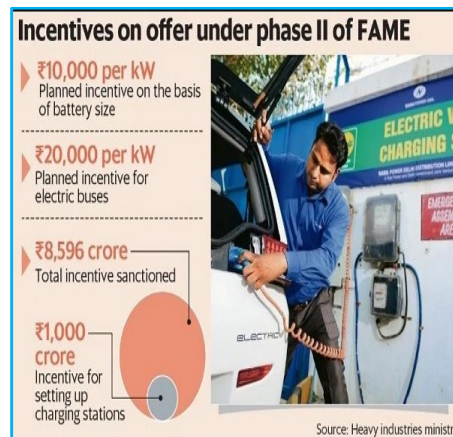
- Pension benefit will be extended to 3 Cr retail traders under **PM Karam Yogi MaanDhan Scheme**. These will be to the retail traders and shopkeepers, who have revenue of less than Rs. 1.5 Cr.
- One woman in every SHG will be eligible for a loan up to Rs 1 lakh under the **MUDRA Scheme**.
- 8 Cr free LPG connections are to be given under **Ujjwala Yojana**, already 7 Cr. connections were given.
- Under **Pradhan Mantri Awas Yojana-Gramin**, **1.5 Cr.** rural homes completed and **1.95 Cr.** houses are proposed in the second phase.
- 100% Households are **Electrified**, **35 Cr LED bulbs** distributed so far under **UJALA Scheme**. UJALA is leading to annual cost saving of Rs. 18,341 Cr.

**Steps to Promote Electric Vehicles**

- GST rate on electric vehicles proposed to be lowered to 5%.
- **Additional Income Tax deduction of Rs. 1.5 lakh** on interest on loans taken to purchase **Electric Vehicles**.
- There will be customs duty exemption for some e-vehicle parts.
- **FAME-II** already started with Rs. 10,000 Cr over a period of three years and most of the money will be used for giving demand incentives.

**Other Aspects**

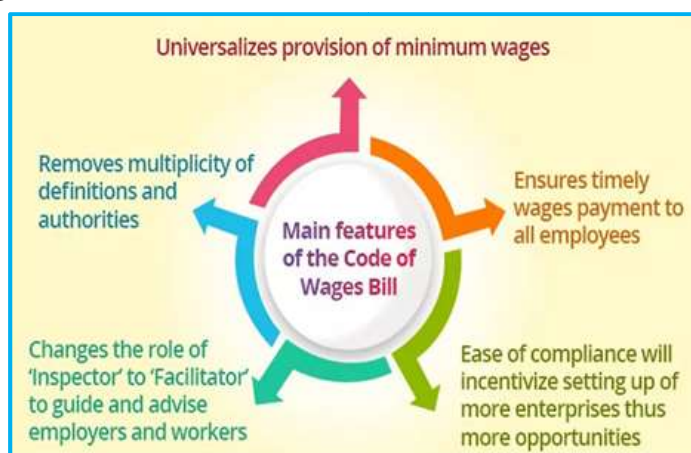
- There is a proposal to establish a **National Research Foundation**. It is to assimilate all research grants given by different Ministries independent of each other.
- New **National Education Policy** hopes to transform Indian Education into one of the best in the World.
- By 2022, every single rural family, except those who are unwilling to take the connection, will have electricity and clean cooking facility.
- Proposal to provide **Aadhaar cards for NRIs with Indian passports**, after their arrival in India, with **no waiting period**.
- **New Jal Shakti Mantralaya**, to ensure **Har Ghar Jal**. 1,592 critical and over exploited blocks have been identified under **Jal Shakti Abhiyan**.
- **Har Ghar Jal** to all rural households will be ensured by 2024 under **Jal Jeevan Mission**.
- **Gandhipedia** to sensitize society. It is also proposed to harness **India's space abilities**.
- **Digital repository** proposed for preserving tribal history.
- **17 iconic tourism sites** are being developed as world class destinations.
- **National Sports Education Board** to be setup under **Khelo India**.
- **Swachh Bharat Mission** to undertake **Solid Waste Management in all villages**.
- Labour laws will be rationalized into **four labour codes**.

**Positive Aspects**

- **Centre's Fiscal Deficit** has been budgeted at 3.3%. This is below the last year's revised estimate of 3.4% and it is in-line with meeting the glide path target of **3% by 2020-21**.
- There is a proposal to raise a part of the Government's gross borrowings in foreign currency from external markets.
- It enables the union government to borrow more cheaply and results in less crowding out of private firms in the domestic market.
- **Monetisation of surplus land** held by **Central Public Sector Undertakings / Departments** for affordable **housing and infrastructure development** through **Public-Private Partnership (PPP)** is a welcome move. With its multiplier effect on other industries, it will help Government raise additional resources.
- There is **one time partial Credit Guarantee** to banks for purchase of up to Rs. 1 lakh crore of high quality diversified assets of financially sound **NBFCs** is welcome. This will ease **liquidity burden of NBFCs** with flow of funds from banks and help them lend again.
- There will be **no tax scrutiny on valuation for start-ups** and it helps remove the

uncertainty and ease the burden and give boost to the startups.

- Measures for bringing **NBFCs under the oversight of RBI** are most welcome and will see more financial discipline in this sector. **Housing Finance Companies** under the Regulatory Framework of **RBI** separates refinancing from regulation.
- Higher investment limits in **Government bonds** for **Foreign Portfolio Investors** are expected to see **more FPI** flows into the domestic market, that will ease pressure on the interest rates and rupee is expected to strengthen.
- But, in the **times of crisis**, outflows may create problems for the **rupee and current account deficit**.
- Increasing the public stockholding of listed companies from 25% to 35% will help ensure more floating stock and liquidity.
- Social Exchange Platform** will help social enterprises and voluntary organizations to raise public funds.
- Simplified **KYC norms for FIIs / FPIs** will remove an impediment to easier flows to India's capital markets.
- Government proposed more **Foreign Direct Investment** in **Aviation, Insurance and Media**.
- Both the Aviation and Insurance sectors, which need capital could attract inflows with greater control for overseas partners.
- Allowing **AA rated bonds** as collateral should help raise more funds and ease pressure on banks.
- The proposal to set up a Committee to study the issue of **Development Finance Institutions** is welcome.
- The Government is moving towards a **single identity card for citizens** in the form of **Aadhaar**, which will now be interchangeable with the **PAN Card**.
- Introduction of **faceless e-assessment of tax returns** will eliminate the scope for rent-seeking by officers, as there will be no interface between assessee and the official.
- 2% Tax Deduction** at Source, when withdrawals from bank accounts exceed Rs. 1 Cr in a year is a commendable measure.
- But, it may lead to genuine problems for businesses, such as construction, which are forced to deal in cash for wage payments.



## Making Cashless Economy Pocket-Friendly

### News Excerpt

In the Union Budget the **Finance Minister** announced **steps aimed** at promoting **digital payments** and a **less-cash economy** through digital means of '**low-cost modes of payment**' such as **BHIM UPI, UPI-QR Code, Aadhaar Pay, certain Debit cards, NEFT, RTGS** etc.

### Pre-Connect

- To shape less-cash Economy**, and to craft a robust '**Digital transaction system**' which aims to **check tax evasion, Increase taxpayers count, increase access to 'Big Data analytics' for evidence-based policies**. Several Financial intermediaries by Government as well as by Private Players were launched specially post-demonetization to promote less cash Economy.
- Major hurdle: MDR (Merchant Discount rate)**, a charge borne by merchants on digital payments, has left the industry divided. In 2017 GoI had waived **off MDR on transactions up to Rs 2,000 made through debit cards, BHIM and other UPI-enabled payment apps**

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

for a period of two years starting 1 January 2018.

In the **Union Budget 2019**, the government announced that **no MDR** will be charged on businesses with a turnover of over **Rs 50 crore or their customers**. Hence effort towards making pocket friendly cashless economy is going on.

- **Nandan Nilekani committee:** It suggested that MDR should be market-driven, with minimum government intervention. This would ultimately lead to the growth of acceptance ecosystem.
- **Digital shift:** Number of UPI transactions almost touched 250 million. Overall, the proportion of cash transactions in the country has come down.

### Issues with digital transactions

**1- MDR Cost: (Business to bank):** The MDR will instead be borne by **supporting banks and the RBI**.

- MDR discourages merchants, as it curtails their profit margin allowing 'card gateways' to fetch additional income.

### 2- PoS: (Customer to Business)

- Previously due to concern of MDR, PoS transactions in number shrank. PoS is Value-added services for merchants. Rebates in MDR will have significant impact over PoS transactions.

### 3- Wallet Payment: (C2C+C2B)

- **Level-playing field:** Digital payments space has been led by **non-banking entities**. **Technological advantage** offer seamless payment service, it has **distorted the digital market balance** among **card gateways and wallet handlers**. Priority tussle may cause instability.

**4- Absence of Independent Regulator:** In 'Cutting-edge' wallet transaction and during credit card transactions, users are cheated with excess & over-charges. Nonexistence of independent regulator make things worse. It discourages people to adopt digital mode of transaction. **Hence in the long run it hampers the vision of less-cash economy.**

### Merchant Discount Rate

- ❖ It is the sum of charges including bank charges, which a bank charges from customers and merchants for allowing payments through their "Gateways" made digitally.
- ❖ It also includes the processing charges that a payments aggregator has to pay online or to mobile wallets or indeed to banks for their service.
- ❖ It is levied to support the back-end technology infrastructure powering digital payments.

### PEPPER IT WITH

NPCI, UPI 2.0, Block chain technology, Crypto Currencies, Pre-paid cards, Role of RBI as Regulator, Payment gateways, Transaction Discount Rate

### Analytica

- **MDR** has not been **made zero**. Move will **negatively impact banking sector** that needs **nurturing**, looking for recapitalization bonds and merging & consolidation for survival. **In the future**, Banks may find a way to **pass on the cost to users/customers**.
- If **RBI absorbs MDR costs** from year-end profit or savings, it would **diminish profit**. Dividend of Government would decline. Further methods to reimburse the cost is still unclear.
- It will make '**Money system chain**' **unstable** as on the supply side Government is recapitalizing the banks and on the demand side it is reducing its profit. This may hurt banking operations or cause currency crunch. Cost to benefit ratio in the short run may not be good.
- **Amendments in the Income Tax Act** and the Payments and Settlement Systems Act, 2007 (as Purposed by the government) will not include 'Digital wallet' entities as they are 'Non-banking entities'. So a '**level playing field**' could not be provided even through **legislative means**.
- **Higher operating costs:** nearly half of the 40-lakh payment terminals deployed in the country are by third-party companies. ATM infrastructure is already coming to a downfall as banks are not keen on bearing higher costs. There must be focus on all stakeholders contributing in cashless economy rather than just Wallet handlers. **Wallet**

**provides zero MDR**, giving an opportunity to the merchant to sell online or become a financial services customer.

- Government has said **“some” debit cards** will be exempted **from MDR**, which means that debit cards from certain banks or card networks will be **more preferred over others at retail** establishments. MDR on payments through **credit cards will continue**. This indicates an irrational way of categorization to achieve the goal of less cash economy.
- **Threat of digital security** and providing access to **data to private players** are also discouraging factor. CERT-Fin statics predict that bad statistics will restrain people to adopt cashless economy.

### Way Forward

‘Less-Cash’ will assure government’s efficiency in tax administration as well as total revenue collection.

- ✓ **Block chain technology**: It would minimize the role of intermediaries in payment thus making the system more formalized, organized and citizen centric.
- ✓ **Steps For existing infrastructure**: Interoperability among wallets for free movement of ‘digital transactions’ must be proposed. It will give a diversified choice to user.
- ✓ **UPI 2.0**: UPI 2.0 or higher versions should leverage block chain technology. It will identify and locate excess-charges, if any, and thereby reducing barriers.
- ✓ **Use of ‘Nudge’**: to promote digital payment, society should be made aware about the importance of the ‘digital transaction system’ in removing corruption, increasing tax collection, etc.

## Overseas Bond and India

### News Excerpt

India to raise a part of its gross borrowing in overseas market through **overseas bond**.

### Pre-Connect

- India has so far generated its borrowing **only from the domestic market**.
- India’s sovereign external debt to GDP ratio is among **the lowest** around the world, **at less than 5%**.
- More than **85% of government borrowings are from the domestic markets**.
- This low external borrowing helped India manage its economy during the 2008 global economic crisis.
- For the first time the government has decided to explore the external sector borrowing.
- Initially, it is planned that an amount of **10 billion dollars** will be borrowed for this purpose.

### What is Overseas Bond

A government bond or sovereign bond is a form of debt that the government undertakes wherein it issues bonds with the promise to pay periodic interest payments and also repay the entire face value of the bond on the maturity date. When these bonds are sold by the government in the **overseas market and dominated in foreign currency**, they are termed as overseas bond.

### Reasons for the Issue of Overseas Bond

In the past many of the economists have cautioned the government against the overseas bond. However, the government is keen for issue of overseas bond in the light of current Indian scenario:

- India has good international credit rating. According to **Moody’s rating agency** India is put at **BBB** category which is quite safe for in the international market.
- Indian banks need **more liquidity** for the domestic private borrowers.
- **Low revenue generation through direct and indirect tax** reduced the reserve available with government for investment.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

**Analytica**

There are both advantages and risks associated with the overseas bond market.

**Advantages:**

- **Crowding in effect.** The government borrowing from the external sector will leave funds for borrowing of the private borrowers.
- **Measure of India's economic performance internationally:** The appetite of International market for Indian sovereign bonds will show India the risk of India in international market
- It would also help in **reducing fiscal deficit gradually**

**Risks: The risk associated with the bond market are intertwined in a complex nature**

- **Currency fluctuation:** more dependence on external borrowing will lead the market dependent on external anomalies in economy and more chance of currency fluctuation
- **Increased import:** The inflow of foreign currency in current time will strengthen the rupee in the market which will increase imports and reduce export. This is undesirable for India in current times as it is trying to curb imports.
- **Less control of Central bank** on the money flow

**Way Forward**

Ideally the government should have enough funds so that it does not have to borrow from the external sector. But in the current times when the tax collection is not up to the mark and with India's good reputation in the international market, this can be a viable option. This is a welcome step for the private companies in the domestic market to improve their scale of economy.

**PEPPER IT WITH**

Bonds and Debentures,  
Masala Bond, The Big Four,  
Credit Rating, T-Bills

**Kulbhushan Jadhav and the ICJ Verdict****News Excerpts**

The International Court of Justice (ICJ) delivered its final verdict on the Kulbhushan Jadhav case between India and Pakistan.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

**What does the Judgement Mean?****Pakistan fails in challenging jurisdiction and admissibility**

- Pakistan failed in understanding the ICJ. It held that ICJ had no jurisdiction over the case.
- Pakistan was of view that since India didn't cooperate in investigation against Jadhav. So, they have no right for legal remedy.
- Both challenges were categorically rejected by the ICJ. The case was held admissible and the ICJ confirmed its jurisdiction over the case by virtue of the Optional Protocol to the VCCR, to which both states are signatory

**India's overwhelming win on merits-Pakistan held in Violation of VCCR**

- Pakistan was held responsible for undue delay in informing India about Jadhav and also wrongfully denying consular access.
- The condition placed by Pakistan was also considered legally untenable and was held as a scheme designed to coerce India to indirectly accept Jadhav's "guilt".
- ICJ rejected 2008 bilateral agreement between India and Pakistan which modified the application of VCCR to sensitive (political and security) cases. It held that no such exception or modification is envisaged under the VCCR
- It further emphasized that recognizing espionage or terrorism as an exception will make it convenient for countries to forego their obligations under the VCCR in controversial cases.

**Remedies may not give India what it wants**

- The ICJ declared that India is entitled to "restitutio in integrum," an action which aims to restore a complaining party to the position it would have been in, had no right been violated.
- Pakistan should give "effective review and reconsideration" to Jadhav's conviction and sentence by "means of its own choosing."
- The ICJ did not annul the death sentence handed out by Pakistan's military court, and did not order the release of Jadhav to India.
- Given that ICJ does not function as a criminal appellate court over domestic cases, granting these remedies would have been entirely outside the ICJ's jurisdiction.

### Pre-Connect

- India instituted proceedings against Pakistan alleging violations of the **VCCR (Vienna Convention on Consular Relations)**. Mr. Jhadav was given death sentence by the military court of Pakistan and in the process denied him consular access **guaranteed by the VCCR to which both nations are parties**.
- India in its application sought for **interim relief by way of restitution in integrum**, i.e. restoration to original condition and premised its request on the jurisdiction of the Court on **Article 36, paragraph 1, of the Statute of the Court and Article I of the Optional Protocol concerning the Compulsory Settlement of Disputes**.

### Highlights of Verdict

- With a 15-1 majority decision in India's favor, the court found that Pakistan had breached its obligations under the **1963 Vienna Convention on Consular Relations (VCCR)**.
- On legal grounds, the case is a clear victory for India. However, given that the ICJ can only provide limited remedies for relief, the question of Kulbushan Jadhav's detention and his pending death sentence remains uncertain.
- Much depends on Pakistan's openness towards the rules, principles, and decisions tendered under public international law. This notion offers no reassurance to India since Pakistan's track record with obeying and complying with international legal obligations has never been up to the mark.

### Analytica

- The implementation of the ICJ's decisions on the ground is extremely poor and left much to be desired from the court's end.
- Article 36 rights could not be enforced in domestic courts and that no remedy under domestic law could be awarded, even if a violation was found.
- Moreover, many domestic courts of the various country had decided that violation of Article 36 does not erase any past procedural antecedents; for instance, the accused foreign national cannot discard any statements or confessions made during the period of an Article 36 violation.
- If this happens then Jadhav's multiple videotaped confessions whose authenticity has been vociferously contested by India will continue to be considered as a piece of damning evidence in Pakistan's courts.

### Remedies beyond the ICJ

- ✓ India can equip Jadhav with the best possible legal defense under Pakistan's laws.
- ✓ Apart from this, India has few options for recourse in case Pakistan's actions are unsatisfactory. It can approach the court again to:
  - **Interpret the judgment**, should India and Pakistan differ on its meaning and scope, and
  - **To revise it**, if new and crucial facts are discovered by India
- ✓ If Pakistan is unwilling to execute any of the ICJ's orders, India can approach the United Nations Security Council, which is empowered to take binding measures to give effect to an ICJ judgment.
- ✓ However, this course of action depends on the concurrence of the P-5 for decision-making, which includes Pakistan's all-weather friend China.
- ✓ On its own level, India could suspend diplomatic relations, retaliate through sanctions, and push for public censure against Pakistan's actions at the international stage.

**PEPPER IT WITH**  
VCCR, P-5, Article 36,  
LaGrand case, Avena Case,  
2008 Bilateral Agreement

These tools at India's disposal must be used cautiously, so as to not create friction between the two nations.

### Conclusion

The safety of Kulbushan Jadhav has been on the minds of the public. Though, India is currently reluctant in leveraging diplomatic negotiations. But these negotiations along with the "review and reconsideration" of Jadhav's case, may yield a desirable solution to this ongoing deluge.

## India-Caught Between US and Iran Tangle

### Perspective

US decision to pull out of JCPOA (Joint Comprehensive Plan of Action) and place sanctions on Iran had caused furor across the globe. Iran which had earlier decided to give 60 days' ultimatum to its European partners in the deal, breached the conditions of the deal already. The immediate effect of this is seen in recent times in the **Persian Gulf and the Strait of Hormuz**, where the movement of oil tankers is affected due to the ongoing power tussle between the US and Iran. India, on the other hand, is caught between these two powers and had a strategic interest in the ties with both the nations.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

### Pre-Connect


JCPOA (Iran Nuclear Deal) is a deal signed between five permanent members of the United Nations Security Council (UNSC) and Germany (P5+1) and EU with Iran during the Barack Obama administration. It had been hailed as a diplomatic coup, a rare resolution of strong disagreements between multiple nations via dialogue. The International Atomic Energy Agency was of the opinion that the deal had enough checks and balances for them to transparently monitor Iran's nuclear program.


### The dilemma of Secondary Sanctions

- The secondary sanction imposed by the US on Iran such as Zero Export of Iranian Oil, sanctions on its metal industry is causing a lot of worry for India.
- India and seven other countries were given a waiver for the import of Iranian Oil under **CATSAA** (Countering America's Adversaries Through Sanctions Act). But since the termination of deadline India seems to be boxed in over its ties with Iran.
- The stronghold of the US over international financial highways, the insurance ecosystem, and other global trade modalities means that even unilateral sanctions will have adverse effects on Indian projects in Iran. This will cast a shadow over the **Chabahar project**.

### Flaming up the Strait of Hormuz


### The Power Tussle in the Strait of Hormuz





#### Criticality of Strait of Hormuz

Almost a fifth of global supply passes through the Strait of Hormuz



Iran had threatened to block the route as US target to reduce to its oil imports to Zero



The impact is visible as Iran has started seizing foreign oil tanker and US deployed its air-craft carrier



- Strait of Hormuz** lies between the Gulf of Oman and the Persian Gulf.
- It separates Oman and Iran by just 21 nautical miles.
- It sees an average of 21 MBT of fuel transportation every day.

- India's large chunk of 207.3 million ton of crude oil imports passes through this route.
- More and more Indian-flagged crude oil and liquefied petroleum gas (LPG) tankers are taking the Indian Navy escort service for their passage through the strait.
- There has been a rise in the number of sabotage attacks on the oil tankers.
- Though Iran and the US both don't want to escalate the situation their actions can again give rise to another Tanker War in the Persian Gulf.

### Analytica

#### **The Intent of the US**

- There are questions about the intention of the US. Whether its decision is only motivated by the desire to scrap a bad deal or there is a hidden agenda.
- The disdain showed by European allies of the US over its decision to back out of JCPOA shows that the arguments favored by the US lack significant depth.
- Critics have pointed that it's not the deal per se but the overall rise of Iran's in West Asia as the Shiite power that irked the US.
- Iran has indeed gained a strong influence over the polity and geography of Syria, bringing its military to the borders of Israel and Saudi Arabia.
- Iran's control over Hezbollah in Lebanon and alleged support of Hamas in Palestine also rankles the US.
- The policy adopted by the US will hurt itself more as the success of the deal could have opened the scope for addressing other issues, including terrorism.

#### **India's option**

India is sandwiched between its strategic and economic interests with US vis-à-vis Iran.

#### The Oil factor

- There are chances that tensions in the Persian Gulf could lead to a rise in the price of crude oil which is once again not a good signal on Indian Economy.
- In such circumstances, India needs to look beyond Strategic Petroleum Reserves. Indian oil companies should follow the guidelines of Reserve Bank of India (RBI) and go for hedging, particularly for long futures contracts.
- Even if there is a drop in price, a mechanism can be adopted whereby the loss is spread over time. It will be similar to the mechanism that is in place for spreading the impact of higher oil prices over time.

#### On the Strategic front

- Though the balance seems heavily tilted in the favor of the United States, the long-serving ties with Iran cannot be ignored.
- India needs to adopt a policy of **strategic autonomy** in its relation with Iran, whether it's the issue of oil import or Chabahar, national interest must be given priority. In this regard, the opening of Iranian Bank Pasargad in Mumbai is a welcome step.
- Iran is the gateway to both Afghanistan and Central Asia and India had committed a \$500 million dollar investment to boost this connectivity.
- Time has come for India to perform a balancing act in its policy and walk a tightrope to serve its ties with both the US and Iran.
- As pointed by Kautilya, One must not forget that even inferior power can become leaders in international affairs.

### Conclusion

Iran aggression reflects its strategy to show its intention of using force to bring all concerned parties to the table of negotiation. While, at the same time the US seems reluctant to learn from its past in Iraq, Afghanistan, Syria, and Vietnam that its attempt for regime change always leads to destabilization of the region. India needs to juxtapose its interest with the US vis-à-vis Iran and use the instrument of pragmatism and utility before taking any major step.

#### **PEPPER IT WITH**

Chabahar Port, Gulf of Aden, India's Oil Security, INSTC

## Indo-Pacific Dialogue Forum

### News Excerpt

The **second edition** of **Indo-Pacific Regional Dialogue (IPRD) – 2019** was held in India in which 13 Indo-Pacific countries participated for the vision of free, open, inclusive and operative rule-based order in the Indo-Pacific region.

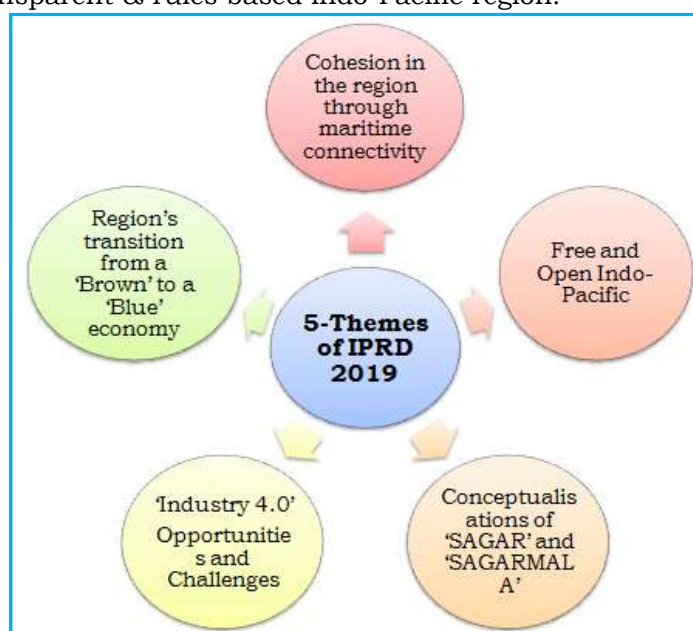
GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

### Pre-Connect

- The idea of an Indo-Pacific Regional Dialogue (IPRD) was first conceptualised and conducted in 2018, as the apex level conference of the Indian Navy, organised by the National Maritime Foundation as the Navy's Knowledge Partner.
- Indo-Pacific region is the home to 3/5 of global population. With total GNP of almost USD 52 trillion, it owns huge economic potential.

### Analytica

- The Dialogue reflected India's view that has outlined by the Prime Minister in 2018 **Shangrila Dialogue** - inclusive and transparent & rules based indo-Pacific region.
- It will help in promoting and maintaining the fundamental principles of international order such as rule of law, freedom of navigation and free trade, which are the foundation of peace and stability in the Indo-Pacific.
- It will strengthen peace and stability of the region particularly through engaging in efforts such as capacity building assistance as well as cooperation in such fields as HA/DR, anti-piracy, counter-terrorism, and non-proliferation.
- Participating countries also reiterated the centrality of ASEAN for the peace and prosperity of the region, which India is advocating since a long time.
- It will strengthen India's grand strategy for Indo-pacific region to expand its reach right from eastern Africa to USA in the Far East.



### Way Forward

Dialogue initiatives like IPRD will surely culminate into stronger ties between Indo-Pacific countries which shares common aspirations, opportunities, challenges and concerns which need collective efforts. **“SAGAR – Security and Growth for All in the Region,”** perfectly articulates India's vision for building a secured regional architecture, which includes “safeguarding mainland and islands, strengthening capacities of maritime neighbours and advancing peace and security” in the Indian-Pacific Region.

**PEPPER IT WITH**  
FIPIC, ASEAN, SIDC, IORA, Pacific island countries (PICs), 'NAMO Bouquet'.

## U.N Palestine Refugee Agency

### News Excerpt

India contributed \$ 5 million to U.N Palestinian refugee agency, this fourfold increase in India's assistance has been witnessed in the backdrop of Prime-Minister's visit to Palestine.

### About U.N.R.W.A

- United Nations general assembly created this wing **by a resolution, 302(4) of 1949, to**

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

### carry out direct relief programmes for Palestinian refugees.

- This wing of UN began its operations in 1950 in parts of Gaza, Jordan, Syria, West Bank etc due to no permanent resolution to the conflict leading the UNGA to repeatedly renew UNRWA's mandated every now and then, most recent is to last up to June 2020.

#### PEPPER IT WITH

Convention Relating to the Status of Refugees, Convention relating to the Status of Stateless Persons, United Nations High Commissioner for Refugees, United Nations Human Rights Council

### Pre-Connect

#### India Palestine-Relations

- India has always supported the cause of Palestine and **since 1988 has recognised it. Gandhiji himself declared his dis-appointment over the creation of a Jew state displacing the netizens.** Post-independence, India's foreign policy has always asserted its empathy for Palestine in loud and clear voice.
- India's stand in terms of U.N Palestinian refugees has always been consistent and independent of its relations with Israel. India's solidarity and attitude with Palestinian people took shape during our freedom struggle itself.
- The fourfold increase in India's grant reflects its empathetical attitude towards Palestinian refugees in particular and Palestine in general.

### U.N.R.W.A Programs in Palestine

The programs **mostly include humanitarian and human development services** including Primary and vocational education, primary health care, relief and social services, infrastructure and camp improvement, microfinance and emergency response especially during armed conflicts.

### Analytica

- Palestine refugees are the citizens of Palestine (between 1 June 1946 to 15 May 1948), who lost their residential properties, rights and means of livelihood in the aftermath of **1948 Arab-Israel conflict.**
- Nearly 5 million registered Palestinian refugees are provided assistance and livelihood in its area of operations.
- After a cut and stoppage announced in funds by U.S to UNRWA from \$ 360 million to \$ 60 million in 2018 and no funds in 2019 has led experts to speculate a crisis despite a collection of about \$ 110 million until June'19.
- An ethical report, from inside the UNRWA, has highlighted charges of corruption against its commissioner in general, followed by statements from Switzerland, the Netherlands and Belgium to suspend funds owing to rampant corruption.
- This has further endangered the image of UNRWA which is scheduled for voting. There are concerns that the functioning of schools and health centres will be affected in the event of the paucity of funds.

### India's move

- India's increased contribution in such circumstances is no less than a blessing in disguise for refugees, striving for a better future life.
- The move will also bring stability in the India-Palestine ties, especially after India de-hyphenated its Israel-Palestine relations.
- Palestine issue has huge local support in India and ignoring it for the benefits Israel offers to India would be politically suicidal.
- India need to perform a balancing act when it comes to Israel-Palestine issue.

### Non-Aligned Movement

#### News Excerpt

Recently, a ministerial meeting of Coordinating Bureau of Non-Aligned Movement was held in Venezuela. The theme for the meeting was promotion and consolidation of Peace through respect for International law.

### Pre-Connect

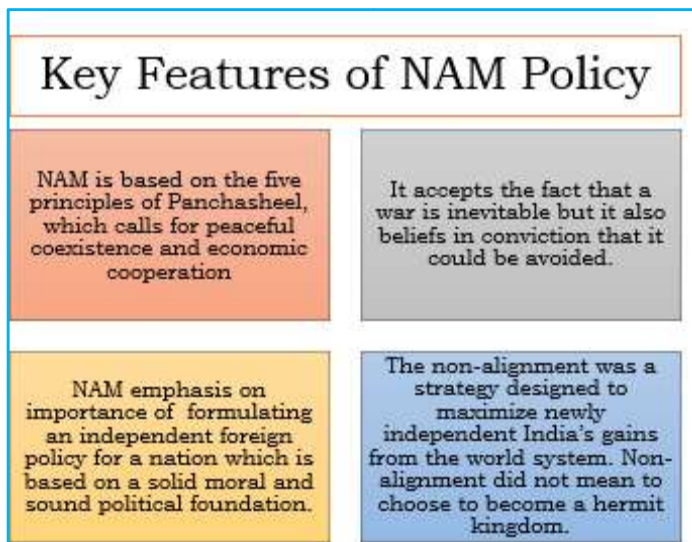
GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

NAM was a brainchild of Indian foreign policy and played a crucial role in maneuvering Indian foreign policy decisions. Originating from Asia- Africa **Bandung conference in 1955**, NAM was founded in 1961 in the Belgrade. India, Egypt, Yugoslavia, Ghana and Indonesia were the founding member. The idea was to form an organization of countries which did not seek to formally align themselves with either the United States or the Soviet Union during the Cold war period. The movement represented the interests and priorities of developing countries

## Analytica

### Gains for India from NAM

- NAM helped in furthering the causes which India supported such as end of apartheid, nuclear disarmament etc. This placed India on the pedestal of new international economic and information orders.
- It helped in alleviating the fears of **neo-colonialism**.
- It helped in extending India's **soft power** and the country emerged as a leader among countries who didn't want to ally with either the US or USSR.
- Through NAM India was able to perform a balancing act and was able to get the much-needed aid and support it required from both the US and USSR.



### Eroding NAM authority

- In the era of **multipolar world**, NAM is slowly becoming irrelevant.
- NAM has collectively failed in reforming global bodies like UN, IMF and WTO.
- It is unable to find solution to the crisis in West-Asia. Withdrawal of Egypt after Arab Spring is the most prominent example.
- Most of the member are developing nation and hence doesn't have big pockets. This hinders their capability to have a say in world politics or economy.

**PEPPER IT WITH**  
BRICS, IBSA, SAARC, Act East Policy, Act West Policy and Think West Policy, Arctic Council

### India's Opinions

- India is of view that there is urgent need to re-examine and revise the methodology of NAM.
- It proposes that the grouping needs to undertake a new journey.

## RCEP Free Trade

### News Excerpt

Regional Comprehensive Economic Partnership (RCEP)'s 7<sup>th</sup> intersessional ministerial meeting to negotiate its free trade agreement was held at Siem Reap, Cambodia. In the aftermath of United States protectionist trade policy followed by a trade war like situation, there is heightened interest in such a deal throughout the region.

### About

- The idea of RCEP was first promoted in 2012 by ASEAN and it is being negotiated since then.
- It is a proposed mega free trade agreement among 10 ASEAN nations + 6 others (India, China, South Korea, New-Zealand, Australia and Japan). It aims to cover trade in goods and services as well as investment, intellectual property and dispute resolution.
- It is often characterised as a China-led response to the Trans-Pacific Partnership (TPP) put forward by the US.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

- The 16 participants of RCEP make up for about 25 percent of global GDP, 30 percent of global trade, 26 percent of FDI flows and 45 percent of the global population.
- After US withdrawal from the TPP, the RCEP was portrayed as a proof of Asian countries commitment to free trade.

### Analytica

- The size and growth of the market, potential opportunities to participate in regional production networks, elimination of multiple trade agreements and other special provisions for developing economies, such as gradual tariff liberalisation and transition times are features to be highlighted.
- However, it is more narrowly focused on standardising tariffs across the region, as well as improving market access for services and investment.
- The deal has also been criticised for setting **neither environmental nor labour standards**, and also not tackling issues related to procurement processes and corruption.
- While, concerns have also been raised about disparities between member countries, and the possibility that the pact could exacerbate global inequality. The deal also has no provision for state owned companies.
- India has a **trade deficit with as many as 11 of the RCEP countries**, and it is the only one among them that isn't negotiating a bilateral or multilateral free trade agreement with China at present.

#### ASEAN

The Association of Southeast Asian Nations, or ASEAN, was established in 1967 in Bangkok, Thailand, with the signing of the **ASEAN Declaration (Bangkok Declaration)** by the Founding Fathers of ASEAN, namely Indonesia, Malaysia, Philippines, Singapore and Thailand. Brunei Darussalam then joined in 1984, Viet Nam in 1995, Lao PDR and Myanmar in 1997, and Cambodia in 1999, making up what is today the ten Member States of ASEAN.

### Conclusion

It is a logical extension to **India's act east policy** and expected to provide market access for India's goods and services exports and encourage greater investments and technology into India. **It would also facilitate India's MSMEs** to effectively integrate into the regional value and supply chains.

India's reluctance to open its markets to Chinese products remains a matter to be dealt with sincerely. As a result, India may be allowed to phase out tariffs on certain goods over a longer period to protect some of its industries.

#### **PEPPER IT WITH**

Rules of Origin, Free Trade Agreement for goods and services

## **H.R.1044 - Fairness for High-Skilled Immigrants Act of 2019**

### News Excerpt

The US congress has passed the bill removing cap on family based immigrant visa on countries.

### Importance for India

- It aims at lifting the current seven percent country-cap on issuing Green Cards, a development which would benefit thousands of highly-skilled Indian IT professionals. The new Bill seeks to increase this seven percent per-country limit to 15 percent.
- It would considerably reduce the agonising wait for talented professionals from countries like India seeking permanent work and residency permits in the United States.
- The bill also establishes transition rules for employment-based visas from FY 2020-22 by reserving a percentage of EB-2 (workers with advanced degrees or exceptional ability), EB-3 (skilled and other workers) and EB-5 (investors) visas for individuals from other than the two countries that get the largest

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

#### **PEPPER IT WITH**

H1B1 Visa, Gag Rule, Immigration Policy

number of such visas.

- As per another provision of the Bill, not more than 85 percent of the unreserved visas, would be allotted to immigrants from any single country.

### Way Forward

The bill will provide relief to the thousands of families who have been stuck in employment backlogs for decades. The bill is still awaiting confirmation from the senate. If the bill is cleared it will create a first-come, first-served system **providing certainty to workers and families** and enabling the US companies to flourish and compete in a global economy.

## India Russia Strategic Economic Dialogue

### News Excerpt

The second India Russia Strategic Economic Dialogue (IRSED) was held recently in New Delhi. First IRSED was held at St.Petersburg, Russia in 2018.

### Pre-Connect

IRSED is the outcome of bilateral Memorandum of Understanding (MoU) between India and Russia. It was held during the 19<sup>th</sup> edition of India Russia Bilateral Summit in New Delhi, 2018.

### Key Highlights

- IRSED focuses on boosting the bilateral trade between India and Russia to \$30 billion by 2025.
- The dialogue included parallel roundtables in selected core sectors.
  - **Digital transformation and frontier transformation:** Focused on areas of collaboration in the digital space and frontier technologies
  - **Transport Infrastructure and Technologies:** Focused on areas of cooperation in speed up gradation, safety and passenger comfort in railways
  - **Small and medium business:** Setting up E-markets, seamless digital banking.
  - **Agriculture and agro processing:** Deployment of AI backed frontline technologies
  - **Tourism and connectivity:** Increase the bilateral tourism and exploring natural avenues for economic and commercial partnerships
  - **Industrial trade and cooperation:** Exploring better business to business communications and collaborations, generating greater investments through public and private investments.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

### PEPPER IT WITH

Eurasian Economic Union, Treaty of Peace and Friendship-1971, International North South Transport Corridor

### Way Forward

The IRSED helps India to achieve its goal of ensuring the fruits of development devolve to the grassroots, as every citizen of the country becomes part of growth and development process. For the success of this dialogue Increased investment and International cooperation is the key.

## India-UK Joint Economic and Trade Committee

### News Excerpt

13th Meeting of the India-UK Joint Economic and Trade Committee was held in **London**.

### Highlights of the Meeting

- UK-India trade continues to increase, over the last three years, between 2015-2018, total trade between the UK and India has increased **by 27%**
- India and the UK have agreed to set up **three new bilateral working groups** to tackle barriers to trade in specific sectors **of food and drink, healthcare and data services**

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

- The three new business-led working groups will be run by **the UK India Business Council (UKIBC)** alongside the **Confederation of Indian Industry (CII) and Federation of Indian Chambers of Commerce and Industry (FICCI)**.
- The possibility of **free trade agreement** after the BREXIT were also discussed in the meeting.

#### About JETCO

- ❖ It was set up in **2005** with the aim to enhance trade, investment and technology collaborations
- ❖ **The Government to Government negotiations**, which address issues of market liberalization and market access, are conducted through the JETCO process.
- ❖ JETCO provides a forum to Indian and UK companies to enhance their links and develop new partnerships.

### Port Integrity Campaign

#### News Excerpt

**Maritime Anti-Corruption Network** starts port integrity campaign in India.

#### Pre-Connect

- Maritime Anti-Corruption Network (MACN) is a global business network of over 110 companies working to tackle corruption in the maritime industry
- The move will provide support to the already on going on port modernization scheme: Sagarmala project.

#### About the Campaign

- The campaign aims to **reduce and eliminate the integrity issues** and bottlenecks to trade during operation in Indian ports.
- The campaign is collective action of **MACN, the Government of India, international organizations, and local industry stakeholders**.
- The campaign will kick off from the JNPT and MBPT.
- **Activities:** implementation of integrity training for port officials and the establishment of clear escalation and reporting processes

#### Analytica

The campaign will be significant as it will protect the ships docking in India **against any illicit demands and other unnecessary obstacles**.

The **involvement of various stakeholders has worked positively** in places like Nigeria, Suez Canal etc according to the MACN and therefore is expected to work positively in India as well.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

### MOSAic Mission

#### News Excerpt

Scientists from the United States, China, Russia and 14 other countries will sail into the Arctic and trap themselves in the ice for a year, rotating every two months as other icebreakers bring fresh supplies and a new batch of eager researchers.

#### About the Mission

The **MOSAic (Multidisciplinary drifting Observatory for the Study of Arctic Climate) mission**, based out of **German Arctic research vessel icebreaker RV Polarstern** is a year-long mission to explore the planet's frigid far north. This will be the base for scientists from 17 nations **studying the impact of climate change on the Arctic and how it could affect the rest of the world**.

#### PEPPER IT WITH

Arctic Council, Himadri, International Arctic Science Committee (IASC), Himansh, The Third Pole, IndARC, 2008 Ilulissat Declaration

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

Scientists plan to sail the ship into the Arctic Ocean, anchor it to a large piece of sea ice and

**allow the water to freeze around them**, effectively trapping themselves in the vast sheet of white that forms over the North Pole each winter.

### Significance

The mission holds significance as the **dramatic warming of the Arctic doesn't stay in the Arctic**. Mission plans to perform tests throughout the year with focus on interdisciplinary research work spanning several fields of science and **answering key questions around global warming**.

Several factors which necessitate need of the mission are

- The Arctic is a **key area of global climate change**, with warming rates exceeding twice the global average.
- The observed rate of climate change in the Arctic is **not well reproduced in climate models**. Many processes in the Arctic climate system are **poorly represented in climate models** because they are not sufficiently understood.
- Understanding of Arctic climate processes is limited by a **lack of year round observations** in the central Arctic.

Scientists believe the cold cap that forms each year is key to regulating weather patterns and temperatures across the Northern Hemisphere. By combining measurements on the ice with data collected from satellites, scientists hope to improve the increasingly sophisticated computer models they use to predict weather and climate.

## Jalyukta Shivar Abhiyaan

### News Excerpt

Jalyukta Shivar is key for Maharashtra, but still has a long road ahead. Recently Jalyukta Shivar Abhiyaan was criticised by opposition in Maharashtra due to alleged poor implementation by Maharashtra government.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

### What is JalyuktaShivar

JalyuktaShivar is the flagship programme of the Maharashtra government launched in December 2014, to **make Maharashtra a drought-free state by 2019**. With annual target of making 5,000 villages free of water scarcity the scheme **aims to empower hydrologically 25,000 drought-affected villages** within five years.

### Key Features

The scheme targets drought-prone areas by improving water conservation measures in order to make them more **water sustainable** and strengthen the rural economy, which is largely agriculture-driven.

- The scheme envisages **reduction in the run-off water** and diverting it to some kind of storage, increasing water storage capacity, increasing the rate of **groundwater recharge**, enhancing soil fertility and ultimately **improving farm productivity**.
- Aims to strengthen and rejuvenate **water storage capacity** and percolation of tanks and other sources of storage.
- **Water streams** in a locality are **deepened and widened**, which are later connected to the newly constructed chains of cement nullah bunds in the village.
- Installation of **Decentralised water bodies** at various locations within villages to enhance the groundwater recharge.
- **Dedicated committees** to assist in construction of watersheds like farm ponds, cement nullah bunds alongside rejuvenating the existing water bodies in the villages.
- A **mobile-app** developed by the **Maharashtra Remote Sensing Application Centre (MRSAC)** for quick monitoring and mapping of the scheme is functional in this respect.

#### PEPPER IT WITH

Deficit Irrigation, Micro-sustainability, Al Baydha Project, Keyline Design, Rivers as living entity, Water Footprint, Non-revenue water

### Thematic Concerns

- **Centralised decision-making** i.e. poor involvement of villagers in its planning and

execution, and **lack of promotion of demand-side water management.**

- Due to **lack of Ridge-to-Valley Approach**, the de-silted streams are re-silted soon.
- **The water budgeting tool** (developed by IIT, Bombay) is used to quantify the additional water harvested, without spreading water literacy to the villagers.
- Other concerns include political interference in selecting villages and issues regarding e-tendering for machine contractors.

### Way Forward

The project reportedly has attracted criticism for its haphazard and unscientific implementation, undue reliance on machinery, **lack of transparency and public participation.** Many activists have also questioned whether the scheme can be fruitful to recharge groundwater level in the long-term.

The state government should review the implementation process through third party auditors and conduct water auditing of major government establishments to reduce the water wastage. **With recent shift towards circular economy measures, wastewater management practices should be implemented in rural areas as well.** A **behavioural change programme** targeting use and conservation of water is seriously needed at the state as well as national level, to check major water crisis problem in near future.

## Artificial Coral Reefs and Coral Rehabilitation Programme

### News Excerpt

**The National Centre for Coastal Research's (NCCR)** proposal of dropping 'melted plastic rocks or slabs' on the seabed, for growing coral reefs and address the problem of disposal of plastic waste, drew flak from the Gulf of Mannar Marine National Park.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

### Pre-Connect

The NCCR had recently suggested that plastic waste materials could simply be wound around hard substrates as a way of disposing of them and help build coral colonies. The research institute preferred the **Gulf of Mannar (GoM) region**, one of the four coral reef areas in the country, for field testing the ideas.

Officials and scientists involved in marine research expressed apprehensions that the NCCR's idea for the growth of marine organisms would destroy the existing coral reef colonies and opposed it. Corals in the GoM were already stressed and bleached under climate change and the NCCR's idea would turn the reefs into graveyards. The structures might support proliferation of algae in the beginning but would destroy corals eventually.

Earlier such interventions globally, have led to irreparable damage to the marine ecosystem without achieving any substantial growth of corals.

**Worn out tyres** were tried as artificial reefs in **Florida and Costa**

**Rica**, but they turned out to be disastrous. **The clustered old tyres** initially attracted many marine organisms but they **later collapsed and littered beaches.**

### What are Coral Reefs

**Coral reefs** are shallow water, tropical marine ecosystems which are characterized by a remarkably high biomass production and a rich faunal and floral diversity. Corals can flourish in relatively shallow waters, exposed to direct sunlight, with optimum temperature of 23-25°C and free from suspended sediments. The structure of a reef is formed by the calcareous skeleton that houses **corals**, a type of soft-bodied, radially symmetrical, marine invertebrates. Individuals of a colony are called **polyps or hydroids**. Millions of coral skeletons cemented together over a period ranging from a few thousand to millions of years give rise to such reefs. These are basically of three types:

**1. Fringing reefs:** reefs that grow close to the shore with extension into the sea like a submerged platform.

**2. Barrier reefs:** reefs separated from the land by wide expanses of water and follow the coastline.

**3. Atolls:** a roughly circular ring of reefs surrounding a lagoon, a low lying island, common in the Indian and South Pacific oceans.

## Perspective

Coral reefs cover **less than 1 per cent of the ocean** but are **among the most bio-diverse ecosystems on the planet**, supporting one quarter of all marine species. They occur in over 100 countries, including more than 80 developing countries, and sustain human society through a **range of ecosystem services**, such as livelihoods and food security from fisheries, revenue from tourism, erosion prevention etc. They are often called **Underwater Tropical Rain Forest** and have occurrence even in cold waters off the coast of Norway and in deep underwater of the Mediterranean Sea.

India with its coastline extending over 7,500 kilometres and subtropical climatic conditions has very few coral reef areas. There are four major coral reef areas in India - **Gulf of Mannar & Palk Strait, Gulf of Kutch, Andaman and Nicobar Islands and Lakshadweep Islands**.

## What is an Artificial Reef?

An artificial reef is **a man-made, underwater structure, typically built for the purpose of promoting marine life in areas of generally featureless bottom, enhancing the habitat for reef organisms**, including soft and stony corals and the fishes and invertebrates that live among them. **Natural corals get attached to artificial reefs over time and start regeneration.**

An **ideal artificial reef** is:

- Stable in normal to large storms
- Made from long-lasting, solid, non-toxic materials
- Designed to have a high surface complexity (texture) for the recruitment of corals, sponges, and other organisms
- Designed to provide a high amount of structural complexity for fish and other animals
- Designed to either blend in with the natural reef, or be designed to stand out and convey a message (sculptures and art)

Depth, placement, boat navigation, etc. factors are also important for the artificial reefs. Planned manmade reefs may provide **local economic benefits** because they attract fish to a known location and are therefore popular attractions for commercial and recreational fishermen, divers, and snorkelers.

**Submerged shipwrecks** are the most common and unintended form of artificial reef. Oil and gas platforms, bridges, lighthouses, and other offshore structures often function as artificial reefs. These days design, manufacture, and deployment of long-lasting artificial reefs is being done which are typically made of **limestone, steel, and concrete**. Even rocks, cinder blocks, wood and old tires have been used for the purpose.

### Gulf of Mannar Marine National Park

Established in 1980s, Gulf of Mannar Marine National Park is located in the **Ramanathapuram & Tuticorin districts** of Tamil Nadu. The Park comprises of **21 islands surrounded by coral reef areas** where tourism and other related activities are not allowed. The Park has three explicit **Marine ecosystems - Coral reefs, Sea grass and Mangroves** accompanied by salt marshes and Algal communities.

## Coral Reef Conservation and Rehabilitation through Artificial Reefs

Protecting and repopulating damaged reef areas through coral reefs conservation programs includes construction of unique artificial reefs, dedicated to the rehabilitation of coral reefs in damaged areas. The reef-building corals act as carbon sink, allowing the reduction of the concentration of atmospheric carbon dioxide present.

Low-lying coastal areas are more vulnerable to impacts of climate change as they are highly prone for inundation due to sea level rise. To protect such areas and islands, artificial reefs can be deployed near vulnerable islands. Deployment of artificial reefs parallel to the sinking island in the seaward side reduces the effect

### PEPPER IT WITH

Coral Bleaching, Mineral Accretion Technology, The National Adaptation Fund for Climate Change (NAFCC), Coral Mining, International Coral Reef Initiative (ICRI), Coastal Regulation Zone (CRZ), Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)- Convention on Biological Diversity (CBD) Synergy

of currents and waves, enhances fish habitats for higher fish production and protection of fish diversity.

Artificial reefs are colonized by **pioneer species**, providing an alternate environment to greater biodiversity as they provide a solid substrate for corals to grow in the best conditions possible. These are places where juveniles can better protect themselves against predators. **Gulf of Mannar Marine National Park** has been implementing **coral rehabilitation programme** since 2002, through **concrete frame slabs method**. They drop concrete frames tied with live corals around the islands, where coral reef degradation and bleaching is noticed. Corals start growing in 60 days using the frames as sub-state and acropora coral species even grow by 10 to 12 cm per year.

### Way Forward

Studies have shown that six lakh tonnes of plastic waste is dumped annually. Artificial reef creation should be a cautious and environmentally responsible action which should therefore not include trash and potentially toxic material which could bring long term damages to the marine as well as coastal ecosystem.

It is important to recognize that artificial reefs only work in areas where water quality is still conducive to coral growth. It needs to be used in conjunction with a wide variety of other actions such as establishing rules and regulations, reducing local land and sea based threats, reducing over-fishing/over-use, and other mitigation or protection measures to create an effective and holistic coral reef restoration program.

### Tamil Yeoman declared Tamil Nadu's state butterfly

Tamil Nadu declared **Tamil Yeoman (Cirrochroathais)** as its state butterfly in a move to boost the conservation efforts of butterflies. The state has become the fifth Indian state after **Maharashtra (Blue Mormon)**, **Uttarakhand (Common peacock)**, **Karnataka (Southern birdwings)** and **Kerala (Malabar banded peacock)** to have a state butterfly. Endemic to the biodiversity hotspot of Western Ghats, Tamil Yeoman is usually seen at the foothills and moist evergreen forests of the state's mountainous regions.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

**Butterflies are great bio-indicators** of an ecosystem as they are highly sensitive to environmental conditions such as temperature, sunlight, humidity and rainfall patterns. Their presence, patterns and migration assist in mapping the climatic health of a region. They help in maintaining the balance of the ecosystem while serving as food chain's crucial links as well as great pollinators.

SPECIAL STATUS		OTHER RECOGNIZED SPECIES IN TN
<b>TIDBITS ABOUT TAMIL YEOMAN BUTTERFLY SPECIES</b> <b>Habitat</b>   Endemic to Western Ghats. They occur in moist deciduous, evergreen forests and along streams <b>Size</b>   60-75 mm <b>Habit</b>   Fast, straight flight with few wing beats and long glide <b>Larva</b>   They lay eggs in vertical chains of 8-10. Larva initially stay in group, below the leaf and often in shady areas. They eat edges of soft tender leaves <b>No. of butterfly hotspots in TN</b>   32 <b>Scientific name</b>   <i>Cirrochroa thais</i>		

### Dracaena Cambodiana

*Dracaena Cambodiana*, a dragon tree species, is discovered in Assam's West Karbi Anglong district, **first such instance in India**. It is an important medicinal plant as well as an ornamental tree that yields **dragon's blood**— a bright red resin which turns bright red after coming in contact with air. This is a precious traditional medicine in China, used as medicine, body oil, varnish, incense and dye. Recent overexploitation to meet the increasing demand for dragon's blood has resulted in rapid depletion of the plant in China. For this reason, the species is already listed in the **inventory of Rare and Endangered Plants of China**.

The *Dracaena* seeds are usually dispersed by birds. But due to the large fruit size, only a few species of birds are able to swallow the fruits, thus limiting the scope of its natural

conservation. Thus conservation programmes should be undertaken diligently due to its medicinal, ornamental and ecological values.

## ILO report on impact of Global Warming on Labour

### News Excerpt

India could lose the equivalent of 34 million jobs in 2030 due to global warming, says ILO report.

### Introduction to the study

ILO study named as "**Working on a Warmer Planet—The Impact of Heat Stress on Labour Productivity and Decent Work**" explores the impact of climate change and increase in global temperature on the workplace, shows examples of the current and likely future impacts and provides indications of policy response options to these challenges.

Rising heat levels driven by climate change are increasing health and economic risks for large shares of the global working population. **Excessive heat while working**, generally at temperatures above 35° Celsius, creates **occupational health risks and reduces work capacity and labour productivity**.

### Key Highlights of the study

- **By 2030, the equivalent of more than two per cent of total working hours worldwide is projected to be lost every year**, either because it is too hot to work or because workers have to work at a slower pace - **a productivity loss equivalent to 80 million full-time jobs**. These projections are based on a global temperature rise of 1.5 degrees by the end of the 21st century as well as labour force trends.
- With some 940 million people active in agriculture around the world, **farmers are set to be worst hit** by rising temperatures, which indicates that **the sector will be responsible for 60 per cent of global working hours lost** from heat stress, by 2030.
- **Construction will also be "severely impacted"**, with an **estimated 19 per cent** of global working hours lost at the end of the next decade.
- **Other at-risk sectors** include **refuse collection, emergency services, transport, tourism and sports**.
- **Southern Asian and Western African States are expected to suffer the biggest productivity losses**, equivalent to approximately five per cent of working hours (the equivalent of 43 million full-time jobs) by 2030, with two-thirds of Southern Asian countries facing losses of at least two per cent.
- We can expect to see **more inequality between low and high-income countries** and **worsening working conditions for the most vulnerable**.
- A labour market challenge pertains to the **high rates of informality** in the region, particularly in Southern Asia and South-East Asia. **As many as 90 per cent of all workers in India, Bangladesh, Cambodia and Nepal work informally**. Although the prevalence of informality can to a great extent be **explained by the high share of employment in agriculture, informality is also pervasive in other sectors**, including construction, wholesale and retail trade, and the accommodation and food service industries.
- Temperatures exceeding 39°C can kill. But even where there are no fatalities, such

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

### Cool Roofs Initiative

Ahmedabad incorporated a cool roofs initiative into its **2017 Heat Action Plan**, notably by providing access to affordable cool roofs for the **city's slum residents and urban poor**, i.e., those who are most vulnerable to the health effects of extreme heat. The initiative aims to turn the roofs of at least 500 slum dwellings into cool roofs, improve the reflectivity of roofs on government buildings and schools, and raise public awareness. This initiative was mentioned in the ILO report.

### PEPPER IT WITH

Migrant Labour, Living Wage, Universal Declaration of Human Rights, Right to Work, Concept of Decent Work, Seoul Declaration on Safety and Health at work 2008, Workerism

temperatures can leave many people unable to work or able to work only at a reduced rate. **Some groups of workers are more vulnerable than others** because they suffer the effects of heat stress at lower temperatures. **Older workers**, in particular, have lower physiological resistance to high levels of heat and represent an increasing share of workers, a natural consequence of **population ageing**.

### **India Specific Findings**

The report warned that the **country most affected by heat stress is India**, which lost 4.3 per cent of working hours in 1995 and is **projected to lose 5.8 per cent of working hours in 2030**. Because of its large population, India is in absolute terms **expected to lose the equivalent of 34 million full-time jobs in 2030 in productivity** as a result of heat stress.

Although most of the impact in India will be felt in the **agricultural sector**, more and more working hours are expected to be lost in the **construction sector**, where heat stress affects both male and female workers. This is because agriculture has traditionally employed the largest chunk of India's workforce. But due to successive droughts and low returns, a large chunk of labour force drop farming and migrate away to urban centres in search of livelihood. Several of them are absorbed by the construction sector in non-formal arrangements.

**India's brick making industry**, which employs millions. These workers, several of whom are children, often have a low socio-economic status, work under harsh conditions, and receive low wages or even none at all. The severe risks faced by such workers include high temperature and radiant heat levels, a heavy physical workload, and also a lack of awareness of occupational safety and health matters.

### **Uneven impact of Climate Change**

The impacts of climate change are unevenly distributed across regions, economic sectors and society. The highest impacts will be felt by:

- The working poor, those working in the informal economy, seasonal and casual workers, the self-employed, micro and small sized enterprises;
- The Least Developed Countries (LDCs) and Small Island Developing States (SIDS) due to high vulnerability and low adaptive capacity;
- Sectors most dependent on natural resources and climate such as energy, water, agriculture and food production, tourism, transport, public services and industries.

The high vulnerability to the impacts of climate change generally results from their lack of adaptive capacities, limited alternative income opportunities, the absence of social protection systems and high dependency on climate sensitive resources such as local water and food supplies. Women are also likely to be more affected than men because of existing gender inequalities.

### **Way Forward**

The economic, social and health effects of heat stress would make it harder to tackle poverty and promote human development, and, consequently, to attain most of the United Nations **Sustainable Development Goals (SDGs)**.

Although an emerging concern, most national climate or employment policies do not address the impact of climate change on health and productivity in the workplace, but ILO Guidelines address **occupational health and safety and social protection linked to climate change** and provide a starting point for a more substantial response. However, if properly managed, **climate change action can lead to more and better jobs**. Both **adaptation to climate change and measures to mitigate greenhouse gas (GHG) emissions** offer opportunities to create new jobs, while securing existing ones.

Actions are needed to protect workers and employers now and in the future, including **low cost measures** such as assured access to drinking water in workplaces, frequent rest breaks, and management of output targets, carried out with protection of income and other **conditions of Decent Work**.

### **Heat Stress**

Heat stress refers to heat received in excess of that which the body can tolerate without physiological impairment. It generally occurs at above 35 degrees Celsius, in places where there is high humidity. It is one of the major consequences of global warming. Heat stress affects, above all, outdoor workers such as those engaged in agriculture and on construction sites. Excess heat at work is an **occupational health risk** and in extreme cases can lead to heatstroke, which can be fatal.

## **Plastic Recycling and Waste Management**

### News Excerpt

The Central Pollution Control Board (CPCB) has put 52 producers, brand owners and importers, including big online retailers such as Amazon and Flipkart, and companies such as Patanjali Ayurveda and Britannia, on notice, for failing to take responsibility for their plastic waste.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

### Pre-Connect

Plastic waste and especially **marine plastic litter** is an **environmental problem** occurring on a global scale due to their **property of durability** making them remain for longer period. **Cigarette butts** (whose filters contain tiny plastic fibers), drink bottles, bottle caps, food wrappers, grocery bags, drink lids, straws and stirrers are most common type of plastic waste found in the environment.

**Packaging is the dominant sectoral use of plastics globally accounting for around 40 percent.** Since packaging tends to have a **much lower product lifetime** than other products (such as construction or textiles), it is also dominant in terms of annual waste generation, and estimated figures indicate nearly half of global plastic waste. Notably the **retail sector in India expects e-commerce to grow from about \$24 billion-equivalent in 2017 to \$84 billion by 2021**, which necessitates proper packaging material management. Therefore, **recycling** is integral to addressing the problems posed by plastic packaging material.

### Perspective

- Plastics have only been **mass-produced for around 60 years** where most types of plastic are **not biodegradable and extremely durable**. **Rivers carry plastic waste from deep inland to the sea**, making them major contributors to ocean pollution.
- Most plastic items never fully disappear; they just get smaller and smaller.** Many of these tiny plastic particles are swallowed by farm animals or fish who mistake them for food, and thus can find their way onto our dinner plates. They've also been **found in most of the world's tap water**.
- India produces **nearly 62 million tonnes (mnt) of municipal solid waste annually**, which is **likely to reach 165 mnt by 2030 and 450 mnt by 2045**. In India, **recycling rates are way below international benchmarks** — for packaging paper, it is 27 per cent; plastics, 60 per cent; and metals, a mere 20-25 per cent. In **Scandinavian countries**, the **average recycling rates have reached 90 per cent**.
- Concept of **Extended Producer Responsibility (EPR)** was incorporated into the **Plastic Waste Management Rules 2011**, but municipal and pollution control authorities could not persuade commercial giants to put in place a system to collect and process the waste. **Tighter rules in 2016 and some amendments in 2018 put the onus on producers and brand owners to have an action plan** for the retrieval of waste within six months to a year.
- During the Conference of the Parties (COP 14) 2019 to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal**, governments amended the Basel Convention to **include plastic waste in a legally-binding framework** which will make **global trade in plastic waste more transparent and better regulated**, whilst also ensuring its safer management for human health and the environment.

### Analytica

- **Plastics may be less expensive than other inputs in manufacturing but recycling them into new products extends their life and provides a substitute for virgin material.** Keeping them out of the environment reduces clean-up and pollution costs. Unfortunately, despite legal requirements, municipal and pollution control authorities fail to see this and mostly pursue **business-as-usual waste management methods**.
- **Used plastic is recycled into pellets**, which are then used to manufacture other plastic products, but the process comes with **pollution risks**. Plastic unsuitable for recycling is burnt, which releases toxic chemicals into the atmosphere. Or it ends up in landfill, potentially contaminating soil and water sources.
- **Mountains of garbage with a heavy plastic load** have been growing in **suburban landfills, out of sight of city dwellers**. Without determined steps, the crisis is certain to worsen.

**Recovering materials from garbage should be a high priority**, considering that **India is the third highest consumer of materials** after China and the U.S.; the **Economic Survey 2019** estimates that India's demand for total material will double by 2030 at current rates of growth.

- **Recyclable waste is rendered useless when it gets mixed with other articles.** Online retailers have not felt compelled to take back the thousands of polybags, plastic envelopes and air pillows used to cushion articles inside cardboard boxes. This contrasts with **more developed markets** where they are **trying out labels on packages with clear recycling instructions**.

### Way Forward

- ✓ In total, half of all plastic produced is designed to be used only once — and then thrown away. It is nearly impossible to clean the seas from plastic waste and microplastics. Therefore, **this pollution needs to be tackled at source** – it is not sustainable to clean up plastic pollution once it has entered the sea.
- ✓ Across many low-to-middle income countries, lack of packaging is an important issue for food security. The UN Food and Agriculture Organization (FAO) emphasise that **lack of packaging, storage and refrigeration leads to significant post-harvest losses**. However, given the role played by packaging, the **waste management problem is likely to become alarming**.
- ✓ The **process of collecting and separating plastic waste** is largely **an informal sector activity**, providing employment to many. While source segregation must be actively promoted through **behavioural shifts**, the four million **rag-pickers and kabadiwalas should be** substantially **incentivised and trained to efficiently transfer sorted waste to the recyclers**. A key policy thrust should be to achieve a **systematic formalisation of this sector** — the rag-pickers should be given an official identity, trained on environmentally safe scrap-handling practices and supported with a minimum wage.
- ✓ Companies can form **waste cooperatives** in India, employing informal waste-pickers. In such a model, **consumers will respond readily if they are incentivised to return segregated plastic waste**. **Making municipal and pollution control authorities accountable** is also equally important.
- ✓ Following successful examples in China, the government can also set up **dedicated Material Recycling Zones (MRZs)** to help the recycling industries operate in a globally competitive fashion.

#### PEPPER IT WITH

Plastic Identification Code (PIC), Microplastic & Microbead, What a Waste 2.0 report, Plastic Soup, Zero Waste concept, Polluter Pays Principle, Energy from Waste (EfW), Edible Cutlery, Throw-away Culture, Single-use or Disposable Plastic, Life-cycle Thinking, Resource Recovery, Co-Processing, Upcycling and Downcycling, Curb Mining

### Conclusion

- Plastics are undeniably a key environmental concern — particularly in terms of impacts to ocean health and wildlife. But it's also important to acknowledge the value plastic plays across many aspects of society. It is a unique material: often lightweight, resilient, usually non-reactive, waterproof and cheap.
- **The two prongs of the solution** to waste management are **packaging innovation** that reduces its use by using alternatives, and **upscaling waste segregation, collection and transmission**.
- A **paradigm shift** is imminent, to raise the quality of economic growth from the **depletive 'produce-consume-dispose' led linear economy** to a **'reduce-recover-reuse-recycle-redesign-remanufacture' led circular economy** which is **more regenerative and restorative in nature**.

### Ganges River Dolphin

**News Excerpt**

Speed restrictions and sound alerts mooted for protection of dolphins. The response by the Ministry of Shipping was tabled in Parliament in response to a question asked.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

**Ganges River Dolphin (*Platanista gangetica*)**

- The Ganges River dolphin, Gangetic Dolphin, Susu or Shushuk, lives in one of the most densely populated regions of the world.
- They are **one of the seven species of freshwater cetacean** i.e. dolphins and porpoises. They **inhabit parts of the Ganges, Meghna, and Brahmaputra river systems** in India (**national aquatic animal**), Nepal (Karnaphuli-sangu River system), and Bangladesh. They are essentially blind, can detect only the direction of light and navigate through **echolocation**.
- River dolphins act as **indicators of river health in the basins** where they live. If the dolphin population in a given body of fresh water is thriving, then the overall state of that freshwater system is also likely flourishing.
- Being placed under **Endangered** category in IUCN Red List, Appendix I of CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) and Schedule I of India's Wildlife (Protection), Act, 1972, one of the main threats to the Gangetic Dolphin is **loss of habitat** due to the creation of dams and irrigation projects.
- Dolphins prefer water that is at least 1.5-2.4 metres in depth. They are usually found in water where there is enough fish for them to feed on. They **live in a zone where there is little or no current**. That helps them save energy. If they sense danger, they can go into the deep waters.
- During the monsoon, dolphins go to the tributaries and side channels, and return when the water recedes.
- Dolphins frequently fall prey to poachers and sometimes killed without intention by being trapped in fish nets or hit by propellers. Decreased water level slowed down flow and siltation are other unfavourable factors for dolphins.

**The Vikramshila Gangetic Dolphin Sanctuary (VGDS)** is the only dolphin sanctuary of India. Formed in 1991 in Bhagalpur, Bihar along the stretch of Ganga river from Sultanganj to Kahalgaon, the sanctuary has other species as well including gharials, turtles and otters.

**Proposed Interventions by Ministry of Shipping**

- Vessel speed would be restricted to 2.7 knots in Vikramshila Gangetic Dolphin Sanctuary (VGDS) area to reduce the noise generation from propeller. If any aquatic mammal/dolphin is spotted, then the measures will be taken to push it away through sirens/signals
- Fitting vessels with propeller guards and dolphin deflectors to minimise dolphin accidents and using non-toxic paints for painting vessels.

However, experts doubt the efficacy of these measures as the very nature and sensitivity of Gangetic Dolphin makes it vulnerable to changes around its habitat.

**Electric and Hybrid Vehicles****News Excerpt**

Government has reduced GST rates from 12% to 5% on electric vehicles and from 18% to 5% on electric vehicle chargers and charging stations.

**Pre-Connect**

The **share of electric vehicles in India is negligible at present**. The government wants to accelerate local production of Electric Vehicles (EVs) as well as **ensure their affordability for the public** through incentives. **India's Energy Mix** is also being targeted to add renewable and less polluting sources in it.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

**Recent incentives**

- Reduced GST rates** from 12% to 5% on electric vehicles and from 18% to 5% on electric vehicle chargers and charging stations.

- **Income tax rebates** of up to ₹1.5 lakh for customers on interest paid on loans to buy electric vehicles, **with a total exemption benefit of ₹2.5 lakh over the entire loan period.**
- **Customs duty exemption on lithium-ion cells** to help lower the cost of lithium-ion batteries in India as they are not produced locally. However, long term target is to manufacture lithium ion batteries in India.
- **Custom duty exemption on several electric vehicle components** including on-board chargers, e-compressors, charging guns, and e-drive assemblies, among others.

With the government increasing Special Additional Excise Duty and Road and Infrastructure Cess each by Rs 1 per litre on petrol and diesel, electric mobility will get yet another incentive.

### NITI Aayog Proposals

NITI Aayog believes that **Electric Mobility industry is a sunrise industry** and India needs to start building capabilities to become a globally competitive player in this area. **The lack of domestic capability will result in massive imports as is the case in electronics.**

- Only **electric (lithium-ion or other advanced battery chemistry only) three-wheelers** would be sold in the country after **March 31, 2023**, and all new sales of **two-wheelers below 150cc would be electric** post **March 31, 2025.**
- Establishment of **giga factories** in India **for the manufacture of lithium-ion batteries** in the next couple of years.

### Perspective

- 100 % FDI by automatic route is permitted in the automobile sector. Further, automobile sector is in deregulated sector and both private sector and public sector are free to carry out investment in the automobile sector, including for manufacturing of Electric Vehicles and E-Buses.
- **Incentivization of the sale of electric vehicles is expected to regulate the increasing oil imports in the country.** As per the data released by the Oil Ministry's Petroleum Planning and Analysis Cell (PPAC), **India's dependency on oil imports has reached 83.7% in 2018**, and currently, India is the **third largest oil importer in the world.**
- **Economic Survey 2019** suggested that the government should **aim to develop India** into a **manufacturing centre for electric vehicles (EVs) and related components** on the lines of the US automotive hub of Detroit
- In 2015, India announced its **climate goal of reducing the emissions intensity of the country's gross domestic product (GDP) by 33-35% by 2030 from 2005 levels.** India is also committed to achieving 40% of its cumulative electric power from non-fossil fuel-based energy resources.
- Department of Heavy Industry has been implementing **FAME-India Scheme [Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India]**, whose **Phase I** started from 1st April 2015 (with total outlay of Rs 895 crores) and **Phase II** has taken over from 1st April 2019 with total outlay of Rs 10,000 crores.

### **PEPPER IT WITH**

The National Electric Mobility Mission Plan (NEMMP) 2020, National Mission for Transformative Mobility and Battery Storage, Electric Vehicle 2030 challenge, Biofuels, Alternative fuel Vehicle, National Automotive Board, Energy Efficiency, Rare-earth elements, Vegetable Oil Fuel, Sustainable Transport, Greenways, Living Streets, New Urbanism, Maglev Technology, Hyperloop, Raahgiri Day and Car Free Movement, Disruptive Technology, Biogas

### Way Forward

- ✓ Currently **most of the Electric Vehicles in India are mainly two- and three-wheelers** which do not require fast charging options. However, with ambitious targets set for the EV market development in the country, the government **should actively focus on improving the fast charging infrastructure and related technologies.**
- ✓ Ministries concerned should come together to **improve access to electricity, and install charging stations at parking areas in residential and commercial complexes** as a number of electric two-wheelers to be launched in the near term are not expected to have a very long range.
- ✓ Government initiatives such as **Make in India** will be key to enable electric vehicle adoption in the country. **Local manufacturing of batteries and other EV components** will be

integral to ensure the smooth development of EV market in India without excessively depending on other countries for imports.

- ✓ Moreover, a high rate of EV adoption in the country will require **many local mechanics to be reskilled** in order to deal with the electric vehicle technology.

### Conclusion

Close to 80% of all vehicles sold in India are two and three wheelers which are fitted with imported major components. So quality research & development alongwith requisite infrastructure is needed to **promote the healthy growth of EV sector in India**. This would align with India's commitment to cut down carbon emissions and taking leadership on the global efforts in the sector as well.

With the government's push towards electric vehicles with traditional automakers slow to make the shift, startups in the mobility ecosystem may take the lead. So, the **next set of unicorns in India's startup ecosystem may emerge from the e-mobility space**.

## Floods in India

### News Excerpt

Many Indian states like Bihar, Assam, Maharashtra, Karnataka, Andhra Pradesh and Kerala are currently battling with floods and have witnessed huge losses in terms of lives of people and material properties. This mandates the discussion on disaster management and India's preparedness to face such calamities.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

### Thematic Connect

Climate change impacts are likely to lower the living standards of nearly half of India's population, says a new **World Bank report**. According to the report titled '**South Asia's Hotspots: Impacts of Temperature and Precipitation Changes on Living Standards**', rising temperatures and erratic rainfall pattern could cost India 2.8 per cent of its GDP. It says that almost half of South Asia, including India, lives in vulnerable areas and will suffer from declining living standards.

### Analytica

- Floods are a natural and inevitable phenomenon of life in almost all the states of India.
- Floods depend on many things such as Climate, nature of the Collecting basin, nature of the streams, soil, vegetative cover, amount of snow melt and over all rainfall.
- India is highly vulnerable to floods and out of the total geographical area of 329 mha, more than **40 mha is flood prone**.
- Floods are recurrent phenomenon, which cause huge loss of lives and damage to livelihood system, property, infrastructure and public utilities.

### National Disaster Management Authority

- ♣ The Government of India (GOI), in recognition of the importance of Disaster Management as a national priority, set up a High-Powered Committee (HPC) in 1999 and a National Committee after the Gujarat earthquake, for making recommendations on the preparation of Disaster Management plans and suggesting effective mitigation mechanisms.
- ♣ 10<sup>th</sup> and 12<sup>th</sup> FYP also made recommendations regarding institutional arrangements for disaster management.
- ♣ In 2005, the Government of India enacted the Disaster Management Act, which envisaged the creation of **National Disaster Management Authority (NDMA)**, headed by the Prime Minister, and State Disaster Management Authorities (SDMAs) headed by respective Chief Ministers, to spearhead and implement a holistic and integrated approach to Disaster Management in India.

- It is a cause of concern that the flood related damages are showing an increasing trend. The average annual flood damage during the last 10 years was about USD 7.4 billion.
- This can be attributed to many reasons including rapid increase in population and urbanisation coupled with growing developmental and economic activities in the flood plains and global warming.

### Where lies the problem?

- A report published in 2017 by the Comptroller and Auditor General (CAG) about India's

performance audit on flood control and management schemes categorically stated that **only 7% of dams (349 out of 4,862) have Emergency Action Plans.**

- Various committees have been formed for flood management, such as the **RashtriyaBarhAyog**. But their recommendations, with regards to identification of flood prone areas, have not yet been put into action.
- Following the Uttarakhand floods in 2013 and Kashmir floods in 2014, flood forecast stations were set-up in these two states. The same should have been done for all the flood prone states. We continue to be reactive rather than focusing on preparedness.
- The non-structural measures for flood forecasting — provide early warning in flood prone areas — have proved to be successful for flood management. But high-tech warning systems on the ground will not be useful until the authorities, key stakeholders and communities are trained to act upon the information obtained from these facilities.

### What needs to be done?

- ✓ **Disaster management** is actually a dynamic process, which involves planning, staffing, organizing, leading and controlling. It includes immediate response, prevention, mitigation, recovery, preparedness and it is a combined effort of all authorities, the States and the Centre.
- ✓ It is not possible to avoid disasters altogether. But the **State governments can actually take measures to minimise the impact.** It is better

to study, analyse, assess the disaster potential of various areas which are prone to natural calamities and also find out ways to remedy the situation.

- ✓ We also need a much better flood forecasting, rainfall and drought prediction so that all kinds of disaster management plans, preparedness and mechanisms are functional, well in advance.
- ✓ The civic bodies have a major role to play when it comes to minimizing the effect of floods, especially in areas that are known to be vulnerable to flooding.
- ✓ Different stakeholders need to come together for mapping risks, vulnerabilities, and resources; engage in regular preparedness actions like drills and capacity building; develop and update emergency plans; check the availability of resources at the local level; and act upon early warning intimations.

### International Charter Space and Major Disasters

- ❖ The Charter is a worldwide collaboration, through which satellite data are made available for the benefit of disaster management.
- ❖ **By combining Earth observation assets from different space agencies**, the Charter allows resources and expertise to be coordinated for rapid response to major disaster situations; thereby helping civil protection authorities and the international humanitarian community.
- ❖ In addition to the space agencies that form the Charter, national and regional disaster monitoring organisations also support the Charter's efforts as co-operating bodies.
- ❖ Members and co-operating bodies join an international initiative to provide support to those in need following major disasters, and benefit from the wide distribution of data that the Charter offers.

### PEPPER IT WITH

Natural vs. Anthropogenic Hazards, Glacial Lake Outburst Flood (GLOF), Flood Insurance, Disaster Risk Reduction (DRR)

### Direct sale of Bio diesel

#### News Excerpt

Govt allows direct sale of bio-diesel by manufacturers.

#### Pre-Connect

- Planning Commission Report released in 2003 recommended launching of a **National Mission on Biodiesel** based on non-edible tree-borne oils.
- Biodiesel production in India is predominantly focused on using **jatropha**, other non-edible tree-borne-oils, such as **pongamia, karanja, and animal fats like fish oil** are also being used.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

- **Under the National bio diesel purchase policy 2006** Oil Marketing Companies were to buy Bio-diesel, meeting fuel quality standard prescribed by the **Bureau of Indian Standards (BIS)**, at a **uniform price**, as decided by the **OMCs** from time to time, for blending with HSD to the extent of five percent, at identified purchase centres across the country.
- However the **production costs of the bio fuels was more than the price determined for sale** and therefore it impeded the productions and selling of bio diesel in India.

### Thematic connect

- The cabinet committee approved the amendment of the **Motor Spirit (MS) and High Speed Diesel (HSD) control order for Regulation of Supply, Distribution and Prevention of Malpractices**.
- The amendment will allow **private biodiesel manufacturers**, their authorised dealers and **Joint Ventures (JVs) of Oil Marketing Companies (OMCs)** authorized by the Ministry of Petroleum & Natural Gas (MoP&NG) as dealers and give marketing/ distribution functions to them for the limited purpose of supply of bio-diesel to consumers.
- Further, a new clause was added to give marketing rights for Bio-diesel (B100) to the private biodiesel manufacturers, their authorised dealers and JVs of OMCs authorized by the MoP&NG for direct sales to consumers.

### Significance

- ✓ **Increase production:** since the government is already trying to push up the bio fuel production in India, this will help private companies to look for cost effective methods for production and sale of bio diesel.
- ✓ **Commercial availability of bio diesel:** Till now bio diesel was not produced on a large commercial scale as the prices were regulated, now the direct sale will help develop joint ventures between OMCs and large consumers like railways in India.
- ✓ **Alternate means of income for Farmers in dry and waste lands:** Most of the crops for bio diesels can grow in the dry and waste land. With impetus from the joint ventures and contract farming, the farmers can use this opportunity as an alternate source of income.

**PEPPER IT WITH**  
BiofuelPolicy-2018, Strategic Petroleum Reserves, IEA Bioenergy TCP

### Analytica

As the oil market is already deregulated, this is a welcome step considering the importance of biofuel in meeting the energy requirements in near future. This will also give impetus to the national bio fuel policy 2018.

## Chandrayaan-2

### News Excerpt

Recently, Chandrayaan-2 has been launched from Satish Dhawan Space Centre (Sriharikota) on-board GSLV Mk-III.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

### Pre- Connect

It is **an Indian lunar mission** that will boldly go where no country has ever gone before — **the Moon's south polar region**. Chandrayaan-2 aims to widen the scientific objectives of Chandrayaan-1 by way of soft landing on the Moon and deploying a rover (Pragyaan) to study the lunar surface.

### NASA's PUNCH Mission

It stands **The Polarimeter to Unify the Corona and Heliosphere**. The aim of the mission will be to study the complex relationships between the Sun's blistering outer layer, the corona and the heliosphere, the Sun's range of influence that extends up to Pluto.

It will **be the first mission with the sensitivity and polarization** capability to routinely track solar wind in 3D.

**Thematic Connect**

This mission will help us gain a better understanding of the **origin and evolution of the Moon** by conducting detailed topographical studies, comprehensive mineralogical analyses, and a host of other experiments on the lunar surface.

**Analytica****Why Explore the Lunar South Pole?**

The lunar South Pole is especially interesting because of the lunar surface area here that **remains in shadow is much larger than that at the North Pole**. There is a possibility of the **presence of water in permanently** shadowed areas around it. In addition, South Pole region has craters that are cold traps and contain a fossil record of the early Solar System.

Chandrayan-2 is a totally indigenous mission comprising of Lander(Vikram), Rover and Orbiter.

- **Lander:** will remain stationary after touching down and mainly study the moon's atmosphere.
- **Rover:** Will detach itself and slowly crawl on the surface.
- **Objective is to study the composition** of the surface near the lunar landing site, and determine its abundance of various elements.
- **Orbiter:** equipped with different kinds of camera to take create high-resolution three-dimensional maps of the surface.
- to study the mineral composition on moon and the lunar atmosphere.
- to assess the abundance of water.

**Significance**

- There has been a rebirth of lunar exploration across the globe and India can't be left behind.
- **India will become only the 4th** country in the world to land a spacecraft on the moon and will expand India's footprint in space.
- The South pole of the moon is a completely unexplored territory up to now and therefore **offers great scientific opportunity** for the mission to discover something new.
- It will surpass international aspirations.

**Challenges**

- Once the Lander and the Rover, enter the Moon's gravity, **they would be in a state of free fall**. That could end in crash-landing and destruction of instrument.
- The Lander is the distinguishing feature as this is the first time that ISRO is attempting to soft-land a module in extra-terrestrial space.
- **The main challenge is thus in controlling its speed** as it approaches the surface.
- Due to lack of air to provide drag, these **instruments cannot make use of parachute-like technologies**.
- Ensuring Trajectory accuracy while navigating 3.844 KM.

**Conclusion**

With the launch of Chnadrayan-2, ISRO has set the precedent before the world of being a reliable, cost effective and secure space leader. Moreover, its quest for the exploration the unexplored part of moon will be a giant leap in the field of space exploration and **will open new vistas for the mankind**.

**PEPPER IT WITH**  
Apollo-11 Space Mission, Mars Orbital Mission, Aditya L1

**Gaganyaan Programme****News Excerpt**

The **Union Cabinet has approved the Gaganyaan Programme** with demonstration of Indian Human Spaceflight capability to low earth orbit for a mission duration ranging from one orbital period to a maximum of seven days.

**Pre-Connect**

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

It is a **first human space flight demonstration** targeted to be completed within 40 months from the date of sanction. India could **potentially become the fourth country to send a man in space**, after the erstwhile USSR, the US and China. India has already completed missions to the moon and Mars.

### Thematic Connect

- (1) **GSLV Mk-III** will be used to carry the orbital module which will have necessary provisions for sustaining a 3-member crew for the duration of the mission.
- (2) Gaganyaan Program will be a **national effort in collaboration with Industry, Academia** and other scientific agencies and laboratories as stake holders along with ISRO. ISRO will be responsible for **realizing the flight hardware through Industry**.

### Analytica

#### Impact

- (1) It will enable **broader participation in research opportunities and technology development** benefitting large number of students and researchers.
- (2) It is expected **to generate employment and train human resources** in advanced technologies.
- (3) It will inspire **large number of young students** to take up science and technology careers for national development.
- (4) Huge potential for **technology spinoffs** in areas such as medicine, agriculture, industrial safety, pollution, waste management, water and food resource management etc.
- (5) It will provide a **unique micro-gravity platform in space** for conducting experiments and test bed for future technologies.
- (6) It will enable **India to participate as a collaborating partner** in future Global space exploration initiatives with long term national benefits.

#### Challenges

- (1) **Gravity field:** Transitioning from one gravity field to another is tricky. It affects hand-eye and head-eye coordination.
- (2) **Isolation:** In spite of providing well training to astronauts, behavioural issues may crop up. They may encounter depression, sleep and psychiatric disorders, etc.
- (3) **Radiation:** In space stations, astronauts receive over ten times the radiation than what people are subjected to on Earth. It may increase the risk of cancer, etc.
- (4) Many things can go wrong during the launch phase, including **the rocket exploding into a fireball**.
- (5) **Hostile environment:** Space is hostile. In addition **to lack of gravity and danger of radiation**, there is no atmosphere. Human blood starts boiling if there is no pressure.

#### PEPPER IT WITH

Radiation in space, Asteroid Mining, GSLV and PSLV, Orbits of Satellites

### Way Forward

The 'Gaganyaan' has to create an atmosphere like Earth **inside a small volume and ensure that adequate supply of oxygen**, removal of carbon-dioxide and comfortable temperature and humidity levels are maintained throughout the mission.

All things necessary for supporting life like food, water, medicine, and human waste removal have to be addressed.

## Design, Manufacture and Deployment of Navic Systems

### News Excerpt

Recently, ISRO has developed core technologies required for Standard Positioning Services (SPS) and Restricted Services (RS) services of IRNSS/NavIC.

In order to miniaturize and provide cost-effective NavIC solution, ISRO is also developing various Application Specific Integrated Circuit (ASIC) based modules.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

### Pre-connect

IRNSS is an independent regional navigation satellite system being developed by India. It is designed to provide accurate position information service to users in India as well as the region extending up to 1500 km from its boundary, which is its primary service area

#### **PEPPER IT WITH**

BeiDou Navigation Satellite System, QZSS, GLONASS, Galileo

**Some applications of IRNSS are:** Terrestrial, Aerial and Marine Navigation, Disaster Management, Vehicle tracking and fleet management, Integration with mobile phones, Precise Timing, Mapping and Geodetic data capture, Terrestrial navigation aid for hikers and travellers, Visual and voice navigation for drivers.

### What is IRNSS?

**Indian Regional Navigation Satellite System (IRNSS):** It is a set of satellites which together can provide **India a regional positioning system similar to the GPS**. The system is manufactured to give position accuracy better than **20 metres** to users in its primary coverage area.

### How many IRNSS satellites are up there now?

Currently there are **seven IRNSS satellites (1A to 1G) in orbit. A, B, F, G are placed in a geosynchronous orbit**, which means they seem to be at a fixed location above the Earth and they orbit along with the Earth. The remaining three, C, D, E, are located in geostationary orbit—they seem to be at a fixed location above the Earth along the equator and orbit along with the Earth.

### What are the applications of IRNSS?

These satellites help not just in land navigation but also in marine and aerial navigation. The data from these satellites can be used to give vehicle drivers visual and voice navigation assistance. They also help in disaster management and in proper time-keeping.

### NAVIC and GPS

#### **What is GPS?**

The Global Positioning System, commonly known as GPS, is a network of about 30 satellites orbiting the Earth at an altitude of 20,000 km. The system was originally developed by the US government for military navigation but now anyone with a GPS device can receive the signals and use it. Each satellite of the GPS constellation circles the Earth twice a day. It depends on only 24 satellites to provide the accurate location, rest of the satellites are spare ones.

#### **How does the GPS work?**

Wherever you are on the planet, at least four GPS satellites are 'visible' at any time. It requires only three satellites to provide the location. The other satellites add to the accuracy. The more satellites there are in the sky, the more accurately GPS can tell you about your location.

#### **GPS and IRNSS- Accuracy**

There are 30 satellites in GPS, while IRNSS has only 7 satellites. So, how will we get an accurate location from IRNSS. 24 functional satellites of GPS are for the entire world, while 7 satellites of IRNSS are covering only India and its neighbouring countries. All these 7 satellites will be visible to the ground receiver all the time.

#### **Coverage**

GPS as name says is a Global Positioning System. NAVIC on the other hand serves only India and its neighbouring countries.

#### **Satellites**

GPS has 33 satellites and the US Govt. is constantly adding and replacing old satellites.

NAVIC has 7 satellites with more to be added soon.

#### **How NAVIC is better than GPS**

- Of course the coverage is less than GPS but it is not meant to be global but NAVIC is not

meant to be global. NAVIC was built to satisfy the needs of Indian. To provide support for the defence services, transport and the general public

- NAVIC should in theory be more reliable simple because we always have a line of sight with the satellites.
- Satellites are always in line of sight of the device using the system.
- Since NAVIC satellites are in geostationary orbit, signal can be obtained even in steep valleys or cantons.

## Radiation Technology for Sewage Treatment

### News Excerpt

Bhabha Atomic Research Centre (BARC) in collaboration with Amdavad Municipal Corporation (AMC), Ahmedabad has set up a Technology Demonstration Pilot Project “**Sewage Sludge Hygienisation Plant**” at Shahwadi, Ahmedabad.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

### Pre-Connect

- **Bhabha Atomic Research Centre entered into MoU in 2015 with Ahmedabad Municipal Corporation (AMC)** to provide all technical and scientific support for setting up a Cobalt -60 Gamma Irradiation Plant at Ahmedabad.
- Another liquid sludge irradiator; **Sludge Hygienisation Research Irradiator (SHRI)** is operating at Vadodara for radiation treatment of raw sludge containing 3-4% solids since last 30 years.

### Advantages of Radiation Technology

- Process is **simple, economic, effective, reproducible and scalable.**
- Easy to integrate with conventional sewage treatment facilities.
- Process is **fully automatic to avoid manual handling** of contaminated sludge.
- Based on the process of **radiation sterilization** which is well established world over and in India.
- **Degrades chemical contaminants and makes sludge safer for use.**

### Benefits to farmer/people

- ✓ **Increase crop yield**-direct benefit to the farmers.
- ✓ **Improved soil condition**-soil conservation & restoration.
- ✓ **Reduced health risk associated with sludge**, reduces cost of health care system.
- ✓ Reduced demand of water due to higher water holding capacity of the sludge.

### Analytica

#### Concern:

### CRUSHED, TREATED, BAGGED AND TRANSPORTED

**1** The process begins by transporting dry sludge to gamma plant by dumper trucks. The sludge is unloaded in a hopper and then transported to a crusher through a belt conveyor. The crusher converts sludge cakes into powder



**2** The sludge is transported through automated loading station and crushed sludge is filled in tote boxes. The tote boxes are then transported to the radiation cell for treatment



**3** Bio-NPK is sprayed on the irradiated sludge and transported to bagging stations



**4** After automated weighing and bagging of the treated dry sludge, the hygienized enriched fertilizer is shipped to farmers



- **An estimated 75% to 80% of water pollution is from domestic sewage**, discharged untreated into local water bodies.
- About 17 million urban households lack adequate sanitation facilities in India, with 14.7 million households having no toilets.

**Large amount of sewage sludge is produced in India every day. The sludge is infectious and can spread diseases.** It also has essential micro and macro nutrients, especially carbon, useful for soil and crop production. **Radiation Technology can be used to hygienise the sludge reliably and affordably and protect health and environment.**

## Google's Project Dragonfly

### News Excerpt

Recently, Google has shuttered its long-running, on-again, off-again project for a censored **search engine in China** known as **Dragonfly**.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

### Pre-Connect

Development of the program, project "Dragonfly," started in early 2017 and was accelerated following a meeting between Google's CEO and top Chinese government officials in late 2018.

### About Project Dragonfly

- **Dragonfly (search engine): Dragonfly was an Internet search engine app** being prototyped by Google that was designed to be compatible with **China's state censorship provisions**.
- The Dragonfly search engine was reportedly designed to **link users' phone numbers to their search queries and censor websites such as Wikipedia and those that publish information about freedom of speech, human rights, democracy, religion, and other issues considered sensitive by the Chinese government**.
- Google's search service cannot currently be accessed by most internet users in China because it is **blocked by the country's so-called Great Firewall**. The app Google is building for China will comply with the **country's strict censorship laws**, restricting access to content that Xi Jinping's Communist Party regime deems unfavourable.
- The search app will **also "blacklist sensitive queries"** so that "no results will be shown" at all when people enter certain words or phrases, the documents state. The censorship will apply across the platform: **Google's image search, automatic spell check and suggested search features will incorporate the blacklists, meaning that they will not recommend people information or photographs the government has banned**.

#### FACT

The top three search engine players in china are Baidu, Qihoo360 (also known as Haosou), and Sogou

#### PEPPER IT WITH

Censored Search Engine, Project Loon

### Analytica

**Doing business in China is good for shareholders, bad for humanity:**

- **It's profitable. With its population at 1.3 billion,** China has the largest number of internet users in the world, so breaking into the Chinese market has been a long-time goal for Silicon Valley tech giants in their quest to find new users and to grow profits.
- **But working in China inevitably raises ethical issues for any US company.** Doing business in mainland China means making deals with an authoritarian government that has a record of human rights abuses and a strict suppression of speech.

### What's the issue?

- ✓ Google's China project has been highly contested from the beginning, as the company is said to be aiding censorship and surveillance — effectively adding to the country's human rights violations.
- ✓ The internal dispute mainly revolved around a Beijing-based website, **265.com**, which Google purchased back in 2008. The company used the site for market research. Specifically, to see what Chinese users searched on Google's main rival in the country, Baidu. Google used this info to build Dragonfly's prototype and to know which sites to blacklist according to Chinese censorship.

## Hayabusa-2: Japanese Spacecraft Makes Final Touchdown on Asteroid

### News Excerpt

Recently, **A Japanese spacecraft (Hayabusa-2) has touched down on a faraway asteroid**, where it will collect space rock that may hold clues to how the Solar System evolved.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

### Pre-Connect

HAYABUSA, which was launched in 2003, achieved its goal of arriving at the **Itokawa** asteroid and performing scientific observations. The HAYABUSA returned to Earth in 2010, dropped its onboard capsule in Australia, and completed its operation.

**The Japan Aerospace Exploration Agency (JAXA) launched Hayabusa-2 into space in 2014.**

**Its mission:** explore and collect samples from **Ryugu**, a primitive asteroid half-a-mile in diameter that orbits the sun at a distance up to 131 million miles (211 million kilometres). The probe reached its destination in 2018.

### Hayabusa 2 Spacecraft

- **Hayabusa2 is an asteroid sample-return mission operated by the Japanese space agency, JAXA.**

### Index of Blocked Websites and Apps in China

#### PRODUCTIVITY

If you plan to do business, you need to understand which of your most used productivity tools are blocked in China.

- Gmail
- Dropbox
- Google Apps (Drive, Docs, Calendar, Maps etc.)
- Microsoft OneDrive
- Slack
- Google Play (i.e. no downloading Android apps)
- Hootsuite

#### SOCIAL SITES

Most of the major English-language social media sites have been blocked in China and new ones are added to the list each year.

- Facebook
- Instagram
- Twitter
- Snapchat
- Pinterest
- Google+
- Quora
- Tumblr
- Reddit

#### STREAMING (VIDEO/AUDIO)

Whether you want to stream content or **upload videos to YouTube in China**, you'll find these streaming sites inaccessible.

- YouTube
- DailyMotion
- Vimeo
- Twitch
- Periscope
- Pandora
- Spotify
- Soundcloud

- The spacecraft deployed two rovers and a small lander onto the surface.

- **Hayabusa 2 fired an impactor into the asteroid in February 2019** to create an artificial crater. This allowed the spacecraft to collect a sample from beneath the surface of the asteroid.
- **Hayabusa 2 will bring the asteroid sample to Earth in 2020.**

**PEPPER IT WITH**  
OSIRIS-Rex, Asteroid Bennu, Kuiper Belt

#### About Asteroid Ryugu

- **Asteroid Ryugu was discovered by the US LINEAR project in 1999;** the same project that discovered Itokawa.
- **Ryugu belongs to a particularly primitive type of space rock,** left over from the early days of our Solar System.
- Asteroids are essentially leftover building materials from the formation of the Solar System. It's also thought they may contain chemical compounds that could have been important for kick-starting life on Earth. They can contain water, organic (carbon-rich) compounds and precious metals.

### **Creation of Gaganyaan National Advisory Council**

#### News Excerpt

Recently, **A Gaganyaan National Advisory Council** has been created with members from different institutions and industries.

#### Pre-Connect

Prime Minister during his 2018 Independence Day address had announced '**Gaganyaan — India's maiden human spaceflight programme**'. He had declared that 'a son or a daughter of India will go to Space from Indian soil by an Indian vehicle by **2022** (75th year of Indian independence) or sooner.

#### New Space India Limited

**New Space India Limited (NSIL), has been incorporated in 2019, as a wholly owned Government of India Undertaking/Central Public Sector Enterprise (CPSE),** under the administrative control of Department of Space (DOS) to commercially exploit the research and development work of Indian Space Research Organisation (ISRO) Centres and constituent units of DOS.

The Company will spearhead commercialization of various space products including production of launch vehicles, transfer of technologies and marketing of space products.

#### Gaganyaan Programme

Gaganyaan is an Indigenous crewed orbital spacecraft that is intended to **send 3 astronauts to space for a minimum of seven days by 2022**, as part of the Indian Human Spaceflight Programme.

- It will be for the first time **that India will launch its manned mission to space**, making the country fourth in line to have sent a human to

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											



space.

- ISRO's Geosynchronous Satellite Launch Vehicle **GSLV Mk III**, the three-stage heavy-lift launch vehicle, will be used to launch Gaganyaan as it has the necessary payload capability.
- The human spaceflight will take 16 minutes to reach the orbit where it will stay for five to seven days.
- The Indian space agency displayed the **Gaganyaan crew model and orange space suits at the Bengaluru Space Expo's 6th edition earlier this year**. The space suits were developed at Vikram Sarabhai Space Centre, Thiruvananthapuram.
- The capsule will rotate around the Earth every **90 minutes**, and **astronauts will be able to witness sunrise and sunset**. The three astronauts will be able to see India from space every 24 hours, while they conduct experiments on micro-gravity.

## 2022: India's space odyssey

What is the Human Space Flight Project all about?

■ In 2022, 3 Indian astronauts, mostly flight test pilots from the IAF, will circle earth for seven days from a distance of 300-400 km

■ They will travel in a 7,000-kg crew capsule. A GSLV-MkIII launch vehicle will lift them to their orbit

■ The flight will take off from a refurbished launchpad at Sriharikota

■ The entire project could cost roughly between ₹7,000 to 9,000 crore



### ALSO PROPOSED

■ Food, suits and other life systems for crew

■ Astronaut selection & training

■ Two unmanned trials, the first in two years

■ A new command & tracking centre at ISTRAC, Bengaluru

■ Improved launchpad at SDSC, Sriharikota

- **Rs. 10,000-crore** mission will be a turning point in India's space journey. ISRO has developed some critical technologies like **re-entry mission capability, crew escape system, crew module configuration, thermal protection system, deceleration and flotation system, sub-systems of life support system required for Mission Gaganyaan**.

### Human Space Flight Centre

The Human Space Flight Centre (HSFC), the hub of ISRO's future manned missions, was inaugurated at ISRO headquarters in Bengaluru. Human Space Flight Centre (HSFC) is created to carry out the activities related to human spaceflight. HSFC shall be responsible for the implementation of Gaganyaan project-Which involves mission planning, development of engineering systems for crew survival in space, crew selection and training and also pursue activities for sustained human space flight missions. HSFC will take the support of ISRO centres to implement the first developmental [crewed] flight.

#### FACTS

Recently, GSLV Mk III was used for successful Launch of Chandrayaan 2 mission.

### Role of NSIL:

- Small satellite technology transfer to industry, wherein the new company shall take license from DoS/ISRO and sub-license to industries.
- Manufacture of small satellite launch vehicle (SLV) in collaboration with the Private Sector.
- Product ionisation of Polar SLV through industry.
- Marketing of some spin-off technologies and products, both in India and abroad and any other subject which Government of India deems fit.
- Product ionisation and marketing of Space-based products and services, including launch and applications.

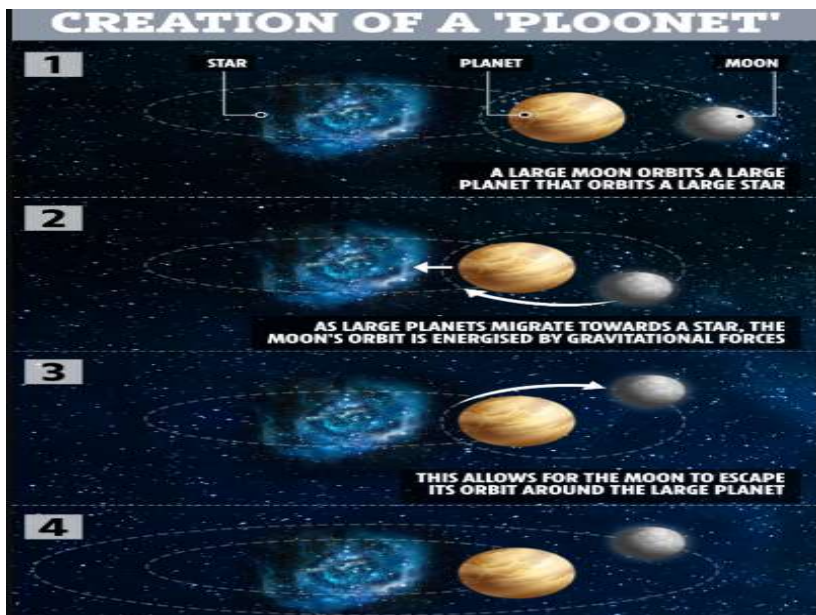
#### PEPPER IT WITH

CPSE, DOS, SLV, Antrix, SSLV, PSLV, Mishra Dhatu Nigam

## Ploonet

### News Excerpt

Recently, a study suggested that the moons of gas-giant exo planets may



break away into their own orbits, called "ploonets."

Planet + moon = Ploonet.

### Our Moon Could Escape Earth's Orbit and Become a "Ploonet"

As for Earth's own Moon, it "is a potential ploonet" given that it moves about 4 centimeters farther away from Earth every year. But we don't have to worry about it going its own way any time soon — at this rate, it won't

break free from Earth's orbit for about 5 billion years.

## Feminization of Agriculture

### News Excerpt

In line with the provisions of **National Policy for Farmers (NPF) (2007)**, the Department of Rural Development, Ministry of Rural Development is implementing a programme exclusively for women farmers namely, **MahilaKisanSashaktikaranPariyojana (MKSP)**, which is a sub-component of Deendayal Antyodaya Yojana-National Rural Livelihood Mission (DAY-NRLM).

### What MahilaKisanSashaktikaranPariyojana does?

- The primary objective of MKSP is to empower women by enhancing their participation in agriculture and to create sustainable livelihood opportunities for them. Funding support to the tune of up to 60% (90% for North Eastern States) for such projects is provided by the Government of India.
- To improve the skills and capabilities of women in agriculture to support farm and non-farm-based activities.
- To improve the capacities of women in agriculture to access the resources of other institutions and schemes within a convergence framework.

### Analytica

The Department of **Agriculture Cooperation and Farmers Welfare** is also promoting mainstreaming of Gender Concerns in agriculture by ensuring flow of funds and benefits to the tune of **30% for women farmers** under its beneficiary oriented Schemes and Programmes. Besides, Government is providing additional support and assistance to women farmers, over and above the male farmers under a few selected Schemes.

### About Feminism in Agriculture

- According to **Agriculture Census** conducted by the **Department of Agriculture, Cooperation and Farmers Welfare**, the percentage of female operational holdings in the country has increased from **12.78 percent during 2010-11 to 13.78 percent during 2015-16**.

- According to Census 2011, of the total female **workers, 55 per cent are agricultural labourers and 24 per cent are cultivators.**

### Why Feminisation in Agriculture?

- ✓ Due to growing **rural to urban migration by men**, there is '**feminisation**' of **agriculture sector**, with increasing number of women in multiple roles as cultivators, entrepreneurs, and labourers.
- ✓ Globally, there is an empirical evidence that women have a decisive role in ensuring **food security and preserving local agro-biodiversity.**

### Concerns/Issues

- **Weak property rights** lead to sub-optimal decisions and missed opportunities to increase productivity. According to the census of 2010-11, out of the total operational land, **13.5% was owned by women** and only **11% of land was operated by them.** This shows that out of the total persons operating land, around 87.5% were men. A substantial gap exists between land operation among men and women.
- The lack of titled land prevents women from accessing several benefits including access to institutional credit and federal agricultural benefits.
- **The wage gap was the highest during 2012-14** when women farmers received nearly **27 per cent less** than the men during the period.

**PEPPER IT WITH**  
Gender Neutral Work,  
Gender Budgeting, Feminist  
Foreign Policy of Sweden

### Steps taken by the Government

- **Earmarking at least 30% of the budget allocation for women** beneficiaries in all ongoing schemes/programmes and development activities.
- Initiating women centric activities to ensure that benefit from various programs/schemes reaches them.
- **Focusing on women self-help group (SHG)** to connect them to micro-credit through capacity building activities and to provide information and ensuring their representation in different decision-making bodies.

### Impact of Feminization of Agriculture on Economy

- ▽ India is a country where agriculture is given a lot of importance as it is the backbone of the Indian economy. Agriculture is the main source of income in India. Agriculture exports contribute to one fifth of the total exports of the country.
- ▽ **Agriculture has contributed from 48% to 60% to the national output.** In 2001-2002 the contribution reduced to 26%. The collective food grain production is evaluated at 264.77 million tons. The total share of agriculture and the associated sectors in **GDP was 13.9% in 2013-14 at 2004-05 rates.**
- ▽ So **to increase the production in Agriculture** sector, more importance needs to be given to Feminization in Agriculture as Migration of men from rural to urban increases every year.

## Zero Budget Natural Farming

### News Excerpt

**Zero budget natural farming got thrust in the budget 2019-20.**

### Pre-Connect

After the green revolution and neo-liberalism policy of the government the farmers in the country have started using fertilizers in their field for greater production. This has now caused problems of **reduction in soil fertility due to salinization of soil, farmers are in debt due to requirement of capital for fertilizers, the crop quality has decreased and scope of agricultural diversification has minimized.**

**Zero Budget Natural Farming (ZBNF)** is a set of farming method, and also a grassroot peasant movement, which has spread to various states in India. It has attained wide success in southern India, especially the south Indian state of Karnataka where it first evolved. The movement in Karnataka was born out of a collaboration between **Mr Subhash Palekar**, who put together the ZBNF practices, and the state farmers association Karnataka Rajya Raitha Sangha

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

(KRRS).

### Thematic Connect

- Zero budget natural farming (ZBNF) is a method of **chemical-free and credit free** agriculture drawing from traditional Indian practices.
- The main aim of the ZBNF is to **reduce the input cost in an agriculture practice** by using the traditional seeds and fertilizers of the production and get farmers out of the debt cycle
- There are four wheels on ZBNF jeevamrutham, beejamrutham, acchadana, whaphasa.

<b>The Four Wheels ("chakras") of Zero Budget Natural Farming</b>	<b>Jeevamrutham:</b> a fermented microbial culture derived primarily from cow dung and urine, jaggery, pulse flour and uncontaminated soil	<b>Benefits:</b> Stimulate microbial activity to make nutrients plant-available; protect against pathogens; increase soil carbon.
	<b>Beejamrutham:</b> microbial coating of seed/seedlings, is based on cow dung and urine and lime.	<b>Benefits:</b> protects young roots from fungus and seed-borne or soil-borne diseases.
	<b>Acchadana - Mulching:</b> the process of covering the top soil with cover crops and crop residues	<b>Benefits:</b> produces "humus", conserves topsoil, increase water retention, encourage soil fauna and supply the soil with essential nutrients, control weeds.
	<b>Whaphasa:</b> soil aeration, a result of jivamrita and acchadana - represents the changes in water management brought about by improved soil structure and humus content	<b>Benefits:</b> increase water availability, water use efficiency; increase resilience to droughts.

- The ZBNF method also promotes **soil aeration, minimal watering, intercropping, bunds and topsoil mulching and discourages intensive irrigation and deep ploughing.**
- **Vermi-composting is not a used in ZNFB**, which is the mainstay of typical organic farming. It introduces the most common composting worm, **the European red wiggler** (*Eisenia fetida*) to Indian soils. Agriculturists claims that **these worms absorb toxic metals and poison from groundwater and soil.**

### Analytica

#### Importance of ZBNF:

- **Reduce Farmers Dependency On Loans:** This will help India to achieve its goal to double the farm income by 2022. Currently more than 70% of farmers spend half of their income to repay debts
- **Improve soil productivity:** Due to overuse of chemical fertilizers the fertility of soil has been reducing. ZBNF will help to improve the soil fertility.
- **Resource reallocation by Government:** In the long run the government can divert the farm subsidies on fertilizers and crops towards other sectors like education and health.

#### Challenges and drawbacks:

- ✓ **Reduced productivity:** The ZBNF has reduced the productivity of the farmers compared to the chemical method of farming. Many of them have thus reverted back to the conventional practice.
- ✓ **Training and education:** as the method marks a shift from conventional farming, it would require the farmers to be trained and educated properly about how to use this method.
- ✓ **No proper R&D as per different Indian conditions:** the method has not been tested on different agricultural zones in India to be sure if it improves farm productivity.

**PEPPER IT WITH**  
Organic Farming, Natural Living,  
VasudhevKutumbhKumbh

### Way forward

According to the Economic Survey, more than 1.6 lakh farmers are practicing the ZBNF in almost 1,000 villages using some form of state support, although the method's advocates claim more than 30 lakh practitioners overall, the need of the hour is **to implement proper policy and extensive research to be done** before this method is practiced holistically.

## Organic Farming in India

### News Excerpt

Recently, Sikkim has been declared **World's first 100 percent organic state** by the **UN Food and Agriculture Organisation**.

### Pre-Connect

Organic farming is **the oldest agricultural practice**, was practiced even more than 10000 years ago, dating back to Neolithic age by ancient civilization like Mesopotamia, Hwang Ho basin etc.

India **is home to 30 per cent of the total organic producers in the world**, but accounts for just 2.59 per cent (1.5 million hectares) of the total organic cultivation area of 57.8 million hectares, according to the World of Organic Agriculture 2018 report.

### Thematic Connect

Organic farming is a production system which avoids or **largely excludes the use of synthetically compounded fertilizers**, pesticides, genetically modified organisms etc.

To the maximum extent possible organic farming system rely upon crop rotations, use of crop residues, animal manures, legumes, off farm organic wastes, biofertilizers, etc.

Most organic farmers are **struggling due to poor policy measures, rising input costs** and limited market, says a study by the Associated Chambers of Commerce and Industry of India (ASSOCHAM) and global consultancy firm Ernst & Young.

### Analytica

#### Advantages

- (1) It helps to maintain **environment health by reducing the level** of pollution.
- (2) It reduces **human and animal health hazards** by reducing the level of residues in the product and also **reduces risk of crop failure**.
- (3) It helps in **ensures optimum utilization of natural resources** for short-term benefit, helps keeping agricultural production at a sustainable level.
- (4) It improves the **soil physical and chemical properties** such as granulation, good aeration, retention of soil nutrients, etc.

**PEPPER IT WITH**  
Bio-fertilisers, GM Crops

#### Challenges

- (1) The **guidelines for organic production, processing, transportation and certification** etc. are beyond the understanding of ordinary Indian farmer.
- (2) **Multiple certification systems:** The certification systems are not only cumbersome and time-consuming, but also expensive and are making things difficult for farmers.
- (3) **Organic farming is yet to taste success:** A survey by Delhi-based Centre for Science and Environment found that the phasing out of chemicals in Sikkim was not complemented by a simultaneous increase in availability of and access to organic manure.
- (4) **Organic manure is not abundantly available** and on plant nutrient basis it may be more expensive than chemical fertilizers if organic inputs are purchased.
- (5) Marketing of organic produce is **also not properly streamlined**.
- (6) **Convincing farmers to shift to organic**, which might result in an immediate commercial impact on their income.

### Paramparagat Krishi Vikas Yojana

- It is an elaborated component of **Soil Health Management (SHM)** of major project **National Mission of Sustainable Agriculture (NMSA)**. Under PKVY Organic farming is promoted through adoption of organic village by **cluster approach** and **PGS certification**.
- **The Scheme envisages:**
  - Promotion of commercial organic production through **certified organic farming**.
  - The produce will be **pesticide residue free** and will contribute to improve the health of consumer.
  - **Raise farmer's income and create potential market for traders.**
  - It will **motivate the farmers for natural resource** mobilization for input production.
  - **Components and pattern of assistance are Adoption of Participatory Guarantee System (PGS)** Mobilization of farmers / local people to form cluster in 50 acre for PGS certification Integrated Manure Management,

### Linking of Organic Farming With Processing

- Government of India has been promoting traditional farming in the States through dedicated Schemes, namely, **Mission Organic Value Chain Development North Eastern Region (MOVCDNER)** and **Paramparagat Krishi Vikas Yojana (PKVY)** since 2015-16. Under these schemes assistance is provided to the farmers for on-farm and off-farm input production/ procurement, creation of **post-harvest infrastructure** and **connecting it through production to processing** by the following ways :
  - (i) **Market linkage of producer clusters** with some major agri-business, phytochemical and online grocery stores have been established under MOVCDNER.
  - (ii) **Providing incentives for infrastructure creation**, storage, grading, packaging, development of integrated value chain etc
  - (iii) **Promoting formation of Farmer Producers Companies (FPCs)/ Organizations (FPOs)/ Clusters.**
  - (iv) Government has **launched a [www.jaivikkheti.in](http://www.jaivikkheti.in) portal** acting both as a knowledge as well as marketing platform.

### Way Forward

- (1) Dry lands, covering over **65% cultivated area in India, are at least “relatively organic”** So, a portion of these lands can be converted to an organic to provide better yields/returns.
- (2) India can greatly **benefit from the export of organic foods** but needs to seriously devote attention to market intelligence regarding which product to grow, where to sell.
- (3) Presently, good awareness exists among farmers, researchers and policy makers about organic production but **a lot more need to be done to streamline production, certification and marketing of organic produce.**
- (4) A **large area of North eastern states** and other states may be developed as commodity based “organic” production areas.
- (5) A **holistic and community-driven approach**, similar to the “Swachh Bharat” for “Swachh Food” needs to be undertaken.

With greater **political will and investment in research**, extension and marketing infrastructure more of this potential could be realized. Therefore, to feed the world's hungry and poor and to ensure present and future food security right policies, increased public and private investments and technologies, knowledge and capacity building, grounded in sound ecosystem management and harmony between organic farming and food security goals are required.

### KEY GOALS

- Establishing and managing the core digital health data and the infrastructure required for its seamless exchange.
- Promoting the adoption of open standards by all the actors in the national digital health eco-system, for developing several digital health systems that span across the sector from wellness to disease management.
- Creating a system of personal health records, based on international standards, and easily accessible to the citizens and the service providers, based on citizen-consent.
- Following the best principles of cooperative federalism while working with the states and union territories for the realisation of the vision.
- Promoting health data analytics and medical research; enhancing the efficiency and effectiveness of governance at all levels.
- Ensuring the quality of healthcare.
- Leveraging the information systems already existing in the health sector.

## Tree Based Farming in The Country

### News Excerpt

**Government is promoting tree-based farming for maximizing farm returns and providing sustainable livelihood to farmers, which include**

- **Sub-Mission on Agroforestry was launched in 2016-17 to encourage tree plantation on farm land “HarMedh Par Ped”, along with crops/ cropping system.** There is a provision for financial assistance for nursery development and plantation in farm land which will help the farmer get additional income and make their farming system more climate resilient and adaptive.
- **National Mission on Oilseeds and Oil Palm (NMOOP)**, a sub component of **National Food Security Mission** supports plantation, maintenance and inter cropping with **Tree Borne Oilseeds (TBOs)** eg. Olive, neem, karanja, Mahua, etc.
- **Restructured National Bamboo Mission (NBM)** was launched in 2018-19 for development of complete value chain, including plantations in non-forest Government land and private farmer’s field and connecting growers to the market.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

### What is Tree Based Farming/ Agroforestry?

**Agroforestry is a type of agriculture that incorporates the planting, cultivation, and conservation of trees alongside crops or livestock farming.** It’s a model of land management that integrates the unique relationships within a given ecosystem, and offers benefits on many fronts – environmental, economic, and/or social.

### Tree Based Farming for sustainable livelihood

- **Maharashtra Institute of Technology Transfer for Rural Areas (MITTRA)** an organization promoted by **BAIF Development Research Foundation**, Pune promoted tree-based farming through agri-hortiforestry model called as **wadi**.
- The model has helped in converting the unproductive waste lands of tribal families in parts of Maharashtra into productive mango and cashew growing lands.
- **Women, especially in the hill regions, spend a lot of time and energy in procuring fodder for their livestock. To reduce their drudgery, G.B.Pant Institute of Himalayan Environment and Development promoted fodder banks.** Women in Maikhanda village were motivated to grow fast growing high yielding nutritious fodder species on farm lands.
- Complemented by fodder banks, this initiative relieved women from drudgery in collecting fodder from distant forests, also protecting the degraded forests.
- Social structures and institutional building are also important in having sustainable positive impacts of the initiatives on the communities. For instance, the **Mahila Mangal Dals in Garhwal** region were strengthened to help women make decisions in forest use.

**PEPPER IT WITH**  
Subsistence Farming, Marginal Productivity of Labor


The members ensured that forest product collection did not conflict with periods of heavy agricultural work like finger millet harvesting season. With the women’s group in place the forest resources are used sustainably without leading to their over exploitation.

## Benefits


- ✓ **Agroforestry is seen as an important means of 'climate-smart' development. Maximizing the productivity of trees and crops in agricultural landscapes becomes important as they serve as the much needed 'carbon sinks'.**
- ✓ **Agroforestry is uniquely suited to improving food and fuel security, while they continue to provide essential ecosystem services** such as habitats for wildlife, carbon sequestration, climate regulation or the regulation of water flows and quality in addition to producing food. Farmers play a big role in ensuring that these ecosystem services are duly provided. They should be rewarded for this.
- ✓ The best known system of reward is that of **"Payments for Environmental Services"** or PES, which make direct payments to farmers. So far, farmers have rarely been rewarded for their environmental services.
- ✓ However, one could learn useful lessons from a pilot programme in Malawi where farmers get cash payments for growing trees. Rewarding communities for environmental services can provide powerful incentives and efficient mechanisms for conservation, **while also offering new sources of income to support rural livelihoods.** By doing so, **the rural communities who have been blamed for most of the degradation will become wardens of the environment.**

## Military Exercise and Operation

# Military Exercise and Operation



**Garuda Exercise**



**Operation Sudarshan:  
BSF to Fortify entire  
Border with Pakistan  
in Punjab and Jammu**

**Joint Exercise between the Indian Air Force and French Air Force**

It is the part of Indo-Pacific Cooperation between India and France.

It falls under the global framework of bilateral cooperation between the two nations and is alternately held in France and India.

The exercise is aimed at enhancing the interoperability level of the French and Indian crews in air defence and ground attack missions.

An Indo-French High-Committee on Defence is the driver of bilateral defence cooperation activities which are primarily armament oriented with the emphasis on joint ventures and transfer of technology

**About**

Mission will fortify the 'anti-infiltration grid'

- It will cover the entire over the 1,000-km length of the India-Pakistan International Border.
- The mega exercise has been named 'Sudarshan' drawing from the mythological cutting wheel or the 'sudarshan chakra' of Lord Krishna.

**Implementation**

The BSF is the primary force guarding this frontier as the 'first line of defence'.

- Thousands of BSF personnel will be part of the exercise.
- A huge assortment of heavy machinery, communication interceptors and mobile bulletproof bunkers have been mobilized to the borders.

**Border Management**

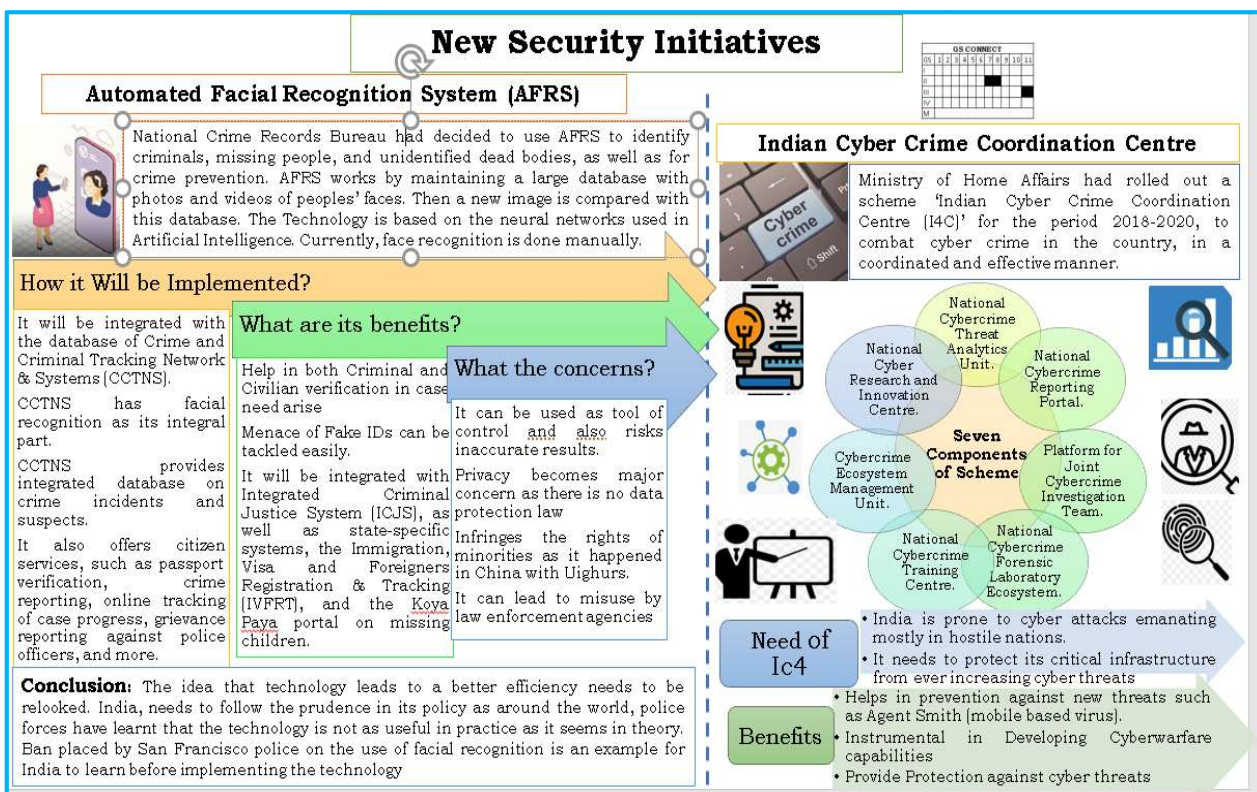
Department of Border Management under Ministry of Home Affairs look after borders in India

- Unfenced borders between India-Pakistan have earlier led to arrest of thousand of people who didn't have idea about the border markings especially in Punjab.
- Geographical compulsions especially in Jammu & Kashmir had made border fencing difficult and often render them useless, These situations had made Indian borders susceptible to terrorist infiltration and Human and Drug Trafficking

## Fighting Naxalism-Biggest Internal Security Threat



## New Security Initiative



## "Find the Incredible You" Campaign

### News Excerpt

The "Find the Incredible You" by the Union Tourism Ministry has been declared winner of **the PATA (Pacific Asia Travel Association)**

**GoldAward 2019** under the "Marketing – Primary Government Destination" category.

### Pre-connect

'Incredible India' is an international tourism campaign that the Government of India is maintaining since 2002 for promoting tourism.

### Thematic connect

- The 'Incredible India 2.0' Campaign was launched in September 2017, which marks a shift from generic promotions undertaken across the world to market specific promotional plans and content creation.
- As part of the 2.0 Campaign, five new television commercials were produced by the Ministry, which were aired globally in the television, digital and social media. These were:
  1. Yoga
  2. Wellness
  3. Luxury
  4. Cuisine
  5. Wildlife
- The campaign strategy was to shift the focus from the external experience of tourist destinations to the internal experience of travelers themselves.

#### About PATA Gold Awards

These awards are given by PATA to tourism industry organizations and individuals making an outstanding contribution towards the promotion of the travel industry throughout the Asia Pacific Region.

#### PEPPER IT WITH

Adopt Heritage Scheme, HRIDAY, Swadesh Darshan Scheme

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

## Lord Jagannath Car Festival

### News Excerpt

The world famous Car Festival of **Lord Jagannath is held on 'AshadhaSukla Dwitiya'** -i.e. the 2nd day of the bright fort-night of Ashadha (June- July) takes place every year attracts huge crowd across the world in Puri, Odisha.

### Thematic connect

- This festival is popularly known as **Ratha Yatra, Gundicha Yatra and also GhoshaYatra.**
- 'Nandighosha', the chariot of Lord Jagannath having 16 wheels is the largest of the three chariots. The second chariot is of Lord Balabhadra and is known by the name 'Taladhwaja'. The third and the last chariot is of goddess Subhadra and is called 'Devadalana'.
- The temple is called '**Yamanika Tirtha**' where, according to the Hindu beliefs, the power of 'Yama', the god of death has been nullified in Puri due to the presence of Lord Jagannath.
- The temple complex is enclosed by a wall about seven meters high. The wall is pierced by four gates, facing the four directions. On the east-facing gate, there are stone images of two lions and it is called the Lions Gate. The north, south and west facing gates are similarly known as the Elephant Gate, the Horse Gate and the Tiger Gate (also called the Khanja Gate) respectively.
- In front of the Lions Gate (eastern gate), a monolithic pillar about 10 meters high is known as the **ArunaStambha**.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

#### PEPPER IT WITH

Gundicha temple, Konark temple, Shri Loknath temple, Lingaraj temple

## Markandeshwar Temple In Maharashtra

### News Excerpts

The Archeological Survey of India has recently undertaken the restoration work of Markandeshwar temple in Maharashtra.

### Thematic connect

- Known as the “**Khajuraho of Vidarbha**”, the temple of **Markandadeo is situated on the bank of River Wainganga in district Gadchiroli of Maharashtra.**
- The temples belong to the **Nagara group of temples** of North India.
- The temples belong to **Saiva, Vaishnava and Sakta** faith.
- Most of the temples have a simple plan with **ardhamandapa, mandapa, antarala, garbhagriha.**
- The most striking feature of this temple is the large scale destruction caused on the main **shrine (garbhagriha)** and the very first recordings made by Alexander Cunningham states that - about 200 years ago the **shikhara of the main shrine and mahamandapa was struck by a lightning which led to the partial collapse of the shikhara** (the finial, north and south facade).
- The restoration of the temple was done by Gond ruler 120 years ago.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

### PEPPER IT WITH

Mundeshwari Temple, Tungnath Temple, Uttarakhand, Jagatpita Brahma Mandir, Pushkar, Rajasthan, Konark Sun Temple, Odisha, Dilwara Temples, Mount Abu, Rajasthan, Temples of Hampi, Karnataka

## Indian Side of Kailash Mansoravaron Tentative List of World Heritage Sites of India

### News Excerpts

Proposal for ‘**Sacred Mountain Landscape and Heritage Routes**’ (Indian side of Kailash Mansoravar) has been included in Tentative List of World Heritage Sites of India as a **Mixed site**.

### Thematic connect

- The Kailash Mansarovar is in the mixed category of the list (both natural and cultural heritage).
- The area is flanked in east by Nepal and bordered by China on the north.
- The Indian site is part of the larger landscape of 31,000 sq km constitutes the Mount Kailash and Lake Mansarovar in the remote south-western portion of the Tibet Autonomous Region of China and adjacent districts in the far-western region of Nepal.
- The Indian portion of the landscape in the State of Uttarakhand comprises four major watersheds viz. the Panar-Saryu, the Saryu-Ramganga, the Gori-Kali and the Dhauli-Kali.
- The mountain holds significant site for Hindus as the adobe of lord Shiva.
- The tantric practitioners of Buddhism regard Mount Kailash as the sacred fortress of Buddha Shakyamuni (Chakrasamvara)- a wrathful deity with four faces and twelve hands, who is also said to symbolize supreme bliss.
- For the Jains, the mountain holds a special place in their faith, because this was where Rishabhadeva- the first of the tirthankaras, attained liberation from the cycle of karma.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

### PEPPER IT WITH:

UNESCO World Heritage Site, Nandi Parbat, Khangchendzonga National park

### About World Heritage Site

- Various areas or objects are inscribed on the United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage List. The sites are designated as “outstanding universal value” under the Convention Concerning the Protection of the World Cultural and Natural Heritage.

- There are **three types** of sites: **Cultural, Natural, and Mixed**:
- **Cultural heritage** sites include hundreds of historic buildings and town sites, important archaeological sites, and works of monumental sculpture or painting.
  - **Natural heritage** sites are restricted to those natural areas that are outstanding examples of Earth's record of life or its geologic processes, sites of ongoing ecological and biological evolutionary processes, sites that are rare, unique, superlative, or of outstanding beauty, or sites of rare or endangered animals or plants or are sites of exceptional biodiversity.
  - **Mixed heritage** sites contain elements of both natural and cultural significance.

## Handloom Marketing Assistance (HMA) Scheme for Marketing of Arani Silk Saree

### News Excerpts

The scheme has been implemented by the Ministry of Textile for providing marketing facility to all handloom products including Arani Silk.

### About the scheme

- The scheme is a component of National Handloom Development Programme (NHDP).
- The scheme provides marketing platform to the handloom weavers/organisations to sell their products directly to the consumers.
- Under the scheme, financial assistance is provided to National Level Handloom Organisations and nominated handloom agencies of the State Governments to organize the marketing events like National Handloom Expos (NHEs), Special Handloom Expos (SHEs) and District Level Events (DLEs).

### Arani silk saree

- Arani is one of the most important Silk centers of Tamil Nadu.
- It enjoys geographical indication (GI) tag.
- Silk Mark Expos (Central Silk Board through Silk Mark Organisation) provide excellent platform to promote silk products of different silk clusters of India including Arani cluster.

### PEPPER IT WITH

Weavers Mudra Scheme; e-commerce; Urban Haats; Santkabir Award; GI Tags from Tamil Nadu.

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

## Miscellaneous

### ➔ Operation Thirst (Water related initiatives of Railway)

Railway Protection Force (RPF) launched “Operation Thirst”, as an **All India Drive** to crack down selling of **unauthorisedPackagedDrinking Water**.

### ➔ Scheme of Fund for Regeneration of Traditional Industries(SFURTI)

The scheme was launched by Ministry of Micro Small and Medium Enterprises (MSME). It aims at organizing the traditional industries and artisans into clusters to make them competitive and provide support for their long term sustainability and economy of scale.

The scheme provides sustained employment for traditional industry artisans and rural entrepreneurs.

### ➔ Internet SaathiProgramme

To Bridge **Digital gender divide** in **rural India**, a **digital literacy** program based on ‘**train the trainer**’ model was introduced by Google India and Tata Trusts.

**Train the trainer model**: **Women** from villages are **trained on using the Internet** and are made equipped with **data-enabled devices**. These women are known as **Internet Saathis** and work as trainers.

### ➔ Sagar Maitri

- It is a unique initiative of DRDO which aligns with the broad objective of Prime Minister's

GS CONNECT											
GS	1	2	3	4	5	6	7	8	9	10	11
I											
II											
III											
IV											
M											

policy declaration "Safety And Growth for All in the Region (SAGAR)".

- The objective of the initiative is **Data collection from the entire North Indian Ocean**, focusing on the Andaman Sea and adjoining seas.
- It has the vision to promote **closer co-operation in socio-economic aspects** as well as greater scientific interaction especially in ocean research among Indian Ocean Rim (IOR) countries.



#### • **SAGAR MAITRI Mission-2**

**commemorates the Golden Jubilee Celebrations of India's** lone research ship INS Kistna's missions as part of the historic International Indian Ocean Expeditions (IIOE), which took place during 1962-65. As part of the mission, **INS Sagardhwani** will revisit the selected tracks of INS Kistna and provide Naval Physical and Oceanographic Laboratory (NPOL) scientists ample opportunities to collaborate and garner a close working relationship with the oceanographic counterparts of the IOR countries.

- The mission by the Indian Navy and NPOL is a step **towards enhancing research and strengthening relationship with South East Asian countries.**

#### ⇒ **Chandipura Virus**

The Chandipura virus was discovered by 2 Pune-based virologists of the National Institute of Virology (NIV) in 1965. The Chandipura Vesiculovirus (CHPV) predominantly affects children. The virus spreads mainly through the bite of sand flies and sometimes through mosquitoes.

The symptoms include sudden high fever accompanied by headache, convulsions and vomiting, sometimes leading to unconsciousness. Cases have mostly been reported during monsoon and pre-monsoon, when sand flies breed

#### ⇒ **Tiangong-2:**

**Tiangong-2 was a manned Chinese space station** that was destroyed upon its controlled re-entry into the Earth's atmosphere over the Pacific Ocean recently. Tiangong-2 was retired from service after it had completed its experiments in space.

#### ⇒ **Microdots Technology**

- In a bid to put an **end to vehicle thefts, recently**, the Ministry of Road Transport and Highways has issued a draft notification with regard to the use of microdot technology, amending the Central Motor Vehicle Rules.
- DataDot** have pioneered microdot technology in South Africa since 2001. Today they are being used extensively to protect vehicles and assets.
- Microdots are **polymer particles 1mm or 0.5mm in diameter** and are literally the size of a pin head. Microdot Technology is a **process of spraying thousands of microscopic dots** onto vehicles or other assets in order to provide a unique identification.
- Each Microdot carries **unique identification** which is registered to the owner but is not visible to the naked eye.
- Some facts on Microdot technology:
  - 1) **Counterfeiting a Veridot** (a unique asset identification, protection and recovery product which specialises in Microdot Technology) **is virtually impossible** due to the covert security measures in every microdot.

- 2) All **Veridot microdotted assets are logged onto a database** and this information is used to track the rightful owner of an asset.
- 3) **Microdots are virtually impossible to remove** which makes them one of the best vehicle security measures.

### ⇒ Constitutional Provisions for Renaming of States

- Article 3 deals with the alteration of name of any State.
- A bill for renaming a state may be initiated in the Parliament on the prior recommendation of the President.
- Before recommending the bill, the President shall send the bill to the state legislature concerned for expressing its views within a specified period.
- The views of the state assembly are not binding on the President.
- It is not necessary to make a fresh reference to the state legislature every time an amendment to the bill is moved and accepted in Parliament.
- Alteration of name of existing states is not to be considered as amendments of the Constitution (Article 368). This means that such laws can be passed by a simple majority.

#### • **Example:**

**96<sup>th</sup> Constitutional Amendment Act, 2011:** The spelling of the name of Orissa was changed to Odisha. And its language was changed from Oriya to Odiya in the 8th schedule.

### ⇒ WHIP

- A whip is a directive from the party that binds party members of a House to obey the line of the party.
- The office of 'whip', is mentioned neither in the Constitution of India nor in the Rules of the House. It is also not mentioned in a Parliamentary Statute. It is based on the conventions of the parliamentary government.
- Every political party has its own whip in the parliament. Whip is appointed by political party to serve as an assistant floor leader.
- She/he is charged with the responsibility of ensuring the attendance of his party members in large numbers and securing their support in favour of or against a particular issue.
- Whip regulates and monitors party member's behaviour in the Parliament.
- The members are expected to follow the directives given by the whip.

### ⇒ KihotoHollohan vs Zachillhu and Others (1992)

- In 1985, PIL was filed in Supreme Court against 52<sup>nd</sup> Constitutional amendment Act, 1985 also aka Anti Defection Law.
- This case is also known as **KihotoHollohanCase** in which SC analysed various provisions of the Anti Defection Law.
- In 1992, SC pronounced verdict in favour of 52<sup>nd</sup> CAA, 1985 and upheld the validity of the amendment and also laid down interpretations regarding judicial review.
- The constitution bench held that unprincipled and unscrupulous political defections are to be contained and the legislator's freedom of speech can be curtailed for the larger interest of the nation.

### ⇒ President's Visit to Benin

President of India recently visited **Benin**, a west African Nation which has friendly ties by virtue of shared principles of democracy and secularism. Benin supported candidature of India for permanent membership of the United Nation Security Council.



### Concept Clearing Assignment

1. Elucidate the police reforms policies in India. What steps need to be taken in modernization of the police as an organization?
2. What is Anti-defection law. In the light of the incidents in past few years critically evaluate the relevance of Anti defection law in the current time?
3. Water dispute among states has been a long pending problem in India. In the context of this statement examine the reasons for problem of water dispute. How the new interstate river water dispute bill 2019 will help in resolving this issue compared to earlier provisions.
4. Hybrid and electric vehicles have revolutionary capacity to mitigate the energy crisis situation in India. Analyse the statement in the light of new initiatives taken by India regarding this. Discuss the challenges ahead?
5. Discuss the salient feature of the transgender persons bill 2019. Do you think that this bill will fulfill long awaited aspirations of this community, Explain?
6. Ensuring availability, accessibility and affordability is crucial for achieving food security in India. In this context, Explain, How 'One Nation One Ration-Card' initiative would help in solving the food crisis in India. Discuss the challenges in its implementation.
7. In response to an estimate that by 2035 the world will face a shortage of nearly 13 million healthcare workers, the World Health Organization (WHO) has launched its first guidelines on self-care interventions for health. Analyze the need and importance of self-care interventions with respect to the prevailing health situation in India.
8. Elucidate in the light of recent 'State of the Education Report for India' by UNESCO, India's effort in ensuring inclusive and equitable quality education.
9. Left Wing Extremism (LWE) is showing a downward trend, but still India finds it challenging to eradicate the threat from many places of the country. Briefly explain the Government of India's approach to counter the challenges posed by LWE.
10. Considering the threats cyberspace poses for the country, India needs a separate Cyber Crime Coordination Centre. Critically evaluate the National Cyber Security Policy, 2013 outlining the challenges perceived in its effective implementation.
11. "The security risk and apprehensions of data leakages posed by Huawei in roll out of 5G technology globally has also worried India in implementation of this latest technology". How do you think these challenges can be overcome?
12. It is being said that implementation of Basel Accord will help India in strengthening its banking system. Do you think that implementation of Basel accord will negatively impact the liquidity of the market. Discuss.
13. "Concept of Zero Budget Natural Farming can be proved vital in India's interest". In the light of this statement critically analyse its impact on environment and economy.
14. "India can't remain distinct from the heat of US-Iran conflict". Suggest the ways by which India can safeguard its geo-strategic and economical interest in such heated environment.
15. How is RCEP going to impact India's trade with partner countries in general and its Act East Policy in particular?

### P.T. Oriented Questions

- |   |  |
|---|--|
| <p>1. With reference to Centre for Research and Planning (CRP), consider the following statements:</p> <ol style="list-style-type: none"> <li>1. It will assist the Supreme Court of India in development of Law.</li> <li>2. It will prepare summaries of Key judgments in non-technical language for common people.</li> </ol> <p>Which of the statements given above is/are correct?</p> <ol style="list-style-type: none"> <li>(a) 1 only</li> <li>(b) 2 only</li> <li>(c) Both 1 and 2</li> <li>(d) Neither 1 nor 2</li> </ol> <p>2. With reference to Anti-defection law, consider the following statements:</p> <ol style="list-style-type: none"> <li>1. It was added as the 10th Schedule of the Indian Constitution.</li> <li>2. The presiding officer of House is empowered to make rules to give effect to the provisions of the Tenth Schedule.</li> </ol> <p>Which of the statements given above is/are correct?</p> <ol style="list-style-type: none"> <li>(a) 1 only</li> <li>(b) 2 only</li> <li>(c) Both 1 and 2</li> <li>(d) Neither 1 nor 2</li> </ol> <p>3. Which of the following statements is/are <b>incorrect</b> regarding Draft Model Tenancy act (MTA)?</p> <ol style="list-style-type: none"> <li>1. It envisages balancing the interest and rights of both the owner and tenant.</li> <li>2. This act will allow taking any premises on rent without any formal written agreement</li> </ol> <p>Select the answer using the code given below.</p> <ol style="list-style-type: none"> <li>(a) 1 only</li> <li>(b) 2 only</li> <li>(c) Both 1 and 2</li> <li>(d) Neither 1 nor 2</li> </ol> <p>4. With reference to HR 1044 bill of US, consider the following statements:</p> <ol style="list-style-type: none"> <li>1. It eliminates the per-country</li> </ol> | <p>numerical limitation for employment-based immigrant visas.</p> <p>2. A Green Card allows a non-US citizen to live and work permanently in America.</p> <p>Which of the statements given above is/are correct?</p> <ol style="list-style-type: none"> <li>(a) 1 only</li> <li>(b) 2 only</li> <li>(c) Both 1 and 2</li> <li>(d) Neither 1 nor 2</li> </ol> <p>5. Consider the following statements and choose the <b>incorrect</b> one/ones</p> <ol style="list-style-type: none"> <li>1. Microdots are metal particles</li> <li>2. Microdot Technology is used to check vehicle theft</li> </ol> <p>Code:</p> <ol style="list-style-type: none"> <li>(a) 1 only</li> <li>(b) 2 only</li> <li>(c) Both 1 and 2</li> <li>(d) Neither 1 nor 2</li> </ol> <p>6. With reference to the Protection of Children from Sexual Offences (POCSO) Act, consider the following statements:</p> <ol style="list-style-type: none"> <li>1. The amendment is expected to discourage the trend of child sexual abuse.</li> <li>2. The Act seeks to protect children from offences such as sexual assault and pornography.</li> </ol> <p>Which of the statements given above is/are correct?</p> <ol style="list-style-type: none"> <li>(a) 1 only</li> <li>(b) 2 only</li> <li>(c) Both 1 and 2</li> <li>(d) Neither 1 nor 2</li> </ol> <p>7. Merchant Discount rate refers to</p> <ol style="list-style-type: none"> <li>(a) a rate at which compensation is given to the merchants due to sudden fall in the prices of goods during deflation in the economy.</li> <li>(b) a charge borne by the merchants on digital payments.</li> <li>(c) compensation provided to</li> </ol> |
|---|--|

- merchants as a part of Input Tax Credit.
- (d) None of the above
8. Consider the following statements:
1. Free Trade Warehousing Zone (FTWZ) is a Special Economic Zone where in trading, warehousing and related activities are carried on.
  2. Free Trade Warehousing Zone (FTWZ) are strategically located at the places easily reachable from ports as well as hinterlands.
- Which of the statements given above is/are correct?
- (a) 1 only
  - (b) 2 only
  - (c) Both 1 and 2
  - (d) Neither 1 nor 2
9. Which among the following state has yet not declared its state butterfly?
- (a) Karnataka
  - (b) Assam
  - (c) Uttarakhand
  - (d) Tamil Nadu
10. Which of the following statements are correct regarding Triple Talaq Bill?
1. The Bill makes all declaration of talaq, including in written or electronic form, to be void and illegal.
  2. The Bill makes declaration of talaq a cognizable offence, attracting up to three years' imprisonment with a fine.
  3. The offence may be compounded by the Magistrate upon the request of the both man and woman.
- Select the correct answer using the code given below:
- (a) 1 and 2 only
  - (b) 1 and 3 only
  - (c) 2 and 3 only
  - (d) 1, 2 and 3
11. Consider the following statements with reference to Electronically Transmitted Postal Ballot System

(ETPBS):

1. ETPBS is developed by Election Commission of India with the help of Centre for Development of Advanced Computing (C-DAC).
2. Duplication of casted Electronically Transmitted Postal Ballot (ETPB) is possible due to the unique QR Code.
3. Accessible Elections is a creation to cater the specific needs of Persons with Disabilities (PwDs) with a view to increasing their participation.

Which of the statements given above are correct?

- (a) 1 and 2 only
- (b) 1 and 3 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

12. With reference to Provision for Schedule Caste (Article-341), consider the following statements:

1. The Indian Constitution gives the president the power to notify Scheduled Castes.
2. Parliament may by law include in or exclude from the list of Schedule Castes of any caste, race or tribe or part of or group within the list.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

13. Vienna Convention which was recently in the news, is related to

- (a) Bilateral Trade Agreements
- (b) Non-Performing Assets
- (c) Consular Relations
- (d) Refugees

14. With reference to Special Human Rights Courts in each district, consider the following statements:

1. The Protection of Human Rights Act mandates setting up human rights courts in every district of

the country.

2. It required appointment of Special Public Prosecutors (SPPs) for conducting speedy trial of offences.
3. It is required to uphold and protect the basic and fundamental rights of an individual.

Which of the statements given above are correct?

- (a) 1 and 2 only
- (b) 1 and 3 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

15. Consider the following statements with reference to North Eastern Region vision 2020:

1. It provides an overarching framework for the development of the North Eastern Region.
2. The major thrust area identified by the Vision document is strengthening infrastructure and connectivity.
3. It also envisages promotion of Large-Scale Industries in North Eastern Region and Sikkim.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 1 and 3 only
- (c) 2 and 3 only
- (d) 1, 2, and 3

16. With reference to National Investigation Agency (Amendment) Bill, 2019, consider the following statements:

1. The Act provides for a national-level agency to investigate and prosecute offences listed in scheduled offences.
2. The Act allows for creation of Special Courts for the trial of scheduled offences.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

17. Consider the following statements:

1. India's sovereign external debt to GDP ratio is less than 5%, which is among the lowest around the world.
2. India has never been able to issue overseas bonds due to its poor ratings by the international credit rating agencies.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

18. 'SAGAR' initiative of Government of India, is associated with

- (a) curbing air pollution
- (b) ensuring security and growth in the Indo-Pacific region
- (c) bringing transparency in the elections
- (d) countering terror activities

19. Consider the following statements about the Non-Aligned Movement (NAM):

1. NAM is based on five principles of 'Panchsheel', which calls for peaceful coexistence and economic cooperation.
2. Bandung conference of 1955 is associated with NAM.
3. The movement represented the interests and priorities of developed countries which won in the second world war.

Which of the statements given above is/are correct?

- (a) 2 only
- (b) 1 and 3 only
- (c) 1 and 2 only
- (d) 1, 2 and 3

20. Consider the following statements about the PARAMARSH scheme:

1. It aims at mentoring the non-accredited institutions to enable them get accredited by 2022.
2. It is based on hub and spoke model.
3. It will target top 10 institute of

eminence for mentoring.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 2 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

21. Consider the following statements about the National Bamboo Mission:

- 1. India accounts for the world's largest bamboo cultivation.
- 2. The mission covers both the forest and non forested area.
- 3. It is subsumed under Mission for Integrated Development of Horticulture.

Which of the statements given above is/are **incorrect** ?

- (a) 1 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

22. Consider the following statements about the "LaQshya" programme:

- 1. It is launched by the ministry of women and child development.
- 2. It aims to provide quality care for pregnant women in labour room.
- 3. It focuses on postpartum period only.

Which of the statements given above is/are correct?

- (a) 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

23. Which of the following organisation releases Global Multidimensional Poverty Index?

- (a) World Bank
- (b) United Nation Development Program.
- (c) World Poverty Clock
- (d) Brooking Institution.

24. Consider the following statements about the Rights of Person with Disabilities:

- 1. The constitution explicitly provides for compulsory education to the person with disabilities under article 21.
- 2. India is a signatory to the United Nation Convention on the Rights of Persons with Disabilities 2006.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

25. Consider the following statements about the Intellectual Property Rights (IPR):

- 1. These are legal rights governing the use of creations of the human mind.
- 2. Patents, designs and trademarks are covered under the IPRs
- 3. Start-ups are not eligible for filing patents upto 5 years of their establishment.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

26. Which one of the following statements appropriately describes the "fiscal stimulus"? (UPSC-2011)

- (a) It is a massive investment by the Government in manufacturing sector to ensure the supply of goods to meet the demand surge caused by rapid economic growth
- (b) It is an intense affirmative action of the Government to boost economic activity in the country
- (c) It is Government's intensive action on financial institutions to ensure disbursement of loans to agriculture and allied sectors to promote greater food production and contain food

- inflation
- (d) It is an extreme affirmative action by the Government to pursue its policy of financial inclusion
27. Fruits stored in a cold chamber exhibit longer storage life because (UPSC-2013)
- exposure to sunlight is prevented
  - concentration dioxide in the is increased of carbon environment
  - rate of respiration is decreased
  - there is an increase in humidity
28. The "Red Data Books" published by the International Union for Conservation of Nature and Natural Resources (IUCN) contain lists of: (UPSC-2011)
- Endemic plant and animal species present in the biodiversity hotspots,
  - Threatened plant and animal species.
  - Protected sites for conservation of nature and natural resources in various countries.
- Select the correct answer using the codes given below:
- 1 and 3
  - 2 only
  - 2 and 3
  - 3 only
29. Other than poaching, what are the possible reasons for the decline in the population of Ganges River Dolphins? (UPSC-2014)
- Construction of dams and barrages on rivers
  - Increase in the population of crocodiles in rivers
  - Getting trapped in fishing nets accidentally
  - Use of synthetic fertilizers and other agricultural chemicals in crop-fields in the vicinity of rivers
- Select the correct answer using the code given below.
- 1 and 2 only
  - 2 and 3 only
  - 1, 3 and 4 only
  - 1, 2, 3 and 4
30. Consider the following statements: (UPSC-2013)
- Natural gas occurs in the Gondwana beds.
  - Mica occurs in abundance in Kodarma.
  - Dharwars are famous for petroleum.
- Which of the statements given above is/are correct?
- 1 and 2
  - 2 only
  - 2 and 3
  - None

### Answer Key

- |       |       |       |
|-------|-------|-------|
| 1. C  | 11. B | 21. C |
| 2. C  | 12. C | 22. A |
| 3. B  | 13. C | 23. B |
| 4. C  | 14. D | 24. B |
| 5. D  | 15. A | 25. B |
| 6. C  | 16. C | 26. B |
| 7. B  | 17. A | 27. C |
| 8. C  | 18. B | 28. B |
| 9. B  | 19. C | 29. C |
| 10. A | 20. B | 30. B |

# SUCCESS MANTRA

VIJAY WARDHAN SARSWAT | CSE-2018

## ? 1. What is your mantra for GS paper 1?

Make short notes of important topics. Revise multiple times. Give proportionate focus to each paper and each part of the gs1 paper. Don't unnecessarily focus on portions which have lesser rewards or low input to output ratio in term of time given vs marks obtained. Focus on geography and social issues adequately rather than mugging history portion only.

## ? 2. Do you believe in reading many books, or reading few books many times?

Reading few books multiple times is always better. But some topics need to be done from multiple/different sources.

## ? 3. Do you think test series play an important role in this exam?

Definitely. But over focus should be avoided. No test series can reach UPSC level. But it helps in time management and improving some skills in writing.

## ? 4. How to link various papers with each other?

Most safe bet is memorising syllabus and thinking over all of it (GS1 GS2 GS3 mainly) on EVERY topic/question and think how we can link it there. But it's a tough exercise often improves with experience and practice only.

## ? 5. How to select an optional subject? Do they really play an important role?

Select by graduation + interest + 15 20 days study of Paper 1 (THEORY AND THINKER PART OF SYLLABUS) of that subject before finalizing it. Also avoid the optionals which have fast increasing crowds. UPSC hates crowd in optional.

**FREE**  
**ESSAY CONTENT**  
**CLASSES**

**REGISTRATION REQUIRED**  
To Register- [www.ksgindia.com](http://www.ksgindia.com)

**CONTENT**  
**ENRICHMENT CLASSES**  
**\*EXCLUSIVELY FOR**  
**MAINS**

**REGISTRATION REQUIRED**  
To Register- [www.ksgindia.com](http://www.ksgindia.com)

**7 QUESTIONS**  
**CHALLENGE**  
Get Feedback from  
CSE Rank Holders

VISIT-[www.ksgindia.com](http://www.ksgindia.com)

# OUR TOPPERS

**KSG**  
As a result of KSG Exam

**KANISHK KATARIA**  
(AIR - 1)

**TESTIMONIAL**

I am highly indebted to Khan Sir and KSG for their guidance and fruitful coaching for the interview. Khan Sir was very motivating and available for me in my education. His critical analysis and proper identification of my strengths and weakness helped me a lot. I also followed his advice on practice which was quite fruitful. Thank you Sir for your support & guidance.

Signature: 

**KSG**  
As a result of KSG Exam

**AKSHAT JAIN**  
(AIR - 2)

**TESTIMONIAL**

I would like to thank KSG and Khan Sir for their guidance and motivation. The mock interview at KSG was particularly helpful in understanding the intricacies of the interview/personality test. It helped me identify my strengths and weaknesses in a timely manner, and work upon them accordingly.

Signature: 

**KSG**  
As a result of KSG Exam

**SRUSHTI JAYANT DESHMUKH**  
(AIR - 5)

**TESTIMONIAL**

Thank you so much to the entire team of Khan Study Group! KSG's foundation course has been my starting point. It has helped me a lot. The focus on answers writing from Day 1 really contributed a lot.

A special thanks to Khan Sir for his motivating aura and good words.

Signature: 

**KSG**  
As a result of KSG Exam

**SHUBHAM GUPTA**  
(AIR - 6)

**TESTIMONIAL**

Thank you so much for always being motivating and helping a junior student. Your guidance for the personality test has helped me significantly in achieving the success that I have been able to. The personal interaction with me has always motivated me to keep an aggressive mindset and optimistic attitude.

Thanks again to you Sir and the entire KSG team.

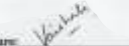
Signature: 

**KSG**  
As a result of KSG Exam

**VAISHALI SINGH**  
(AIR - 8)

**TESTIMONIAL**

I cannot thank KSG & Khan Sir enough for their guidance throughout the interview process. It was much needed and it were his words which inspired me to perform well. Thank you so much!

Signature: 

**KSG**  
As a result of KSG Exam

**GUNJAN DWIVEDI**  
(AIR - 9)

**TESTIMONIAL**

KSG played a very important role in my preparation. The excellent guidance I received from Khan Sir helped me achieve my childhood dream. Thank you for all the support.

Signature: 

DELHI VIJAY NAGAR	DELHI RAJENDER NAGAR	JAIPUR TONG ROAD	BHOPAL M.P NAGAR, Zone II	PATNA EXHIBITION ROAD	INDORE BHAWARKUAN	BENGALURU Koramangala
2521, 1st Floor Hudson Lane, Vijay Nagar Chowk, Near GTB Nagar Metro Station New Delhi- 110009	56/4, Bada Bazar Marg, Old Rajender Nagar Market, Near Salwan Public School Gate No 2, Delhi- 110060	403-404, 4th floor Apex Tower, Lal Kothi, Tonk Road Jaipur- 302015	Plot No. 48, 1 <sup>st</sup> & 2 <sup>nd</sup> Floor, Behind Sargam Talkies, Zone II, M.P Nagar Bhopal- 462011	Above Toyota Showroom, CEAT Compound, Exhibition Road, Near Gandhi Maidan, Patna- 800001	232-233, 2nd Floor, Veda Building, Near Apple Hospital, Bhawar Kuan Square Indore- 452001	116/C-1, 3rd Floor, behind Airtel office 2nd Cross Road, KHB Colony, 5th Block, Koramangala Bengaluru- 560095
M. 9717380832 T. 01145552607/ 08	M. 9811293743 T. 011-45170303	M. 8290800441 T. 0141-4052441	M.7509975361 T. 0755-4912441	M. 7463950774 T. 0612-2500961	M. 9893772941 T. 0731-4977441	M. 7619166663 T. 08048544393