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# Science and Tech

## Mascots

CWgames 2018 mascot Borobi

is a big blue koala bear mascot of gold coast commonwealth games

Borobi’ means ‘koala’ in the language of the Gold Coasts’s Yugambeh people.

The Yugambeh are a group of aboriginal clans in the south-east Queensland and north-east New South Wales regions

FIFA 2018 world cup mascot

Zabivaka™ means “the one who scores” in Russian

Russian wolf

 FIFA U-17 World Cup India 2017,

Won by England national football team

**a clouded leopard called Kheleo**

clouded leopard **is a vulnerable wild cat** whose habitat extends from the Himalayan foothills to mainland Southeast Asia

Clouded Leopard is one of the wild cat found in the North East Indian states of Assam to Arunachal Pradesh. **Neofelis nebulosa** is the scientific name of the clouded leopard

Clouded Leopard National Park of Tripura isIndia’s first dedicated **wildlife park to Clouded Leopards,**

**located inside the the Sipahijola Wildlife Sanctuary.**

## Eminent Personalities

Indian-American Nobel Prize-winning biochemist Har Gobind Khorana, with a doodle. Dr. Khorana was known for his extensive research on DNA and also for constructing the first synthetic gene.

Dr. Khorana constructed the world’s first artificial gene. He was also awarded the Padma Vibhushan. The Nobel Prize was given for the scientists’ discovery that the order of nucleotides in our DNA determines which amino acids are built

Captain Pradeep Shoury Arya is first IRS to receive Shaurya Chakra award, India's third-highest peacetime gallantry award.Ashok chakra and kirti charka being first and second peace time gallantry awards

Stree shakti puraskar for women

BALA saraswati legendary baratanatyam dancer died. She made it popular in west.

International Conference on Unani Medicine organized by the Central Council for Research in Unani Medicine (CCRUM) on 150th birth anniversary of Hakim Ajmal Khan

Sahitya akedmi awards

Price money and plaque

The Janaki Ammal scholarship will be awarded to post-graduate research in Botany in UK

Janaki ammal one of the first botanist in India in 1930’s

Avani Chaturvedi has become the first Indian woman to fly a fighter aircraft solo,

Birdman of india

Salim ali(Ornithologist)

Water man of India

Dr. Rajendra singh

Navjot Kaur, who scripted history by becoming the first Indian woman to win gold at the Asian Wrestling Championships

**Pritzker Prize:**

**45th Pritzker laureate Balkrishna Doshi First Indian to receive the ‘architecture Nobel’**

**2017 Kochon Prize**

was awarded to the Indian Council of Medical Research in New Delhi on Tuesday for building a tradition of excellence in TB research and development.

**Stephen Hawking,** who has died aged 76, was Britain’s most famous modern day scientist,

The Pulitzer Prize is an award for achievements in newspaper, magazine and online journalism, literature, and musical composition in the United States

## DEFENsE

### Hermes 900

### Vshorad

very short-range air defence system or VSHORAD

army to buy new one

### Saras

India’s indigenous light transport aircraft SARAS

SARAS Mk2

### Defence Updates

the Parliamentary standing committee on defence that various efforts taken for modernisation have “received a little setback.”

the state today is 68% of our equipment is in the vintage category, with just about 24% in the current, and 8% in the state of the art category,

### Defence FDI

The defence sector received a paltry ₹1 crore in Foreign Direct Investment over the past four years. This is despite various policies to promote investment in the defence sector under the ‘Make in India’ initiative.

### Defense procurement policy

Self-reliance is a major corner-stone on which the military capability of any nation rests.

Accordingly, the Defence Production Policy promulgated by the Government, aims at achieving substantive self-reliance in the design, development and production of equipment, weapon systems, platforms required for defence in as early a time frame possible, creating conditions conducive for private industry to play an active role in this endeavour; enhancing potential of SMEs in indigenisation and broadening the defence R&D base of the country.

Defence manufacturing is primarily driven by capital acquisition of defence equipment.

Under ‘Make in India’ initiative of the Government, several measures have been taken to promote indigenous design, development and manufacture of defence equipment in the country by harnessing the capabilities of the public and private sector.

These measures include according preference to procurement from Indian vendors under the

Defense Procurement Procedure (DPP),

simplification of Make procedure,

introduction of simplified procedure for Make II sub-category,

liberalization of the licensing regime and

FDI policy by raising the cap on FDI in the defense sector, total 100% now 49% automatic root

simplification of export procedure, streamlining of defense offset guidelines etc.

‘**Strategic Partnership (SP)’ Model**

which envisages establishment of long-term strategic partnerships with Indian entities through a transparent and competitive process, wherein they would tie up with global Original Equipment Manufacturers (OEMs) to seek technology transfers to set up domestic manufacturing infrastructure and supply chains.

Four segments have been identified i.e.

Fighter aircraft,

Submarines,

Helicopter and

Armoured fighting Vehicles

Department of Industrial Policy & Promotion (DIPP) revised FDI policy under which FDI is allowed under automatic route upto 49% and beyond 49% through Government route wherever it is likely to result in access to modern technology or for other reasons to be recorded.

### DPP 2017:

DPP will cover all Capital Acquisitions undertaken by the Ministry of Defence, Defence Services and Indian Coast Guard

Capital acquisition:

‘Buy’,

Buy Indian(IDDM);

indigenously designed, developed and manufactured with a minimum of 40% Indigenous Content (IC) on cost basis of the total contract value; OR, products having 60% IC on cost basis of the total contract value, which may not have been designed and developed indigenously

Buy Indian

‘Buy (Indian)’ category refers to procurement of products having a minimum of 40% IC on cost basis of the total contract value, from an Indian vendor

Buy(Global)

‘Buy and Make’, and

initial procurement of equipment in Fully Formed (FF) state in quantities as considered necessary, from the appropriate source,

followed by indigenous production in a phased manner through comprehensive Transfer of Technology (ToT),

Buy and Make (Indian)’ and

‘Buy & Make (Indian)’ category refers to an initial procurement of equipment in Fully Formed (FF) state in quantities as considered necessary, from **an Indian vendor engaged in a tie-up with a foreign OEM**, followed by indigenous production in a phased manner involving ToT

‘Buy and Make’

‘Buy & Make’ category refers to an initial procurement of equipment in Fully Formed (FF) state from a foreign vendor, in quantities as considered necessary, followed by indigenous production through **an Indian Production Agency (PA),** in a phased manner involving ToT of critical technologies

‘Make’

which aims at developing long-term indigenous defence capabilities

The ‘Make in India’ initiative of the Government of India, aims to promote the manufacturing sector, and increase the contribution of manufacturing output to 25% of GDP. Defence sector is prominent among the 25 sectors of industry covered under the ‘Make in India’ initiative.

Only Indian vendors including Association of Persons (AoP), are eligible for participation under ‘Make’ program of acquisition

Make I

Make-I (Government Funded): Projects under ‘Make-I’ sub-category will involve Government funding of 90%, released in a phased manner

Make II

Make-II (Industry Funded): Projects under Make-II category will involve prototype development of equipment/system/ platform

reserving projects not exceeding development cost of Rs. 10 crore (government funded) and Rs. 3 crore (industry funded) for MSMEs

Priority

Buy (Indian – IDDM)

Buy (Indian)

Buy and Make (Indian)

Buy and Make

Buy (Global)

The key features of revised DPP,  promoting ‘Make in India’ inter alia include:-

A new category of procurement ‘Buy {Indian-IDDM (Indigenously Designed, Developed and Manufactured)}’ has been introduced in Defence Procurement Procedure-2016 and the same has been accorded top most priority for procurement of capital equipment.

Preference has been accorded to ‘Buy (Indian)’ and ‘Buy and Make (Indian)’ categories of capital acquisition over ‘Buy (Global)’ & ‘Buy & Make (Global)’ categories.

Requirement of Indigenous content has been enhanced / rationalised for various categories of capital acquisition.

The ‘Make’ Procedure has been simplified with provisions for  funding of   90 % of development cost by the government to Indian industry and

**reserving projects not exceeding development cost of Rs. 10 crore (government funded) and Rs. 3  crore (industry funded) for MSMEs.**

FDI upto 49% is allowed through automatic route and beyond 49% under Government approval route

a simplified ‘Make-II’ procedure which will enable greater participation of industry in acquisition of defence equipment. This process will greatly help import substitution and promote innovative solutions. This simplified ‘Make-II’ procedure will amend the existing ‘Make Procedure’ in Defence Procurement Procedure (DPP)-2016.

**MAKE-II Amendment**

The industry can suggest projects, especially among those items which are currently being imported. Start-ups or individuals can also suggest proposals.

The potential ‘Make-II’ projects will be approved by a collegiate comprising of DRDO, HQ (IDS), Department of Defence under a committee chaired by Secretary (Defence Production).

There is no limit to the number of industry players who may show interest and offer prototype.

The industry who develops the product will retain the title and ownership and all other rights in intellectual property. However, for some specified reasons like National Security, Government shall have ‘March-in’ rights

Normally, there shall be no negotiations by Contract Negotiation Committee (CNC) in multi-vendor contracts.

‘Make-II’ procedure reduces the total time from in-principle approval to placing of order by 50 percent. The estimated time to finish the whole process has come down to 69 to 103 weeks.

### Brahmos:

Air version

Successfully test fired from Sukhoi-mki fighter.

* Air Launched Cruise Missile
* Air to surface.
* 2.5 ton supersonic air to surface cruise missile
* the two stage engine
* Range more than 400km,2.8 times speed of sound
* BrahMos is a joint venture with Russia and named after the Brahmaputra and Moskva rivers.
* The IAF is the first Air Force in the world to have successfully fired an air launched 2.8 Mach air to surface attack missile of this category.

Land attack Brahmos launched from INS teg

Brahmos is the only supersonic cruise missile in operation in world

It travels a kilometer in a second

2 stage

solid propellant during 1st phase

Liquid ramjet engine takes over at supersonic speed around Mach 3

Fire and forget

Upto 290km range,15km altitude,10 meter terminal altitude

Conventional warhead of 200 300 kg

Ship and land based(anti ship) already commissioned

### Akash

* Surface to Air Missile(SAM)
* with indigenous radio frequency seeker.
* Inducted into Army as Short Range Surface to Air Missile(SRSAM).
* Used in air defense system
* Ramjet missile
* Solid fuel
* 25km range
* Carries 55 kg weapon

### Anti Tank Guided Missiles (ATGM) NAG

developed by Defence Research and Development Organisation (DRDO)

4km range

launched from NAMICA launcher system

air-launhced variant of the Nag, the Helina ATGM:7-8 km range

### Prithvi 2 tested

Range 300 km

Nuclear capable

Surface to surface

### Agni:

#### Agni 5

Test launch successful

Soli fuel

3 stage engine

At 800km it re enters atmosphere and fly towards target

About 1500 kg payload

Range above 5000 km

Max speed Mach 24

Carries 3 MIRVS(Multiple independently targetable reentry vehicles)(means it can carry three independent warhead to target three places)

Accuracy of 10m

#### Agni 2

Test fired

strike range of 2,000 km

Nuclear capable

Solid fuel

Single stage

#### Agni 1

Single stage

Surface to surface

Solid fuel

1000kg payload

900km range

### ATAGS

Artiliarry gun dhanush

Record 40km range

### Torpedo

* Varunastra: High Speed Heavy Weight Ship Launched Torpedo (Varunastra)
* Maareech: Anti-Torpedo Decoy System (Maareech)
* Both by DRDO

### k-15 sagarika

submarine launched missile(SLBM)

India 5th country to do it after USA, Russia, France and China

2 stage solid propellant

700km range(K4 is under development 3500km range missile)

Carry nuclear warhead

Inducted into INS Arihant(nuclear powered submarine)

### Defence Exercises

#### **HARIMAU SHAKTI 2018**

India and Malaysia Military exercise in Malaysia Sengai Perdik, Hulu Langat,

#### VARUNA-18

bilateral maritime exercise

would be conducted in three sea areas, namely, the Arabian Sea, the Bay of Bengal and South Western Indian Ocean

#### Lamitya

Military

Seychelles

at Mahe Island, Seychelles

The exercise is named “LAMITYE” which in the local dialect ‘Creole’, means friendship

#### Milan

MILAN made modest beginnings more than two decades ago when it was first held in 1995. The first edition saw participation of four littoral navies

The Indian Navy will host the multi-national MILAN series of exercises at Port Blair in the Andaman and Nicobar islands from March 6 to 13.

MILAN is a congregation of littoral **navies conducted biennially by the Indian Navy under the aegis of the Andaman and Nicobar Command.**

#### SAMPRITI

Joint Indo-Bangladesh Army Training Exercise SAMPRITI 2017,

Counter Insurgency & Jungle Warfare School, Vairengte in Mizoram

#### INDRA 2017:

the first ever Tri Services Joint Exercise

Tri service exercise with Russia in valadivotok

Earlier INDRA was done separately for each wing.

#### Nassem-al-Bahr(Sea breeze):

Biennial exercise.

Navy exercise with Oman.

2017 held in Muscat.

### Al-Nagah-Li:

Oman Military

Bakloh HP

2017

### Ekuverin:

Military

Maldives

Latest in Maldives on Counter Insurgency and Counter Terrorist operations under UN mandate.

#### PRABL-DOSTYSK:

PRABAL DOSTYK – 2017” between the Indian Army and the Kazakhstan Army commenced today with the Opening Ceremony at Bakloh, Himachal Pradesh

### HAND-IN-HAND:

ARMY CHINA and INDIA no exercise in 2017.

#### UN Peacekeeping Operations

Indian Army Delegation arrived at Naypitaw in Myanmar to imparting training on to Myanmar Army. The training will be conducted over two weeks from 05-16 Feb 2018. This is the fourth edition of such training event.

#### Paschim Leher

Western Naval Command Concludes Exercise

#### ENCORE

Eastern Naval Command Operational Readiness Exercise (ENCORE), Theatre Level Readiness and Operational Exercise concluded on the Eastern Seaboard

### Gaganshakti-2018

IAF exercise for maritime operation readiness including disaster management

Both on western and eastern seaboard

### Submarines

#### INS Chakra:

Nuclear sub based in vishakapatanam

Now under repair

Leased from Russia

Akula 2 class sub

#### Arihant class

First ballistic missile capable submarine built by a non UN security council member

Pressurized water reactor

##### Agrighat

Second Arihant class submarine launched from vizag. Minor copy of Ins Arihant.

K15 sagarika missile. SLBM

#### Scorpene class

##### Karanj

Third Scorpene class submarine launched from Mazgaon docks limited Mumbai.

Now under sea trials

Name taken from an old submarine that retired recently and it took part in 1971 war

##### Khanderi

Second scorpene class submarine

Now under sea trials

Maratha king Chhatrapati Shivaji's island fort Khanderi

##### Kalvari

First scorpene class submarine

Named Kalvari(Malayalam for tiger shark) taken from tiger shark in Indian ocean

Inducted in navy

Superior stealth technology

Precision guided weapons

India and French JV

Diesel electric engine attack submarine

### Aircrafts

1. China puts new generation J-20 stealth fighter, a warplane in service
2. RUSTOM-2 UAV DRDO-(others are Rustom 1 and Rustom 1h)
   1. medium-altitude long-endurance drone (MALE).
   2. It can fly up to an altitude of 22,000 feet and
   3. has an endurance of over 20 hours.
   4. It is capable of carrying payloads for electronic and signal intelligence missions.

### India’s arms imports from U.S. up by 550%

Based on SIPRI report

the U.S. has become India’s second largest supplier

Pakistan’s imports from the U.S. dropped by 76%

it emerged as the largest recipient of Chinese arms exports

Russia continued to be India’s largest arms supplier, accounting for 62% of India’s arms imports

India was the world’s largest importer of major arms in 2013-17 and

accounted for 12% of the global total.

Its imports increased by 24% between 2008-12 and 2013-17

China it was the world’s fifth largest arms importer

Also the fifth largest arms exporter, Majority sales in India neighbourhood

### SIPRI

Stockholm international Peace research institute

Global peace index part of SIPRI

By Institute of Economics and peace

23 indicators

Top 5:Iceland,Newzeland,Portugal,Austria,Denmark

Worst 5 Yemen, South Sudan, Iraq, Afghanistan, Syria (worst rank)

Top 5 Importers Top 5 Exporters

India 13% USA 33% Largest export to Saudi Arabia middle east

Saudi Arabia Russia Largest export to India ,China,vietnam

UAE China largest export to Pak,Bangladesh myanmar

China France

Algeria Germany

Nuclear forces

USA 6800

RUSSIA 7000

UK 215

France 300

China 270

India 120-130

Pakistan 130-140

USA largest military spender and **India 5th largest spender**

2016 was 20th anniversary of CTBT

2016 become a participating state in the MTCR(missile technology transfer) and in The Hague Code of Conduct against Ballistic Missile Proliferation.

2017 India joined Australian group() and Wassenaar arrangement(transfer of goods/technology of dual use).

**MTCR**

is an **informal and voluntary association** of countries which share the goals of **nonproliferation of systems capable of delivering weapons of mass destruction**

proliferation of missiles for the delivery of all types of weapons of mass destruction (WMD), i.e., **nuclear, chemical and biological weapons.**

**established** in 1987 by Canada, France, Germany, Italy, Japan, the United Kingdom and the United States.

Now 35 countries are part of it latest being INdia

Not part of UN

Not a treaty,no legal binding

Two control lists

MTCR Equipment,

Software and Technology

Further divided into

category 1 🡪for range >=300 km and payload >=500kg and

category 2 🡪for range>=300 and for any payload

## MEDICINE

### Ayurved

Chinese woman scientist, Dr. Youyou Tu, who was **given the 2015 Nobel Prize in Physiology or Medicine** for her back-breaking decades-long work of isolating **the anti-malarial drug molecule called artemisinin** from the Chinese herb Qinghao

idea of recruiting a microbe to make artemisinin (or for that matter any molecule that a plant makes) is a true “Out of the Box” one. If we succeed, we would have made a ‘plant’ out of baker’s yeast - which has been used in homes and bakeries for the last five millennia or more!

During the last a few years, several other drugs, naturally found in plants and herbs, have been produced in yeast.

The most recent is a paper by Li et al., from UC Riverside and Stanford, published in PNAS last month, where they made **the anti-cancer drug noscapine (found in the opium-making poppy plant), again using yeast**

### Dr Reddy

Aloxi is indicated to prevent nausea following chemotherapy. Dr. Reddy’s injection is available

### Palliative care

the relief of physical and emotional suffering;

improvement and strengthening of the process of patient–physician communication and decision-making;

and assurance of coordinated continuity of care across multiple healthcare settings—hospital, home, hospice, and long-term care.

The WHO defined palliative care as “an approach that improves the quality of life of patients and their families facing the problems associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial, and spiritual.

The goal of palliative care is, therefore, to improve the quality of life of both patients and families by responding to pain and other distressing physical symptoms, as well as to provide nursing care and psycho-social and spiritual support.[2] This is why it is best administered by an interdisciplinary, multi-dimensional team, comprising doctors, nurses, counselors, social workers, and volunteers.

India is categorized as a developing country; however, over the past 20 years, increases in the aging population and prevalence of advanced cancer are common. Together with China, the country has the second largest population in the world. It is estimated that one million new cases of cancer occur each year in India, with over 80% presenting at stage III and IV.

The need of palliative care in India is immense.

The concept of palliative care is relatively new to India, having been introduced only in the mid-1980

In 1975, the Government of India initiated a National Cancer Control Program. By 1984, this plan was modified to make pain relief one of the basic services to be delivered at the primary health care level. Unfortunately, this policy was not translated into extensive service provision.[5] The hospice and palliative care movement in India started tentatively in the mid-1980s and has slowly increased over the last two decades

One of the important steps in the history of palliative care development in India was also began from Gujarat; forming of Indian Association of Palliative Care (IAPC) in 1994.

From the 1990s onwards, there was a significant increase in the momentum of development of hospice and palliative care provision.

Today ,The Kerala network has more than 60 units covering a population of greater than 12 million and is one of the largest networks in the world.

In April 2008, Kerala became the first state in India to announce a palliative care policy.

The Calicut model has also become a WHO demonstration project as an example of high quality, flexible, and low cost palliative care delivery in the developing world and illustrating sound principles of cooperation between government and NGOs

At present, the IAPC is in its 18th year, and there are more than 150 centers actively engaged in palliative care delivery

WHO and other international organizations lay emphasis on providing physical, psychosocial, and spiritual needs and to help patients achieve quality of life with supportive families.

Home-based palliative care services are becoming increasingly popular with care being taken to the doorstep of the patient. Ideally, this is where people are most comfortable at the end of their lives, surrounded by their loved ones

Palliative care in India is still at an early stage of development and faces numerous problems.

It is estimated that less than 3% of India's cancer patients have access to adequate pain relief

The medicinal use of opioids such as morphine is highly regulated by the Indian Narcotic Drugs and Psychotropic Substances Act (NDPS), and to dispense morphine to patients the hospitals must be registered with the government and adhere to a set procedure

Procurement of oral morphine for treatment of pain in terminal cancer patients is another problem because of cumbersome legislation

These rules vary from state to state and involve separate licensing agencies, each with numerous levels of review and approval in the bureaucracy

12th 5 year plan

Palliative care is an important and essential part of cancer care therapy and twelfth 5-year plan makes a special provision for it.

At least 10% of the budget needs to be earmarked for these services at level of cancer care services.

For palliative care there will be dedicated 4 beds at the district hospital. Doctors, nurses, and health workers will be trained in basic palliative care.

One of the doctors in the District hospital needs to have a 2 weeks training in palliative care

Most patient care is disease-oriented. Palliative care can assist in changing from a disease-focused approach to a patient-centered philosophy, where the needs of the patient and the patient/family goals are essential to planning care.

Given the diversity in India, each state will need to develop its own policy that suits its needs and its social and cultural background. And the central government will have to develop a policy which would provide guidelines for general application and provide an umbrella of support, especially in matters relating to opioid availability and education

The way forward is to draw on the existing, successful models that have been described, to develop usable and dynamic educational initiatives within India itself, from model palliative-care teaching centers attached to inpatient or community units, thereby making close and relevant partnerships between theory and practice

### B12 supplements are associated with Type 2 diabetes and its associated genes

Type 2 diabetes (formerly called adult-onset or **non-insulin-dependent diabetes**) can develop at any age. It most commonly becomes apparent during adulthood. But type 2 diabetes in children is rising

Most common type

This is called insulin resistance

Body gradually loses the capacity to produce enough insulin in the pancreas

Type 1

diabetes is usually diagnosed in children and young adults, and was previously known as juvenile diabetes

not enough insulin is produced

the body's immune system destroys the cells that release insulin, eventually eliminating insulin production from the body.

**Without insulin cells cannot absorb sugar**

### why babies need to move in the womb

research by IIT

to prevent osteoarthritis progression

Bone Morphogenetic Proteins

have pivotal roles in the regulation of bone induction, maintenance and repair

inflammatory response observed during wound repair and fracture healing, results in by-products that interact with BMPs and affect their biologic potential

### Autism gene

a gene, **amino-acid kinase 2**, that is responsible for neurodevelopmental disorders, including autism, and may help in developing treatments.

### Regulation of clinical trials**:**

ICMR makes companies and organizations that have registered for clinical trials in India will have to disclose the outcomes of their tests within a year of completing them. Clinical Trials Registry — India (CTRI).

### Pharmacovigilance:

Defined by WHO as science of assessing ,understanding and prevention of adverse drug reactions. In India it is run as Programme under Central Drug Standard Control Organization under Ministry of Health and family welfare.Indian Pharmacovigilance Commission. Ghaziabad

### Hepatitis B Drug

Drug firm Mylan Pharmaceuticals has launched **tenofovir alafenamide tablets** under the brand name ‘**HepBest’**, used for treatment of chronic hepatitis B in adults, in India.

**HepBestTM** is the first drug in eight years to be approved for the management of chronic hepatitis B in India,

Mylan Pharmaceuticals Pvt Ltd is a US based company.

Another Dug MYHep is Hepatitis C generic drug launched by same manufacturer

### Typhoid Vaccine Approved

A new and highly effective typhoid fever vaccine has been approved by the World Health Organization (WHO) for global use.

**Bharat Biotech's Typhoid Conjugate Vaccine (TCV)** against typhoid fever has received pre-qualification from the World Health Organisation (WHO)

Typbar TCV is the world's first clinically proven TCV.

### Under Five Mortality:

According to SRS bulletin under-five child mortality (U5MR) of India showed an decline by 9%,

a 4 points decline from 43 per 1000 in 2015 to 39 in 2016.

 the neonatal mortality rate has reduced by 1 point from 25 per 1000 live births to 24 per 1000

 The current under-five mortality for

male child is 37 per 1000,

female child is 41 per 1000 live births.

the gender difference between female and male under-five mortality rates has now reduced to 11% which was as high as 17% in 2014

Max mortality gap still in Bihar(46%),Haryana(23%),Kerela(20),Assam-karnatka(19%)

U5MR is on track to meet the SDG target for under-five child mortality of 25 by 2030

initiatives like Mission Indradhanush and Intensified Mission Indradhanush, with their focused approach, are significantly turning the tide in favour of India

### Fish testing KITS launched

Ammonia helps in preventing ice from melting and

use of formaldehyde increases the shelf life of fish

therefore many people in the fisheries sector are using these chemicals.

The kit helps in detecting both the chemicals in the fish.

continuous ingestion of ammonia and formaldehyde can lead to many health issues including abdominal pain, vomiting, unconsciousness, and sometimes even cause death

### ccras

Central Council for Research in Ayurvedic Sciences (CCRAS), an autonomous body under the Ministry of AYUSH

CRAS has developed and commercialized the following two drugs:

AYUSH 82 An Anti Diabetic Ayurvedic Formulation

AYUSH SG An Anti-Rheumatoid Arthritis preparation.

REGULATing FOR AAYUSH

Central Government has published Ayurvedic pharmacopoeia containing quality standards of 645 single Ayurvedic drugs and 202 compound formulations; Unani Pharmacopoeia containing quality standards of 298 single drugs and 150 compound formulations and Siddha pharmacopoeia containing quality standards of 139 single drugs.

### Biologics

Biologics can be composed of sugars, proteins, or nucleic acids or complex combinations of these substances, or may be living entities such as cells and tissues.

Biologics are isolated from a variety of natural sources - human, animal, or microorganism - and may be produced by biotechnology methods and other cutting-edge technologies.

include a wide range of products such as vaccines, blood and blood components, allergenics, somatic cells, gene therapy, tissues, and recombinant therapeutic proteins

Biologics are genetically-engineered proteins derived from human genes. They are designed to inhibit specific components of the immune system that play pivotal roles in fueling inflammation, which is a central feature of rheumatoid arthritis .

A substance that is made from a living organism or its products and is used in the prevention, diagnosis, or treatment of cancer and other diseases.

Biological drugs include antibodies, interleukins, and vaccines

Example Humira

### Unicef-United nations children fund:

United Nations Children’s Fund (Unicef) report on no natal mortality rate ranks India 31

Behind Ukraine;srilanka; Bangladesh

India rate 25.3

Highest in Pakistan

The biggest cause of death is premature birth,

India has programmes such as the Janani Suraksha Yojana for this, but must expand its reach in laggard States like Uttar Pradesh and Madhya Pradesh

The report points out that the most powerful solutions are not necessarily the most expensive. The 10 critical products that hospitals must stock to save newborns include a piece of cloth to keep a baby warm and close to the mother to encourage breastfeeding.

### Health Index by NITI AAYOG

The report has been developed by NITI Aayog, with technical assistance World Bank, and in consultation with the Ministry of Health and Family Welfare (MoHFW),

Comparison Among categories –

Larger States (21),

Smaller States (8)

and Union Territories (7)

set of indicators from 3 domains:

Health Outcomes – 10 indicators ( Weight :70%)

Governance and Information – 3 indicators ( Weight :12%)

Key Inputs and Processes – 10 indicators ( Weight :18%)

Other indicators

1. Neonatal Mortality Rate (NMR), 2. Under-five Mortality Rate (U5MR),

3 . full immunization coverage, 4. institutional deliveries, and

5. People Living with HIV (PLHIV) on Anti-Retroviral Therapy (ART)

.

|  |  |
| --- | --- |
| Top performers | Worst |
| Kerela | UP |
| Punjab | Rajasthan |
| Tamil Nadu | Bihar |
| Gujrat |  |
| HP |  |

Large states

In India, the eight socioeconomically backward states of Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Orissa, Rajasthan, Uttaranchal and Uttar Pradesh, referred to as the Empowered Action Group (EAG) states, lag behind in the demographic transition and have the highest infant mortality rates in the country

**Jharkhand, Jammu & Kashmir, and Uttar Pradesh are the top three ranking States in terms of annual incremental performance.**

|  |
| --- |
| Top performers |
| Mizoram |
| Manipur |
| megahlaya |

Small States

**Manipur followed by Goa were the top ranked States in terms of annual incremental performance.**

UT’s Lakshdweep,Chandigarh,delhi

**Lakshadweep showed both the best overall performance as well as the highest annual incremental performance.**

|  |  |  |  |
| --- | --- | --- | --- |
| NMR  Neo natal per 000 | U5MR mortality rate per 000 births | TFR | SRB sex ratio  Girls every 1000 boys |
| Odidha(35) | Assam(62) | Up(3.1) | BEST kerela(967)chattisgarh(961) WB(951) odisha(950) |
| MP(34) | MP(62) | MP(2.8) | Haryana(831) |
| UP(31) | Odisha(56) | Rajasthan,Jharkhand(2.7) | Uttarakhand 844 |
| Bihar,Uttarakhand(28) | UP(51) | Best TN,WB,JK(1.6) | Gujrat(854),Rajasthan(861) |
| Best Kerela 6  TN 14 |  |  |  |

The sex ratio at birth (SRB) saw a decline in 17 out of 21 large states of the country, with Gujarat recording an alarming dip of 53 points,from 2014-15 (base year) to 2015-16 (reference year)

12 states out of 21 large states have achieved TFR 2.0 or below i.e replacement levels

Benefits:

The Health Index is a useful tool for systematic measurement of annual performance across States and UTs

Sets the foundation for a systematic output and outcome based performance measurement

The Index helps to identify areas in which States have improved, stagnated, or declined

Should be used to target interventions

Trends

sex ratio at birth (SRB) nationwide had dropped from 906 in 2012-2014 to 900 in 2013-2015.

In all, 17 of 21 large Indian States saw a drop in the SRB,

Gujarat performing the worst, declining 53 points

Its SRB is far lower than 952 because of the preference for the male child

As on today, around 63 million girls are estimated to be ‘missing’ in India because of such actions.

Prenatal Conception and Prenatal Determination Act (PC-PNDT) 2003

In November 2016, a report from the Asian Centre for Human Rights noted that between 1994 and 2014, 2,266 cases of infanticide were registered in India, against 2,021 cases of abortion under the PC-PNDT, even though abortions outnumber infanticides today.

In all, 17 out of 29 States had either not registered any case, or had zero convictions.

The PHFI report in 2010 found major gaps in the training of personnel implementing PC-PNDT. Poor training meant that they were unable to prepare strong cases against violators to secure convictions.

In India, some villages in Haryana and Punjab have such poor sex ratios that men “import” brides from other States.

This is often accompanied by the exploitation of these brides

Steps

Inspections by the **National Inspection and Monitoring Committee (NIMC)** have been scaled up

State/ UTs/ district Inspection and Monitoring Committees have been constituted in the States/ UTs

A comprehensive Standard Operating Guidelines (SOGs) for District Appropriate Authority has been prepared by Ministry of Health & Family Welfare for better clarity for implementation of the PC&PNDT Act.

also set up a Nodal Agency to regulate and remove the e-advertisements on internet relating to pre-conception and prenatal determination of sex or sex selection, prohibited under the PC&PNDT Act, 1994

### AMR:

A report by researchers at Queen Mary University of London and Newcastle University has found that 64% of antibiotics sold in India between 2007-2012 were unapproved by the Central Drugs Standard Control Organisation (CDSCO). This, despite the sale of unapproved new drugs being deemed illegal in the country

E. coli in the wild birds became immune to some drugs

Escherichia coli, a pathogen seen in over 90% of Egyptian vultures that migrate to northwest India to spend the winter.

## DISEASES

### Lou Gehrig’s disease

amyotrophic lateral sclerosis, a neuromuscular wasting disease

disease that Stephen Hawkins had.

### Delirium,

or an acute state of confusion, occurs commonly in the elderly, usually due to underlying physical illnesses or disorders, and is linked to caregiver distress and hospitalization.

In terms of symptoms, family members may report that the elderly person has become suddenly confused, is not able to recognise time, place and persons around them

Low sodium cotent in body lead to delirium

### MALARIA:

1. Deciphered a multiprotein complex that is involved in the invasion of red blood cells (RBCs) by
2. In South Asia India contributes nearly ¾ of the share of the regional burden
3. **WORLD MALARIA DAY 25th APRIL.**
4. World Malaria report 2016, India contributes to 89% of malaria incidence in South east asia.
5. Regional Action Plan (2017-2030).
6. Asia Pacific Leaders Alliance against Malaria. Eliminate it by 2030 from region.APLMA.
7. Cause:
   1. Plasmodium falciparum, and Plasmodium vivax the parasites that causes malaria in humans in India.
   2. Vector borne female *Anopheles* mosquitoes
8. Effects:
   1. Liver and blood.
9. Symptoms:
   1. Fever
10. Treatment:
    1. Long-lasting insecticidal nets (LLINs) are the preferred form of insecticide-treated mosquito nets (ITNs) for public health programmes.
    2. Indoor residual spraying (IRS) with insecticides is a powerful way to rapidly reduce malaria transmission.
    3. Antimalarial medicines can also be used to prevent malaria
    4. The best available treatment, particularly for P. falciparum malaria, is **artemisinin-based combination therapy (ACT).**
11. Vaccine:
    1. RTS,S. RTS,S (developed by PATH Malaria Vaccine Initiative (MVI) and GlaxoSmithKline (GSK)
    2. Latest Sanaria PfSPZ-CVac.
12. **NATIONAL FRAMEWORK FOR MALARIA ELIMINATION IN INDIA.:**
    1. under NATIONAL VECTOR BORNE DISEASE CONTROL PROGRAMME
    2. MINISTRY OF HEALTH & FAMILY WELFARE.
    3. developed in close collaboration with officials from NVBDCP, experts from the Indian Council of

Medical Research, WHO and representatives from civil society institutions, professional bodies

and partners.

* 1. Vision:
     1. Eliminate malaria nationally and contribute to improved health, quality of life and alleviation

of poverty.

* 1. Goals:
     1. Eliminate malaria (zero indigenous cases) throughout the entire country by 2030; and
     2. Maintain malaria–free status in areas where malaria transmission has been interrupted

and prevent re-introduction of malaria.

* 1. Objectives:
     1. Eliminate malaria from all 26 low (Category 1) and moderate (Category 2) transmission

states/union territories (UTs) by 2022;

* + 1. Reduce the incidence of malaria to less than 1 case per 1000 population per year in all

states and UTs and their districts by 2024;

* + 1. Interrupt indigenous transmission of malaria throughout the entire country, including

all high transmission states and union territories (UTs) (Category 3) by 2027; and

* + 1. Prevent the re-establishment of local transmission of malaria in areas where it has been

eliminated and maintain national malaria-free status by 2030 and beyond.

* 1. Institutions:
     1. District as the unit of planning and implementation.
     2. the staff under primary health care system is involved in implementation at block level through community health centre (CHC), at primary health centre (PHC), sub-centre (SC) and village level.
     3. The institutions created under NHM, such as Village Health Sanitation & Nutrition Committees (VHSNCs) and Accredited Social Health Activists (ASHAs), are involved at the grassroots level.

1. **National Strategic Plan for Malaria Elimination (2017-22):**
   1. The Strategic Plan gives year wise elimination targets in various parts of the country depending upon the endemicity of malaria in the next 5 years
   2. 4 category districts:
      1. Cat 0:vigilance ,no incidence in last 3 years.(Prevention)
      2. Cat 1:having incidence(API) <1 per 1000 (elimination phase)
      3. Cat 2:API >1,but <2 per 1000 (Pre elimination)
      4. Cat 3:API >2 per 10000 (intensified control phase)
   3. Objectives:
      1. Achieve universal coverage of detection and treatment in endemic areas.
      2. Enhance surveillance to detect ,classify, inform and respond in all districts to eliminate malaria.
      3. Achieve near universal coverage of population at risk of malaria.
      4. Provide effective programming and coordination at all level for targeted interventions against malaria.
      5. Achieve near universal coverage by appropriate BCC activities. preventive and curative measures against malaria i.e campaigns for awareness.
      6. Swacch Bharat for mosquito elimination.
      7. Digital India for real time Monitoring and capacity building
   4. Implementation:
      1. District base planning, implementation and surveillance.
      2. Utilize already existing network of Polio surveillance to monitor malaria by SMO Surveillance Medical officers at district level.
2. Lessons from Sri Lanka in curbing Malaria

In November 2016, the World Health Organisation certified that **Sri Lanka is a malaria free nation.** It is the second country to eradicate malaria in the region after Maldives, which has been free of the disease since 1984.

No locally transmitted cases of malaria had been recorded in the country for three-and a-half years.

**Model Followed**:

Web-based surveillance: All fever cases were tested for malaria and each case notified with the Anti Malaria Campaign (AMC) at the ministry of health.

Rationing medicines: Anti-malarial medicines were only available with the AMC, which compelled the private health sector to notify all cases.

24x7 hotline: AMC ran a 24-hour hotline to notify, track and treat the patient in isolation to stop further spread of infection.

Parasite-control strategy: In the early1990s, the AMC changed from vector-control (mosquito control) to parasite control strategy to contain infection.

Health access: A strong public health system, sanitation and roads lowered mosquito breeding and took treatment to people in the remotest of places. Early diagnosis and prompt treatment by trained health workers with focus on high-risk areas lowered disease and deaths.

Stakeholder partnerships: Intensive disease surveillance, integrated vector management, rigorous community engagement and research increased social, technical and financial support for eradication.

### Kala azar

Leishmaniasis:

4 types:

Visceral Leishmaniasis known as KALA azar(most severe form)

Cutaneous Leishmaniasis (most common form)

Mucocutaneous leishmaniasis

Post kala azar Dermal Leishmaniasis(PKDL).

VL is only in human infection in Asia(anthroponotic)

India is one of the 6 countries that share 90% global burden of VL.

Most dangerous tropical disease in south east Asia.(INDIA,Bangladesh,Nepal,Bhutan)

Endemic in 54 districts in INDIA. Out of which 24 are in bihar.11 in west Bengal.

Under NVBDP since 2003 Implementation to states under National health mission as health is state subject.

Mostly in rural area with heavy rainfall.

Significant decline from 80000 in 1992 to 5000 in 2015.

Cause:

SANDFLY vector

Leishmaniasis Donovani(L.Donovani) is parasite that cause this disease

Effects:

Spleen, liver, Bone marrow, Immune system

Fatality rate 100% if untreated.

Symptoms:

High fever for 2 weeks.

Enlarge spleen.

No response to anti malaria medicine.

Weight loss.

Treatment:

Combination of drugs.

Prevention:

Vector management

Vaccine:

?

Target:

API<1 per 10000 at block level.

Elimination status by 2017.Under MOU signed between south east Asian nations.(Bangladesh,Bhutan,Thailand,Nepal,India)

Also under new health policy 2017.

Four categories for block level classification :

CAT1:High disease transmission

CAT2:Low disease transmission and hidden pocket requires more surveillance.

CAT3:Fluctuating transmission sometime increase/decrease in incidence

CAT4:Post elimination phase nil reporting but prone to outbreak.

Implementation:

State level task force by state health department

Primary health care centers at village level

### JE(Japanese encephalitis)

National Vector Borne Disease Control Programme was vested with the responsibility of Prevention and Control of Japanese Encephalitis/ Acute Encephalitis Syndrome (JE/AES) in programme mode.

Vector

Cullex mosquito of culex vishnui group. related to dengue, yellow fever and West Nile viruses, and is spread by mosquitoes

Cause:

Japanese Encephalitis (JE) is a mosquito borne zoonotic viral disease.

The Japanese Encephalitis virus kind of Flavivirus is maintained in animals, birds, pigs, particularly the birds

Effects:

disease affects the Central Nervous System.

Case Fatality Rate (CFR) of this disease is very high , high mortality and disability

risk population is living in JE endemic areas

high fever altered consciousness etc mostly in children below 15 years of age.

vulnerable age group between 1-5 years followed by 5-10 years and 10-15

First:

The first case of Japanese Encephalitis (JE) was reported in India in 1955 from Vellore, Tamil Nadu.

The first major JE outbreak was reported in 1973 from Burdwan district of West Bengal.

Objectives of Programme:

1. to strengthen and expand JE vaccination in affected districts;
2. to strengthen surveillance, vector control, case management and timely referral of serious and complicated cases;
3. to increase access to safe drinking water and proper sanitation facilities to the target population in affected rural and urban areas;
4. to estimate disability burden due to JE/AES, and to provide for adequate facilities for physical, medical, neurological and social rehabilitation;
5. to improve nutritional status of children at risk of JE/AES;
6. to carry out intensified IEC/BCC activities regarding JE/AES.

Strategy:

Phase–I of the programme in 60 districts in 5 States (**Assam, Bihar, Tamil Nadu, Uttar Pradesh & West Bengal**)

Implementation

Committee has been set up under the Chairmanship of the Secretary, Department of 4 Health & FW,

The Committee will decide on measurable and time-bound monitoring indicators in respect of each Ministry/Department and monitor the progress on bi anually basis against the agreed indicators.

Committee has also set up a Task Force consisting of officials participating Ministries/ Departments for making field visits, interacting with state and district authorities and coordinating with ground level functionaries, besides assessing the progress on the ground.

Treatment:

No treatment available as of now.

Prevention and control

Safe and effective JE vaccines are available to prevent disease.

**JENVAC indigenously developed vaccine by Bharat Biotech.**

### TB:

Latest updates

Chemists and hospital staff treating tuberculosis (TB) patients who don’t inform health authorities about them could face up to two years in jail

WHO invite companies in India to manufacture new drugs of TB bendaquinone and delaminind

Mortality due to TB is the third leading cause of years of life lost (YLLs) lost, in the country.

To be eliminating the disease by 2025

launch of daily regimen for TB patients under RNTP.

India has the highest burden of Tuberculosis and multi-drug-resistant TB (MDR-TB) in the world,

WHO Global TB Report, 2017 has reported that incidence of TB has reduced from 28.2 lakh to 27 lakh and mortality by 60 thousand over the last one year, which is a testimony of anti TB drive by Government of India.

1st WHO Global Ministerial Conference on Ending TB in Sustainable Development Era’ in Moscow Russia in2017

  India is a major manufacturer of anti-TB drugs for the world having almost an 80% global market share.

#### Current

Bedaquiline and Delaminid, the new-generation drugs, are recommended by the World Health Organisation (WHO) for DR-TB patients.

But about 1000 persons using it in inida

Scientists at the **Centre for DNA Fingerprinting and Diagnostics (CDFD)**

The team led by Dr Sanjeev Khosla from CDFD has used the knowledge of epigenetics to open a new frontier in the research on host-Mycobacterium tuberculosis interaction.

They identified a novel mycobacterial protein ***Rv1988*** which is secreted out of the mycobacterium into the host upon infection and localizes to the **chromatin (DNA-histone complex) in the nucleus of the human cell.**

#### Latent TB:

According to WHO latent TB infection, which means people have been infected by TB bacteria but are not (yet) ill with the disease and cannot transmit the disease.

#### Revised National TB Control Programme (RNTCP) :

First launched in 1997 Now 2017-25 phase.

Applying Directly Observed Treatment Short Course (DOTS) strategy

**NIKSHAY**- A web based solution for monitoring of TB patients To monitor Revised National Tuberculosis Programme (RNTCP) effectively.

Objectives:

1. to achieve and maintain a TB treatment success rate of at least 85% among new sputum positive (NSP) patients
2. to achieve and maintain detection of at least 70% of the estimated new sputum positive people in the community.
3. DBT(Direct benefit transfer) using NIKSHAY.

#### National Strategic Plan (NSP) 2017 – 2025:

is the plan produced by the government of India (GoI) setting out the activities which it believes are required to **eliminate TB in India**.

This include

1. free diagnosis with rapid molecular tests,
2. free treatment with best quality drugs and regimens,
3. financial and nutritional support to patients,
4. online TB notification systems,
5. mobile technology based adherence monitoring system,
6. interphase agencies for better private sector engagements,
7. policy for transparent service purchase schemes,
8. stronger community engagements, communication campaigns,
9. regulatory systems to capture information on all those consuming anti-TB drugs

Four strategic areas of Detect, Treat, Prevent & Build.

Detect:

1. Scaling up free, high sensitivity TB diagnostic tests such as CBNAAT;
2. Scaling up private provider engagement approaches;
3. Universal testing for drug resistant TB;
4. & Systematic screening of high risk populations.

Treat

1. Initiate and sustain all patients on appropriate anti-tb treatment wherever they seek care.
2. Providing free TB drugs for all patients with TB;
3. Provide daily TB drugs for all patients with TB and a rapid scale up of short course regimens for drug resistant TB. Provide treatment approaches guided by drug sensitivity testing.
4. Providing patient friendly adherence monitoring and social support in order to sustain TB treatment;
5. & The elimination of catastrophic costs by linking eligible TB patients with social welfare schemes including providing nutritional support.

Prevent

1. Scaling up air-borne infection control measures at health care facilities;
2. Providing treatment for latent TB infection for the contacts of people with confirmed TB;
3. & Addressing the social determinants of TB through an approach across different sectors

Build

1. Build and strengthen relevant policies.
2. Restructuring the RNCTP and other institutional arrangements;
3. Building supportive structures for surveillance, research and innovations. Providing a range of interventions based on the local situation;
4. Scaling up technical assistance at national and state levels;
5. & Preventing the duplication of partners’ activities.

### diabetic retinopathy,

it is a leading cause of blindness among diabetics

### Chicken Pox:

Infection with the varicella-zoster virus leads to chickenpox, or primary varicella.

The virus then lies dormant and can later reactivate itself as shingles, or herpes zoster

### Meningitis

### The Rubinstein Taybi Syndrome

has a frequency of about one in one lakh people, and causes intellectual disability, growth retardation (short stature), craniofacial deformities, heart defects and broad thumbs and toes.

### Avian Influenza

Avian influenza—known informally as avian flu or bird flu is a variety of influenza caused by viruses adapted to birds. The type with the greatest risk is highly pathogenic avian influenza (HPAI)

### Stunting/inflamation

Children living in environments where hygiene is poor and open defecation is common are regularly exposed to high doses of bacteria that will not cause diarrhoea or frank gastrointestinal infections, but certainly stimulate low-grade chronic inflammation, as observed in one of our studies wherein 2- to 5-year-old children had higher total bacterial count and inflammatory markers compared to those reported from other countries. Inflammation down regulates growth factors, and thus impairs normal growth in children. Mothers with inflammation in the gestation tissues had smaller babies

Swacch bharat

Bangladesh way?

It is indeed true that mere building of toilets cannot prompt people to use them as there are a lot of social, cultural and behavioural aspects attached to it.

What we need to learn from Bangladesh is how they have managed to bring down open defecation to less than 1% by 2016, from a whopping 42%, in a little over a decade. Bangladesh’s sanitation victory definitely did not come easy.

A huge chunk of public and charity money was spent on building toilets, and campaign volunteers slogged to change public attitudes and habits. Children were used literally as whistle-blowers and agents of change while door-to-door campaigns were carried out. It was done in a dogged campaign in mission mode supported by 25% of the country’s overall development budget. Given its vastness, diversity and varied views, India may take time to change

### Aids

Viral load testing for all People Living with HIV/AIDS (PLHIV)

Viral load kits are used to determine the severity of an infection before deciding on the treatment regimen that is appropriate for HIV patients.

India is home to the world’s third largest HIV population,with 25 lac patients

12 lakh PLHIV are availing the benefit of free treatment from more than 530 ART (Antiretroviral Theraphy)

## BIOTECH

### National Biopharma Mission

### Mutant Rice By BAARC

(BARC) has developed two mutants of rice **{Trombay Raipur Rice-1(TRR-1), Trombay Konkan Kolam (TKKR-13)\*} and one mutant of cowpea {Trombay Cowpea 901 (TC901)\*}** which are identified for release.

BARC has also developed several mutants of groundnut, mustard, cowpea, blackgram, greengram, soybean, rice and wheat which are undergoing advance field trials in State Agricultural Universities.

The major desirable traits in these crops include higher yield, seed size, improved agronomic and quality traits, early maturity and stress tolerance.

The BARC developed mutant crop varieties have high patronage from the farming community and are extensively grown in different states of the country.

### Breast cancer

Research by IIT Gandhinagar found a active protein

active protein yielded by E. coli

human tousled-like kinase-1b or TLK1b) in pure form.

high yield of the protein by inserting a recombinant DNA into E. coli

working on two other proteins in the DNA repair pathway which when inhibited using small molecules will increase the chances of cancer cell death. The inhibitors should be used along with chemotherapy or radiotherapy for best results,

### Gm Mustard issue

the transgenic plant has been cleared for commercial cultivation by the Genetic Engineering Appraisal Committee — a scientific body

**Mustard DMH-11, a transgenic crop** developed by Centre for Genetic Manipulation of Crop Plants at Delhi University

**Hybrids are normally obtained by crossing 2 genetically diverse plants from the same specie**s.

The 1st-generation offspring resulting from it has higher yields than what either of the parents is individually capable of giving

Current variety

Varuna

Gm will  gives 25-30% more yield than the best varieties such as 'Varuna' currently grown in the country.

giving equal time to a rational view and an irrational view and so a hard decision must be taken.

 Economic Survey in February said that India didn’t spend enough on science relative to its GDP

Why we need it?

Mustard is amongst the three largest oilseed crops of India with soyabean and groundnut being other two, but the yields have remained stagnant for many years. Mustard is a self-pollinated crop and its flower contains both male and female parts

In 2014-15, India imported 14.5 million tonnes of edible oils valued at $10.5 billion.

Currently, more than 60 per cent of the domestic demand of edible oil is met by imports as domestic production has remained stagnant

 country's own annual edible oil production stuck at below 7.5 million tonnes, of which mustard's share is roughly a quarter, the need to raise domestic crop yields and cut dependence on imports cannot be doubted

This is the third largest import for India and in 2016, accounted for a burden of ₹78,000 crore on our import bills.

it is an example of the competence of our researchers and scientists in addressing the dire agrarian situation

Issue?

In era of sustainable farming and organic farming are buzzwords we are trying to use Gm which GM mustard will require almost double the quantity of fertiliser and water.

Health concerns of GM Hybrid Mazie include: allergenicity; gene transfer, especially of antibiotic-resistant genes, from GM foods to cells or bacteria in the gastrointestinal tract; and `out crossing', or the movement of genes from GM plants to conventional crops, posing indirect threats to food safety and security

Counter

For over 15 years, GM canola oil (a variant of mustard) and GM soya oil have been consumed globally without a single case of adverse impact. In India too, we have been importing nearly 4 million tonnes of these GM oils and consuming GM canola oil and GM soya oil for over a decade.

Can effect honeybees and environment

Counter

The technology was tested well for its environmental safety by GEAC before it was recommended for release.

Regulatory issues

Trail data transparency

Department of Biotechnology, whose primary task is to promote biotechnology. DBT therefore is the promoter as well as the regulator. On several occasions, developers of transgenic crops have also been members of regulatory committees

Counter argument

The same regulatory system is used for testing and approval of biotech pharma products, which are exported globally.

 it will be the first biotech food crop for the country

GEAC has made the recommendation based on scientific evaluations and not on emotional hypothesis. This is backed by data and evidence and needs to be encouraged and embraced by everyone.

Will help mnc’s

This technology is developed by a renowned Indian scientist in an Indian institution with the full support of public funds from NDDB and the Government. Thus it is a swadeshi technology and needs to be encouraged.

International trends

Bangladesh was the 1st country to approve the commercial planting of Bt brinjal in late-2013, after being disallowed by India

While the likes of Pakistan, Bangladesh, Myanmar, Philippines and Vietnam are adopting GM technology to improve crop yields and reduce input costs

Transgender gave birth

In Finland trans gender gave bith

### Glysophate in humans

higher glyphosate urine levels were significantly correlated with shortened gestational lengths.”effected pregnancy

Used in Monsato’s weed side

Recent study in Indiana in USA What makes the study significant is the fact that this is a rare instance of a common crop chemical being detected in people.

### Biotechnology Industry Research Assistance Council (BIRAC)

in supporting the entrepreneurial aspirations of brightest minds in the country through its programs and mentor support networks in keeping with the Government’s mandate

### The oldest nuclear DNA from Africa ever has been discovered in eastern Morocco,

### Space effect on genes

Scott’s who spent a year in space his telomeres — end caps of chromosomes that shorten as one ages — actually became significantly longer in space

After return they returned to their natural length

But some changes in genes did not revert back.

### Spirulina farming brings prosperity

Alternative ways to diversify income

blue-green algae a type of cynobacteria used in food

### India’s first cloned Assamese buffalo

Central Institute for Research on Buffaloes (CIRB) hissar

### Stem cells

New research:

Maintain pluripotency of Embryonic stem cells

to try and convert induced pluripotent stem (iPS) cells, which are pluripotent, into specialised cells, such as neurons, by altering the expression of the endocytosis-associated genes

### Phytoremediation:

The process by which plants can be used to clean up areas devastated by man-made disasters, such as nuclear accidents or a chemical spill

Melanin Protein:

Melanin is produced by the oxidation of the amino acid tyrosine, followed by polymerization.

The melanin pigments are produced in a specialized group of cells known as melanocytes

Melanogenesis is initiated by exposure to UV radiation, causing the skin to turn tan

Melanoma occurs when the pigment-producing cells that give colour to the skin become cancerous.

Delhi’s CSIR-Institute of Genomics and Integrative Biology (IGIB) have for the first time identified a calcium sensor protein (STIM1) that independently regulates both skin cancer and pigmentation

### Paleobiology

is a growing and comparatively new discipline which combines the methods and findings of the natural science biology with the methods and findings of the earth science paleontology

### Paleontology

Dealing with fossils of animals and plants

## Nanotech

### Absorption of heavy metals in sewage water

nanocomposite was prepared by mixing dried green **seaweed Ulva fasciata with iron chloride** and heated to 150 degree C for 30 minutes to remove all moisture and then heated at 800 degree C for three hours in inert condition. Hydrogen sulphide gas, which is produced when seaweed is heated, reacts with iron **to form iron sulphide.**

***Iron sulphide helps in absorption of lead, chromium and dyes from water.***

### Nanomotors

zinc-ferrite–coated magnetic nanomotors that are highly stable and can generate localised heating to kill cancerous cells

### Water extraction in desert

metal-organic frameworks, the device, powered solely by sunlight, can work in regions with low relative humidity.

### Cancer detection

nanoparticles biomolecules that bind to cancer cells give a green fluorescence

fluorescent nanoparticles created from simple biomolecules can now help light up cancer cells for better imaging.

caddmium selenium quantum dots currently used for imaging purposes are highly toxic to the human cells

### Micro plastic Pollution:

Microscopic plastic particles in bottled water

research by Orb Media, a non-profit journalism organisation based in Washington, D.C., shows that a single bottle can hold dozens, or possibly even thousands, of microscopic plastic particles

polypropylene, nylon, and polyethylene terephthalate (PET)

Microplastic pollution:Whales, sharks and other marine species are under increasing danger from microplastic pollution

### Microfiber Pollution:

The fight to keep tiny pollutants from reaching the dinner plate might start in the laundry room. Innovators are coming up with tools to keep tiny pieces of thread that are discharged with washing machine effluent from reaching marine life

**Guppyfriend and Cora Ball**, aimed at curbing microfibres

Used in washing mashines

A 2011 study microfibres made up 85% of man-caused shoreline debris

## Technology

### **Wind power**

**1000 MW offshore wind energy project in Gulf of Khambat, off the coast of Gujarat**. The proposed area is located 23-40 km seaward side from Pipavav port.

**Areas off the coasts of Gujarat and Tamil Nadu are two identified areas for development of offshore wind power.** **The second LiDAR would be installed off Tamil Nadu coast by September, 2018.**

National Institute of Wind Energy (NIWE) an autonomous body under the Ministry of New and Renewable Energy (MNRE)

### **Internet security threat report**

The U.S. remains most vulnerable to such attacks,

followed by China,

India is third most vulnerable country for cyber attacks

**Most targeted attacks**

USA

India

Japan

**Ransomeware countries**

More in where people are more connected

USA

China

Japan

India

Eight params

malware,

spam,

phishing,

bots,

network attacks,

web attacks,

ransomware and

cryptominers

India

2nd most targeted country in world

India 2nd rank by spam and bots,

3rd by network attacks, and

4th most impacted by ransomware

New technique Cryptojacking is a rising threat to cyber and personal security

immediate impact of coin mining is typically performance related — slowing down devices, overheating batteries and in some cases, rendering devices unusable

### Fake news menace

Decision By broadcast ministry accreditation of any journalist found guilty of disseminating “fake news” could be cancelled.But it is set to be withdrawn after interference from PMO.

### National Physical Laboratory

Time keeper india

To employ long wave radio technology for dissemination of time

### Indian IT

Growth in revenue

Decline in Hiring

Hiring on 3 year decline

### Cambridge Annalytica leaks

data of over 5.6 lakh users of the social media platform in India may have been accessed without their consent in the ongoing controversy involving Cambridge Analytica

the app was downloaded by just 2,70,000 Facebook users, it also pulled in data from the “Facebook friends” of these users, allowing CA to harvest the data of 50 million users, without their consent

Information campaigns were then micro-targeted at these users based on their preferences and vulnerabilities (for instance).

.

### India-based Neutrino Observatory (INO) project

lab **in Bodi West hills in Tamil Nadu**

The observatory, which is to come up in Bodi West Hills in Theni district, Tamil Nadu, is regarded as a symbol not just of India’s push for research in particle physics; it also signals the intent to nurture centres of excellence. Neutrinos are subatomic particles that are extremely difficult to detect.

The laboratory cavern will be located 1,300 metres underground, with an access tunnel.

The rock cover is necessary to minimise the naturally occurring cosmic ray backdrop. The project has become controversial on environmental grounds, given the proposed site’s proximity to the **Mathikettan Shola National Park in Kerala’s Western Ghats, a global biodiversity hotspot.**

**The issue with environment assessment**

The project has been approved under category B item 8(a) — building and construction projects — of the Schedule to the Environmental Impact Assessment (EIA) Notification, 2006.

But it should have been treated as category A as the project lies just 4.9 km from the national park in Idukki district of Kerala.

The NGT had ruled that it was indeed a category A project and the Tamil Nadu State expert appraisal committee also noted that it could not be appraised under category B 8(a) as tunnelling and other activities went beyond the scope of the section.

### Smart India Hackathon

**At jaipur**

### IOT

“Internet of Things” (IoT), the term coined by Peter T. Lewis in 1985

According to Cisco, 50 billion connected “things” will be used globally in 2020.

we must keep in mind that the IoT would generate loads of data, ‘Big Data’ and ‘IoT’ being two sides of the same coin

Issues:

Your breakfast time, TV watching schedule, and even when your house remains empty are pieces of information sure to get exposed through the IoT, posing a serious security and privacy threat.

Hackers may exploit such weak spots.

Preventing such attacks is a daunting task. Software must be designed accordingly and remote devices locked down as well — an almost impossible task in today’s world

### Hostile takeovers

USA authority to block foreign acquisitions of U.S. companies for national security reasons Mostly by chinese; it has effectively killed several acquisitions linked to Chinese buyers over the past year

### Super capacitor

Supercapacitors are now being used explicitly in wind turbine pitch control, rail (on-board or wayside), automotive (including hybrid vehicles), heavy industrial equipment, UPS and Telecom systems for power delivery and memory backup.

New method of creating super capacitor by CSIR

### Asia Pacific Computer Emergency Response Team (APCERT) :

First ever (APCERT) Open Conference in India and the first in South Asia was held in New Delhi.

CERT’s from 22 digital Asia Pacific economies participated

India was selected to be part of the steering committee of APCERT for 2 years

Topics covered: CSIRTS, Nation State exploits, vulnerabilities of block chain, secure communication in industrial internet, cyber crime in financial technology ecosystem, building a sharing economy, machine learning, malicious behaviour in encrypted traffic, mobile security and Artificial Intelligence.

NIC-CERT

A setup of National Informatics Centre has been setup with the objective of creating a comprehensive framework that integrates world class security components and inbuilt threat intelligence for detection, prevention and incident response.

Using the tools the team will correlate events that would help in generating a canvas of the attack surface and identify the vulnerabilities and possible exploits.

The gathered intelligence assimilated with the knowledge of the open web would give the CERT the ability prevent and predict attacks.

It will monitor, detect and prevent cyber attacks on government networks

### MDR Subsidised:

Merchant Discount Rate (MDR) applicable on **all debit card/BHIM UPI/ Aadhaar enabled Payment System (AePS)** transactions upto and including a value of Rs. 2000 will be borne by the Government for a period of two years with effect from 1st January, 2018 by reimbursing the same to the banks.

NPCI Handle all digital payments in india

When payment is made at a merchant point of sale, MDR is payable by the merchant to the bank.

### High performance computing:

the High Performance Computer (HPC) **System named ‘Mihir’** (meaning ‘Sun’) at the National Centre for Medium Range Weather Forecasting (NCMRWF) at Noida

India now rank in top 30 in 4th position from 368th

After Japan ,UK and USA

Under ministry of Earth Science

The new HPC facility is expected to improve the following services:

1. Weather **forecasts at block level over India which can predict extreme weather** events.
2. High resolution seasonal/extended range forecasts of active/break spells of Monsoon.
3. Very high resolution coupled models for prediction of cyclones with more accuracy and lead time.
4. Ocean state forecasts including marine water quality forecasts at very high resolution.
5. Tsunami forecasts with greater lead time.
6. Air quality forecasts for various cities
7. Climate projections at very high resolution.

In field of earth science India stands 1st in Himalayan Research, 9th in Atmospheric Sciences, 9th in Geosciences, 15th in Ocean sciences, 16th in Antarctic Research and 25th in the field of Arctic Research

### HPE

Ministry of Earth Science

Two High Performance Computing (HPC) Systems **Pratyush and Mihir**

Each having total computing capacity of 6.8 peta flops.

the total HPC capacity of the ministry has gone up to 8.0 Peta Flops.  
Extended range prediction (for next 20 days) and Short range prediction (up to 8 days)

now placed at the **4th position after Japan, UK and USA** for dedicated HPC resources for weather/climate community.  
  
 Indian Monsoon is one of the most complex coupled climate systems of the world.

The geographic location of India, surrounded with tall mountains and oceans make the system more difficult to simulate and predict.

The HPC system is being used for the advanced dynamical prediction systems which are now being used for Seasonal prediction (mainly for SW monsoon season of June to September);

.

### SuperComputer:

Pratyush, an array of computers that can deliver a peak power of 6.8 petaflops.

Indian Institute of Tropical Meteorology (IITM),

Pratyush is the fourth fastest supercomputer in the world dedicated for weather and climate research, and follows machines in Japan, USA and the United Kingdom.

A key function of the machine’s computing power would be monsoon forecasting using a dynamical model. This requires simulating the weather for a given month — say March — and letting a custom-built model calculate how the actual weather will play out over June, July, August and September.

it would be possible to map regions in India at a resolution of 3 km and the globe at 12 km

Top five are china(2),switerland,japan and usa.

[Sunway TaihuLight](https://en.wikipedia.org/wiki/Sunway_TaihuLight) worlds fastest

Now new Exascale super computer to be made in USA

Exascale is billion billion instructions per second

### Saposhi

After Mirai and Reaper, cybersecurity agencies have detected a new malware called **Saposhi**, which is capable of taking over electronic devices and turning them into ‘bots’, which can then be used for any purpose, including a **Distributed Denial of Service attack** which, with enough firepower, can cripple entire industries

Reaper, a highly evolved malware capable of not only hacking devices like Wi-Fi routers and security cameras, but also hiding its own presence in the bot — a device taken over by a malware

Saposhi, Reaper and Mirai are primarily aimed at DDoS attacks, in which the malware first creates a network of bots — called a botnet — and then uses the botnet to ping a single server at the same time

### Meltdown

Meltdown exploits hardware vulnerabilities by accessing data that processors pre-fetch in an attempt to speed up their working,

### Spectre

Its ability to exploit software applications previously thought to have been made with no vulnerabilities makes it harder to counter.

### BHIM

Bharat Interface for Money (BHIM) is a payment app that lets you make simple, easy and quick transactions using Unified Payments Interface (UPI).

You can make direct bank payments to anyone on UPI using their **UPI ID or scanning** their QR with the BHIM app. You can also request money through the app from a UPI ID.

Pioneered and developed by National Payments Corporation of India (NPCI),

### Crypto currencies:

Bitcoin,Litcoin(faster than bitcoin),Ether(2nd largest)

the Board of the International Organization of Securities Commissions (IOSCO) discussed the growing usage of **Initial Coin Offerings (ICOs)** to raise capital as an area of concern

ICOs, also known as token sales or coin sales, typically involve the creation of digital tokens — using distributed ledger technology — and their sale to investors in return for a cryptocurrency such as bitcoin or ether.

Jurisdiction is an issue:

the increased targeting of retail investors through online distribution channels by parties often located outside an investor’s home jurisdiction — which may not be subject to regulation or may violate laws — “raises investor protection concerns.”

Risk of fraud:

A survey by the North American Securities Administrators Association (NASAA) of state and provincial securities regulators showed 94% believed there was a “high risk of fraud” involving cryptocurrencies

### Future Skill

By Nasscom to upskill existing and new IT work force in blockchain ,AI ,IOT,BIG data

### Robotics:

Sophia, the humanoid, Soudi arabia national citizen developed by Hong Kong-based

Elias is also a robot, Elias, the new language teacher at a Finnish primary school, has endless patience for repetition, never makes a pupil feel embarrassed for asking a question

### SWIFT

The SWIFT is a secure financial message carrier — in other words, it transports messages from one bank to its intended bank recipient. Its core role is to provide a secure transmission channel so that Bank A knows that its message to Bank B goes to Bank B and no one else. Bank B, in turn, knows that Bank A, and no one other than Bank A, sent, read or altered the message en route

The SWIFT is a global member-owned cooperative that is headquartered in Brussels, Belgium. It was founded in 1973 by a group of 239 banks from 15 countries which formed a co-operative utility to develop a secure electronic messaging service and common standards to facilitate cross-border payments. It carries an average of approximately 26 million financial messages each day. In order to use its messaging services, customers need to connect to the SWIFT environment. There are several ways of connecting to it: directly through permanent leased lines, the Internet, or SWIFT’s cloud service (Lite2); or indirectly through appointed partners. Messages sent by SWIFT’s customers are authenticated using its specialised security and identification technology. Encryption is added as the messages leave the customer environment and enter the SWIFT Environment. Messages remain in the protected SWIFT environment, subject to all its confidentiality and integrity commitments, throughout the transmission process while they are transmitted to the operating centres (OPCs) where they are processed — until they are safely delivered to the receiver.

### BharatNet

Gram Panchayat Hamira of Rajasthan to Have Telemedicine and e-Education Facilities Riding on BharatNet Infrastructure

Hamira is one among the one lakh Gram Panchayats (GP) covered under BharatNet Phase 1, which was completed by 31 Dec 2017

Tech empowering Rural Development

Building on the principle of eligibility through Socio Economic Census 2011, and accountability through the multi-pronged framework of Social Audit, Financial Audit, Geo-tagging and use of IT-DBT, the programmes of DoRD have made significant progress in institutionalizing a transparent framework with zero tolerance for corruption.

Besides all transaction based MIS in the public domain that provides geo-tagged photos and real time information, efforts have been made to develop citizen centric apps like Gram Samvad, Meri Sadak, Awaas App etc. to improve the accountability to the people.

DAY-NRLM has launched a transaction-based MIS to capture SHG member level transactions. The system has already been rolled out in 1400 Blocks across 25 States. This MIS which is also in public domain enables the project management as well as community members to monitor the performance and financial position of SHGs and their federations on a real time basis”.

To assess the progress of programmes in States, the Department has introduced a system of Common Review Mission (CRM).

 One portal namely GRIP for online processing and analysis of internal audit has been developed and it is being used in internal audit of MGNREGA and PMAY(Gramin).

DoRD hopes to further deepen these processes by conducting programmes at Gram Panchayat level from time to time with periodic public updation of display records in Gram Panchayat offices.

Reforms to simplify Record Registers, Community Information Boards, use of logo with financial details etc. is being relentlessly pursued to further strengthen the accountability from time to time.

Over 2.43 crore MGNREGS assets and/all PMAY Gramin homes at different stages of construction are all geo-tagged and available on the public website. This greatly enhances transparency and accountability.

## Space Technology

### Nasa Insight

Mars rover

Set to study the deep interior of the Red Planet — [detecting marsquakes](https://www.space.com/40445-insight-mars-lander-marsquakes-science.html) and monitoring subsurface heat flow in an effort to understand how rocky planets are formed

including **SEIS, the seismometer** provided by a consortium led by the French space agency CNES, and **the Heat Flow and Physical Properties Package, the self-hammering mole** furnished by the German Aerospace Center DLR.

### ISRO 2017

2017-18

1. **India's GSLV-F05** with indigenous Cryogenic stage:vikas engine
   1. **GSAT-6A** Satellite into Geosynchronous Transfer Orbit (GTO)
   2. to provide mobile communication services
   3. will be transferred to GSO **later on it failed**
2. **IRNSS-1I is** the latest member of the ‘Navigation with Indian Constellation (NavIC)’ system.
   1. Polar Satellite Launch Vehicle PSLV-C41
   2. To replace IRNSS 1A, whose 3 Rubidium atomic clocks had stopped working 2 years ago
   3. Indian Regional Navigation Satellite System (IRNSS), is an independent regional navigation satellite system designed to provide position information in the Indian region and 1,500 km around the Indian mainland.
   4. From Satish Dhawan Space Centre SHAR
   5. Serving both military and civilian needs
   6. It completes navic with 7th sat

**2016-17:**

1. Augmented Indian Earth Observation capability with four remote sensing satellites viz. **Resourcesat-2A, Scatsat-1 and two Cartosat-2 series.**
   1. **Scatsat:** SCATSAT-1 is a continuity mission for Oceansat-2
      1. Scatterometer to provide wind vector data products for weather forecasting, cyclone detection and tracking services to the users**.**
2. Successfully conducted two technology demonstrator missions viz. Reusable Launch Vehicle-Technology Demonstrator (RLV-TD) **and Scramjet Engine, an Air Breathing Propulsion System**.
   1. utilise the atmospheric oxygen during their flight through the atmosphere which will considerably reduce the total propellant required to place a satellite in orbit.
   2. 70% of fuel had to be carried at launch
   3. RAMjet work at only supersonic speeds
   4. SCRAMJET work at **hypersonic speeds** also known as **Supersonic Combustion Ramjet**
3. Successful testing of indigenously d**eveloped Cryogenic Upper Stage “C25” for GSLV MkIII for full flight duration of 640 seconds**.
4. Successfully launched **104 satellites in a single go, onboard PSLV C37**.
5. Isro to support (ASEAN) countries to receive and process data from Indian remote sensing satellites (RESOURCESAT-2 and OCEANSAT-2) and also to provide training in space science, technology and applications and also launched South AsiaSatellite’ or **GSAT-9**, on **GSLV F09**
6. **Astrosat (Science payload) is** a unique multi **wavelength observatory in space**.

It provides an opportunity for observation of celestial sources in Ultra-Violet, Optical and X-ray wavelength bands

### Hubble

NASA’s Hubble Space Telescope has discovered the farthest individual star ever seen

Icarus located over halfway across the universe.

its light has taken nine billion years to reach Earth

### Pulsar

A pulsar is a highly magnetized rotating neutron star or white dwarf that emits a beam of electromagnetic radiation.

### Magellanic Cloud,

either of two satellite galaxies of the Milky Way Galaxy

one is called Larger Magellanic Cloud and other is Samll Magellanic Cloud

visible to naked eye in Southern hemisphere

### Space Technology

All galaxies rotate once every billion years

### meteorites

carbonaceous one of the most primitive types.

They contain grains of calcium and iron, which date to a time before the sun came into existence

**ordinary chondrite**

this is the most common type of meteorites, made of small grains of rock and believed to be mostly unchanged since the formation of the solar system

### TERLS 50 years

Thumba equatorial rocket launching station.

Now also called vikram sarabai space center

Sounding rockets are one or two stage solid propellant rockets used for probing the upper atmospheric regions and for space research. They also serve as easily affordable platforms to test or prove prototypes of new components or subsystems intended for use in launch vehicles and satellites

Due to presence of strong equatorial electrojet

Electro jet is movement of electric current eastwards in lower ionosphere.

This westward movement of the electrons constitutes an eastward electric current which is called the Equatorial Electrojet

Basically all space ports are located near to the geomagnetic equator.

Because, when we launch a rocket from geomagnetic equator , we gain some extra speed of earth’s inherent rotation about its own axis, which is greatest at equator,

Reasons

At the magnetic dip equator, where the magnetic field is exactly horizontal

Presence of solar winds

### LISA

The space-based observatory LISA – a collaboration between European Space Agency and NASA is to be launched in the near future for Gravitation waves research

### PSLV C40-

The 42nd Polar Satellite Launch Vehicle (PSLV),PSLV C40 launch in Jan 2017

31 satellites launched in one go,28 foreign +3 Indian

Satish dawan space center SHAR Shri Harikota AP

Payload:

Cartosat 2F remote sensing: whose imagery will be used to develop various land and geographical information system applications.

The imagery sent by satellite will be useful

for cartographic applications,

urban and rural applications,

coastal land use and regulation,

utility management like road network monitoring, water distribution,

creation of land use maps,

change detection to bring out geographical and manmade features and various other Land Information System (LIS) as well as

Geographical Information System (GIS) applications.

Life=5 years.

Orbit: , circular polar sun synchronous orbit 505 km from the Earth.

Two technology demonstrator satellites:

one is a microsatellite of the 100 kg class

Microsat is a small satellite in the 100 kg class that derives its heritage from IMS-1 bus.

The satellite bus is modular in design and can be fabricated and tested independently of payload

Indian Nano Satellite (INS) - 1C, nanosatellite,

the third in its series;

its predecessors were part of the PSLV-C37 launch of February 2017

payload: carries the Miniature Multispectral Technology Demonstration

life:6months

Data sent by this camera is useful for topographical mapping, vegetation monitoring, aerosol scattering studies and cloud studies

### Falcon Heavy

SpaceX’s heaviest rocket .world’s heaviest rocket

Combination of three Falcon 9s

### Remote sensing

The services derived from these satellites are being used by various Ministries/Departments in agriculture, water resources, forest and environment, urban and rural development, ocean and meteorology.

## Biology Human

### Brain

#### cerebral cortex

It is the outermost portion that can be divided into the four lobes of the brain

Each bump on the surface of the **brain is known as a gyrus,**

while **each groove is known as a sulcus**

4 lobes

**The frontal lobe** is located at the front of the brain and is associated with reasoning, motor skills, higher level cognition, and expressive language

**The parietal lobe** is located in the middle section of the brain and is associated with processing tactile sensory information such as pressure, touch, and pain

**The temporal lobe** is located on the bottom section of the brain

which is important for interpreting sounds and the language we hear

Hippocampus also here

**The occipital lobe** is located at the back portion of the brain and is associated with interpreting visual stimuli and information.

#### Medulla

The medulla is located directly above the spinal cord in the lower part of the brain stem and controls many vital autonomic functions such as heart rate, breathing, and blood pressure.

#### PONS

The pons connects the medulla to the cerebellum and serves a number of important functions including playing a role in several autonomic functions such as stimulating breathing and controlling sleep cycles

#### Hypothalamus

hypothalamus connects with many other regions of the brain and is responsible for **controlling hunger, thirst, emotions, body temperature regulation, and circadian rhythms**

### Hippocampus

hippocampus is a region which is believed to be the abode of long-term memory and emotional responses

present in brain's medial temporal lobe

similar to that of a horseshoe

associated with Alzheimer's disease, (a disease that effects elderly people and often results in loss of memory) has been proven to have affected and damaged this area of the brain

a lack of neurogenesis in the hippocampal region has been suggested in the case of some aquatic mammals like dolphins, porpoises and whales.

### Circadian Rhythm:

A part of your hypothalamus (a portion of your brain) controls your circadian rhythm sleep/wake cycle. All animals and plants have a built-in circadian rhythm, which is adjusted or entrained to the environment by external cues, known as Zeitgebers (a German word meaning “time-givers”), the most important of which is daylight.

The most important hormones affected by the circadian clock, at least insofar as they affect sleep, are melatonin (which is produced in the pineal gland in the brain, and which chemically causes drowsiness and lowers body temperature)

### Neuroglia

also called **glial cells or simply glia,** are non-neuronal cells that maintain homeostasis, form myelin, and provide support and protection for neurons in the central and peripheral nervous systems.

### Hippocampus

Part of brain regulates emotions

### Macrophase

Type of WBC that filter blood by digesting dead cells

### hair follicle germs

the sources of the tiny organs that grow and sustain hair

### LIVER

Combining ultrasound imaging with a blood test for **high alpha-fetoprotein (AFP)** levels improves detection of early-stage liver cancer by as much as 40%.

AFP is a plasma protein that is produced in abundance by the liver cells in the foetus.

In adults, AFP levels are normally low, but liver cancer can cause these levels to rise.

### Nervous System

Projections on the dendrites **called spines grow or shrink** in response to activity-dependent modification and correlates with normal memory or memory deficit in animal models

Filamentous actin (F-actin) is a cytoskeletal protein which is responsible for maintaining the shape of the spines. While F-actin is formed by polymerisation of monomeric globular-actin (G-actin), depolymerisation leads to loss of F-actin and, in turn, the loss of spines. F-actin is crucial for memory consolidation.

### Allens rule

This refers to an ecogeographical rule which states that significant differences exist in the size of limbs and other external organs of animals, even within the same species, depending on the geographical region in which they live.

Animals living in colder regions of the world, for instance, have shorter limbs than those living in warmer regions as an adaptation to control the dissipation of heat**. A smaller body surface area helps animals in colder regions stay warm by slowing down the loss of body heat**.

It is named after American biologist Joel Asaph Allen who proposed it in his 1877 paper

## History and culture

### Modern history facts

1. The **first jute mill** was established at Rishra, on the River Hooghly near Calcutta in 1855
2. "The Bombay Spinning Mill", was opened in 1854 in Bombay by Cowasji Nanabhai Davar.
3. first blast furnace of India **at Kulti in 1870** and production began in 1874, which was set up by **Bengal Iron Works**
4. Tata Iron and Steel Company (TISCO) was established by Dorabji Tata in 1907
5. JRD Tata launches **India's first** scheduled airline, Tata **Airlines**, by piloting the **first** flight himself from Karachi to Mumbai via Ahmedabad on a single-engine. Puss Moth with a load of airmail
6. **Kallanai** Dam, also known as **Grand Anicut**, is the fourth oldest dam in the world. It still serves the people of Tamilnadu, India. The dam was constructed by King **Karikala Chola** of the Chola Dynasty in the 2nd century AD.
7. The first passenger train in India ran between Bombay (**Bori Bunder**) and Thane on 16 April 1853. The 14-carriage train was hauled by three steam locomotives: Sahib, Sindh and Sultan
8. The first evidence of road development in the Indian subcontinent can be traced back to approximately 2800 BC from the ancient cities of Harrapa and **Mohenjodaro** of the Indus Valley Civilization
9. The **University of Calcutta** (informally known as **Calcutta University** or CU) is a public state university located in Kolkata (formerly Calcutta), West Bengal, India established on 24 January 1857
   1. It was the first institution in Asia to be established as a multidisciplinary and secular Western-style university.
10. The First Board of Education in India was established in **Uttar Pradesh** in 1921
11. The **National Council of Educational Research and Training (NCERT)** is an autonomous organisation of the Government of India that was established on 1 September 1961 as a literary, scientific and charitable Society **under the Societies' Registration Act**
12. Supreme Court of Judicature at Fort William, Calcutta was founded by an Act of Parliament in 1774
    1. Sir Elijah Impey, first CJI
    2. Consist of cji and 3 judges
    3. Ist CJI INDIA after 1947 The first Chief Justice of India was Sir **H J Kania**
    4. **Fathima Beevi** first female judge to be a part of the Supreme court of India 1989
       1. the first Muslim woman to be appointed to any of the higher judiciaries
    5. **Indu Malhotra** will be the **first woman** lawyer to be directly elevated from the Bar to the **Supreme Court** as a **judge**
    6. **Ramaswami Iye first female**judge in **India;first to be HC judge Kerala High Court on 9 February 1959**
13. **Indian High Courts Act of 1861** was an act of the Parliament of the United Kingdom to authorize the Crown to create High Courts in the Indian colony.
    1. Queen Victoria created the High Courts **in Calcutta, Madras, and Bombay by  in 1865**.
    2. The **Calcutta High Court is the oldest High Court** in India
    3. [Sir Barnes Peacock](https://en.wikipedia.org/wiki/Barnes_Peacock) was the first Chief Justice of the High Court
    4. **Justice Phani Bhushan Chakravartti** was the first Indian permanent Chief Justice of the court.
14. The first **municipal corporation** was set up in India in 1687 at **Madras**
15. The Panchayat Raj system was first adopted by the state of Rajasthan in Nagaur district on 2nd **Oct 1959**
    1. **2nd was Andhra**
16. Governor of India
    1. **Sarojini Naidu** was the first female to become the governor of an Indian state
    2. C. Rajagopalachari became the only Indian Governor-General.
17. Vice president
    1. Current Venkaiah Naidu
    2. 1st Radhakrishnan
18. Presidents
    1. **Pratibha Devisingh Patil 1st women president**
    2. **Zakir Husain 1st muslim vice president**
       1. He was also the shortest-serving President
19. Punjab
    1. Ist CM **Gopi Chand Bhargava** of the Indian National Congress party,
    2. 1st sikh CM Partap Singh Kairon
    3. 1st women cm Rajinder Kaur Bhattal
    4. 1sr governor Punjab; Sir Chandulal Madhavlal Trivedi

### Neanderthals

Neanderthals (the ‘th’ pronounced as ‘t’) are our closest extinct human relative

Mostly in Rurop

### 100 years of champaran satyagrah

The campaign, termed Satyagraha se Swachhagraha, draws inspiration from Mahatma Gandhi’s satyagraha in Champaran a century ago

community sanitation drive across rural Bihar

### Sufism

In Sufism, ishq-e-majazi (pure love for God’s creation) is often the way to

ishq-e-haqeeqi (love for the divine).

### National Cultural Audiovisual Archives (NCAA) becomes the World’s First Trusted Digital Repository

Implemented by Indira Gandhi National Centre for the Arts (IGNCA) has been certified as the world’s first Trusted Digital Repository

NCAA digital repository is established with and powered by DIGITĀLAYA (डिजिटालय) which is developed by C-DAC Pune

Indira Gandhi National Centre for the Arts has been set up by the Government of India, as a premier research institute dedicated to holistic understanding and expression of Indian arts in their inter and multi-disciplinary nature.

It has been chosen by UNESCO for South and South East Asian countries on art,

### Gudi padwa;Ugadi

Gudi padwa in Maharashtra

Ugadi in Telangana,karnatka;Andhra pradesh

Both in celebration of traditional new years

Sindhi celebrate it as Cheti Chand or Navreh

### Rashtriya Sanskriti Mahotsav

Gwalior in MP

### Stilwell Road

In World War II, the U.S. Army pushed through a road from Assam to China, known to history as the Stilwell Road after General Joseph Stilwell, the U.S. commander responsible for its construction.

### Agriculture in sahara

in the Holocene age, some 10,000 years ago, it was part of the “green Sahara”

the wild cereals, harvested by the people of the Holocene Sahara, are defined as “weeds” in modern agricultural terms

### Geological time scale

Middle Jurassic era

### Proto history site

Discovered in Bengal

About 3500 bcs

**Microlithic** tools

Minute bone and crystal drills of less than 2 cm size used for making different varieties of beads of semi-precious stone, Minute bone and crystal drills of less than 2 cm size used for making different varieties of beads of semi-precious stone,

Minute bone Drills

several hearths or fire places

**black and red ware pottery (BRW),** which signifies a proto-historic level of human occupation,of bowls and handis

### Stone age tools

Discovered in Ghumarwin,Bilaspur HP.

Achulian age tools

Along with tools from contemporary Soanian period

2 stone age cultures at site

first time that the AnSI has found a large number of Acheulian artefacts along with Soanian tools at a same site

Anthropological survey of India

Soanian is an archaeological culture of the Lower Paleolithic in the Siwalik region of the Indian subcontinent

Soanina is Lower Paleolithic

### Pre Iron age tools

Discovered in Odisha

teeth of three types of sharks, stone tools were unearthed from the site

stone tools, potteries

### Megalithic burial

site discovered in Kozhikode in kerela.

sarcophagus (stone coffin),rock-cut cave at Viyur

other sites of megalithic rock cut caves are Megalithic sites at Chevayur and Atholi, also in Kozhikode district

four-legged jars and iron tools

Types of megalithic burials

Underground:

Sarcophagus(terracotta coffin), Pit burials, Urn burials(for children)

Grounded

Rock cut caves,Hood stones/cap stones,

Menhirs(singlr rock pillar)-mizorams first monument menhir of venchia,

Alignments(many rock pillars),

dolmonoid cists(rectangular box like raves),

cairn circles(stone circle marking grave)Most popular.

### The Levallois technique

It is a name given by archaeologists to a distinctive type of stone knapping developed by precursors to modern humans during the Palaeolithic period.

A site have been discovered in india with 38500 years old levallois tools

Dating technology used is **luminescence dating**

Luminescence is emission of light by a substance not resulting from heat; it is thus a form of cold-body radiation

Attirampakkam Chennai, Tamil Nadu

the Attirampakkam tools are by far **the oldest Middle Paleolithic tools in India**,

### Jainism

Mahamastakabhisheka — held once in 12 years at Shravanabelagola,Karnatka by unveiling an idol of Lord Bahubali in the presence of many saints, devotees and dignitaries here on Wednesday.

the anointment of the Bahubali (Gommateshwara) statue, is an important Jain festival attended by lakhs of devotees

### Cave Painting in Kashmir:

A cave in Burzahama region in Kashmir depicts a scene which has recently been interpreted as an astronomical event of significance a supernova

### Theater Olympics:

India will host the Theatre Olympics for the first time

history going back to at least 200 BCE and flowering luxuriously until 11 CE, with Kalidasa and Bhavabhuti, Sudraka and Bhasa producing their masterpieces.

The anti-colonial theatre of the mid-19th century brought in the draconian Dramatic Performances (Prevention) Act of 1876

At National school of Drama

Logo ===”Flag of Friendship“

under the aegis of Ministry of Culture

The theme of the 8th Theatre Olympics is “Flag of Friendship” that aims to bridge borders and bring people of different cultures, beliefs and ideologies together through the medium of theatrical art.

### Tribes:

Ahikuntaka (Telugu tribe)

had been living on the Sri Lankan island for many centuries but its population was on the decline.

Only indigenous tribe to be found in other country.

‘**Burma Naidu’** promoted the Telugu in Burma or Myanmar.

### 13 Intangible Cultural Heritage elements from India inscribed on UNESCO’s List

Latest being

1Yoga

2Nawrouz, Novruz, Nowrouz, Nowrouz, Nawrouz, Nauryz, Nooruz, Nowruz, Navruz, Nevruz, Nowruz, Navruz

3Kumbh Mela(2017)

### Languages:

42 languages which are spoken by fewer than 10,000 people. These are considered endangered and may be heading towards extinction

**Endangered languages:**

**Central Institute of Indian Languages, Mysore, has been working for the protection and preservation of endangered languages in the country under a central scheme**

The languages or dialects include 11 from Andaman and Nicobar Islands (Great Andamanese, Jarawa, Lamongse, Luro, Muot, Onge, Pu, Sanenyo, Sentilese, Shompen and Takahanyilang),

seven from Manipur (Aimol, Aka, Koiren, Lamgang, Langrong, Purum and Tarao) and

four from Himachal Pradesh (Baghati, Handuri, Pangvali and Sirmaudi)

Manda, Parji and Pengo (Odisha),

Koraga and Kuruba (Karnataka),

Gadaba and Naiki (AP),

Kota and Toda (Tamil Nadu),

Mra and Na (Arunachal Pradesh),

Tai Nora and Tai Rong (Assam),

Bangani (Uttarakhand),

Birhor (Jharkhand),

Nihali (Maharashtra),

Ruga (Meghalaya) and

Toto (West Bengal)

## Nuclear Energy

### **Radiation Induced mutagenesis**

It is a process of accelerating the mutation in plants to produce new varieties

Done using gama rays or other type of radiations

By product is not radioactive

Donot involve insertion of foreign gene so widely accepted method for productivity increase

Mutation is a natural process,it only accelerates IT

Recently

(BARC) has developed two mutants of rice {Trombay Raipur Rice-1(TRR-1), Trombay Konkan Kolam (TKKR-13)\*} and one mutant of cowpea {Trombay Cowpea 901 (TC901)\*} which are identified for release.

BARC has also developed several mutants of groundnut, mustard, cowpea, blackgram, greengram, soybean, rice and wheat which are undergoing advance field trials in State Agricultural Universities

### **Use of nuclear energy**

**Electricity Generation:-**

The total electricity generation from the Nuclear Power Plants during the last three years was 115292 Million Units.

**Agriculture:-**

Using **radiation induced mutagenesis technology,** DAE has developed 42 varieties in oilseeds (groundnut, mustard, soybean and sunflower), pulses (urdbean, mungbean, Pigeonpea, cowpea), rice and jute, which have been released and notified for commercial cultivation across the country.

Board of Radiation & Isotope Technology (BRIT).

**Medicine and Health:-**

BRIT under DAE India is responsible for production and supply of Medical products linked to human health. The radioisotopes produced in nuclear reactors/ cyclotron is employed for medical applications.

BRIT supplies 60Co (Cobalt) source for **Bhabhatron Teletherapy unit used as radiation source for treatment of cancer**.

A radiation therapy machine

### NPP survey

Environmental Survey Laboratories (ESLs) of Bhabha Atomic Research Centre (BARC), a constituent unit of the Department of Atomic Energy established at all Nuclear Power Plants (NPPs) carries out periodic survey of radioactivity levels in environment and estimate the dose to members of public residing around NPPs.

The doses received are small percentages of the limit prescribed by the Atomic Energy Regulatory Board (AERB). As opined by International bodies such as the **United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR)**,

the populations living near NPPs receiving miniscule doses are not likely to be vulnerable to radiation induced diseases.

### Reactors India

|  |  |  |  |
| --- | --- | --- | --- |
| **State /UT** | **Location** | **Project** | **Capacity(MW)** |
| Madhya Pradesh | Chutka | Chutka-1&2 | 2 X 700 |
| Karnataka | Kaiga | Kaiga-5&6 | 2 X 700 |
| Rajasthan | Mahi Banswara | Mahi Banswara- 1 & 2 | 2 X 700 |
| Haryana | Gorakhpur | GHAVP– 3 & 4 | 2 X 700 |
| Rajasthan | Mahi Banswara | Mahi Banswara- 3&4 | 2 X 700 |

These ten Pressurized Heavy Water Reactors (PHWRs) are being built based on indigenous technology and supply of equipment and services by Indian industry

### Nuclear Posture Review:

USA nuclear use policy:new NPR broadens “extreme circumstances” to mean responding to non-nuclear aggression on infrastructure and civilian population in the U.S. and its allies with low-yield weapons

## General science

### BIS mark for Liquid chlorine

### Wash trade

This refers to a form of market manipulation wherein a trader simultaneously buys and sells a stock, or any other financial security, in the market. A wash trading scheme helps to create the impression that a security is being actively traded in the market and is thus in strong demand among market participants in general.

### Natural magnet in animals

magnetite (an iron-based mineral containing Fe3O4)

the key molecule here is a protein called **cryptochrome**, which is found in the retina of the eye

used in magneto-reception in animals

### Coal liquefaction

**Coal liquefaction** is a process of converting **coal** into liquid hydrocarbons: liquid fuels and petrochemicals

### Coal bed Methane

**Unconventional Hydrocarbons** are Coal bed methane, Gas Hydrates, Oil sands, shale oil etc.

**Coal bed Methane (CBM),** is an eco-friendly natural gas, stored in coal seams, generated during the process of the coalification (the degree of change undergone by coal as it matures from peat to anthracite).

CBM exploration and exploitation has an **important bearing on reducing the green house effect and earning carbon credit** by preventing the direct emission of methane gas from operating mines to the atmosphere.

Further, extraction of the CBM through degassing of the coal seams prior to mining of coal is a **cost effective** means of boosting coal production and maintaining safe methane level in working mines.

### Gas hydrates

**Gas hydrates** are naturally occurring, crystalline, ice-like substances composed of gas molecules (methane, ethane, propane, etc.) held in a cage-like ice structure. (clathrate).

Hydrates **are a concentrated form of natural gas compared with compressed gas**, but **less concentrated than liquefied natural gas.**

It is estimated that a significant part of the Earth's fossil fuel is stored as gas hydrates, but as yet there is no agreement as to how large these reserves are.

They are found abundantly worldwide in the top **few hundred meters of sediment beneath continental margins at water depths** between a few hundred and a few thousand feet and mainly in permafrost areas.

### Oli sands

**Oil sands or Tar Sands** refers to crude trapped in sands in a semi solid form, mixed with sand and water. Tar Sands contain bitumen - a kind of heavy crude oil.

**They are found in Canada and Venezuela.**

### Shale Oil

**shale Oil**is found in shale source rock that has not been exposed to heat or pressure long enough to convert trapped hydrocarbons into crude oil.

### Oil Shales

**Oil Shales** are usually fine-grained sedimentary rocks containing relatively large amounts of organic matter **from which significant quantities of shale oil and combustible gas can be extracted by destructive distillation**.

The product thus generated is known **as synthetic crude or more simply, syncrude**.

Oil shales are not technically shales and do not really contain oil.

They are **relatively hard rocks called marls** - composed primarily of clay and calcium carbonate**- containing a waxy substance called kerogen**.

The trapped **kerogen can be converted into crude oil using heat and pressure to simulate natural processes**.

Included in most definitions of oil shale, either stated or implied, is the potential for the profitable extraction of shale oil and combustible gas or for burning as a fuel.

### Tight Oil

Shale is subset of tight Oil

**Tight Oil:** Although the terms shale oil and tight oil are often used interchangeably in public discourse, shale formations are only a subset of all low permeability tight formations

Within the United States, the oil and natural gas industry typically refers to tight oil production rather than shale oil production

### Coal beneficiation

is a physical process that separates burnable coal from associated un-burnable mineral matter, also known as ash, or rejects.

High ash content is inherent in Indian coals, the ash having been deposited concurrently with the coal in the paleo-depositional environment.

Due to the close specific gravity of coal and ash, efficient separation becomes difficult.

Washed coal continues to have ash content after beneficiation.

Conversely, coal constitutes a small but nonetheless significant part of the rejects.

This residual coal is a valuable economic resource that should neither be ignored nor discarded.

Indian science congress

Indian Science Congress Association (ISCA) owes its origin to the foresight and initiative of two British Chemists, namely, Professor J. L. Simonsen and Professor P.S. MacMahon

The first meeting of the Congress was held from January 15-17, 1914 at the premises of the **Asiatic Society, Calcutta,**

106th in Bhopal

o advance and promote the cause of science in India

To hold an annual congress at a suitable place in India

To publish such proceedings, journals, transactions and other publications as may be considered desirable.

To secure and manage funds and endowments for the promotion of Science inlcuding the rights of disposing of or selling all or any portion of the properties of the Association.

To do and perform any or all other acts, matters and things as are conductive to, or incidental to, or necessary for, the above objects

Water states:

Super Ionic water: found in Uranus and Neptune

“Queen bee syndrome” —

the phenomenon of women discriminating against other female coworkers as they rise in seniority — may be getting worse,

Late converger stall

This refers to the phenomenon wherein a low-income country that hopes to grow into a middle- or high-income country, after witnessing a period of high economic growth, fails to achieve its goal. Instead, it gets trapped in its lower income status due to various reasons.

Rapid growth witnessed by such countries turns out to be the result of favourable economic conditions and hides the structural weaknesses in those economies.

Resource-rich economies generally witness high growth during periods of increasing commodity prices, which in turn leads to hopes of sustained economic growth. Such hopes come crashing down after commodity prices fall.

## Discoveries

### Cells

1. **The chloroplasts** are neatly packaged mini-cells which come with their own genetic make- up, and they have the ability to absorb sunlight and use it to convert atmospheric carbon dioxide and water to produce the sugar glucose and the gas oxygen.
   1. They appear to have arisen from even **more ancient cells called ‘cyanobacteria’** (3.5 billion years ago), and have migrated from there to plant cells.
   2. This immigration led to what is called **the ‘oxygen revolution’**, through which the air surrounding the earth became over 20% rich in oxygen
2. **Mitochondria**:
   1. another ancient life form, derived from **‘the purple bacterium’**, migrated to both plant and animal cells. This is the mitochondrion.
   2. Mitochondria do the reverse; they use oxygen and enhance the metabolic energy production of their ‘host’ cells by as much as tenfold
   3. or example, when you exercise rapidly and are short of breath, each molecule of glucose in your cells generates three molecules of lactic acid, and produce three units of energy in the process. But when you now take a deep breath and inhale oxygen, the immigrant mitochondria in your body cells break down the accumulated lactic acid to produce carbon dioxide, water and 30 units of energy
   4. **Muscle cells, which have high energy needs have large numbers of mitochondria in them, while red blood cells whose job is just to transport oxygen have none**.
3. Mitochondria are thus power houses in cells, as chloroplasts are solar panels of energy in plants
4. In plants female provides chloroplast and Humans and animals female provides mitochondria

### Abdul kalam plant

Botanical Survey of India have identified a new plant species from two protected National Parks in West Bengal. Named Drypetes kalamii,critically endangered plant by IUCN

it is a small shrub found to be shorter version of its close relative Drypetes ellisii.This adds to the rich floral wealth of India.

The new species is a close relative of a medicinal plant known in Sanskrit as Putrajivah

“NASA had recently named a new bacterium after Dr Kalam, and we also chose his name as he is a big inspiration for students and young researchers,

### Same Sex

Same sex behavior exists in pigeons and about 150 species of birds

# POLITY

## SUPREME COURT

### National commission on minority education

National Commission for Minority Educational Institutions (NCMEI) has original jurisdiction to determine which institution should be granted minority status.

### Improve collegium system

A full-time body consistent with independence of judiciary appears to be immediate need for the system

### Khap Interference in Marriages 'Absolutely Illegal

a marriage between two adults is governed by the law.

**adults to love and marry as part of their fundamental rights**

Khap panchayats are caste or community groups which at times act as quasi-judicial bodies and pronounce harsh punishments based on age-old customs. Several cases of women and men falling victim to khap diktats have been reported over the years, particularly in states like Haryana, Uttar Pradesh and Rajasthan.

In 2007, a Haryana court had awarded death to five people and sentenced one person to life for killing a couple for marrying against societal norms.

In April 2015, the khap of Notara Bhopat village had ordered a woman from Rajasthan to live with a man whose wife had eloped with her husband.

In 2014, a community panchayat in Uttar Pradesh had banned girls from wearing jeans and keeping mobile phones, claiming that these had a “bad” effect on them and were responsible for incidents of sexual harassment.

### Tribunals judgements

Husband, wife are not co-owners by default

A husband and wife may well be equal partners, sharing the joys and sorrows equally, but they are certainly not equal in claiming tax exemptions.

Such exemptions, if any, are only based on relevant documents and not on anything else, according to income tax authorities.

### SC/ST issue

public servants can only be arrested with the written permission of their appointing authority

**Meerut tense after murder of Dalit leader**

In 2016

A total of 47,338 cases of crimes committed against Scheduled Caste and Scheduled Tribe members were registered in the country in 2016,

Chargesheets were filed in 78.3% of these cases, and the conviction rate was 25.8%

In 2015

in 2015, 38,564 cases were registered for alleged crimes against the SCs in which charge sheets were filed in 73.8% of the cases and the conviction rate was 27.2%

Rule 3 (v) of the Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) Rules, 1995 specifies that with a view to preventing atrocities on members of Scheduled Castes and Scheduled Tribes,the State governments, if deemed necessary, could provide arms licences to them.

-ves

**Neutralising an Act**

case in question was in response to an appeal from the Director of Technical Education against whom a Dalit employee had filed a case under the SCs and the STs (Prevention of Atrocities) Act for denying him permission to prosecute the officer who was primarily charged for committing an atrocity. The court could have accepted his appeal and quashed the case

The judgment effectively neutralises the Act which provided some sense of protection to hapless people against oppressive societal prejudices.

Misuse how?

The bogey of its misuse, however, was raised even before it became operative.

The misuse of **any law (including this one) can be attempted only by resourceful people**.

What are the chances of a poor Dalit landless labourer taking recourse to this law?

About **75% of the population, especially women and the marginalised**, avoid reporting a crime as they feel frustrated and unhappy with **the way cops behave with complainants**.

It is only following pressure from activists that complaints of atrocities get into the police register.

Even after the registration of a complaint, it has to pass through prejudicial barriers — police investigation, the indulgence of the prosecution, and the judicial verdict.

**So we should have a process to protect a rapist not the victim**

**Act is tp protect SC.st not to protect implicated person**

But why should an Act which is meant to protect the human rights of SC/STs contain provisions that would deter them from invoking it?

Shouldn’t it be enough that any mala fide use of the Act could be dealt with under the IPC?

The court has invoked the fundamental rights of an accused under Articles 14 and 21, and overlooked the fact **that Article 17 is meant to help SCs/STs enjoy basic citizenship**.

The Standing Committee’s demand for “an inbuilt provision” in defence of the accused deserved serious consideration though it is contrary to the stand of most political parties

Home Ministry could have thrown light on the pertinent question of whether the extent of misuse of the Act is sufficient to warrant special measures to protect the accused, and why IPC provisions against false cases have been found to be inadequate.

Low conviction really?

The acquittal of culprits has become the norm.

There are studies, such as one by the **Centre for Social Justice, Ahmedabad**, which have exposed how cases of **atrocities result in acquittal due to the anti-Dalit attitude of the law enforcement.**

It is rising

The incidence of atrocities has persistently risen over the last two decades and hovers at an annual 50,000 cases today, implying that **every hour six atrocities are being committed on Dalits** in India

Still the rationale:

discrimination suffered by the SCs/STs is an exception while the abuse of the Act enacted to protect them is the rule

Are thes submitted

It is a fact that in most cases the **courts do not apply the Act saying that the crime was not committed because of the caste of the victim.**

In Khairlanji, among the most infamous caste crimes in history, the court declined to see a caste angle to the massacre.

In 2002, in Jhajjhar where five Dalits were lynched by a mob, the Act was not applied on the ground that the accused did not know the caste of the victims.

Lack of Jusrisprudence of SC

One, it violates the Constitution insofar as it rewrites the Act which is the preserve of Parliament.

Two, the appellant could have been granted bail in the case and hence invoking Article 14 or 21 was uncalled for.

Three, the prayer of the appellant was to quash the case against him and not the Act. The judges in generalising this particular case erred in their judgment

Police to investigate??

Four, to decide whether the case is true or false is for the judges to examine.

How can the police or some official perform this judicial function?

It is unfortunate that such an unjust judgment has come from the Supreme Court, the last hope of the people to get justice.

+ve angle

The Constitution, drafted by B.R. Ambedkar, premises equality before law, which means that all citizens of the country are equal, including Dalits and Adivasis.

Ambedkar gave us the mantra of Bandhutva (brotherhood) and we all should follow it and protect all the citizens of this country.

**Misuse of law**

But let us not be oblivious to the fact that there are a few people today who misuse the very law that was enacted to protect them. And if someone is misusing the law to level a false charge, what can possibly be wrong in saying that the complaint has to be verified at the preliminary stage by a preliminary committee before a formal charge can be made?

If a complaint is registered under the said Act, without verifying the facts of a case, isn’t one going against the very principles of natural justice?

Shouldn’t every citizen get a fair opportunity to defend herself?

it is also a fact that investigating officers do not take cognisance of complaints filed by Dalits and Adivasis.

cases must be registered against erring police officers who have either delayed or avoided filing a complaint.

apex court has given a direction to thoroughly verify the facts of the complaint before registering the FIR of the complainant.

The government has also informed the court that it does not intend to make any amendments to the Atrocities Act.

**Rural and urban areas**

The reasons behind the low conviction, which is 15%, is because cases are registered without proper investigation and a simple accusation leads to an FIR which does not stand scrutiny in a court of law.

Also, one will find that in the figures provided by the government, more cases under the Act are filed in rural areas as opposed to urban areas where caste identities are blurred.

Every time there is a fight or a dispute in rural pockets, it is given a caste angle and someone or the other gets implicated under the Atrocities Act.

Just as a few false rape cases are registered to harass or settle scores under Section 376 of the IPC, it is not uncommon to find the Atrocities Act being similarly misused.

New feature in amendments in 2015

The new offences include more instances of “atrocities” recognised as crimes against SCs and STs. These include forcible tonsuring of head, garlanding with footwear, denying a SC/ST member access to irrigation facilities, using or permitting manual scavenging, dedicating SC/ST women as devadasis, abusing in the name of caste, committing atrocities by dubbing someone a witch, social or economic boycott, preventing SC/ST candidates from filing nomination to contest elections, hurting a SC/ST by removing his or her clothes, forcing a SC/ST member to leave his or her house, village or residence, and so on.

It adds certain IPC offences like hurt, grievous hurt, intimidation and kidnapping, attracting less than 10 years of imprisonment, committed against SCs and STs as offences punishable under the Prevention of Atrocities Act (PoA Act).

The Amendment Act introduced the **establishment of exclusive special courts and special public prosecutors to try offences under the PoA Act,** so that cases are disposed of expeditiously.

law requires these courts to take direct cognisance of an offence, and **complete the trial of the case within two months from the date of filing of the chargesheet**

new law defines **the term ‘wilful negligence’** in the context of public servants at all levels, starting from the registration of the complaint to dereliction of duty under this Act

it adds a section called the **‘presumption as to offences’** — that is, if an accused is acquainted with the victim or his family, the court may presume that the accused was aware of the caste or tribal identity of the victim unless proved otherwise.

however, does not touch Section 18 of the original Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) Act of 1989.

This provision does not allow an accused person, who is alleged to have caused injury to and insulted a Dalit, **to apply for anticipatory bail**

### Foreign Law firms

foreign law firms or foreign lawyers cannot practise law in the country either on the litigation or non-litigation side

overseas lawyers or firms cannot open offices in the country, appear in courts or before any authority or render other legal services, such as giving opinions or drafting documents.

‘fly in and fly out’ will only cover a casual visit not amounting to ‘practice

non-litigious practice came under the term ‘practice of law’, and that could be done only by those enrolled under the Advocates Act in the country.

### ban MPs and MLAs from doubling up as lawyers.

The practice was in violation of Rule 49 of the Bar Council of India Act, which forbade an advocate to be “full-time salaried employee of any person, government, firm, corporation or concern, so long as he continues to practice”.

Under Section 21 of the Indian Penal Code and Section 2(c) of the Prevention of Corruption Act, MLAs and MPs were public servants. Hence, allowing them to practice as an advocate and restricting other public servants was arbitrary, irrational and violation of Articles 14-15 of the Constitution

### Euthanasia Landmark

In a historic decision, the Supreme Court declared **passive euthanasia and the right of persons, including the terminally-ill, to give advance directives to refuse medical treatment permissible**.

Issues

court’s guidelines talk of an advance directive, a document in which a patient can specify conditions under which life-prolonging interventions should not be given.

Such interventions could mean feeding tubes, ventilators, cardiopulmonary resuscitation (CPR) or even antibiotics.

The family of a terminally ill person can also refuse such treatment if an advance directive is not available.

the judgment requires the directive to be countersigned by a Judicial Magistrate of First Class, and copies to be given to the jurisdictional district court, the district judge and the local government

Also, if a patient wants to execute the advance directive, two medical boards — one in the treating hospital and the other headed by the district medical officer — have to give the go-ahead

While safeguards are necessary to protect patients against vested interests, like illegal organ traders, a balance must be struck between the safety and usability of the law

To avoid hiccups, Indian doctors will also need training to communicate end-of-life options betters

**Studies from the U.S**. show that even patients who have made a Do Not Resuscitate (DNR) request are sometimes given CPR because the emergency physician is not aware of the DNR

**Data**

A 2009 study in a Delhi hospital found that over half of the ICU patients who died during a period of 19 months sought withdrawal or withholding of life support

### Rule of law index

Report is relaeased every year by world justice project

2017-2018 WJP Rule of Law Index were Denmark (1), Norway (2), and Finland (3);

the bottom three were Afghanistan (111), Cambodia (112), and Venezuela (113)

in south asia

best is Nepal 58

Sri lanka 59

India 62

our criminal justice system ranks even lower, at 66.

### Shopian Killing

Armed personnel FIR

Prior sanction is a must under Section 7 of the Armed Forces Special Powers Act to file an FIR against personnel acting in the line of duty.

### Cauvery verdict

Impact

One is that water cannot “belong” to a particular State.

States have frequently cited the historical patterns of water-flow within their borders to bolster claims for a greater portion of water.

In this case, the court has stressed that water-sharing between regions should be based on fairness and equity.

The second strand is that it invokes the right to drinking water. Historically, water-sharing has been about catering to the needs of farmers.

Other

That Bengaluru, being a large urbanised agglomeration, had the right to be able to reliably access water to meet residents’ drinking requirements.

Finally, the court reasoned that Tamil Nadu had 20 tmc ft of groundwater that had not been accounted for in water-sharing pacts, and this too needed to be included in calculations.

It could also well be the last tribunal constituted under the existing structure of the Inter-State Water Disputes Act. Take the case of the disagreement between Punjab, Haryana and Rajasthan over the sharing of the Ravi-Beas river system. In 2004, Punjab unilaterally terminated a historic agreement. Haryana demanded water from Punjab on the grounds that it needed water for the arid regions in the south. However, several parts of Haryana are far more urbanised and therefore have greater water needs and Punjab, merely by its geographical location, could not have a natural right to the Ravi-Beas. While the States are still locked in disputes in courts, this lack of historical rights — bolstered by the Cauvery ruling — could mount more pressure on Punjab to keep its side of the bargain. On the other hand, several parts of Punjab are among the most over-exploited groundwater blocks. Prompted by the Cauvery judgment, Punjab could ask that Haryana too utilise greater quantities of its groundwater reserves. The Mahanadi tribunal, intended to devise a water-sharing arrangement between Odisha and Chhattisgarh, could imbibe principles touched upon in the Cauvery judgment.

Future:

The Centre has presented a Bill in the Lok Sabha to subsume all tribunals under one. This is because, it says, tribunals are tardy and composed entirely of members of the judiciary. A new set-up that will have non-judicial experts can mean that conflicts over equitable water-sharing will no longer be solely looked at from a legal view-point, but it will give more weight to ecological concepts such as the water basin’s capacity, environmental flows and groundwater management.

Modern water-management principles put a premium on ensuring that groundwater resources are not over-exploited, particularly because experts have warned that India’s water wars may stem from inadequate recharge of a large number of aquifers.

### National Register of Citizenship (NRC),:

Assam govt on updating NRC to identify illegal migrants.

(Registration of Citizens and Issue of National Identity Cards) Rules, 2003, “the names of persons who are originally inhabitants of the state of Assam and their children and descendants, who are citizens of India, shall be included in the consolidatedlist if the citizenship of such persons is ascertained beyond reasonable doubt and to the satisfaction of the registering authority.

**The 2003 law says the Registrar General of India (RGI) must create this citizens' register and issue a national identity card to citizens after verifying their documents and antecedents. Only the RGI's office can provide certification for citizenship.**

A certificate of residency issued by a gram panchayat is not a document of citizenship

### OBC Sub Categorizing:

the Supreme Court reiterating the 50% ceiling set on reservation in jobs and education and effectively freezing the Rajasthan government's bid to provide quota to Gujjars through a Bill passed in the State Assembly via sub categorizing them in OBC

### Hadia case:

court Supreme Court freed her from the custody of her father to pursue her studies,­­ Supreme Court’s order allowing Hadiya freedom of movement.

the court has now emphasised her personal liberty rather than curtailing her freedom on a totally unrelated ground, namely that she was likely to be radicalized.

Supreme Court’s order is to be welcomed as it gives primacy to a woman’s freedom to choose her manner of living.

Supreme Court restores Hadiya’s marriage, marriage between two consenting adults is still a valid marriage” even if a reasonable number of persons happened to disagree with the wedlock.

a person’s right to choose a religion and marry is an intrinsic part of her meaningful existence.

Matters of dress and of food, of ideas and ideologies, of love and partnership are within the central aspects of identity. Society has no role to play in determining our choice of partners,

### LGBT

The right to privacy and the protection of sexual orientation lie at the core of the fundamental rights guaranteed by Articles 14, 15 and 21 of the Constitution. the validity of Section 377 of the Indian Penal Code, which criminalizes gay sex.

### National Anthem

SC declared playing of national anthem in cinema hall not compulsory.

### SC Controversy

Chief Justice is indeed the master of the roster; this is a well-settled law, one that is reflected in a Constitution Bench judgment in 1998.

The Chief Justice alone can decide the composition of Benches and allot judicial work,

judges should function as “one” rather than in disparate voices.

### Article 16

Supreme Court had, in the Indra Sawhney case, ruled on 16.11.1992 that “clause (4) of Article 16 of the Constitution **speaks of adequate representation and not proportionate representation.”**

As per the clause, “Nothing in this article shall prevent the State from making any provision for the reservation of appointments or posts in favour of any backward class of citizens which, in the opinion of the State, is not adequately represented in the services under the State.

### Article 15

On the case of considering women as perpetuators in crime

The Chief Justice responded, observing that Article 15 was specifically intended to protect women and children from discrimination

### Article 21

the heart of the Aadhaar issue is the “right to choice”, a fundamental right under Article 21 of the Constitution.

Right to dignified life outweighs privacy

pension is not a subsidy under the Section 7 of the Aadhaar Act. It is a rightful entitlement

### Article 29

community’s cultural right under Article 29 in reference to Jallikatu

Constitution imposed no binding obligation on the state to protect animal welfare

preventing animal cruelty falls in the concurrent list

Under FD Article 51 A:But they are non justiciable

to protect and improve the natural environment including forests, lakes, rivers and wild life, and to have compassion for living creatures

### election Reforms:

Latest

Ie. If a convicted person holds office via party it should be deregistered from Ecommission

But govt says “antecedents of a post-holder” is not a ground to de-register or cancel the registration of a political party under Section 29A.

the Supreme Court has imposed an additional disclosure norm for candidates contesting elections. It has asked the Centre to amend the rules as well as the disclosure form filed by candidates along with their nomination papers, **to include the sources of their income**, and **those of their spouses and dependants**

**non-disclosure of assets and their sources would amount to a “corrupt practice” under Section 123 of the Representation of the People Act, 1951.**

**Background:**

**Long list of judicial overreaches for election reforms** the direction to provide the ‘NOTA’ option in voting machines, and another striking down a clause that saved sitting legislators from immediate disqualification upon conviction. It has ruled that the act of voting is an expression of free speech, and that it is part of this fundamental right that voters are required to be informed of all relevant details about a contestant. This led to the rule that candidates should furnish details of any criminal antecedents, educational qualifications and assets. If disclosure of assets is mandatory, it is only logical that the sources of income are also revealed. And as it is often seen that there is a dramatic increase in the assets of candidates at every election over what was disclosed in previous affidavits

### Camera in SC

The Supreme Court, in a bid to usher in transparency, had earlier allowed the installation of CCTV video recording with audio in trial courts and tribunals

### Child Rape

supreme court has struck down a law allowing men to have sex with children as young as 15 provided the pair are married

### Appointments to Central tribunals, appellate tribunals and other authorities

The Supreme Court effectively stayed the applicability of provisions of the Central Tribunal, Appellate Tribunal and other Authorities (Qualification, experience and other conditions of service of members) Rules, 2017 which gave the government primacy in making key appointments to tribunals, including the National Green Tribunal.

the terms and conditions of service of members of the National Green Tribunal shall be governed by the provisions of the National Green Tribunal Act, 2010.

the court accepted the formation of an interim search-cum-selection committee in respect of appointment of both judicial and administrative members to CAT

The panel includes

the Chief Justice of India or his nominee,

Chairman of the Central Administrative Tribunal, and

two secretaries nominated by the Government of India

## Polity

Uttar Pradesh Control of Organised Crime Bill (UPCOCB) was passed

On the line of maharashtra

a draconian law with provisions harsher than the existing anti-terrorism law called the Unlawful Activities (Prevention) Act, 1967.

The UPCOCA gives the police such powers as have not been granted by any law in the state till now.

Formation of Police state

section 28 (2) where the judicial custody of a person arrested under the Act has been increased from 15, 60, and 90 days according to the nature of crime as provided in Code of Criminal Procedure (CrPC) section 167 to 60, 180 and 365 days respectively.

Earlier max was 90 days

the maximum duration of police remand for common crimes is 15 days. However, under Section 28 (3a) of this act the period has been increased to 60 days

Similarly under section 28 (d) of the Act, the accused cannot get anticipatory bail from any court

In fact, the UP police ranks on top in terms of human rights violation according to data provided by the National Human Rights Commission. According to the data, 44% complaints were made from UP alone in 2013-14 and 2015-16.

Clearly, although UPCOCA can be useful to some extent in curbing organised crime, it emerges that by increasing the period of judicial custody from 90 days to one year, and that of police remand from 15 to 60 days, promotes human rights abuses and torture.

Several provisions under this Act are more stringent than the existing anti-terrorism law and can be misused.

### Issue of anganwadi food:

Data on malnutrition should serve as a wake-up call for the government: 38% of children are stunted and 35.7% are underweight in India. About 21% of children under the age of five are wasted (low weight for height), according to the National Family Health Survey-4 data.

Or is there no solution because children cannot be quantified as vote banks

### Death penalty to child rape

While the U.K. has seen an increase in murders since 1965 when capital punishment for murder was removed from the statute book,

Canada has not seen any such impact since it abolished the death penalty .

Societal issues:

The number of reported cases of rapes of children increased in India by 82% in 2016 compared to 2015.

A climate of violence, social and economic insecurity, alienation, and a progressive undermining of the status of women and children seem to have given an impetus to carry out crimes against women and children.

The recent public defence of the rape accused in Kathua seems to indicate a dilution of social abhorrence for the rape of a child. Given the growing polarisation in society and that both the police and the judiciary are products of society, it seems unclear whether the state will be able to ensure a free and fair trial

Undoubtedly, it is not the severity of the punishment but the certainty and uniformity of it which will reduce crime.

Even for capital punishment to work as a deterrent, the fairness of the investigation, the certainty of conviction, and the speed of the trial are vital.

With the police and judicial independence being under a cloud, especially after the incidents in Kathua and Unnao, the deterrent value of capital punishment seems diminished unless police reforms and fast-track courts are a part of the package

by equalising the punishment for rape and murder, it is likely that most child victims of rape will be harmed so that the best witness is eliminated.

Report No. 262 of the Law Commission of India on the death penalty: “After many years of research and debate among statisticians, practitioners, and theorists, a worldwide consensus has now emerged that there is no evidence to suggest that the death penalty has a deterrent effect over and above its alternative — life imprisonment.

Reliance on the death penalty diverts attention from other problems ailing the criminal justice system.

‘**Crime in India: 2015’ indicates that 94.8% of the accused under Section 4 (penetrative sexual assault) and Section 6 (aggravated penetrative sexual assault) of the POCSO Act were ‘known accused’.**

**The conviction rate reflected in ‘Crime in India: 2016’ is low — 28.2% under Sections 4 and 6 of the POCSO Act.** Instead of attempting to instil fear in the minds of potential rapists of minors, the state should concentrate on winning the confidence of children through skilled investigation, modern forensic gathering, and establishing structures/appointing human resources under the POCSO Act

### HELP

approval for delegating the powers to **Minister of Petroleum and Natural Gas and Finance Minister to award the blocks/contract areas to successful bidders under Hydrocarbon Exploration and Licensing Policy (HELP)** after International Competitive Bidding (ICB) based on the recommendations of Empowered Committee of Secretaries (ECS) for improving ease of doinf business

Under HELP,

**blocks are to be awarded twice in a year**.

Delegating powers would expedite the decision-making process in awarding the blocks,

allow Coal India Limited (CIL) and its subsidiaries to **extract coal bed methane (CBM)** in their coal bearing areas without applying for a licence or lease under the Petroleum & Natural Gas Rules, 1959.

### CVC data

Central Vigilance Commission (CVC) saw a dramatic drop in the total number of complaints received by it in 2017, keeping in line with the drop in actions by various government departments in cracking down on corruption.

The 23, 609 complaints received in 2017 by the CVC was less than half of almost 50,000 complaints received in 2016, and the lowest in the previous five years.

a deeper study was required to assess if the public was losing its trust in anti-corruption bodies because of their perceived inefficiency, quality of investigations and possible manipulations at various levels.

the government should notify the original Whistle Blowers Protection Act, 2011, appoint a Lokpal, and initiate other steps for strengthening anti-corruption mechanisms.

 one possible reason why there is a general public disenchantment with anti-corruption mechanisms.

When it receives a complaint, the CVC calls for inquiry reports from the appropriate agencies.

As per the laid down procedure, the inquiry/ investigation reports are required to be sent to the Commission **within a period of three months.**

However, it is observed that in a majority of cases, there is considerable delay in finalising and submitting reports to the Commission,

Investigation bias

 based on the CBI’s investigations, the CVC provided the first stage of advice in 171 investigation reports of CBI. Of them, only **30% resulted in criminal proceedings.**

A significant **22% of the CBI investigation reports resulted in closure of those cases,** while

another **33% resulted in only administrative actions such as warnings or caution**.

reports examined by CVC in 2017, **45% were closed without any action, while only 3.09% led to criminal proceedings.**

### Freedom of press

Information and Broadcasting has instituted a committee to regulate online portals, including news websites, entertainment sites and media aggregators

 10-member committee, will include secretaries of the

departments of Home,

Legal Affairs,

Electronics and Information and Technology, and

Industrial Policy and Promotion.

The content telecast on television channels are regulated in terms of the programme and advertisement codes under the Cable Television Networks Rules, 1994.

Press Council of India regulates the print media.

3 aims of committee

One is to bring online information dissemination under regulation.

Second is to propose a policy for foreign direct investment in this media.

Third is to look at international best practices on such existing regulatory mechanism.

### Politicization of History

Rajguru said to be member of RSS

BR Ambedkar name changed

### Adulteration

the Law Commission of India’s report of 2017 to curb adulteration.

Increase penalty to life term

Maharashtra first state in process to do it

### Lingayats issue

Karnatka passed bill declaring then religious minority

Now its upto center

Lingayats and Veerashaiva-Lingayats who follow the philosophy of **12th century social reformer Basaveshwara**

**Central Minority Commission Act.**

### No confidence motion

No mention in Constituion

Article 118 of the Constitution permits each house of Parliament to make its own rules for conduct of business.

Only in lok sabha

Any member can start it

No need to give reason for motion

Need to be submitted to secretary general lok sabha by 10 am

the speaker shall read the motion of no-confidence in the House and ask all those persons to rise who favour that the motion be taken up

If there are 50 MPs in favour, the speaker allots a date for discussing the motion.

At last day of discussion it is pu to vote.

Speaker can provide priority to govt’s confidence motion.

Censure motion is also similar to it

Confidence Motion

Confidence motions have evolved as a counter by the government when it wants to demonstrate its majority. There is no special provision in the rules for a confidence motion — such a motion is moved as an ordinary motion under Rule 184

### Act on foreign funding

Provision of Foreign Contribution (Regulation) Act, 2010 diluted again by a Bill to exempt political parties from scrutiny of funds received from abroad since 1976

Earlier it diluted provisions that bans overseas corporations from funding political parties.

The Representation of the People Act, which lays down the rules for elections, bars parties from accepting foreign funds.

Diluted by BJP

Finance Bill, 2016, the BJP government had amended the Foreign Contribution (Regulation) Act to make it easier for parties to accept foreign funds

Finance Act, 2016, had also changed the definition of a foreign company by saying a firm with less than 50% of share capital held by a foreign entity would no longer be a foreign source

The retrospective amendment will help the BJP and the Congress escape the fallout of a 2014 judgment of the Delhi High Court that held both guilty of violating the Foreign Contribution (Regulation) Act.

### Special category Status

SCS is based on features of a State such as ‘hilly and difficult terrain, low population density or a sizeable tribal population, strategic location, economic backwardness and non-viable nature of State finances

### Issue of simultaneous elections

Simultaneous elections to all state Assemblies and the Lok Sabha have only ever happened in the first four General Elections that took place in India between 1952 and 1967

Free and fair elections are integral to democracy. Continuity, consistency and governance are also integral to democracy

It is not a bug but a feature

Pros

Holding simultaneous elections will ensure consistency, continuity and governance,

simultaneous polls would require a substantial shift from the status quo and would involve amendments to the Constitution and election-related laws.

Earlier, tax collections were separate for the Centre and the States. We introduced the Goods and Services Tax Council through a constitutional amendment and changed the pattern of taxation between the Centre and the States. If the purpose of amendments is to strengthen democracy and governance, they should be brought in. The Constitution has been amended in the past to achieve this goal.

Simultaneous elections can also be a means to curb corruption and build a more conducive socio-economic ecosystem

Holding simultaneous elections is not merely about elections; it is about stable governance.

Such a sensitive and far-reaching reform requires unanimous support from all political parties. Parliamentary Committee reports have proposed implementable roadmaps for simultaneous elections

Issues

a parliamentary form of democracy is a basic feature of the Constitution of India and cannot be completely removed by amendment

What will happen to no confidence motion

a no-confidence motion is not mentioned in the Constitution or any law, for that matter.

It finds place in Rule 198 of the Rules and Conduct of Business of the Lok Sabha, which states that 50 or more members can move a no-confidence motion.

If it succeeds, the government has to resign and if no other party or parties can form the government, premature elections follow.

The Law Commission of India in its report of 1999 has dealt with the problem of premature and frequent elections. It had recommended an amendment of this rule on the lines of the German Constitution, which provides that the leader of the party who wants to replace the chancellor has to move the no-confidence motion along with the confidence motion. If the motions succeed, the president appoints him as the chancellor.

If such an amendment to Rule 198 is made, the Lok Sabha would avoid premature dissolution without diluting the cardinal principle of democracy that is a government with the consent of the peoples’ representatives with periodical elections. It will also be consistent with the notion of collective responsibility of the government to the House as mentioned in Article 75 (3) of the Constitution.

we need a political consensus, which is not easy to achieve.

national and local issues are different, and holding simultaneous elections is likely to blur judgment. The poor love elections because the vote is the only power they have

the voters are better placed to express their voting choices keeping in mind the two different governments which they would be electing by exercising their franchise. This distinction gets blurred somewhat when voters are made to vote for electing two types of government at the same time, at the same polling booth, and on the same day

There is a tendency among the voters to vote for the same party both for electing the State government as well as the Central government

Against the concept of cooperative federalism

Assembly elections are fought on local issues and, in the true spirit of federalism, parties and leaders are judged in the context of their work done in the state. Clubbing them with the general election could lead to a situation where the national narrative submerges the regional story.

Feasibility

Regards logistical and administrative feasibility, simultaneous elections would be most convenient for the Election Commission. Since voters, polling personnel, and polling booths are all the same, it does not matter if the voter is casting her vote for one election or two or three.

It advantages national parties over regional or local ones and might privilege 'national issues' over local ones.

what happens if no party forms the majority government in one or more states.

Since there cannot be a re-election, that state will per force be ruled by the Centre until the next elections.

This means five years of President’s Rule for states that do not deliver a clear mandate.

It does not end there. The phenomenon of governments failing to complete their term is quite common in our country

So, if a government, coalition or otherwise, falls mid-term, that state will be placed under Central rule for the remainder of the term.

The once-in-five-years election rule will enhance the political incentive for the Centre to dismiss duly elected state governments, since the constitutional obligation to hold elections within six months of dismissal will no longer exist

simultaneous elections will turn India into an authoritarian state, with the mere appearance of a federal democracy

Recent history shows that people vote differently in different elections. In the 2014 general elections, voters in Delhi gave the BJP all seven Lok Sabha seats. But in elections to the Capital’s 70 Assembly seats in January 2015, they rejected the BJP – which had 282 Lok Sabha seats – and elected 67 MLAs of the Aam Aadmi Party.

Continuous process of elections keeps the government across the country on their toes. The fear of inviting the wrath of the voter is a deterrence against arbitrary use of power and mis -governance.

There is serious doubt that such contrasting mandates will materalise if state and general elections are held simultaneously. Regional parties, with a fraction of the resources national parties have, will find it difficult to explain to the masses the agenda for the state election as opposed to the national agenda. Money and muscle power will further dominate the electoral landscape. The more resourceful a party, the greater its control over the narrative.

Reduced diversity in elected governments will lead to greater centralisation of power.

if the idea comes to fruition, India will cease to be a liberal, constitutional democracy. Like Russia, we will become a managed democracy.

Current system

In terms of governance and implementation of development programmes, enforcing the Model Code of Conduct (MCC) is detrimental.

If we are preoccupied with local body elections and Assembly elections throughout the year, where is the time for developmental work

If we are occupied with Vidhan Sabha elections, Zilla Parishad elections, Panchayat elections, and municipal elections throughout the year, where is the time for developmental work

Frequent electoral cycles disrupt normal public life by impacting the delivery of essential services. They also provide opportunities to unscrupulous elements to create tears in the social fabric of society

Then there is the administrative machinery to be taken into account and the expenses incurred.

Frequent elections pose a huge burden on resources — both manpower and financial.

Security personnel and government officials are effectively put on election duty for many months in a year.

A case in point is the recurring engagement of teachers for election duty, as a result of which students suffer.

The cost of elections runs into thousands of crores and has been rising steadily.

The opportunity cost of these lost resources is too high to ignore as India is a resource-constrained developing economy.

When we are in constant election mode, we are also in permanent corruption mode. When crores are spent in elections, crores have to be collected by hook or by crook.

The way out is to cut the role played by money in elections, and this can come about only through a ceiling on political party expenditure. The other aspect is the state funding of elections

Election have become divisive.

Communal riots and caste disturbances are deliberately created around election time to ensure polarisation of communities for electoral gains.

International examples

the UK fixed May 7, 2015 as election day, and voting on the first Thursday of May every fifth year.

South Africa and Sweden hold national and provisional elections simultaneously every five years.

But many other large democracies do not have such a system

Outsourcing Jobs in Govt.

“General Financial Rules 2017 :Ministries are competent to decide the mode depending on the nature of work, nature of competency required etc. Any deviation or violation can be dealt by the Ministry appropriately. The wages for the persons engaged on contract/outsourcing cannot be less than the minimum wage fixed/notified by the concerned State Government.

### Issue of emblems flags and iconography

Consider the new State emblems of Telangana and West Bengal.

While the former uses English, Telugu and Urdu, the latter has only Bengali and English.

Both emblems retain ‘Satyameva Jayate’ in Devanagari more as a graphic, being part of the national symbol of the Lion Capital.

This is a clear departure from the earlier practice of States using Hindi along with other language(s).

Why do non-Hindi States resist Hindi but have no qualms with English in State iconography/symbols?

The nation appears to be moving towards a more dangerous counter to Hindutva having, in addition to usual ingredients, sub-nationalism and north-south divide as the rallying cry

During the discussion in the Constituent Assembly on the draft Article 356, B.R. Ambedkar made it clear that: 1) India’s is a federal Constitution; 2) the Centre has no business in determining good governance in states; and 3) “the Provinces [States] are as sovereign in their field which is left to them by the Constitution, as the Centre is in the field which is assigned to it.”

Similarly, the new flag of Karnataka (of yellow, white and red) contains the State’s emblem in the middle. Though the emblem originally has ‘Satyameva Jayate’ in Devanagari, it is not clear whether the script has been retained in the flag.

### Issue of state flag?

No where in constitution it is written that state cannot have their own flag.It is only written to respect national symbols, emblem and flag.

Emblems and Names (Prevention of Improper Use) Act, 1950 and National Honor Act, 1971 does not prohibit a state of having it’s own flag

FLAG CODE of INDIA 2002 do not impose any restriction on having a state flag.

Karnataka has setup a committee to design an appropriate flag of the state

The flag issue is being regarded as a part of electoral politics in Karnataka, but it also symbolises two broad trends in the country.

One, there is a widespread disquiet among non-Hindi States at the increasing onslaught of conformity.

Two, there is resentment at the skewed Centre-State relations wherein States find themselves as mere pillion-riders.

This concern is shared by all States but those States where the ‘national’ parties are in power are gagged by party discipline.

Army navy and airfoce uses separate flags.

In USA states use their own flag

Cons:

This would weaken the idea of fraternity, which is enshrined in the Constitution and lies at the heart of the idea of citizenship

In India’s case, the founding fathers were conscious of the weaknesses of this model.

the demand to have a separate flag for any State is based on the logic of electoral incentives rather than a principled and well-considered argument. It not only goes against the constitutional vision but also against the very idea of India.

India’s trajectory as a polity is different from that of other countries, in the sense that despite being a federal republic, India was conceived of as a union of States and not as a federation

In the U.S., as the constituents were separate entities before they decided to form a federation, it is understandable that they were allowed their own political identities

### Aadhaar

**eAadhaar to now have QR code with photo**

Can be used to get licence now.

Adhaar donot record caste and religion of an individal

Aadhaar Act of 2016 does not allow biometrics to be stored with State-level authorities.

(UIDAI) is a statutory authority under adhaar act

Minors, whose Aadhaar card has already been generated, cannot opt out of the Aadhaar scheme after becoming majors, the Unique Identification Authority of India (UIDAI)

Residents have the option of permanently locking their biometrics and only temporarily unlocking it when needed for biometric authentication as per Regulation 11 of the Aadhaar (Authentication) Regulations, 2016,

Nor does the Act prescribe any limit to biometric information

Section 2 (g) defines “biometric information” as “photograph, finger print, iris scan, or such other biological attributes of an individual as may be specified by regulations.”

 in future, to seek DNA, hair and even semen samples from citizens as “biometric information.



### Water tribunal:

long-pending dispute between States of Odisha and Chhattisgarh on Mahanadi river will come to a final settlement.

Latest setup for Mahanadi for sharing of water between Odisha and chattisgarh

All members of tribunals are nominated by CJI

As per Inter-State River Water Disputes (ISRWD) Act, 1956,

the Tribunal shall consist of a Chairman and two other Members nominated by the Chief Justice of India from amongst the Judges of the Supreme Court or High Court.

services of two Assessors who are water resources experts having experience in handling sensitive water-related issues will be provided to advise the Tribunal in its proceedings

the Tribunal is required to submit its report and decision within a period of 3 years which can be extended to a further period not exceeding 2 years due to unavoidable reasons

### Special status to ap

it was no longer possible to confer “special category” status on States after the Centre accepted the recommendation of the 14th Finance Commission

### Corrupt politicians

Criminal cases

Uttar Pradesh tops the list with 248 legislators, Tamil Nadu comes second with 178 and then Bihar follows with 144.

### Maharashtra

State proposes government jobs for relatives of informers who got killed after their cover was blown

## LAWS AND BILLS

### **Hydrocarbon Exploration and Licensing Policy (HELP) 2016**.

New Updates:

Center has delegated the powers to Minister of Petroleum and Natural Gas and Finance Minister to award the blocks/contract areas to successful bidders under Hydrocarbon Exploration and Licensing Policy (HELP) after International Competitive Bidding (ICB) based on the recommendations of Empowered Committee of Secretaries (ECS)

allow Coal India Limited (CIL) and its subsidiaries to extract coal bed methane (CBM) in their coal bearing areas without applying for a licence or lease under the Petroleum & Natural Gas Rules, 1959

IT is implemented by Directorate Genereal Hydrocarbons unde ministry of Oil and Natural gas

Four main facets of this policy are:

1. uniform license for exploration and production of all forms of hydrocarbon,
2. an open acreage policy,
   1. blocks are to be **awarded twice in a year.**
   2. a hydrocarbon company to select the exploration blocks throughout the year without waiting for the formal bid round from the Government
3. easy to administer revenue sharing model;sharing using gross revenue.
   1. Present fiscal system of **production sharing contract (PSC)** is replaced by an easy to administer **“revenue sharing model**”.
   2. Bidders will be required to quote revenue share in their bids and this will be a key parameter for selecting the winning bid.  They will quote a different share at two levels of revenue called “lower revenue point” and “higher revenue point”.
   3. A **concessional royalty regime** will be implemented for deep water and ultra-deep water areas;
      1. These areas would not **have any royalty for the first seven years (instead of the 5% at present),** and thereafter would have a concessional **royalty of 5% (in deep water areas) and 2% (in ultra-deep water areas),** instead of the 10% at present.
      2. In shallow water areas, the royalty rates are reduced from 10% to 7.5%.
      3. For onshore areas royalty has been kept same i.e. 12.5% for oil and 10% for gas so that there is no impact on revenue to the State Governments
4. Cess and import duty not applicable on awarded blocks
5. marketing and pricing freedom for the crude oil and natural gas produced.
   1. Subject to ceiling price which will be calculated every 6 months

will enhance domestic oil & gas production, bring substantial investment in the sector and generate sizable employment.

The **uniform licence will enable the contractor to explore conventional as well as unconventional oil and gas resources including CBM, shale gas/oil, tight gas and gas hydrates under a single license.**

The concept of Open Acreage Policy will **enable E&P companies choose the blocks from the designated area**.

earlier contracts were based on the concept of profit sharing where profits are shared between Government and the contractor after recovery of cost. Under the profit sharing methodology, it became necessary for the Government to scrutinize cost details of private participants and this led to many delays and disputes

Under the new regime, the Government will not be concerned with the cost incurred **and will receive a share of the gross revenue from the sale of oil, gas etc.** This is in tune with Government’s policy of “Ease of Doing Business”.

A graded system of royalty rates

**royalty rates decreases from shallow water to deepwater and ultra-deep water**

**royalty rate for onland areas have been kept intact** so that revenues to the state governments are not affected

**cess and import duty will not be applicable on blocks awarded** under the new policy.

 marketing freedom for crude oil and natural gas produced from these blocks.  This is in tune with Government’s policy of “Minimum Government –Maximum Governance”

|  |  |  |
| --- | --- | --- |
| **Parameter** | **HELP** | **NELP** |
| **Fiscal Model** | Revenue sharing | Profit sharing |
| **Cost recovery** | Not applicable | Yes |
| **Cost efficiency** | Encouraged | Neutral |
| **Royalty** | Low rates for offshore | Standard rates |
| **Exploration Period** | Onland and Shallow Water- 8 years  Deepwater- 10 years | Onland and Shallow Water- 7 years  Deepwater & Ultra-deepwater - 8 years |
| **Management Committee** | More focus on  reservoir monitoring;   no micro-management | Technical & financials  examination |
| **Revenue to Government** | On production | After cost recovery i.e. from profit petroleumd |
| **Exploration in Mining Lease areas** | Allowed | Not allowed |
| **E&P activity for all hydrocarbons** | Allowed | Not allowed |

### Protection of Human Rights Bill 2018

**Salient Features:**

1. It proposes to include “**National Commission for Protection of Child Rights**” as deemed Member of the Commission;
2. It proposes **to add a woman Member in the composition of the Commission**;
3. It proposes to enlarge the scope of eligibility and scope of selection of Chairperson, National Human Rights Commission as well as the State Human Rights Commission; and
4. It proposes to **incorporate a mechanism to look after the cases of human rights violation in the Union Territories.**
5. It proposes **to amend the term of office of Chairperson and Members of National Human Rights Commission and State Human Rights Commission to make it in consonance with the terms of Chairperson and Members of other Commissions**.

**Benefits:**

The Amendment will strengthen the Human Rights Institutions of India further for effective discharge of their mandates, roles and responsibilities.

Moreover, the amended Act will be in perfect sync with the agreed global standards and benchmarks towards ensuring the rights relating to life, liberty, equality and dignity of the individual in the country.

**Background:**

The amendment to the Protection of Human Rights Act, 1993 will make National Human Rights Commission (NHRC) and State Human Rights Commission (SHRC) more compliant **with the Paris Principle** concerning its autonomy, independence, pluralism and wide-ranging functions in order to effectively protect and promote human rights

### Compensatory Afforestation Fund Act 2016

collected over ₹50,000 crore

mechanism to offset forest loss

a monetary value for the forest that is to be destroyed and collects this as “compensation”

the funds are to be then used to “afforest” alternative land.

### The European Union General Data Protection Regulation (GDPR)

is, arguably, the most notable change in the data protection regime in the last two decades

designed to protect the personal data of EU residents.

GDPR reflects a paradigm shift in the understanding of the relationship individuals have with their personal data, granting the citizen substantial rights in his/her interaction with data controllers

Under the GDPR,

a data controller will have to provide consent terms that are clearly distinguishable, i.e., consent cannot be buried in the fine print that is incomprehensible to the layperson.

the GDPR requires those collecting data to provide information on the ‘who’ and ‘how.’

Individuals will also have the right to have personal data deleted under certain conditions.

makes reporting obligations and enforcement stronger:

data breaches will normally have to be reported within 72 hours and failure to comply with the new laws could result in a fine up to 4% of global turnover or €20 million — the maximum amount of the fine.

the GDPR has global implications as it also applies to those outside the EU who either monitor the behaviour of EU residents or sell goods and services to them

implications

The EU as a bloc is India’s largest trading partner, with bilateral trade in services alone running upwards of €28 billion (₹2.2 lakh crore). Yet, only a third of Indian IT firms are making arrangements for the GDPR, with 39% unaware of what it is even,

### Farmers’ Freedom from Indebtedness Bill, 2018

provides for a one-time settlement of all farmers’ loans, both from banks and private moneylenders. It also gives farmers the right to access institutional credit and proposes that quasi-judicial distress and disaster relief commissions be set up at State and national levels to deal with regional or crop-specific distress situations.

Farmer indebtness report Agricultural statistics 2016

Top five states

|  |  |
| --- | --- |
| State | % agricultural house holds indebted |
| Andhra | 92% |
| Telangana | 89% |
| T.Nadu | 82% |
| Kerela | 77.3% |
| Karnatka | 77.2% |

Bottom 5

|  |  |
| --- | --- |
| State | %age agricultural households indebted |
| Meghalaya | 2.4 |
| Nagaland | 2.5 |
| Mizoram | 6.2 |
| Sikkim | 14.4 |

### Farmers’ Right to Guaranteed Remunerative Minimum Support Prices for Agricultural Commodities Bill, 2018,

wants the MSP to guarantee a 50% profit margin over the comprehensive cost of production a legal right for every farmer, and bar the option of any price below MSP being offered in the market

### Arms rules 2016

Under the new rules,

the licences granted for manufacturing will be valid for the life time of the licence company and the requirement of renewal every 5 years has been done away with.

Licence fee has been reduced significantly.

Further, single manufacturing licence will be allowed for multi unit facility within the same state or in different states within the country.

An enhancement of capacity up-to 15% of the quantity approved under the licence will not require any further approval by the Government.

The manufacturer will be required to give only prior intimation to the licencing authority.

Benefits

The new rules are expected to encourage manufacturing activity and facilitate availability of world class weapons to meet the requirements of the armed forces and the police forces.

The liberalised rules are also expected to attract foreign investment in the manufacture of arms and ammunition as part of Make in India programme

### Defence production policy 2018

Proposed 74% FDI from current 49%

to promote domestic production by the public and private sectors and the MSMEs

vision is to make “India among the top five countries of the world in the aerospace and defence industries, with the active participation of the public and private sectors, fulfilling the objective of self-reliance as well as the demand of other friendly countries.”

### Coal policy

power plants of capacity of 100 Megawatt (MW) or above,

located 500 to 749 kilometres (km) from coal mine pit-heads must **utilise raw, blended, or beneficiated coal** with ash content of 34 percent or less.

The obligation of meeting this target rests with the coal supplier .

This is a notable change in policy that will augment the use of cleaner coal in India

**Coal beneficiation has been made mandatory**

**Coal beneficiation** is a physical process that separates burnable coal from associated un-burnable mineral matter, also known as ash, or rejects. High ash content is inherent in Indian coals, the ash having been deposited concurrently with the coal in the paleo-depositional environment. Due to the close specific gravity of coal and ash, efficient separation becomes difficult. Washed coal continues to have ash content after beneficiation. Conversely, coal constitutes a small but nonetheless significant part of the rejects. This residual coal is a valuable economic resource that should neither be ignored nor discarded.

Issues:

Indian coals typically have ash content in excess of 40 percent.

Attaining an ash content of 34 percent or less after washing at reasonable yields may be extremely difficult for the majority of Indian coal mines

Rejects contain combustible matter that cannot be safely disposed of, principally due to problems of self-ignition.

A recommended solution is for coal to be washed to the extent practically possible;

thereafter, rejects having gross calorific value of 1,800-2,000 kilocalories per kilogram (kcal/kg) could be diverted to power plants utilising **atmospheric fluidised bed combustion technology (FBC).**

Economics

The above strategy will involve incremental costs such as the following:

Additional mining of coal to make up for volumes lost due to washing

Overall reduction in the thermal efficiency of power generation

Capital investment in washeries and FBC plants

Meanwhile, the benefits will include, among others:

Reduced transportation costs

Lower demand on rail capacity

Reduced operating costs at power stations

Lower emission of pollutants

At the macro-economic level, beneficiation leads to economic efficiencies and to pollution control. Beneficiation also adds value to Indian coals and improves their marketability.

Power plants that use coal of higher quality have a performance advantage over those which use lower quality coals. In general, the higher the ash content of coal, the lower is the heating value per unit weight of coal. When the percentage of ash content is reduced, the heating value of coal is increased and so less raw coal has to be burnt to produce a given quality of electricity

TRANSPORT OF HIGH ASH COAL

India is unique among nations that use coal for power generation in that it hauls coal over much greater distances than most others, from mine to power station

Puts extra load on environment and railways as well

the introduction of the policy of reducing the ash to 34 percent for power plants situated over 1,000 km from the coal mines

six to seven percent of waste ash is expected to be disposed at the mine site where its disposal is environmentally benign

lower ash coal will also result in reduction in freight costs for transporting the same energy content

Coal beneficiation may be among the most viable solutions towards reducing the pressure on the railways.

Emission Data

CO2 emissions

from power plants depend on the carbon content of the coal and the quantity of air used for combustion.

Improvements in power plant efficiency through the use of clean (washed) coal can have significant benefits in terms of reduction in CO2 emissions.

an increase in efficiency from 28 percent to 33 percent on account of using low ash coal would result in reduction in CO2 emissions of up to 15 percent

application of state-of-the-art technologies such as supercritical pulverised coal combustion (PCC) or integrated gasification combined cycle (IGCC) which also benefit from the use of upgraded coals, average efficiencies could be brought up to nearly 43 percent.

Sulphur content in Indian coal (barring lignite, which has higher sulphur content) is much lower than that of coal from other countries

The reduction of SOX and NOX components upon **coal beneficiation** can allow for a **smaller emissions control device rather than a large one to control pollution**, leading to savings in investment

**Air pollution with respect to SPM** can be reduced through lower dust emission during unloading and stocking of beneficiated coal, as it has more constant moisture content.

By reducing the ash content in coal in the pre-combustion stage through washing, not only is the harmful effect of ash reduced, but **also the cost of handling ash**

**Using washed coal at a plant would extend a given ash disposal site by 12- 20 percent**

Fly ash from coal plant is used by the cement industry as a pozzolanic material in the manufacturing of Portland Pozzolana cement.

As this saves both precious limestone and coal, it is considered to be high-value added use

Other uses of fly ash include back filling/stowing of mines, making building materials like bricks, blocks and tiles, and also as fertiliser as it has many micronutrients

Impediments to policy

Technology : mismatch between the technology utilized and coal provided.

Vintage technology usin high quality coal still not increase efficiences

Coal washing

first-order challenges in adopting coal beneficiation are that of high transaction costs of involving a third party (a washery) between the coal supplier and consumer

the economic benefits of washing coal, while documented in theory, have not been realised in practice

The gains in heat value due to reduction in ash are often lost due to increase in moisture

increase in cost of washed coal is often not compensated through economic gains such as savings in transportation cost

Structural

The development and utilisation of coal washeries in the last few years has suffered not only because the economics is unfavourable but also because the flow of coal from the supplier to the consumer is mediated through a system of linkages administered by the government.

When power utilities enter into an agreement, terms are often unfavourable to washeries and washeries bear a disproportionate share of risks.

The dependence on a single supplier and the absence of an independent regulator to monitor quality are challenges faced by both washeries and power generators

Self combustion of rejects

washery rejects having GCV in the range of 1,000-3,000 kcal/kg, with corresponding ash content of 75.7-54.5 percent,

Appropriate construction and shaping of the reject dumps, building only small layers with vibrating machines to prevent oxygen from entering the dump

One of the most common strategies is to use rejects in a pit head power plant using fluidised bed combustion technology (FBC) that is capable of burning high ash coal with gross calorific value of 1,800 – 2,000 kcal/kg.

The technology for fluidised bed combustion of rejects for the generation of electricity has been indigenously developed in India.

Only issue is with quality of fly ash or rejects which is invariable aas compared to washed coal which is consistant.

Conclusion

The economic and environmental benefits of coal beneficiation at the national level often do not translate to financial savings at the plant level.

Therefore, public support is required.

Disbursement of the National Clean Energy Fund (NCEF) for coal quality improvement, in general, and coal washing in particular, will offer unambiguous support for re-aligning the government’s coal policy from **“quantity based” to “quality based”**

### National Surrogacy bill 2016

The Surrogacy (Regulation) Bill, 2016

to regulate surrogacy in India by establishing

National Surrogacy Board at the central level and,

State Surrogacy Boards and

Appropriate Authorities in the States and Union Territories.

regulation of surrogacy,

prohibit commercial surrogacy and

allow altruistic surrogacy to the needy Indian infertile couples

India has emerged as a surrogacy hub for couples from different countries and there have been reported incidents concerning unethical practices, exploitation of surrogate mothers, abandonment of children born out of surrogacy and rackets of intermediaries importing human embryos and gametes

### National Cyber Security Policy (2013)

provides for developing effective Public Private Partnership and collaborative engagements through technical and operational cooperation and contribution for enhancing the security of cyberspace

The following mechanism and measures are in place to ensure digital safety and cyber security:

**Indian Computer Emergency Response Team (CERT-In)**

is designated as a **National nodal agency** to coordinate matters related to cyber security incidents in the country.

**National Critical Information Infrastructure Protection Centre (NCIIPC)**

has been setup to enhance the protection and resilience of Nation’s Critical information infrastructure.

Government has issued general guidelines for **Chief Information Security Officers (CISOs)** regarding their key roles and responsibilities for securing applications / infrastructure and compliance Organisations are encouraged to develop their organisation level cyber security policy.

Public Private Partnership has been developed for cooperation and collaboration for responding cyber security incidents.

Awareness has been created in law enforcement agencies through conducting cybercrime awareness workshops.

**Information Security Education and Awareness (ISEA)** Project is being implemented with an objective of capacity building in the area of Information Security, training of Government personnel and creation of mass Information Security awareness.

The project aims to train 1.14 Lakhs persons under Academic activities (formal and non-formal courses) by the year 2020. So far more than 71000 candidates have been trained in various formal/non-formal courses in Information Security through 52 academic and training institutions.

**Cyber forensics training labs** in all north eastern states, CBI Academy Ghaziabad and cities such as Mumbai, Pune, Kolkata and Bangalore have been setup and more than 28,000 state police from North Eastern States, Maharashtra, West Bengal and Karnataka have been trained for dealing with cybercrime.

**Cyber Crisis Management Plan (CCMP)**

for countering cyber threats and cyber terrorism has been developed and so far 60 workshops have been conducted for Central Govt. Ministries/Departments, States/Union Territories and other organisations.

Research and development is carried out in the thrust areas of cyber security including

(a) Cryptography and cryptanalysis,

(b) Network & System Security,

(c) Monitoring & Forensics, and

(d) Vulnerability Remediation & Assurance through sponsored projects at recognized R&D organizations.

Government has initiated setting up of

**National Cyber Coordination Centre (NCCC)**

to generate necessary situational awareness of existing and potential cyber security threats and enable timely information sharing for proactive, preventive and protective actions by individual entities. Phase-I of NCCC has been made operational.

Government has launched the

**Cyber Swachhta Kendra** (**Botnet Cleaning and Malware Analysis Centre)** which provides detection of malicious programs and free tools to remove the same.

### National Medical Commission Bill

Updates

The final MBBS examination will be held as a common examination across the country and it would serve as an exit test called the **National Exit Test (NEXT).**

Bridge course **removed for aayush practioners**

the maximum limit of 40% seats for which fee would be regulated in private medical institutions and deemed universities has been increased to 50% seats

NMC will consist of **25 members of whom at least 21 will be doctors**

**Number of nominees from States and UTs in NMC increased from 3 to 6:**

Stringent punishment for unqualified medical practitioners or quacks:

imprisonment of up to one year along **with a fine extending up to Rs. 5 lakhs**

Monetary penalty for a medical college non-compliant with the norms replaced with provision for different penalty options

 different options for warning, reasonable monetary penalty, reducing intake, stoppage of admission **leading up to withdrawal of recognition.**

to make structural changes in an exploitative health-care system

Article 47 of the Constitution makes it clear that the state is duty-bound to improve public health, but India continues to face a health crisis, with an absolute shortage of and an inequitable presence of doctors and over-burdened hospitals.

Although India has 10 lakh medical doctors, it needs 3,00,000 more in order to meet the World Health Organisation standard of the ideal doctor-population ratio.

Ham garib desh hain?

There is an 81% shortage of specialists in community health centres (CHC), the first point of contact for a patient with a specialist doctor.

Those most affected by this are poor and rural patients who are then forced to consult quacks.

Another fact is that 82.2% of providers of “modern medicine” in rural areas do not have a medical qualification.

Rural India, which accounts for 69% of the population, faces another issue — only 21% of the country’s doctors serve them.

The quality of the health-care experience too needs attention. It is ironic that, while India is a hub for medical tourism (in 2016, India issued 1.78 lakh medical visas),

it is a common sight in government hospitals to have patients sleep in corridors waiting for their outpatient department appointments.

Bill seeks to address

A commercialization

The insertion of Section 10A in the Indian Medical Council Act was followed by an exponential rise in the number of private medical colleges.

This was encouraged as there was, and still is, a shortfall in the number of medical practitioners. However, the high capitation fees charged by these colleges can have a negative effect in terms of affordability of medical services.

With corruption in the issuing of licences and regulatory requirements, many such academic institutions have a faculty of questionable standards, with obvious repercussions on the quality of education imparted

How?

The Bill puts in place a mechanism to assess and rate medical colleges regularly, with a high monetary penalty for failure to comply with standards.

Three such failures will result in the de-recognition of a college.

There is also an enabling provision for the government to regulate the fees of up to 40% seats in private medical colleges

NITI Aayog data show that this amount falls in a Goldilocks zone,

wherein the regulation can be made revenue neutral for the college by nominally raising fees for non-regulated students.

Relaxation for medical colleges

Currently, there is a blanket standard for establishing a medical college in India, which disregards the contextual realities in some areas such as difficult terrain or a low population density.

For instance, Arunachal Pradesh, Mizoram, and Nagaland do not have a single medical college.

Inverted pyramid

Inverted pyramid

India has a well-thought-out, three-tier public health-care system which rests on a base of sub-centres (SC) and primary health centres (PHCs) which take care of common ailments.

Patients in need of specialist consultations go up the chain to secondary centres (CHCs) , or tertiary centres, which are district hospitals (DHs) or medical colleges.

However, because of a poor vanguard, patients who can be treated at the “base” (SCs or PHCs), go straight to the “apex” (CHCs or DHs).

Strengthening primary centres can ensure that the pyramid rests on its base again.

With the government now planning to revamp 1,50,000 sub-centres into health and wellness centres by 2022, there is need for an equivalent number of mid-level providers.

The Bill has facilitated this by providing for a bridge course for AYUSH/non-allopathic doctors.

This course, to be designed by a joint sitting of all medicine systems, will ensure that non-allopathic doctors are trained to prescribe modern medicines in a limited way, within the scope of primary care.

A parallel is the system of “barefoot doctors” in China.

An added measure in the Bill prevents “cross-pathy” or the unqualified cross-over of health-care providers from one system to another.

The Bill provides for two separate national registers – allopathic doctors, and AYUSH doctors who complete the bridge course, respectively.

the Bill seeks to make structural changes in a stagnant and increasingly exploitative health-care system

### Waste Management Rules, 2016

Focus on waste segregation at source

the Environment (Protection) Act, 1986

All implemented by **Ministry of Environment and Forests and climate change**

Divided into 6 parts

1. **Plastic Waste Management Rules 2016** 
   1. These rules shall apply to every waste generator, local body, Gram Panchayat,manufacturer, Importers and producer
   2. Every local body shall be responsible for development and setting up of infrastructure for segregation, collection, storage, transportation, processing and disposal of the plastic waste either on its own or by engaging agencies or producers
   3. No damage to environment while above steps followed,no burning of plastic in open
   4. Every gram panchayat either on its own or by engaging an agency shall set up, operationalise and co-ordinate for waste management in the rural area
   5. Every waste generator shall
      1. take steps to minimize generation of plastic waste and segregate plastic waste at source
      2. not litter the plastic waste and ensure segregated storage of waste at source and handover segregated waste to urban local body or gram panchayat
      3. All waste generators shall pay such user fee or charge as may be specified in the bye-laws of the local bodies
   6. **Markings** Each plastic carry bag and multilayered packaging shall have the following information printed in English namely,-
      1. name, registration number of the manufacturer and thickness in case of carry bag;
      2. name and registration number of the manufacturer in case of multilayered packaging; and
      3. name and certificate number [Rule 4(h)] in case of carry bags made from compostable plastic
   7. Each recycled carry bag shall bear a label or a mark “recycled”
      1. Each carry bag made from compostable plastics shall bear a **label “compostable”** and shall conform to the Indian Standard
      2. PET-Polyethylene terephthalate, HDPE-High density polyethylene, V-Vinyl (PVC), LDPE- Low density polyethylene, PP-Polypropylene, PS-Polystyrene and Other means all other resins and multi-materials like ABS



1. **e-waste (Management) Rules**, 2016
   1. **Responsibility of manufacturer**
      1. collect e-waste generated during the manufacture of any electrical and electronic equipment and channelise it for recycling or disposa
      2. maintain records of the e-waste generated, handled and disposed
      3. ensure that no damage is caused to the environment during storage and transportation of e-waste
   2. Responsibilities of the producer: ‘producer’ means any person who, irrespective of the selling technique used such as dealer, retailer, e-retailer
      1. the mechanism used for channelisation of e-waste from ‘end-of-life’ products including those from their service centres to authorised dismantler or recycler
      2. for disposal in Treatment, Storage and Disposal Facility, a pre-treatment is necessary to immobilise the mercury and reduce the volume of waste to be disposed off;
      3. creating awareness through media, publications, advertisements, posters, or by any other means of communication
      4. instructions for handling and disposal of the equipment after its use, along with the Do’s and Don’ts;
   3. Responsibilities of consumer or bulk consumer
      1. bulk consumers of electrical and electronic equipment listed in Schedule I shall maintain records of e-waste generated by them
      2. consumers or bulk consumers of electrical and electronic equipment listed in Schedule I shall ensure that such end-of-life electrical and electronic equipment are not admixed with e-waste containing radioactive material
      3. shall ensure that e-waste generated by them is channelised through collection centre or dealer of authorised producer or dismantler or recycler or through the designated take back service provider of the producer to authorised dismantler or recycler
2. **Bio-Medical Waste Management Rules,2016**
   1. **implementation of the provisions of these rules shall be the State Pollution Control Boards in respect of States and Pollution Control Committees in respect of Union territories**
   2. **Every State Government or Union territory Administration shall constitute an Advisory Committee for the respective State or Union territory under the chairmanship of the respective health secretary to oversee the implementation of the rules**
   3. "occupier" means a person having administrative control over the institution and the premises generating biomedical waste, which includes a hospital, nursing home, clinic,labs etc
   4. It shall be the duty of every occupier to
      1. take all necessary steps to ensure that bio-medical waste is handled without any adverse effect to human health and the environment
      2. To make a provision within the premises for a safe, ventilated and secured location for storage of segregated biomedical waste in colored bags or containers
      3. pre-treat the laboratory waste, microbiological waste, blood samples and blood bags through disinfection or sterilisation on-site according to WHO guidelines or NACO
      4. phase out use of chlorinated plastic bags, gloves and blood bags within two years from the date of notification of these rules
      5. dispose of solid waste other than bio-medical waste in accordance with the provisions of other rules
      6. provide training to all its health care workers and others, involved in handling of bio medical waste
      7. immunise all its health care workers and others, involved in handling of bio-medical waste for protection against diseases including Hepatitis B and Tetanus that are likely to be transmitted by handling of bio-medical waste
      8. establish a Bar- Code System for bags or containers containing bio-medical waste to be sent out of the premises
      9. maintain and update on day to day basis the bio-medical waste management register and display the monthly record on its website according to the bio-medical waste generated
      10. report major accidents including accidents caused by fire hazards, blasts during handling of bio-medical waste and the remedial action taken and the records relevant theret
   5. Bio-medical waste shall be treated and disposed of in accordance with Schedule I, and in compliance with the standards provided in Schedule-II by the health care facilities
   6. No occupier shall establish on-site treatment and disposal facility, if a service of common bio-medical waste treatment facility is available at a distance of seventy-five kilometer.
   7. No untreated bio-medical waste shall be mixed with other wastes.
   8. The vehicles used for transportation of bio-medical waste shall comply with the conditions if any stipulated by the State Pollution Control Board or Pollution Control Committee
3. **Construction and Demolition Waste Management Rules,**
4. **Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016**
5. **Solid Waste Management Rules, 2016**
   1. **Focus is on 3-R’s,segregation and power generation and to reduce landfill sites**
   2. Every Waste Generators **shall segregate waste and store separately** and hand over to Municipal workers or authorized waste pickers
   3. Ministry of Environment, Forest & Climate Change shall constitute ‘**Central Monitoring Committee’ to monitor and review every year**
   4. MoUD shall frame **National Policy on SWM** and coordinate with States/UTs,provide technical guidelines
   5. Departments of Fertilizers & Chemicals shall **assist in market development for city compost** and make available to companies
   6. Ministry of Agriculture shall make flexible Fertilizer Control Order, **promote utilization of compost**, testing facility for compost and issue guidelines
   7. Ministry of Power shall fix tariff of power generation from **W-T-E project and ensure distribution through companies**
   8. MNRE shall facilitate infrastructure for **waste-to-Energy plants and provide subsidy**
   9. (state/UT) shall prepare State Policy/Strategy, **adopt 3-R’s**
   10. District Collector/Magistrate shall facilitate identification of landfill site,**quarterly review the performance of local bodies**
   11. Local Authority/Panchayats shall prepare SWM plan with time line and its implementation, segregate, adopt 3-Rs, material recovery, processing/ disposal of Waste, user fee and levy spot fine
   12. Industry (cement, power plant, etc.) shall use RDF within 100 km
   13. Criteria for Hilly Region: Avoid landfill, make waste transfer stations, strict action for littering and construct landfill at plain areas.
   14. Waste to Energy plant for waste with 1500 Kcal/kg and above for coincineration in cement and power plants.

Review of implementation of rules at Various levels;

(a) MoEF&CC, Central Monitoring Committee : Every year

(b) District Collector review performance of Local authorities : Quarterly

(c) SPCBs/PCCs review implementation of Rules with DMA : half yearly

(d) Secretary Incharge, UD- State level Advisory Committee : half yearly

Example

Maharashtra government cleared detailed project reports (DPR) for 61 major cities in the state

Include aim to 100% scientific waste management and segregation of dry and wet waste

The Swachh Bharat Mission provides funds for up to 35% of the costs of waste management and related activities taken up under the mission, and the rest must be arranged by states and urban local bodies.

### Geospatial Information Regulation Bill or GIRB

To be tabled

### Arbitration and Conciliation (Amendment) Bill, 2018.

will set up an **Arbitration Council** that will grade institutions that offer alternative dispute resolution mechanism for commercial disputes

### The Prohibition of Unlawful Assembly (Interference with the Freedom of Matrimonial Alliances) Bill 2011

The proposed law, drafted by the Law Commission of India, is meant to penalise honour killings and uphold the right of adults to marry persons of their own choice without unlawful interference from caste panchayats or persons and relatives intent on harming the couple.

Supreme Court has now stepped in to fill this legislative vacuum and is expected to frame guidelines in a judgment to protect adult couples from the fury of the mob

Law Commission has concluded that honour killing does not require a separate provision.

The definition of murder in Section 300 of the Indian Penal Code would suffice “to take care of the situations leading to overt acts of killing or causing bodily harm to the targeted person who allegedly undermined the honour of the caste or community.”

The 2011 Bill defines “unlawful assembly” as a group of persons who congregate with the “view or intention to deliberate on or condemn any marriage on the basis that such marriage has dishonoured the caste or community tradition or brought disrepute to all or any of the persons forming part of the assembly or the family or the people of the locality concerned.”

Provisions:

Participating in any unlawful assembly is punishable with imprisonment for a term of not less than six months but which may extend to one year and is also liable to a fine of up to ₹10,000.

Making exhortations that endanger the liberty of a couple is punishable with imprisonment for a term of not less than one year but which may extend to two years and is also liable to a fine of up to ₹20,000.

Criminal intimidation of the couple or their relatives or supporters is punishable with imprisonment for a term of not less than one year but which may extend to three years and is also liable to a fine of up to ₹30,000.

The maximum punishment in case of actual harm or injury caused shall extend to seven years of imprisonment.

### 2006 Forest Rights Act

Issues

Govt trying to delink the gram sabha assent before forest land can be used for non forest work

The three-judge bench held that “forest approval cannot be granted to a developmental project without the decision of the gram sabhas, taken after proper consideration and in a duly convened gram sabha and passed by resolution”

Accd. To ministry of tribal affairs

the gram sabha is to ensure that the community forest resources are protected…. The gram sabha is empowered to ensure that the decisions of the gram sabha to stop activities which adversely affect the wildlife, forests and biodiversity are complied with.

the forest land in question, when proposed to be diverted for a non-forest purpose, is the same forest land in which forest rights may be subsisting. Therefore, a decision for diversion of forest land prior to a rights recognition process would negate both letter and spirit of the FRA and thereby the law fails.

The note pointed out two more instances where the FRA had not been complied with: one, the Thoubal Multipurpose Project in Manipur and, two, the 97-megawatt Tashiding Hydel Project in west Sikkim where the High Court brought the project to a halt.

need to make the FRA harmonious with other related laws such as the Land Acquisition Act (Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013) and the Mines and Minerals (Development and Regulation) Act, 1957, both laws that reiterated the special protections under the FRA

vesting and recognition of forest rights under the FRA required careful and critical consideration by the gram sabha” and that undue haste in the implementation of the FRA could lead to perpetuation of the historical injustice against forest dwellers or dubious claimants getting recognition and rights

In areas affected by left-wing extremism, it said that “putting timelines may further alienate communities in these areas”, and that since 2009, a large number of projects had been given forest clearance with no evidence to show that the recognition of rights under the FRA had caused any delay in such clearances

issue of exemption from completion of the rights recognition process in areas where there were no forest dwellers

there was no room for any executive authority under the GOI to provide any exemption to any class of persons, any kind of forest right, any kind of forest land or any category of project from the application of the FRA

any such order would be in violation of the FRA since there was no provision in the Act for exemptions

In case of mining

Clearance from gram sabhas was important in areas where underground mining was in progress. The Tribal Affairs Ministry’s note observed that even where such mining was allowed, the process of recognition and vesting of forest rights under the FRA needed to be completed lest such mining resulted in damage to forest rights and required relocation and compensation to forest rights holders.

documented evidence to show that underground coal mining in the Jharia coal fields in Bihar had caused damage to aquifers and other hydrogeological formations

### CAMPA

Centre introduced the Compensatory Afforestation Fund Bill in May 2015

The Bill seeks to provide a legislative cover for the utilisation and release of funds vested in the CAMPA (set up in 2009 following a Supreme Court order) from the Centre to the States.

The Supreme Court, in a 2009 order, had directed that an independent authority be charged with disbursing these funds, which paved the way for the Compensatory and Afforestation Fund (CAF) Bill envisaging the creation of a permanent Compensatory Afforestation Fund Management and Planning Authority.

The money is meant for afforestation projects. According to a government release, this authority has a corpus of Rs.40,000 crore.

This authority was envisaged as an independent body that would manage a corpus — collected from industries that have used forest land for projects — that accumulates around ₹6,000 crore annually and is already worth around Rs 42,000 crore

These funds are meant to be used by states to implement agro-forestry in non-forest land to compensate for felled forests

Issues

that the Bill required a compulsory provision to include gram sabhas before finalising any project of afforestation of forest land where the predominant inhabitants were tribal people and other forest dwellers;

that a certain portion of the fund should be used for the enhancement of the livelihood of tribal people and other forest dwellers; and

that vesting of rights over forest land should be completed under the FRA before undertaking any project

Attempts to dilute laws passed by Parliament and to create laws that allow for easier acquisition of land seem to be driven by expediency notwithstanding the fact that conflicts over land forcibly acquired and pending claims are a reality and are not likely to disappear even if attempts are made to dilute existing laws and steamroller new laws through Parliament.

### Space Activities Bill, 2017:

### Draft Mineral Policy

Management of mineral in concurrent list

India bureau of mines implementing authority

Incentives for private investment

Maximum utiliztio of EEZ

Use of stat of the art technology

Encourage replenishable extraction of beach sands

Not allowed in biological important areas

**District Mineral foundation** already set uo for devolution of mining benefits to affected people

**PM khanij kshetra kalyan yojana**

Scientific closure of mine

Export minerals in value added form as far as possible

### National water policy 2012

1.       Emphasis on the need **for a national water framework law**, comprehensive **legislation for optimum development of inter-State rivers and river valleys**, **amendment of Irrigation Acts, Indian Easements Act, 1882**, etc.

2.       Water, after meeting the pre-emptive needs for safe drinking water and sanitation, achieving food security, supporting poor people dependent on agriculture for their livelihood and high priority allocation for minimum eco-system needs, be treated **as economic good so as to promote its conservation and efficient use**.

 3.       Ecological needs of the river should be determined recognizing that river flows are characterized by low or no flows, small floods (freshets), large floods and flow variability and should accommodate development needs. A portion of river flows should be kept aside to meet ecological needs ensuring that the proportional low and high flow releases correspond in time closely to the natural flow regime.

4.       Adaptation strategies in view of climate change for designing and management of water resources structures and review of acceptability criteria has been emphasized.

5.       A system to evolve benchmarks for water uses for different purposes, i.e., water footprints, and water auditing be developed to ensure efficient use of water. Project financing has been suggested as a tool to incentivize efficient & economic use of water.

6**.       Setting up of Water Regulatory Authority** has been recommended.

Incentivization of recycle and re-use has been recommended.

7.       **Water Users Associations should be given statutory powers** to collect and retain a portion of water charges, manage the volumetric quantum of water allotted to them and maintain the distribution system in their jurisdiction.

8.       **Removal of large disparity in stipulations for water supply in urban areas and in rural areas** has been recommended.

9.       Water resources projects and services should be managed with community participation. Wherever the State Governments or local governing bodies so decide, the private sector can be encouraged to become a service provider in public private partnership model to meet agreed terms of service delivery, including penalties for failure.

10.    Adequate grants to the States to update technology, design practices, planning and management practices, preparation of annual water balances and accounts for the site and basin, preparation of hydrologic balances for water systems, and benchmarking and performance evaluation.

### National water framework Law

set up YK Alagh Committee to create a draft of such framework law

strong opposition from the chief ministers of various states, which feared that government would engage in too much centralization of water, which is a state subject in 7th schedule

features:

Right to Water for Life

The bill puts legal backing behind **the implied fundamental right to water**.

It says that every person would be entitled to “water for life” that shall not be denied on anyone on ground of inability to “pay”.

Graded pricing system for water

The bill proposes a “graded pricing system” for domestic water supply.

Grading is based on income level of the household.

It proposes full cost recovery from the high income groups; affordable pricing for middle-income groups and “certain minimum quantum of free supply” for the poor.

Thus**, commoditization of water is one of the salient features of this bill**.

Comprehensive Governance structure

The bill proposes to put in place a comprehensive governance structure on water, dealing with its conservation and preservation, regulation of use, pollution prevention and abatement, pricing, administration, and river and aquifer management.

The bill notes that state “at all levels” would hold water “in public trust” for the people, and “water for life” would take precedence over all other uses, including agricultural, industrial and commercial.

The bill also notes that it shall be the duty of the state at all levels, the citizens, and all category of water users to protect, preserve and conserve water sources, and pass them on to the next generation.

Binding” national water quality standards

The bill proposes to introduce binding national water quality standards for every kind of use.

Reduction in water foot print

The bill also proposes to **introduce national water footprint standards for every activity** and product. Further, state will be asking to industries to reduce their water footprint; along with an action plan to progressively reduce it over time.

Rejuvenation of River system

The bill asks the governments to strive for rejuvenation of river systems by **ensuring Aviral Dhara {continuous flow} and Nirmal Dhara {unpolluted flow} and Swachh Kinara {clean river banks}.**

The bill proposed “Basin Level” development of rivers proposes **an integrated river basin development and management plan** in each of the basins.

The bill says that river basins will be managed in such a way that it ensures the scientific planning of land, water resources, taking basin/sub-basin as a unit.

Further, the bill notes that the states should recognise the principle that the rivers are not owned by the basin-States but are “public trustees.”

All basin States have “equitable” rights over a river water “provided such use does not violate the right to water for life” of any person in the river basin.

River Basin Authority

For the optimum and sustainable development of inter-state rivers and river valleys, the Central Government will provide for establishment **of a River Basin Authority for each Inter-state river basin**.

Each River Basin authority will prepare a master plan for river basin under its jurisdiction and this master plan will be reviewed and updated every five years after consultations with planning agencies and stakeholders.

Flood Mitigation and Management

As per the bill, the Central Government would develop a Decision Support System (DSS) for flood forecasting and flood inundation under the National Water Informatics Centre (NWIC). Every State Government shall also develop their own DSS to address state-specific issues.

The NWIC shall ensure that the central DSS and that of each State is provided adequate and effective linkage.

### Inter-state River Water Disputes (Amendment) Bill, 2017

Coming up in next session

### Fugitive Economic Offender Bill 2017

Features of Bill

* cases where the total value involved in such offences **is Rs.100 crore or more**, will come under the purview of this Bill.
* ('Special Court' under the Prevention of Money-laundering Act, 2002) to declare a person as a Fugitive Economic Offender.
* It defines fugitive economic offender as any individual against whom warrant for arrest in relation to economic offence has been issued and person has left the country and refuses to return to India to face criminal prosecution.
* The burden of proof for establishing that an individual is fugitive economic offender will be on authorities.
* It will allow Financial Intelligence Unit (FIU), the premier technical snoop wing under the finance ministry, to file an application for declaration of fugitive economic offender for confiscation of their assets.
* The bill entrusts responsibility to try such cases to the courts under Prevention of Money Laundering Act, 2002 (PMLA).
* The bill has provision for appointment of an administrator to dispose off property of fugitive offender to pay off the creditors.
* Besides, it has provisions to override provisions of other existing laws.

### ESSENTIAL COMMODITIES ACT

State Governments/ UTAdministrations have been provided with various control powers to regulate various aspects of trading in essential commodities such as food grain, edible oils, pulses, kerosene and sugar etc.

Petroleum and petroleum products

Food items: edible oil, seeds ,vanaspati, pulses, sugar cane ,rice

Prices of essential drugs

Fertilizers

Recently, potatoes and onions were included in the list

### Consumer Protection Bill, 2018

Will replace the Consumer Protection Act, 1986

defines the “consumer” as a person who buys any good or avails a service for a consideration.

The Bill covers transactions**, both online and offline**, and includes tele-shopping and multi-level marketing.

The definition of “consumer rights” in the Bill exhaustively covers the right to be protected against the marketing of goods, products or services that are hazardous to life and property.

focusses on the **right to be informed** about the quality, quantity, potency, purity, standard and price of goods, products or services, as the case may be, so as to protect a consumer against unfair trade practices.

includes the **right to be assured**, wherever possible, of access to a variety of goods, products or services at competitive prices.

it involves **the right to seek redress against** unfair or restrictive trade practices, or unscrupulous exploitation of consumers

**Features**

* + **establishment of an executive agency to be known as the Central Consumer Protection Authority (CCPA)** to promote, protect and enforce the rights of the consumers and will be empowered to **investigate, recall, refund and impose penalties**;
  + provision for product liability action in cases of personal injury, death, or property damage caused by or resulting from any product;
  + **provision for mediation as an Alternate Dispute Resolution (ADR) making the process of dispute adjudication simpler and quicker and simplification of the process of adjudication by the Consumer Fora**.
  + to set up a **monitoring cell, to be constituted by the president of the National Consumer Disputes Redressal Commission** to oversee the functioning of the State consumer commissions from the administrative point of view.
  + The Bill provides for a State government to establish a consumer mediation cell to be attached to each of the district commissions and the State commissions.
  + the Bill proposes that the Centre establishes a consumer mediation cell to be attached to the National Commission.

### POA act

Article 17 of the Constitution of India abolished ‘untouchability’, forbade its practice in any form and made enforcement of any disability arising out of untouchability as an offence punishable in accordance with the law.

An Act of Parliament namely the Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) {PoA} Act, 1989, which falls within the provisions of Article 17 of the Constitution was enacted

Objectives

for preventing atrocities against members of Scheduled Castes and Scheduled Tribes,

to provide for Special Courts for the trial of such offences as well as relief and rehabilitation of the victims of atrocities.

The PoA Act extends to the whole of India except Jammu & Kashmir

Responsibility for its implementation rests with State Governments.

A Committee under the Chairpersonship of Union Minister for Social Justice and Empowerment

with members from Ministries of Home Affairs, Tribal Affairs, Law and Justice, Department of Justice, National Commission for Scheduled Castes, National Commission for Scheduled Tribes and three non-official members( two amongst SCs and one amongst SC) was set up in the year 2006 on a recommendation of the Parliament Committee,

to devise ways and means to curb offences of atrocities and ensure effective administration Acts of Parliament namely the Protection of Civil Rights{PCR} Act, 1955 and the Scheduled Castes and the Scheduled Tribes(Prevention of Atrocities){PoA} Act, 1989.

### IBC code:

Question about IBC?

IBC allows companies to file for bankruptcy to provide relief to debtors or creditors not to homebuyers in case of real estates.

The government, in its anxiety to help banks, passed a law which **gives seniority to bondholders and lenders over suppliers of goods and services.**

The Indian constitution provides for equality under the law. This is a fundamental right and a basic feature of the constitution.

It cannot be legislated away. By taking the ground that the act can pay certain types of creditors ahead of others, the IBC opens up a basic question. **Can a credit card company claim precedence over the Kirana Store in a bankruptcy?**

The IBC is silent on its applicability in relation to debt incurred prior to its promulgation.

**The RBI provides for a 50% provision for secured assets which are referred to NCLT.**

RBI has directed banks to set aside 50% cover in the form of provisions for the cases referred for insolvency proceedings at the NCLT,

to set aside additional capital against stressed assets that are being referred to the bankruptcy court

**Under the RBI’s provisioning norms**, if an account turns into a non-performing asset, banks are required to set aside 15 percent of the loan amount as provisioning in the first year.

The number rises to **25 percent in the second year** and **40 percent in the third year**. Beyond this, banks are required to **make 100 percent provisioning against the loan**.

**Provisions rise to 100% if the company is insolvent or the asset is an NPA for three years.**

100% against unsecured exposure in these cases.

**Updates**:

**Eligibility for Insolvency professional**

A company, a **registered partnership firm or a limited liability partnership shall be eligible for recognition as an insolvency professional entity**, if –

its sole objective is to provide support services to insolvency professionals, who are its partners or directors, as the case may be;

it has a **net worth of not less than one crore rupees**;

majority of its shares is held by insolvency professionals, who are its directors, in case it is a company;

**majority of capital contribution is made by insolvency professionals**, who are its partners, in case it is a limited liability partnership firm or a registered partnership firm;

**majority of its partners or directors, as the case may be, are insolvency professionals**;

**majority of its whole-time directors are insolvency professionals, in case it is a company; and**

**none of its partners or directors is a partner or a director of another insolvency professional entity**.

**Insolvency and Bankruptcy Board of India (IBBI) has evolved a transparent and consultative process for making regulations**

**Time line:**

Under the Code, a resolution has to be found for the indebted company within 270 days. Otherwise, a liquidator is appointed. The company can also opt for voluntary liquidation by a special resolution in a general meeting**.**

**Registered Valuers**

valuations required under the Companies Act, 2013 shall be undertaken by a person who, having the necessary qualifications and experience, and being a valuer member of a **recognised valuer organisation (RVO),** is registered as a valuer with the Authority.

**IBBC**-insolvency bankruptcy board of india is the authority for Vauluer in india

**A case is admitted for resolution under the Code only after approval from the NCLT.**

ArcelorMittal and Numetal bids were ineligible under the amended Section 29 A of the Insolvency & Bankruptcy Code (IBC), that debars related parties from bidding,

1)promoters/directors and guarantors, along with their related parties of the corporate debtor or company undergoing an insolvency resolution process, are prohibited or debarred from filing resolution plans. This was needed to prevent the back-door entry of errant promoters into the company, thereby taking advantage of the haircuts and thus getting a premium for their own wrongdoings.

2)provides for punishment for contravention of the provisions where no specific penalty or punishment is provided.

3)The amendments aim to keep-out such persons who have willfully defaulted, are associated with non-performing assets, or are habitually non-compliant and, therefore, are likely to be a risk to successful resolution of insolvency of a company. In addition to putting in place restrictions for such persons to participate in the resolution or liquidation process,

4)the Amendment also provides such check by specifying that the **Committee of Creditors ensure the viability and feasibility of the resolution plan before approving** it.

5) **IBBI were also amended** to give more power and to ensure that information on the antecedent of the applicant submitting the Resolution Plan along with information on the preferential, undervalued or fraudulent transactions are placed before the Committee of Creditors in order for it to take an informed decision on the matter.

6) Provides for power to make **Regulations by IBBI**,

### Forest Act 1927:

The President of India promulgated the Indian Forest (Amendment) Ordinance, 2017 to exempt **bamboo grown in non-forest areas** from the definition “Tree”, thereby dispensing with the requirement of **obtaining a permit for felling of bamboo for economic use**

India is one of the major producers of bamboo in the world, found abundantly in the NER.

Though India has 19% share of world’s area under bamboo cultivation, its market share in the sector is only 6%.

help in generating employability and self-employment but also give a major boost to revenue as well as Start-Up entrepreneurship in the Northeast.

### Mines and Minerals (Development & Regulation) Amendment Act, 2015,

1. mandated the setting up of District Mineral Foundations (DMFs) in all districts in the country affected by mining related operations.
2. The Central Government today notified the rates of contribution payable by miners to the DMFs.
3. In case of all mining leases executed before the date of coming into force of the Amendment Act 2015 miners will have to contribute **an amount equal to 30% of the royalty payable by them to the DMFs**.
4. Where mining leases are granted after enactment, **the rate of contribution would be 10% of the royalty payable.**

### Solid Waste Management Rules 2016

### Finance Act 2018

More power to SEBI

Securities and Exchange Board of India (SEBI) to impose monetary penalties on important market intermediaries such as stock exchanges and clearing corporations and also act against newer categories of participants likes investment advisers, research analysts, real estate investment trusts (REITs) and infrastructure investment trusts (InvITs)

to impose a monetary penalty of at least ₹5 crore on stock exchanges, clearing corporations and depositories for non-compliance with regulatory norms.

The penalty can go up to ₹25 crore or three times the amount of gains made out of such failure or non-compliance

SEBI to act against entities that furnish false or incomplete information to the regulator. Earlier, it could act only if the entity did not furnish any information.

### ESIC Act 1948:

News :ESI Corporation had earlier taken decision to form Subsidiary Corporation/Society at State Level.

Background

The promulgation of Employees' State Insurance Act, 1948(ESI Act), by the Parliament was the first major legislation on social Security for workers in independent India.

It encompasses certain health related eventualities that the workers are generally exposed to; such as sickness, maternity, temporary or permanent disablement, Occupational disease or death due to employment injury, resulting in loss of wages or earning capacity-total or partial.

Social security provision made in the Act to counterbalance or negate the resulting physical or financial distress in such contingencies, are thus, aimed at upholding human dignity in times of crises through protection from deprivation, destitution and social degradation while enabling the society the retention and continuity of a socially useful and productive manpower.

#### **ESIC Scheme**

It is a comprehensive **Social Security Scheme** designed to accomplish the task of socially protecting the 'employees' in the organized sector against the events of sickness, maternity, disablement and death due to employment injury and to provide medical care to the insured employees and their families.

**Features**

1. scheme provides **full medical care to the employee registered under the scheme during the period of his incapacity for restoration of his health and working capacity.**
2. It provides financial assistance to compensate the loss of his/ her wages during the period of his abstention from work due to sickness, maternity and employment injury.
3. The scheme provides medical care to his/her family members also.

**Implementation**

The ESI Scheme is administered by a corporate body called the **'Employees' State Insurance Corporation' (ESIC)**, which has members representing Employers, Employees, the Central Government, State Government, Medical Profession and the Parliament.

1. At the National level, the Standing Committee (a representative body of the Corporation) for administering the affairs of the Corporation, and the Medical Benefit Council, a specialized body that advises the Corporation on administration of Medical Benefit, are functioning.
2. At the Regional Level, the Regional Boards and Local Committees have been constituted to review the functioning of the scheme and make suggestions for its improvement.

**Funding**

The ESI scheme is a self financing scheme. The ESI funds are primarily built out of contribution from employers and employees payable monthly at a fixed percentage of wages paid. The State Governments also contribute1/8th share of the cost of Medical Benefit.

It is the statutory responsibility of the employer under Section 2 –A of the Act read with Regulation 10-B, to register their Factory/ Establishment under the ESI Act within 15 days from the date of its applicability to them.

### FRDI BILL:

Financial Resolution and Deposit insurance bill:

Based on recommendations of  Ajay Tyagi committee.

Bill provides for rules of bankruptcy for a Financial Institutions.

Mechanism for Risk based monitoring of health of financial institution.

1. Low
2. Moderate
3. Material
4. Imminent
5. Critical.

Instruments of Resolution:

1. Merger or acquisition
2. Transferring the assets, liabilities and management to a temporary firm
3. Liquidation.(If no resolution in max period of 2years,order of assets to be liquidated also mentioned in bill).

At Critical Risk to viability,

1. A proposed Resolution Corporation takes the decision to use a particular method of resolution which includes the tool of a ‘bail-in’.
2. The Corporation takes all decisions, and not the bank.
3. Resolve within one year(may take one more additional year).
4. Other features:
   1. The Resolution Corporation can use this tool only in consultation with the regulator .
   2. bill empowers the rescue body to decide the amount insured for each depositor.
   3. only such liabilities may be cancelled where the liability/instrument contains a bail-in provision.
   4. The Resolution Corporation will specify the liabilities to be bailed in.
   5. These will be specified in regulations that will be put up in the public domain before finalization.
   6. Creditors/depositors will need to consent in advance to have their liabilities bailed-in.
   7. Bill gives aggrieved persons a right to be compensated by the Resolution Corporation if any of the safeguards have not been followed during a bail-in or in the conduct of any other resolution action.
   8. the law provides for an ex-ante(in advance) consent for certain liabilities to be bailed in

**Examples:**

Some of the most developed resolution regimes in the world have a more stringent, mandatory regime in place.

For instance, the EU Bank Recovery and Resolution Directive and Single Resolution Mechanism empowers authorities to impose mandatory restructuring of shareholder and creditor claims.

Europe protected deposits have an upper limit €100,000.

In the UK, for example, protected deposits have an upper limit of £85,000.

The UK’s Financial Services Compensation Scheme (FSCS) goes some steps further. It also provides a protection limit of up to £1 on ‘temporary high balances’ that depositors may have held when the bank failed

**Pros:**

1. another tool of resolution.
2. treats banks differently from regular corporations
3. a system of risk-based monitoring of financial institutions
4. Bill is designed to take away power from the failed financial institution at the stage of failure
5. make the system more credible, less chaotic, and systematic in times when credibility is at risk
6. will also help to encourage discipline among the financial service providers by putting a limit on the use of public money to bail out distressed entities.
7. decrease the time and costs involved in resolving distressed financial entities.
8. Some of the most developed resolution regimes in the world have a more stringent, mandatory regime in place

**Cons:**

1. Absence/No mechanism for judicial review or appeal provided in bill.
2. Bill requires financial firms to pay fees to the Resolution Corporation.
3. primary objective does not appear to be deposit protection, but financial institution resolution. It can lead to loss of faith in banking system on the part of depositor. Making banks unviable.
4. Merger is better than liquidation.
5. Govt bailing out from their responsibility of keeling financial system solvent.
6. Only Rs100000 limit too meagre to be viable for depositor, roughly one-sixtieth of the value protected in other jurisdictions. Country like India, Only social security for depositor are their life long savings. If they loose these were they will plunge towards poverty and insecurity .
7. Last attempt to Bail IN as in Cyprus’s economy, It’s declined and fell after the Greek crisis that roiled Europe in 2011 and 2012. The failure of its second largest bank led to customers with over €100,000 as deposits losing 40 to 60 percent of those deposits.

### RTE Second Amendment 2017

The Right to Education Act, 2009 prohibits detention of children till they complete elementary education i.e., class 8.

The Bill amends this provision to state that a regular examination will be held in class 5 and class 8 at the end of every academic year. If a child fails the exam, he will be given additional instruction, and take a re-examination.

If he fails in the re-examination, the relevant central or state government may decide to allow schools to detain the child.

**background:**

automatic promotion reduces incentive for children to learn and for teachers to teach.

detaining a child leads to drop outs and does not focus on the systemic factors that affect learning such as quality of teachers, schools, and assessment.

### Impeachment procedure of Judge

Justice V. Ramaswami has the dubious distinction of being the first judge against whom impeachment proceedings were initiated. but it failed to secure the required two-thirds majority.

Till date no judje of supereme court has been impeached.

In Article .124(4) of the indian constitution , the guidelines surrounding the Impeachment of Judges are provided on grounds of **proved misbehaviour or incapacity**

The Constitution, armed with the Judges (Inquiry) Act, 1968 and the Judges (Inquiry) Rules, 1969 provides for the entire process of Impeachment

1. The impeachment is initiated with the presentation of a motion for impeachment in either of the houses of the Parliament which is then looked into by the Speaker/Chairman.
   1. Under the said act, the process is initiated with presentation of a motion of impeachment by at **least 50 members of the Rajya Sabha or 100 from the Lok Sabha**
2. After that, a three member committee is formed by them to look into the charges framed against the Judge in question. At the end of the fact-finding by the committee, a report with the recommendations is submitted to them.
   1. acting as a body with powers of a civil court
   2. The Committee should consist of the Chief Justice or a judge of the Supreme Court, a chief justice of a high court and a distinguished jurist
3. In the event that the committee recommends that the judge be impeached,both the house of the Parliament will vote on the same **and if a two third majority of at least half the strength concurs**,
   1. special majority of each House of Parliament (that is, a majority of the total membership of that House and a majority of not less than two thirds of the members of that house present and voting), has been presented to the **President in the same session of Parliament for such a removal**
   2. Failed in case of justice ramaswami
4. then the motion of impeachment shall be placed before the President for his assent.
5. The process thus, involves the Judge being present before both houses of Parliament

### Appointment of Judge

all that is said is in the Constitution about appointment of judge is that the president shall appoint these judges.

The judges of the Supreme Court are to be appointed after consultation with such of the judges of the Supreme Court and the judges of the high courts in the state as the president may deem necessary.

The chief justice shall always be consulted in the case of a judge other than the chief justice.

A judge to the high court shall be appointed after consultation with the chief justice of India, the governor of the state and in the case of appointment of a judge other than the chief justice, the chief justice of the state high court

### Office of Profit

First time introduced in India as part of Morley-Minto reforms

Article 58(b) says any person holding office of profit will not be eligible for contesting in election of president of India

It also says that any person holding office of President, vice president, governor or minister of either Union govt. or state govt is not considered office of profit

Article 102 deals with disqualification of member of parliament if he holds office of profit

Article 103 lays down that in case of dispute about disqualification about member of parliament It shall be referred to the President and he will take decision on the advice of Election commission of India(advice is binding) and his decision will be final

And in case of disqualification in case of defection matter will be decided by the speaker or chairman of the Rajya sabha

Article 191 1(a) deals with same matter in state legislative assembly. It also states that dispute regarding disqualification of MLA will be settled by Governor and his decision shall be Final. In this case opinion of State election commission shall be sought (Advice is binding on governor).

Expression Office of Profit has not been defined in Constitution or in RPA act

Prevention of Disqualification Amendment Act 2006 defines 45 positions that should not be considered office of profit.

## INSTITUTIONS

### CCI

Strength redutction of Competition Commission of India (CCI) from One Chairperson and Six Members (totalling seven) **to One Chairperson and Three Members (totalling four)**

by not filling the existing vacancies of two Members and one more additional vacancy,

Competition Act, 2002 (the Act) provides that the Commission **shall consist of a Chairperson and not less than two and not more than six Members**

In several major jurisdictions such as in Japan, USA and U.K. Competition Authorities are of a similar size.

### Trifed

The Tribal Cooperative Marketing Development Federation of India Limited (TRIFED), a multi-State Cooperative Society under the Ministry of Tribal Affairs,

Aims promoting and marketing tribal products, tribal art and crafts within the country and abroad by providing marketing support to tribal products through its network of 31 retail outlets “TRIBES INDIA”, 37 consignment outlets of various State Emporia and 16 franchisee outlets. It also organizes exhibitions like National Tribal Craft Expo called “Aadi Mahotsav” etc. in which it promotes and markets tribal products.

It also facilitates the participation of tribal artisans to enable them to interact directly with art lovers to assess the market needs.

In the last three years, it has begun providing e-commerce platforms to the tribal artisans to sell their products.

### Bank board bureau

Preparing PSBs to take on competition,

helping them develop capabilities to manage price risk across business cycles and

forcing them to focus on generating internal capital, among others, are the objectives

It also has the mandate to suggest names for the appointment of CEOs and board members of public sector banks (PSBs) to the Centre.

reforms could be undertaken without the Centre cutting stake below 51%, contrary to recommendations by the Nayak committee

### National green tribunal

Appointment procedure

SC has appointed acting chairman

### National Financial Reporting Authority (NFRA)

5 member

a chairperson, three full-time members and a secretary.

NFRA as an independent regulator for the auditing profession which is one of the key changes brought in by the **Companies Act, 2013.**

Similar instituions already in place in UK and america

Impact

result in improved foreign/domestic investments, enhancement of economic growth, supporting the globalisation of business by meeting international practices, and assist in further development of audit profession.

Jurisdiction

investigation of Chartered Accountants and their firms

listed and non listed companies

recommend to the Centre formulation of accounting and auditing standards and polices to be adopted by companies and auditors;

monitor and enforce such standards and policies; and oversee quality of services of the professions associated with the compliance of these standards and policies

Powers

It can investigate into professional matters or misconduct of any member or a firm of chartered accountants;

it can issue summons and examine on oath;

it can also inspect any book, registers and documents of any professional/firms probed;

it may **impose penalties** and even powers to **debar a member of a firm.**

Role of ICAI

regulatory role of ICAI as provided for in the Chartered Accountants Act, 1949 shall continue in respect of its members in general.ICAI advisory to NFRA

ICAI’s role will continue in respect of its members, in general,

ICAI will continue with its advisory role on accounting and auditing standards and policies by making its recommendations to NFRA.

Quality Review Board (QRB) will also continue quality audit in respect of private limited companies, public unlisted companies below prescribed threshold and also with respect to audit of those companies that may be delegated to QRB by NFRA

### Insolvency and Bankruptcy Board of India

It functions under Ministry of Commerce

Regulator under the Insolvency and Bankruptcy Code, 2016 (Code)

regulates a profession as well as transactions

Functions

It writes and enforces rules for transactions, namely, corporate insolvency resolution, corporate liquidation, individual insolvency resolution and individual bankruptcy under the Code.

It has regulatory oversight over the Insolvency Professionals, Insolvency Professional Agencies and Information Utilities

Register insolvency professional agencies, insolvency professionals and information utilities and renew, withdraw, suspend or cancel such registrations

Levy fee or other charges for the registration of insolvency professional agencies, insolvency professionals and information utilities

Lay down by regulations the minimum curriculum for the examination of the insolvency professionals for their enrolment as members of the insolvency professional agencies

Specify by regulations the manner of collecting and storing data by the information utilities and for providing access to such data

The Board may make model bye-laws to be to adopted by insolvency professional agencies

Powers:

the Board shall have the **same powers as are vested in a civil court under the Code of Civil Procedure, 1908**

The discovery and production of books of account and other documents, at such place and such time as may be specified by the Board.

Summoning and enforcing the attendance of persons and examining them on oath.

Inspection of any books, registers and other documents of any person at any place.

Issuing of commissions for the examination of witnesses or documents.

Members

10 member and chairman

4 govt. nominated members

InSolvency

corporate persons, partnership firms and individuals

Recently has signed MOU with RBI for sharing of information,sharing resources,cross training staff,capacity building, spreading awareness

### Mahilla courts

In criminal cases, during cross examination, lawyers try to confuse, intimidate and humiliate them by asking irrelevant questions or inquiring into their personal space and sometimes repeatedly asking them to narrate incidents which might be humiliating for her. Experiences in ordinary courts are tiring, humiliating and frustrating for women.

Therefore, in order to make justice-seeking less traumatic for women, a need was felt for a forum where women could approach the authorities to redress their grievances, without any hesitation.

Thus were born the Mahila courts.

The first Mahila Court was set up by the Andhra Pradesh High Court to try offences against women such as kidnapping, acts intended to outrage her modesty and rape.

This court was established on an experimental basis in the Metropolitan Sessions Division, Hyderabad in 1987 and the Presiding Officer was a lady Sub-Judge designated as "Addl. Chief Metropolitan Magistrate-cum-Asst. Sessions Judge"

Its success encouraged the setting up of more such courts in Delhi as well as in all other parts of the country.

In 1994, Mahila Courts headed by women judges were established in Delhi. Presently, there are several Mahila Courts at Sessions level headed by an Additional Sessions Judge and many more headed by Metropolitan Magistrates in all the District Court complexes of Delhi.

Mahila courts are headed by experienced women judges and magistrates and the staff employed in such courts is also predominantly female.

Mahila courts are specialized courts set up to dispense justice to women. They speedily deal with and dispose of cases pertaining to women fighting legal battles following matrimonial discord. Mahila or women courts have been established as forums in which women, with or without small children, can seek quick relief in disputes for shelter and for financial assistance. Mahila courts are headed by experienced women judges and magistrates and the staff employed in such courts is also predominantly female. They are headed by a judge of the rank of Additional Chief Metropolitan Magistrate cum Assistant Sessions Judge, who, too, is a woman. These courts deal exclusively with the following offences

Cases relating to grant of maintenance under section 125 of Cr. PC,

Cases under sections 354 and 509 of I.P.C dealing with assault or criminal force and words, gestures or acts intended to outrage or insult the modesty of a woman.

Cases of kidnapping (Sec: 363 and 366 I.P.C),

Cases relating to procurement of minor girls for the purpose of prostitution or rape (Sec: 366 A I.P.C.),

Cases relating to Criminal breach of trust (Section 406 I.P.C ) where a female is not returned her stridhan held by her in laws

Cases relating to Rape (Section 376 I.P.C),

Cases relating to cruelty by husband or relatives of husband (Sec: 498-A I.P.C.).

Cases relating to any form of violence against the woman under the Domestic Violence Act, 2005.

The procedure followed in these courts is informal and comforting for women. They can shed their inhibitions and depose freely in the presence of women judges, who are more sensitized towards females and their inherent nature

### PMEAC:

Economic Advisory Council to the Prime Minister (PMEAC)

**is a non-constitutional, non-permanent and independent body**

constituted to give economic advice to the Government of India, specifically the Prime Minister.

The council serves to highlight key economic issues facing the country to the government of India from a neutral viewpoint.

It advises the Prime Minister on a whole host of economic issues like inflation, microfinance, industrial output, etc

### CCEA

Cabinet committee on Economic affairs:

headed by the Prime Minister CCEA has a mandate to review economic trends on a continuous basis, as also the problems and prospects, with a view to evolving a consistent and integrated economic policy framework for the country.

It also directs and coordinates all policies and activities in the economic field including foreign investment that require policy decisions at the highest level.

The CCEA also lays down priorities for public sector investment and considers specific proposals for investment of not less than specific levels (Rs. 3 Billion at present) as revised from time to time.

### SFIO

Serious fraud investigation organisation

Initially est . in 2003 Under ministry of corporate affairs by recommendation of Naresh chandra committee

As Non statutory

But in new avatar established vide Government of India’s Resolution Statutory body under the provisions of the Companies Act, 2013

**for detecting and prosecuting or recommending for prosecution** white collar crimes/frauds.

Head of Department in the rank of **Joint Secretary to the Government of India**

not only uncovers the fraud, but able to direct and supervise prosecutions under various economic legislations through appropriate agencies.

investigation report filed by the SFIO with the criminal court, for framing of charges, will be deemed to be a report filed by the police under the Code of Criminal Procedure

The director of the SFIO will have the power to arrest persons if he has reason to believe that such persons are guilty of certain offences, including fraud under the Companies Bill

Where a case has been assigned to the SFIO, no other investigating agency of the Central or the State government is to proceed with investigation.

### Association for Democratic Reforms :

The Association for Democratic Reforms (ADR) was established in 1999 by a group of professors from the Indian Institute of Management (IIM) Ahmedabad.

ADR along with the National Election Watch, has conducted Election Watches for the 2004, 2009 and 2014 Lok Sabha Elections, Rajya Sabha Elections and almost all State Assembly Elections post 2003 in the country.

In 2003,ADR won two milestone judgments on disclosure of candidate's criminal and financial records from the Supreme Court.SC in 2003, made it mandatory for all candidates contesting elections to disclose criminal, financial and educational background prior to the polls by filing an affidavit with the Election Commission

Central Information Commission (CIC) saying that Income Tax Returns of Political Parties would now be available in the public domain along with the assessment orders

Supreme Court delivered a judgment barring sitting MPs and MLAs from holding office on being convicted in a Court of Law

the right to register a "none of the above (NOTA)" vote in elections should apply and ordered Election Commission to provide such a button in the Electronic Voting Machines (EVM)

Supreme Court had passed a judgment holding that Election Commission of India (ECI) has the power to disqualify a candidate in relation to filing of false election expenditure statement under Section 10A of RPA

### National Election WATCH:

Election Watch comprises background reports based on Criminal, Financial, Educational and Income Tax details of Candidates and Winners (MPs, MLAs and Ministers) who have contested Elections to State Assemblies, the Parliament and a few local bodies.

### National Pharmaceutical Pricing Authority

Decreased price of stents and other medical equipment like catheters etc

### National Tiger conservation Authority

### INTEGRATED TRIBAL DEVELOPMENT AGENCY (ITDA)

The main objective of ITDA is socio-economic development of tribal communities through income generating schemes allied with Infrastructure Development programmes and protection of the tribal communities against exploitation.

The ITDA project areas are generally contiguous areas of the size of a Tehsil or Block or more in which the ST population is 50%; or more of the total.

These agencies function under overall control of the State Governments.

For delivery of public goods and services to Scheduled Tribes.

### **NCLT**

The Central Government has constituted National Company Law Tribunal (NCLT) under section 408 of the Companies Act, 2013 (18 of 2013) w.e.f. 01st June 2016.

**is a quasi-judicial body**

The NCLT has the power under the Companies Act to adjudicate proceedings:

Initiated before the Company Law Board under the previous act (the Companies Act 1956);

Pending before the Board for Industrial and Financial Reconstruction (BIFR), including those pending under the Sick Industrial Companies (Special Provisions) Act, 1985;

Pending before the Appellate Authority for Industrial and Financial Reconstruction; and

Pertaining to claims of oppression and mismanagement of a company, winding up of companies and all other powers prescribed under the Companies Act.

**National Company Law Appellate Tribunal (NCLAT)** was constituted under Section 410 of the Companies Act, 2013 for hearing appeals against the orders of National Company Law Tribunal(s) (NCLT), with effect from 1st June, 2016

NCLAT is also the Appellate Tribunal for hearing appeals against the orders passed by NCLT(s) under Section 61 of the Insolvency and Bankruptcy Code, 2016 (IBC),

NCLAT decision can be challenged in SC.

### **FINANCE** COMMISION**:**

The Finance Commission, set up in 1951 under **Article 280 of the Constitution of India**, focuses on the vertical (division of revenues between center and states) and the horizontal distribution (between states to ensure regional equity).

15 Finance commission recommendations from 2020 to 2025.

Constituted every 5 years.

Constitutional mandate to devolve funds, functionaries and functions on local bodies, the progress has been slow.

However, it is heartening that in a **threefold increase over that of the 13th Finance Commission, the 14th Finance Commission awarded total grants of Rs.87,114 Crore to Urban Local Bodies.**

### Inter-State Council (ISC):

Article 263 of the Constitution of India provides for the establishment of an Inter-State Council.

President of India establishes Inter State Council by presidential order 1990.

Composition

* Prime Minister – Chairman
* Chief Ministers of all States
* Chief Ministers of Union Territories having a Legislative Assembly and Administrators of UTs not having a Legislative Assembly.
* Six Ministers of Cabinet rank in the Union Council of Ministers to be nominated by the Prime Minister.
* Governor of a State under President’s rule can attend the meeting of the Council.

**Create a strong institutional framework to promote and support cooperative federalism in the country.**

### Zonal Council:

Section 15 of the States Reorganization Act 1956 provides that there shall be a Zonal Council for each of the five zones of the country.

Each Zonal Council shall be an advisory body with jurisdiction over following areas:

a)any matter of common interest in the field of economic and social planning;

(b) any matter concerning border disputes, linguistic minorities or inter-State transport; and

(c) any matter connected with, or arising out of, the reorganisation of the States under this Act

### Punchhi Commission

A Commission on Centre-State Relations under the chairmanship of Justice Madan Mohan Punchhi, former Chief Justice of India on 27th April 2007. A 6 member commission.

Goal is to look into the new issues of Centre-State relations keeping in view the changes that have taken place in the polity and economy of India since the Sarkaria Commission had last looked at the issue of Centre-State relations over two decades ago.

In total it gave 273 recommendations in 7 volumes

Recommendations of Punchhi commission:

1)Articles 355 & 356

The report recommended that these Articles be amended. It sought to protect the interests of the States by trying to curb their misuse by the Centre. It said that the centre should try to bring only the specific troubled area under its jurisdiction and that too for a brief period, not more than three months. That means, the Commission sought to localize the emergency provisions under Articles 355 and 356.

2) National Integration Council

In matters concerning internal security the Punchhi Commission recommended the creation of a superseding structure (much like the Homeland Security Department in the US), that gave prominence to the National Integration Council. It recommended the Council to meet at least once annually. It also advised a five-member delegation of the Council to visit any communally affected area within two days.

3) Concurrent List Subjects

The Commission recommended that the Centre should consult states before introducing bills on items in the concurrent list through the inter-state council.

4) Appointment of Chief Ministers: the Commission recommended that:

There should be clear guidelines on the chief ministers’ appointment so that the discretionary powers of the governor are limited in this regard.A pre-poll alliance to be regarded as one political party.

Order of precedence in forming state government:

* The group/alliance with the largest pre-poll alliance with the highest number.
* The single largest party with support from others.
* The post-poll alliance with a few parties joining the government.
* The post-poll alliance with a few parties joining the government and remaining including independents giving outside support.

5) President’s Pocket Veto

There should be a provision by which the President’s decision to use his Pocket veto power is communicated to the State within six months.

6) Appointment and Removal of Governors

Recommendations regarding appointment of Governors:

* The incumbent should have stayed away from active politics even at the local level for at least two years prior to his appointment.
* The state chief minister should have a say in the governor’s appointment.
* There should be a committee entrusted with the appointment of governors. This committee should comprise of the Prime Minister, the Home Minister, Speaker of the Lok Sabha, and the concerned state Chief Minister. Even the Vise President can be involved in the procedure.

Recommendations regarding removal of Governors:

* The Doctrine of Pleasure should be deleted from the Constitution.
* Only a resolution by the state legislature should remove the governor.
* It supported the right of the governor to sanction the prosecution of ministers against the state government’s advice.
* It recommended that there be provision for the impeachment of the governor by the state legislature.

7) Treaty Making Power of Union

There should be a regulation in the treaty making power of the union executive with respect to treaties that are concerned with matters in the state list. The Commission recommended that the states be involved more in such treaties.

8) Communal Violence Bill

The Punchhi Commission recommended the amendment of the Communal Violence Bill. It said that the central forces be allowed to deploy forces in the state without the state’s consent for a short period in case of communal violence.

But such a deployment should not exceed a week’s time and post-facto consent is to be sought from the state.

9) The Commission also recommended the stopping of the convention of appointing governors as chancellors of universities.

### Malimath Committee report

Committee headed by Justice Vs Malimath had the task of examining the fundamental principles of criminal law so as to restore confidence in the criminal justice system.

This involved reviewing the Code of Criminal Procedure (CrPC), 1973, the Indian Evidence Act, 1872, and the Indian Penal Code (IPC), 1860.

Total 158 recommendations

Adversarial vs inquisitorial system

Some of the are:

1. Add preamble to CRPC
2. Witness without summoning
3. the standard of 'proof beyond reasonable doubt' present followed in criminal cases shall be done away
   1. the standard of proof in criminal cases should be higher than the 'preponderance of probabilities' and lower than 'proof beyond reasonable doubt.'
4. the special powers the police have under legislation such as the Prevention of Terrorism Act (POTA) should be extended into general criminal law.
5. A separate wing of investigation with clear mandate that it is accountable only to Rule of Law is the need of the day.
   1. National Security Commission and the State Security Commission at the State level should be constituted, as recommended by the National Police Commissio
6. the dilution of many of the pre-trial safeguards against violence in police custody that an accused has example it seeks to double the 90-day period available for filing a charge-sheet after which an accused can be released on bail
7. constituting a National Judicial Commission and amending Article 124 to make impeachment of judges less difficult
8. It also seeks to curtail an accused person's right to silence under Article 20(3) of the Constitution, which guarantees the right against self-incrimination, by amending Section 313 of the CrPC
9. Section 25 of the Indian Evidence Act be amended to bring it in line with Section 32 of POTA, which makes confessions to a police officer admissible as evidence subject to the accused being informed of the right to consult a lawyer
10. Section 54 of the Indian Evidence Act to make admissible evidence regarding the character of the witness. This move is widely seen to be in violation of all international norms,
    1. Evidence regarding good character of the accused may show that he is not likely to have committed the offence. Logically, it follows that the evidence of bad character may show that he is more likely to commit the offence
11. to enable a magistrate to order an accused to give samples of handwriting, fingerprints and footprints for purposes of scientific examination. It also provides for provisions similar to those in POTA to intercept electronic or oral communication
12. it suggests the setting up of a State Security Commission, as recommended by the NPC, to insulate the police from political pressure
13. The committee does not favour the death penalty for rapists. In fact, the report states that wherever the death penalty is a possible punishment it should be replaced with life imprisonment without commutation or remission.
14. These suggestions include the drafting of a law on sexual assault, a law to deal with child sexual abuse, criminalising marital rape and decriminalising homosexuality.
    1. The positive recommendations, such as expanding the definition of rape to include all forms of forcible penetration, are eclipsed by the indifference to most of the concerns of the women's movements

Criticism

1. Criticism of above point Most magistrates are dependent on the police for day-to-day affairs and there is a deep nexus between the police and the magistrate. Usually there is no lawyer available to the accused at the time of the remand proceedings
2. Crimes against members of the Scheduled Castes and the Scheduled Tribes do not find mention in the report,
3. The plight of undertrials - 74 per cent of the total population in prisons, according to the NHRC's custodial justice cell - and issues of non-criminal lunatics, the misuse of the lunacy Act, the mental health Act and the State police Act have been bypassed in the report.
4. The bulk of the recommendations revolve around the idea that whittling down the rights of the accused and increasing the rate of convictions will help tackle crime
5. Police pro report

### National Testing Agency

More on it in editorial section.

### National Anti-profiteering Authority under GST:

Shri B.N. Sharma, as the first Chairman.

**Statutory body** under section 171 of the Central Goods and Services Tax Act, 2017 read with Chapter XV

Authority shall **cease to exist after the expiry of two years from the date on which the Chairman enters** upon his office unless the Council recommends otherwise.

|  |  |  |
| --- | --- | --- |
| **NAA** | **CBIC(central board of indirect taxes and customs)** | **CCI(competition commission of india)** |
| determine whether the reduction in tax rates or benefit of input tax credit is being passed on to the recipient by way of commensurate reduction in prices | task of formulation of policy and laws and implementing the same on the levy and collection of the following duties/taxes:     * customs duties; * central excise duties on certain items; * central tax on intra-State supplies of goods and services and * integrated tax on inter-State supply of goods and services * Narcotics. | eliminates practices having adverse effect on competition to promote and sustain competition to protect the interest of the consumers and to ensure freedom of trade. |

**Aim:**

1. boosting the confidence of consumers that GST is a ''Good and Simple Tax'' in the overall national interest.
2. to ensure that the benefits of input credit and the reduction in GST rates on specified goods or services are passed on to the consumers by way of a commensurate reduction in prices.
3. reassuring consumers of Governments' commitment that GST would result in lower prices of goods and services.

**Tenure:**

**The Authority has been set up for a two-year period**

**Corresponding Institutions:**

the institutional mechanism for effective implementation of the "**anti-profiteering**" measures enshrined in the GST rules consists of:

1. a Standing Committee, **enquire into cases of mass impact with All India level**
2. State level Screening Committees, **expected to look into complaints of local nature**
3. the **Directorate General of Safeguards in the Central Board of Excise & Customs (CBEC).**

**Process:**

Consumers who are aggrieved that there has been no commensurate reduction in prices may apply for relief to the Screening Committee in the State.

the matter would be referred to a Standing Committee at the Centre.

The Standing Committee shall, in turn, ask the Director General of Safeguards, CBEC to carry out detailed investigation.

The Director General of Safeguards shall report its findings to the Authority.

**Powers**:

1. It has the authority to order the business concerned to reduce its prices or return the undue benefit availed along with interest @18% to the consumers of the goods or services.
2. If the undue benefit cannot be passed on to the consumers, it can be ordered to be deposited in the **Consumer Welfare Fund**.
3. The Authority also has the power to **impose penalty** on the defaulting business or
4. Even order the **cancellation of its registration under GST**.

Besides the NAA, the GST law also proposes for other institutional arrangements:

A Standing Committee, Screening Committees in every State and

the Directorate General of Safeguards in the Central Board of Excise & Customs (CBEC).

**All these bodies will work together on the anti-profiteering front**

### NITI AAYOG

Mandate

* 1. An instrument of cooperative and competitive federalism
  2. Bring Outcome focus among Central Ministries & States
  3. Nodal Organization for monitoring progress on SDGs
  4. Encourage cross learnings/ knowledge dissemination among States
  5. Chart developmental trajectory of States over time

### RailWay Development Authority

Government has approved formation of a Rail Development Authority (RDA) comprising Chairman and three Members.

The objective underlying RDA is to get expert advice/make informed decision on:

1. Pricing of services commensurate with costs.
2. Suggest measures for enhancement of Non Fare Revenue.
3. Protection of consumer interests, by ensuring quality of service and cost optimization.
4. Promoting competition, efficiency and economy.
5. Encouraging market development and participation of stakeholders in the rail sector and for ensuring a fair deal to the stakeholders and customers.
6. Creating positive environment for investment.
7. Promoting efficient allocation of resources in the Sector.
8. Benchmarking of service standards against international norms and specify and enforce standards with respect to the quality, continuity and reliability of services provided by them.
9. Providing framework for non-discriminatory open access to the Dedicated Freight Corridor (DFC) infrastructure and others in future.
10. Suggesting measures to absorb new technologies for achieving desired efficiency and performance standards.
11. Suggesting measures for human resource development to achieve any of its stated objectives.

### Director general of revenue intelligence

Evading import duties

Can do suo moto cognizance

Objectives

* Collection of intelligence about smuggling of contraband goods, narcotics, under-invoicing etc. through sources of India and abroad, including secret sources.
* Analysis and dissemination of such intelligence to the field formations for action and working on such intelligence, where necessary.
* Keeping watch over important seizures and investigation cases. Associating or taking over the investigations which warrant specialized handling by the Directorate.
* Guiding important investigation/prosecution cases. Keeping liaison with foreign countries, Indian Missions and Enforcement agencies abroad on anti-smuggling matters.
* To keep liaison with C.B.I. and through them with the INTERPOL. To refer cases registered under the Customs Act to the Income Tax Department for action under the Income Tax Act

### Director general of Safeguards

The Director General of Safeguards under the Department of Revenue, Ministry of Finance

mandated to investigate the existence of "serious injury" or "threat of serious injury” to domestic industry as a consequence of increased import of an article into India and to submit his findings to the Central Government along with recommendations regarding the amount of duty and period of levy of duty which if levied would be adequate to remove the injury or threat of injury to the domestic industry.

The domestic law to implement Safeguard measures has been enacted under Section 8B of the Customs Tariff Act, 1975

### NHAI

National Expressway-1: Ahmedabad Vadodara Expressway has been designated as National Expressway-1, also known as Mahatma Gandhi Expressway.

National Expressway-2: The Sonipat (Kundli)-Ghaziabad-Palwal expressway is the National Expressway-2. It is still under development.

It is a statutory authority, established by NHAI act, 1988.

It was made autonomous in 1995.

It is responsible for the development, maintenance, management and operation of National Highways, totalling over 70,548 km

National Highway Development Project (NHDP) is being implemented by NHAI.

NHAI is also helping in implementation of the Special Accelerated Road Development Programme for North Eastern Region (SARDP-NE). SARDP-NE is a project to upgrade National Highways connecting state capitals to 2 lanes or 4 lane in north eastern region.

A part of the fuel cess imposed on petrol and diesel is allocated to the National Highways Authority of India (NHAI) for funding the NHDP.

This money goes **to Central Road Fund**, which was established by the parliament via Central Road Fund Act 2000.

Models

PPP

In PPP, the public and private partnership happens in four ways viz.

Build Operate & Transfer (BOT),

Build-Operate-Transfer (Annuity),

Build-Operate-Transfer (Toll) and

Design, Build, Finance, Operate & Transfer (DBFOT).

Lack of investor interest in PPP projects due to financial reasons and projects not making commercial sense to the developers are major reasons for it’s failure

EPC

Engineering Procurement and Construction (EPC) mode

EPC is not a new model but is an older model than PPP

Under EPC, the government funds the construction and the road developer only has to develop the project in a stipulated period of time

In the BOT mode, the developer invests in the project and recoups it either through tolling rights or annuity.

Since EPC contract promise guaranteed price, guaranteed timeline for completion, single point of responsibility and higher control; they were preferred by developers.

an inherent limitation in implementing projects on EPC mode as such implementation is restricted by the financial resources available with the government.

Reviving PPP(HAM)

hybrid annuity model for building roads to fast-track highway projects, revive the Public-Private-Partnership (PPP) mode

Under this model, the government will provide 40 per cent of the project cost to the developer to start work while the remaining investment has to be made by the developer

main objective of the approval is to revive highway projects in the country by making one more mode of delivery of highway projects

It will facilitate uplifting the socio-economic condition of the entire nation due to increased connectivity across the length and breadth of the country leading to enhanced economic activity,

private partner continues to bear the construction and maintenance risks as in BOT (Toll) projects, it is required only to partly bear financing risk

the developer is insulated from revenue/traffic risk and the inflation risk, which are not within its control

developer is responsible for designing, building, financing (60% of the project cost), operating and transferring the project at the end of the operations period (15 years).

the bidding rolls out only after 90% land is available

## Governance

### Aspirational district

NITI Aayog launched the **baseline ranking for the Aspirational Districts based** on published data of 49 indicators (81 data points) across

five developmental areas of

**Health and Nutrition,**

**Education,**

**Agriculture and Water Resources,**

**Financial Inclusion and Skill Development,**

**Basic Infrastructure.**

**Transforming India, One District at a Time**

The Aspirational District programme is an innovation in governance that covers about 15% of India’s population and is reflective of the priority of the Government to provide for the poorest of poor

Transformation of Aspirational Districts’ programme aims **to quickly and effectively transform some of the most underdeveloped districts of the country**

expeditiously transforming 115 districts that were identified from 28 states

Collaboration (of Central, State level ‘Prabhari’ Officers & District Collectors

Convergence of schemes

level of Additional Secretary have been nominated to become the ‘**Central Prabhari Officers’** of each district, while States have appointed state-nodal and Prabhari officers

35 districts which accounted for 80-90 % of country-wide LWE violence were categorized as **‘Most Affected Districts’**

NITI’s focus is to improve India in the Human Development Index ranking, raising the living standards of its citizens and ensuring inclusive growth for all. Unless these districts are brought up to the parameters that each of us expects from our own lives, India will not be able to progress at the rapid pace that would otherwise be achieved from the Governments broad range of initiatives and development strategy

### Bhudhaar

In andhra, Bhuseva project, under which government and private lands across the State will be assigned 11-digit Bhudhaar numbers on the lines of Aadhaar in a two-step process.

### PRAGATI

The system has been designed in-house by the PMO team with the help of National Informatics Center (NIC). As the name suggests, it is aimed at starting a culture of Pro-Active Governance and Timely Implementation. It is also a robust system for bringing e-transparency and e-accountability with real-time presence and exchange among the key stakeholders.

Key features of the PRAGATI application are as follows:

* 1. It is a three-tier system (**PMO, Union Government Secretaries, and Chief Secretaries of the States**);
  2. Prime Minister will hold a monthly programme where he will interact with the Government of India Secretaries, and Chief Secretaries through Video-conferencing enabled by data and geo-informatics visuals;
  3. The first such programme was launched on 25th March, 2015 (Wednesday) at 3.30 PM;
  4. **Now onwards, it will be held once in every month on Fourth Wednesday at 3.30 PM-to be known as PRAGATI Day.**
  5. Issues to be flagged before the PM are picked up from the available database regarding **Public Grievances, on-going Programmes and pending Projects**;
  6. The system will ride on, strengthen and re-engineer the data bases of the CPGRAMS for grievances, Project Monitoring Group (PMG) and the Ministry of Statistics and Programme Implementation. PRAGATI provides an interface and platform for all these three aspects.
  7. It will also take into consideration various correspondences to PM’s office by the common people or from high dignitaries of States and/or developers of public projects;
  8. **The issues flagged are uploaded seven days prior to the PRAGATI day (i.e. on third Wednesday of every month).**

### Electoral Bonds

“According to Association for Democratic Reforms which found that nearly 70% of party funding over an 11-year period came from unknown sources; nearly ₹7,900 crore donations came from unknown sources in 2015-2016.”

Can be bought by any Indian citizen (including NRI) or Indian corporate from SBI to fund election parties.

They are bearer bonds i.e name of bond holder not revealed.

Electoral bonds must be seen in conjunction with:

(1) lifting of the maximum limit of 7.5% on the proportion of the profits a company can donate to a political party, thus opening up the possibility of shell companies being set up specifically to fund parties;

(2) amendment of the Foreign Contribution (Regulation) Act (FCRA) opening the floodgates of foreign funding to political parties, especially those which have a foreign support base; and

(3) the refusal of political parties to come under the RTI Act in order to conceal their sources of funding. These three things will end up strengthening the business-politics nexus

Corporate-govt nexus Bonds will allow corporate houses to make anonymous donations through banking channels to the party of their choice and increases opacity

Possible solution:

State funding:

The Indrajit Gupta Committee on State Funding of Elections had endorsed partial state funding of recognised political parties and their candidates in elections way back in 1998

## Development Policies:

### SWAJAL

Swajal is a community owned drinking water programme for sustained drinking water supply

Water supply in villages

### National Urban Housing Fund

National Urban Housing Fund (NUHF) for Rs.60,000 crores.

under Building Materials and Technology Promotion Council (BMTPC), an autonomous body registered under the Societies Registration Act, 1860 under the Ministry of Housing and Urban Affairs

NUHF will facilitate raising requisite funds in next four years so that flow of Central Assistance under different verticals i.e. Beneficiary Linked Construction (BLC), Affordable Housing in Partnership(AHP), In-Situ Slum Redevelopment (ISSR) and Credit Linked Subsidy Scheme (CLSS) is sustained and construction of houses to address the **gap in Urban Sector progresses smoothly.**

### Prabhari officer:

Government has identified 115 backward districts for rapid transformation by 2022. For each of the Districts, a senior official in the rank of Additional secretary and Joint secretary has been nominated as Prabhari officer.

If these districts are transformed, there would be tremendous improvement in the internal security environment of the country.

### SFOORTI APP:

Railways app for tracking real time freight operations

### MPLADS:

approval to continuation of Members of Parliament Local Area Development Scheme (MPLADS) till the term of the 14th  Finance Commission i.e. 31.03.2020.

each MP has the choice to suggest to the District Collector for works to the tune of Rs.5 Crores per annum to be taken up in his/her constituency.

The MPLADS funds are released to the nodal District Authorities on receipt of requisite documents and as per provisions of Guidelines on MPLADS

SEP:

Self Employment Programme (SEP) component of DeendayalAntyodayaYojana- National Urban Livelihoods Mission (DAY-NULM)

Under the Self-Employment Component (SEP) of NULM, bank loans for setting up micro- enterprise are available to individuals (upto 2 lakhs) and groups (upto 10 lakhs) of urban poor;

consumption loans (as per the savings) are also available for Self Help Groups (SHGs).

Interest subvention from Ministry is available for the amount of interest charged over and above 7% ,

by the banks and women SHGs are eligible for additional 3% subvention on timely loan repayment

### Minority Development:

**3E - Education, Employment, Empowerment:**

**3T-Teacher,Toilet,Tiffin**:

educational institutions of all minority communities including madarsas, have been included in the mainstream education system.

Upgrade teachers with new skills

Tiffin means mid day meal.

Under swachch bharat toilets in all minority schools.

**Garib Nawaz Skill Development Centres**

will be established in 100 districts of the country which will effectively ensure employment oriented skill development of youth belonging to Minority communities.

**The USTTAD Samman Samaroh**

will be launched during Pandit Deendayal Upadhyaya birth centenary under which the artisans and craftsmen of the Minorities will be honoured

**Tehrike Taleem**

Birth anniversary of APJ KALAM.

To ensure better education to every person belonging to poor sections

GEM 3.0

Government e Marketplace (GeM), has been envisaged by Government of India as the National Procurement Portal of India.

Some of the notable enhancements in the 3.0 version:

1. Market Based generic requirements across all government agencies
2. Standardisation of specifications of both products and services enabling empirical price comparability
3. Completely transparent transactions across all ranges
4. Generic standards established through universal service levels and cost comparison enabled
5. Open and dynamic market place with rating based on performance of user on website

National Sellers On-boarding Campaign has been launched to train sellers/ service providers for transition from GeM 2.0 to GeM 3.0

### PMGSY

The Government of India and Asian Development Bank (ADB) sign $250 Million Loan to Improve Rural Connectivity in the 5 States of Assam, Chhattisgarh, Madhya Pradesh, Odisha and West Bengal under PMGSY

The program is aimed at improving rural connectivity, facilitating safer and more efficient access to livelihood and socio-economic opportunities for rural communities through improvements to about 12,000 kilometres Rural Roads across the 5 States.

Under the project, about 2,000 technical personnel would be imparted training on road safety and maintenance.

### Food Security

National Food Security Act, 2013 (NFSA), persons are covered for receiving highly subsidized foodgrains.

The Act also has provision for nutritional support to pregnant women and lactating mothers and children upto 14 years of age

FSSAI has also operationalized draft regulations on fortification of food articles that include standards for fortification of food staples - **oil, milk, double fortified salt, wheat flour and rice**,

and also introduced +F Logo for fortified foods

the use of fortified wheat flour, oil and double fortified salt(iron and iodine) have been mandated under Mid-Day-Meal and Integrated Child Development Schemes

 FSSAI has also undertaken ‘Safe and Nutritious Food (SNF)’ initiative to promote awareness towards consumption of safe and nutritious food.

### Haryana Kisan Kalyan Pradhikaran’,

an authority which will undertake measures to make agriculture remunerative.

### SFURTI

 Scheme of Fund for Regeneration of Traditional Industries

### State’s Startup Ranking 2018:

India is home to about 20,000 startups, with about 1,400 beginning operations every year. They are not only driving economic growth but also leading to technological innovations and employment generation in every state. Entrepreneurs are introducing new solutions everyday and also improving existing processes

The States Startup Ranking framework launched by Department of Industrial Policy and Promotion

The key objective of the Startup states ranking framework is to encourage States to take proactive steps towards strengthening the enabling Startup ecosystems at the State level.

Our aim is not only to measure the extensive efforts made at the State level towards building a strong Startup ecosystem, but also to enable an environment of constant learning through dissemination of good practices.

Aimed at ranking States for establishing a robust ecosystem for supporting Startups.

The framework will evaluate States on 7 parameters such as

Startup policy and implementation,

incubation support,

seed funding support,

angel and venture funding support,

simplified regulations,

easing public procurement,

awareness and outreach.

### Credit Linked Subsidy Scheme (CLSS)

It is one of the components of Housing for All (Urban) Mission/Pradhan Mantri Awas Yojana (PMAY) (Urban).

 Under this component, subsidy would be provided on home loans taken by eligible urban poor (EWS/LIG/ MIG-I/MIG-II) for acquisition and construction of house.

Credit linked subsidy would also be available for housing loans availed for new construction and for addition of rooms, kitchen, toilet etc, to existing dwellings as incremental housing.

**The maximum annual income for eligibility of beneficiaries under the scheme can be up to Rs.18 lakhs**. It covers a very large section of population which aspires to own a home.

**Economically Weaker Section (EWS)’ under the Affordable Housing in partnership (PMAY)**

### Modernisation of Police Forces (MPF)

Modernisation of Police Forces (MPF)

The Ministry of Home Affairs

‘Police’ and ‘Public Order’ are State subjects

for three years’ period from 2017-18 to 2019-20 with the total outlay of Rs. 25,061 crore

### E prisons

Prisons being a State subject, modernization of prisons is undertaken by respective State Governments.

The Ministry of Home Affairs is supporting the States/UTs in implementing the E-Prisons project that aims to introduce efficiency in prison management through digitization.

The E-prisons project supplements the Prisoner Information Management system (PIMS), developed by National Informatics Centre, which provides a centralized approach for recording and managing prisoner information and generating different kinds of reports

 Model Prison Manual 2016, which has a dedicated chapter on Legal Aid, provides detailed information about the legal services available to prison inmates and also free legal services available to them.

**The National Legal Services authority** had also launched a web application on 29.06.2017 with a view to facilitating the under trial prisoners for providing them free legal services.

The objective of the above application is to make the legal services system more transparent and useful for all authorities to monitor the provision of legal aid to prison inmates to ensure that no prisoner goes unrepresented right from the first day of his production in the Court

### Scheme for Pension and Medical Aid to Artistes’ (SPMAA).

Ministry of culture

The objectives of this Scheme is to improve financial and socio-economic status of the old aged artistes and scholars who have contributed significantly in their specialized fields of arts, letters etc. in their active age or are still contributing in the field of arts, letters etc. but leading a miserable life or are in penury condition.

Eligibility

 personal income of the applicant artiste (including income of the spouse) must not exceed Rs.4,000/- (Rupees four thousand only) per month or annual income of Rs.48,000/- (Rupees forty eight thousand only)

This excludes artiste pension assistance amount already getting by a beneficiary from the Government (i.e. concerned State Govt./UT Administration and/or Ministry of Culture).

the applicant artiste should not be less than 60 (sixty) years of age (this does not apply in the case of spouse) and

the applicant artiste is getting pension of at least Rs.500/- per month from the concerned State Government/UT Administration

n the event of death of the beneficiary artiste, the financial assistance is transferred to his/her spouse

### Health Schemes

**Ministry of Health and Family Welfare**

#### National Mental Health Scheme

23 Centres of Excellence under the National Mental Health Programme (NMHP) since initiation of Scheme, out of which 12 Centres of Excellence are sanctioned during the last three years

 under the National Mental Health Programme (NMHP) is providing support for implementation of manpower development schemes by States/UTs for establishment of Centres of Excellence and strengthening/ establishment of Post Graduate (PG) Departments in mental health specialties

#### National Organ Transplant Programme (NOTP)

The Government is implementing the National Organ Transplant Programme (NOTP) to promote organ donation across the country. The website of the National Organ and Tissue Transplant Organisation (NOTTO)

#### Intensified Mission Indradhanush

has been launched on 8th October 2017 to increase the full immunization coverage to 90% by December 2018.

Children and pregnant women covered

#### National Strategic Plan on HIV/AIDS and Sexually Transmitted Infection (STI)

66% decline in the estimated number of annual new HIV infections in the country from 2000 to 2015, against the global average of 35%

to attain universal coverage of HIV prevention, treatment to care continuum of services that are effective, inclusive, equitable and adapted to needs of the people living with HIV.

Working towards attaining UN SDG’s

#### Integrated Health Information Platform (IHIP)

to maintain the Electronic Health Records (EHRs) of patients in a centralized manner and to be made available nationwide online for medical history, with the help of Health Information Exchange

pan-India, online availability and accessibility

#### Achievements Under NRHM and NUHM

National Rural Health Mission (NRHM) is now overarching National Health Mission (NHM), along with National Urban Health Mission (NUHM) as the other sub-Mission.

It is implemented in all States /UTs in the country. NHM is a flagship Programme of the Ministry of Health & Family Welfare that continues to support the State Governments in strengthening their health systems.

Public Health & Hospitals’ being a State subject, the primary responsibility to roll out Universal Health coverage is that of respective State/ UT governments. Universal Health coverage is a key goal of the National Health Policy, 2017.

The provision of comprehensive Primary Healthcare is an integral and pivotal part of Universal Healthcare. Selected sub-centres are being upgraded to Health and Wellness centres across the country.

Under NHM all States/ UTs are already supported to provide a host of free services towards achievement of Universal Health Coverage including for maternal health, child health, adolescent health, family planning, universal immunisationprogramme, and for major diseases such as Tuberculosis, HIV/ AIDS, vector borne diseases such as Malaria, Dengue and Kala Azar, Leprosy etc

Other major initiatives for which States are being supported include JananiShishuSurakshaKaryakram (JSSK), RashtriyaBalSwasthyaKaryakram (RBSK), RashtriyaKishorSwasthyaKaryakram (RKSK), implementation of NHM Free Drugs and Free Diagnostics Service Initiatives, PM National Dialysis Programme and implementation of National Quality Assurance Framework.

Augmentation of Human Resources

New uman resource added

ASHA

Under the Framework for Implementation of NRHM, a female community health worker called Accredited Social Health Activist (ASHA) has been engaged in each village in the ratio of one ASHA per 1000 population or one ASHA per habitation in tribal areas.

Last 3 years 72,806 ASHAs were selected under NHM

Infrastructure

NRHM seeks to strengthen public health delivery system at all levels.

Mobile Medical Units

In order to provide services at the doorsteps of population living in the most remote and hard to reach areas, States have been supported with Mobile Medical Units (MMUs).

National Ambulance Servie

the facility where people can Dial 108 or 102 for calling an ambulance.

108 for emergency response

102 for women and children

Mainstreaming of AYUSH

Since inception of NRHM, mainstreaming of AYUSH has been taken up by co-locating AYUSH facilities.

Community Participation

**RogiKalyanSamiti** (Patient Welfare Committee)/Hospital Management Society is a simple yet effective management structure.

This committee is a registered society that acts as a group of trustees for the hospitals to manage the affairs of the hospital

To ensure involvement of the communities in oversight of the provisioning of health care and to redress public grievances.

The Government has taken several steps in order to set up more friendly health support system in the country which includes the following:

(1) **National Quality Assurance Standards (NQAS)** – National Quality Assurance Standards have been developed keeping in the specific requirements for public health facilities as well global best practices.

(2) **Quality Certification-** Quality Certification program for public health facilities has been launched with aim of recognizing the good preforming facilities as well improving credibility of public hospitals in community.

(3**) Kayakalp award scheme**- Kayakalp Award Scheme aims to improving Cleanliness, Hygiene and waste management practices in Public Health Facilities.

(4) **Laboratory improvement for Excellence (LIFE):** Scheme for Laboratory Quality Improvement mandates for focused intervention for improving & standardization the quality of laboratory services through assessment, capacity building, and accreditation.

(5) **Mera Aaspatal patient feedback system-**This program utilises IT enabled tools to collect, analyse and improve the patient satisfaction in public health facilities.

(6**) Standard Treatment Guidelines**- Standard Treatment Guidelines plays critical role in ensuring evidence based clinical practice and quality of care.

#### Milk Adutration DATA

In Numbers

UP(1551) Punjab(390) recorded max number of adulterated sample

Followed by Maharashtra(285) , MP(150), Gujrat(90).

#### WHO Global Health Expenditure Data

Government health expenditure

2015

India $16 per capita in health expenditure only better than Pak, Bang ladesh and Nepal

Korea (1135), brazil(334) ,Russia(320)leading in case of developing countries

As per National Health Accounts Estimates for India 2014-15, the total health expenditure per capita is estimated to be Rs. 3826.

#### National Deworming

initiative to benefit more than 32 crore children Government of India is committed to ensuring high quality healthcare accessible to every child and upto the last mile

across all Government and Government-aided schools and Anganwadi centres targeting children aged 1 to 19 years.

National Deworming Day

Anganwadi and school-based mass deworming program is safe, cost-effective, and can reach crores of children quickly. Deworming has been shown to reduce absenteeism in schools; improve health, nutritional, and learning outcomes; and increase the likelihood of higher-wage jobs later in life.

### Economy Schemes

Simplified Proforma for Incorporating Company Electronically (SPICE)

e-Form for providing speedy incorporation in line with international best practices

### Social Infrastructure schemes

HRIDAY

Liveability Index

he Ministry of Housing and Urban Affairs has developed a set of ‘Liveability Standards in Cities’ to generate a Liveability Index and rate cities.

The framework has its genesis in the 24 Smart City features contained in the Smart City Proposals and includes 79 indicators (57 Core Indicators and 22 Supporting Indicators).

These indicators are organized in 15 distinct ‘Categories’, designed for measuring various institutional, social, economic and physical aspects that affect the quality of life of citizens and determine the ‘Liveability’ of a city

AMRUT

Smart City

Swachch bharat

PMAY

### Infrastructure schemes

North East Special Infrastructure Development Scheme (NESIDS):

 This fund of Rs.5300.00

## GeoPolitics

### Quadrilateral security Dialogue:

**Background**:

The Trilateral Strategic Dialogue (TSD) is a series of trilateral meetings between the United States, Japan, and Australia. The TSD originally convened at senior officials level in 2002, then was upgraded to ministerial level in 2005

In early 2007, Prime Minister Abe proposed an informal security dialogueQuadrilateral Security Dialogue, or "Quadrilateral Initiative", under which India would join a formal multilateral dialogue with Japan, the United States and Australia

envisioned to ultimately include countries in central Asia, Mongolia, the Korean peninsula, and other countries in Southeast Asia: "virtually all the countries on China’s periphery, except for China itself."

China protests:

Called it Anti-china or Asian NATO.

China sent diplomatic protests to all four members of the Quadrilateral before any formal convention of its members.

Australia Policy:

Later in 2008 Australia withdraws itself citing of economic conflict of interest with china.

But in 2010, Joins again because of growing assertiveness of china in south china sea and aslo peace in Indo pacific has direct implications on Australia.

Significance of Australia:

Largest maritime democracy in Indo-pacific.

USA Policy:

To counter china’s rise in Asia pacific using soft containment policy of Pivot to Asia by forging strategic alliances with all countries around china.

India Policy:

India stance on quad is neutral

a free, open, prosperous and inclusive Indo-Pacific region serves the long-term interests of all countries in the region and of the world at large.

Comes with exercises of quad-countries at Bay of Bengal called as Malabar Exercises.

initially between USA and India only

**Cons for India:**

Can increase tensions with china

Lower India’s regional stance with neighboring countries by including outside countries

It may appear like an assurance for support in case of aggression. But history witnessed the fact that no country stood to help India in 1962 during Chinese aggression by virtue of the country being a founding member of the Non-Aligned Movement.

Pro’s for India:

Check on china’s growing assertiveness in Indo-Pacific

Increased economic and strategic relations with other members of quad.

### India-Nepal Rupture

Read from editorial

Updates

Mr. Oli says the bitterness of past relations has been put behind them, and India and Nepal must work towards a new, more equal relationship

Finish old projects first

The Pancheshwar (multipurpose hydropower) and Mahakali project was signed in 1996

 SAARC must be reactivated and the summit must be held.

 signed a 10-point agreement in Beijing, that opens Nepal up to infrastructure roads, railways, ports in an unprecedented way, as a part of the Belt and Road Initiative

### ASEAN-India Commemorative Summit

25 yearsof sectoral dialogue between Asean and India.

proposal for an ASEAN-India Strategic Dialogue on Maritime Cooperation made at the Commemorative Summit

the ASEAN-India Commemorative Summit in January 2018 of undertaking a pilot project on rural connectivity in the CLMV countries which would create Digital Villages and for offering 1,000 fellowships to students and researchers from the ASEAN member states for studying integrated PhD programmes in Indian Institutes of Technology.

**Delhi** **Declaration**:

supported a common approach to counter terrorism and sought a “comprehensive approach to combat terrorism through close cooperation by disrupting and countering terrorists, terrorist groups and networks, including by countering cross border movement of terrorists and foreign terrorist fighters and misuse of Internet including social media by terror entities

deepen security, economic and socio-cultural cooperation, and connectivity.

These include joint mechanisms for maritime transport, trade and a “code of conduct” for the South China Sea

**Why Asean and India need to grow**

1. As the demand for goods in Western economies comes down, the region needs to look deeper within to grow markets and increase trade
2. continuing tensions between the “great powers” — between the U.S. and Russia, or the U.S. and China — are forcing the unaligned countries of ASEAN and India to forge a common understanding
3. China’s moves in particular, both its naval forays in the Indo-Pacific and its Belt and Road Initiative connectivity project, have the potential to change equations in the region

**Cons**

* + - 1. Similar declaration and promises made at 20th Summit have not been materialized yet .
      2. Trade with ASEAN at $76 billion, India ranks lower than not just the U.S. and China, but also South Korea, Japan and Australia.
      3. The Regional Comprehensive Economic Partnership negotiations launched in 2012 have been held up, largely because of Indian concerns over unfettered access to Chinese goods and ASEAN resistance to movement of Indian services and labour.
      4. The other big unfulfilled promise is on connectivity, between ASEAN countries and India, as well as India’s connectivity through its Northeast to Myanmar and beyond
         1. Work on the extension of the India-Myanmar-Thailand Trilateral Highway, the Kaladan multimodal highway, and Tamu-Kalay rail link to Myanmar has lagged behind deadlines

India and the ASEAN countries have much to gain from each other — but heavy-lifting is required to integrate India into the ASEAN equation. Else, shared history and culture and political leaderships in sync may only yield rousing summitry.

China influence

In terms of regional geopolitics, India has ceded the diplomatic high ground to China, never famous for welcoming refugees

With China taking a lead in bringing Myanmar and Bangladesh together in exploratory talks for the eventual return of the Rohingya, South Block must realize that both Dhaka and Naypyidaw are paying more attention to Beijing than they are to New Delhi.

China has offered to be a mediator in talks between govt. and opposition in Maldives too.India has backed at both above situations

# Social

## Social Audit

Meghalaya became the first state in India to operationalise a law that makes social audit of government programmes and schemes a part of government practice.

**the 73rd amendment of the constitution has empowered the Gram Sabha to conduct social audit**

**This is relevant only in the villages.**

**In the cities, the Right to Information Act empowers the people to inspect public records.**

What is it?

Social audit as a term was used as far back as the 1950s.

In a nutshell, it refers to the steps that are taken to ensure that the work done by the government is actually benefiting the people whom it is intended to benefit.

It is based on the principle that the local governance should be carried out, as much as possible, with the consent and in complete understanding of the requirements of the people concerned.

It is a process and not an event

it is a grassroots method of auditing and stems from the people themselves

**OBJECTIVES OF SOCIAL AUDIT :**

* Accurate identification of requirements
* Prioritization of developmental activities as per requirements
* Proper utilization of funds
* Conformity of the developmental activity with the stated goals
* Quality of service
* Assessing the physical and financial gaps between needs and resources available for local development
* Creating awareness among beneficiaries
* Increasing efficacy and effectiveness of local development programmes
* Estimation of opportunity cost for stakeholders of not getting timely access to public services
* Scrutiny of various policy decisions

Audit of Gram sabha

**Proper Documentation :**

Every thing right from the requirement gathering to planning to  implementation must be properly documented. Some of the documents that should be made mandatory are:

1. Applications, tenders, and proposals
2. Financial statements, income - expense statements.
3. Registers of workers
4. Inspection reports.

So far, social audits of government programmes have been done at the initiative of civil society organisations

**Implementation**

**Meghalaya Society for social audit and transpacency**

As per the guidelines of the **Mahatma Gandhi National Rural Employment Gaurantee Act, 2013** the Government of Meghalaya has established an independent organization, **"Social Audit Unit"  (SAU) in the name - Meghalaya Society for Social Audit & Transparency (MSSAT).**The society is registered under the **Meghalaya Society Registration Act XII of 1860.**  
The basic purpose of forming this society is to facilitate the conduct of Social Audit at the Village level, so as to ensure Transparency & Accountability.

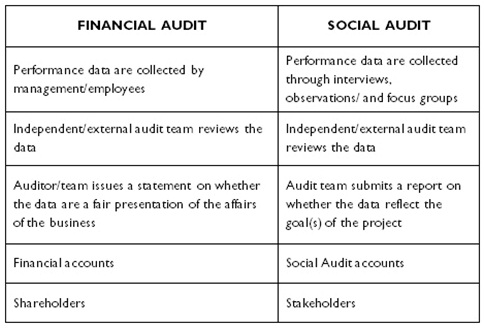
A **social audit facilitator will be appointed** to conduct the audit directly with the people.

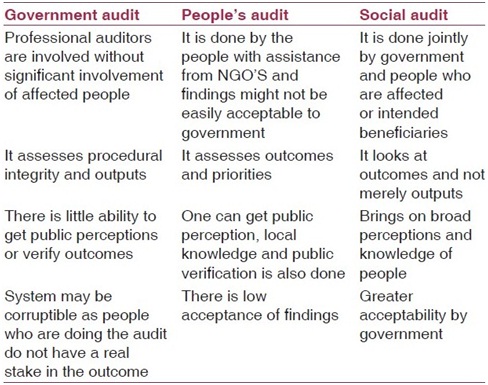
He will present findings to the Gram Sabha, who will add inputs and the result will finally go to the auditors.

Social audit of Indira avaas yojana and MNREGa are the ones supported by SAU

**BENEFITS OF SOCIAL AUDIT**

* Involvement of people in developmental activities ensures that money is spent where it is actually needed.
* Reduction of wastages.
* Reduction in corruption.
* Awareness among people.
* Promotes integrity and a sense of community among people.
* Improves the standard of governance.
* Encourages local democracy
* Benefits disadvantaged people
* Develops human resource and social capital
* Promotes collective decision making and sharing responsibilities





## Caste

As many as 1,24,144 students who secured admission to Class I to XII in schools during the 2017-18 academic year in Kerala have left the caste and religion columns blank.

## Activist Killing

Majaw first RTI activist to be murdered in Meghalaya

Gauri lankesh killing

## Editors resigning

At least three senior editors have left their jobs at various influential media outlets in the past six months after publishing reports that angered the government or supporters of Modi’s Hindu nationalist Bharatiya Janata Party (BJP),

they have been threatened with physical harm, abused on social media and ostracized by Modi’s administration

**World Press Freedom Index**

India was now **138th-ranked in the world out of 180 countries measured, down two positions since 2017** and lower than countries like Zimbabwe, Afghanistan and Myanmar.

## Women Empowerment

### Protection of foreign women tourists

Helpline launched in 10 languages

A Welcome card with “Tips to enjoy your stay” is being handed over to foreign tourists on their arrival

### List of schemes for women empowerment

The Ministry of Women and Child Development is implementing agency

**BetiBachaoBetiPadhao (BBBP):** to address the declining Child Sex Ratio (CSR) and related issues of empowerment of women over a life-cycle continuum. It is a tri-ministerial effort of Ministries of Women and Child Development, Health & Family Welfare and Human Resource Development. .

**Pradhan MantriMatruVandanaYojana (PMMVY), (erstwhile Maternity Benefit Programme)** to contribute towards better enabling environment by providing cash incentives for improved health and nutrition to pregnant and nursing mothers.

**Scheme for Adolescent Girls** aims at girls in **the age group 11-14,** to empower and improve their social status through nutrition, life skills, home skills and vocational training.

**National Nutrition Mission (NNM):** aims to attain a "**Suposhit Bharat**" and has also the objective of improving the nutritional status of pregnant women and lactating mothers and reducing anaemia among women along with children.

**RastriyaMahilaKosh (RMK),** for extending micro-finance services to bring about socio-economic upliftment of poor women,

**Mahila e-Haat,** a unique direct online digital marketing platform for women entrepreneurs/ SHGs/ NGOs,

**Pradhan MantriMahila Shakti Kendra**, which will empower rural women through community participation to create an environment in which they realize their full potential,

The Ministry also conducts Training of Trainers of Elected Women Representatives of Panchayati Raj to deliberate upon issues related to empowerment of women and functioning of PRIs; describe processes of participatory planning in local governance; and enable women to identify their own leadership potential to contribute effectively as change agents.

schemes/programmes for combating all forms of discrimination and violence against women in the country including rural women such as:

**One Stop Centres (OSCs):** for facilitating access to an integrated range of services including police, medical, legal, psychological support and temporary shelter to women affected by violence.

**Women** **Helpline**: to provide women with a 24x7 service, Women Helplines with the uniform code 181 have been set up across the country. These Helplines provide 24 hour emergency response to women affected by violence, and also provide counselling through phone and awareness about government schemes.

**Mahila Police Volunteers**: The Ministry, in collaboration with MHA has recently started the engagement of Mahila Police Volunteers (MPVs) in States/UTs. These MPVs will act as a link between police and community and facilitate women in distress.

**SwadharGreh:** this scheme caters to primary needs of women in difficult circumstances.

**Ujjawala**: a comprehensive scheme to prevent trafficking of women and children for commercial sexual exploitation, to facilitate rescue victims and placing them in safe custody, to provide rehabilitation services by providing basic amenities/needs, to facilitate reintegration of victims into the family and society, to facilitate repatriation of cross border victims.

### Crime against children

National Crime Record Bureau (NCRB) report crimes against children in 2016, the 5th highest in the country.

Uttar Pradesh is on the top of the list with 15%

Maharashtra (14%),

Madhya Pradesh (13%),

Delhi (8%) and

West Bengal (6%).

### Maternity leave

Kerala High Court has ruled that women contract employees in government-funded projects are entitled to 26 weeks of maternity leave as applicable to women employees under the service rules

### Beti Bachao Beti Padao

Background:

The Census (2011) data showed a significant declining trend in the Child Sex Ratio1 (CSR) between 0-6 years with an all time low of 918.

The issue of decline in the CSR is a major indicator of women disempowerment as it reflects both, pre-birth discrimination manifested through gender biased sex selection, and post birth discrimination against girls

Issues:

The strong socio-cultural and religious biases, preference for sons and discrimination towards daughters has accentuated the problem

Launched in 2015

Objectives

To prevent gender biased sex selective elimination

To ensure survival and protection of the girl child

aimed at improving nutrition levels of women and children and reducing low birth weight by 2% each year.

To ensure education and participation of the girl child

Target groups

Primary

Young and newly married couples; Pregnant and

Lactating mothers; parents

Secondary

Youth, adolescents (girls and boys), in-laws, medical doctors/ practitioners, private hospitals, nursing homes and diagnostic centres

Tertiary

Officials, PRIs; frontline workers, women SHGs/Collectives, religious leaders, voluntary organizations, media, medical associations, industry associations, general public as a whole

Target

Improve the Sex Ratio at Birth (SRB) in selected gender critical districts by 2 points in a year.

Reduce Gender differentials in Under Five Child Mortality Rate from 7 points in 2014(latest available SRS report) to 1.5 points per year

At least 1.5 % increase per year of Institutional Deliveries.

At least 1% increase per year of 1st Trimester ANC Registration. I

Increase enrolment of girls in secondary education to 82% by 2018-19.

Provide functional toilet for girls in every school in selected districts.

Improve the Nutrition status of girls - by reducing number of underweight and anemic girls under 5 years of age.

Ensure universalization of ICDS, girls’ attendance and equal care monitored, using joint ICDS NHM Mother Child Protection Cards.

Promote a protective environment for Girl Children through implementation of Protection of Children from Sexual Offences (POCSO) Act 2012.

Train Elected Representatives/ Grassroot functionaries as Community Champions to mobilize communities to improve CSR and promote Girl’s education.

Fund

100% center

Funds issues directly to DC by MWCD

Implementation

National level convergence of various ministries

Headed by secretary MWCD

National Task Force

States will form a State Task Force (STF) headed by the Chief Secretary to coordinate the Multi-Sectoral implementation of the Scheme.

Ensure meetings of STF at least twice in a year.

District Task Force (DTF) headed by Collector/Deputy Commissioner

At the Block level, a Block level Committee would be set up under the chairpersonship of the Sub Divisional Magistrate/Sub Divisional Officer/Block Development Officer

At the Gram Panchayat/Ward level, the respective Panchayat Samiti/Ward Samiti

At Village level, Village Health Sanitation and Nutrition Committees,

### Women harassment

According to data released by True caller

1 in 3 women has been harassed via phone’

‘50% of such calls and texts were anonymous

### Sexual harassment

National Family Health Survey (NFHS) – IV provide testament to this challenge. NFHS asked questions about women’s experiences of sexual violence.

About 5.5% of the women surveyed say they have experienced sexual violence;

over 80% of these instances of violence are perpetrated by husbands.

There is minimal data on workplace harassment in India. Here, silence speaks louder than statistics.

The challenges associated with collecting data on sexual harassment are multiple. Not only must we find the right words to ask about these difficult experiences; we must find privacy and safety and guard against further stigmatising survivors of sexual harassment and violence.

Data must be collected and interpreted with sensitivity in order to do justice to the struggles women encounter in the face of gendered and sexual violence.

However, collecting and disseminating data about sexual violence is the first step towards breaking the culture of silence and finding ways of combating violence against women.

### Child marriage

Unicef data

India saw a sharp decline in child marriages over the last ten years **with 27% of girls getting married before their 18th birthday as against 47% a decade ago, the UNICEF**

### Women in panchayats:

Number of women sarpanch is about 1.08 lac:

41% of all sarpanch’s

1 in 3 position is reserved for Women

Rajasthan with highest number of women sarpanch’s

J and k no women sarpanch

### New Launches:

women Government employees who have commissioned surrogacy will now be entitled to maternity leave.

Divorced daughter will be eligible for family pension if divorce case has been filed before the death of pensioner/family pensioner, even though the judgment has been passed after the death of the pensioner/family pensioner.

By Ministry of Women and Child Development

Gandhi Nagar station ;Jaipur first Non urban station with all women employees

Matunga, Sub urban Mumbai is a railway station all women employees

bio-degradable sanitary napkins, priced at ₹2.50 a pad, on Thursday. ‘Suvidha’ napkins will be available in a pack of four for ₹10 across over 3,200 Pradhan Mantri Bhartiya Janaushadhi Pariyojana Kendras

### online portal NARI

Developed by the Ministry of Women & Child Development,

the portal will provide women citizens with easy access to information on government schemes and initiatives for women.

### e-Samvad portal,

NGOs and civil society can provide their feedback, suggestions, put up grievances, share best practices etc.

### National Women Entrepreneurship Council (NWEC).

NWEC will promote entrepreneurship as it would be the umbrella organization for socio-economic gender parity, financial inclusion and economic empowerment of women in India

Ministry of Women and Child Development

### Swader Grah

Ministry of Women and Child Development is administering Swadhar Greh Scheme for relief and rehabilitation of **women in difficult circumstances including the victims of sexual harassment**

a centrally sponsored scheme namely **Integrated Child Protection Scheme (ICPS)** is being implemented for care, protection, rehabilitation and reintegration of children in **difficult circumstances including sexually harassed children**

### “Specialised Adoption Agency” (SAA)

As per Section 2(57) and Section 65 of Juvenile Justice(Care and Protection of Children) Act,  2015,

in each district for housing orphans, abandoned and surrendered children,

**all Child Care Institutions (CCIs) which are not recognized as SAAs shall have linkages with CCI in the district**

### POSHAN Abhiyaan(National nutrition mission)

Ministry of Women & Child Development

to ensure holistic development and adequate nutrition for pregnant women, mothers, and children

The programme targets to reduce the level of stunting, under-nutrition, anaemia and low birth rate

### Nutrition Child

Under the Anganwadi Services of the Umbrella ICDS Scheme, **Supplementary Nutrition, now a legal entitlement under the National Food Security Act**, is provided to children in the **age group of under 6 years of age** in the form of Take Home Ration in order to bridge the gap between the Recommended Dietary Allowances and the Average Dietary Intake.

Focus is also given on counselling women on infant and young child feeding practices.

**Pregnant Women and Lactating Mothers are eligible** for the services including Supplementary Nutrition Programme (SNP) provided under the scheme

**National Guidelines on Infant and Young Child Feeding, 2006,** have been issued, through which optimal Infant and Young Child Feeding (IYCF) practices for children below 2 years are emphasised.

**Infant Milk Substitutes Feeding Bottles, and Infant Foods (Regulation of Production, Supply and Distribution) Act,** 1993, as amended 2003, has been enacted in the country to protect, promote and support breastfeeding and ensure proper use of infant foods.

### She BOX

Sexual Harassment electronic –Box (SHe-Box) for registering complaints related to sexual harassment at workplace of all women employees in the country, including government and private employees

## Education

### Changing syllabus

Almost eight out of 10 people feel that the current school curriculum in India needs to be upgraded

survey conducted across **200 districts of India, with about 20,000 parents participating**.

The survey — carried out by LocalCircles, a social media platform — received a total of 42,000 responses.

In the poll, 78% citizens said that the current school curriculum in India needs a lot of upgrades, while just 2% found it to be perfect.

41% said the school curriculum required more hands-on/field-based learning,

30% said it needed inclusion of life skills,

16% said there was a need for more technology-based learning, and

13% said inclusion of “real issues” was the need of the hour.

88% of the respondents believed that skill-based courses should be introduced from Class 9 for students who are not academically inclined

results of which are being shared with the Ministry of Human Resource Development — comes at a time when the Centre has expressed its intention to cut syllabus to half to enable students to have time for other activities, too.

### New idea of scientific temper

initiative, called Science and the City, encourages apartment complexes to host lectures on popular science topics on their own premises, at no cost

National Centre for Biological Sciences (NCBS) has launched an initiative

### Bridgr gap between rural and urban education

The aim of higher education should be to use indigenous resources and provide easy access of knowledge and content in the student’s mother tongue,

so that students could apply their academic skills in their surroundings

universities should focus on skill-based education and give the task of conducting exams to a private agency

literacy is not just a tool for reading and writing.

A literate person should know how to handle devices and must possess digital knowledge.

### Person with disabilities

The percentage of seats to be filled up by persons with disabilities has been increased from 3% to 5% in accordance with the Rights of Persons with Disabilities Act, 2016

### India Skill survey 2018

AICTE participated in a joint initiative of CII, Peoples Strong, Wheebox, United Nations Development Programme (UNDP), AIE and Pearson in Publishing India Skill Report, 2018.

The Skill Report is prepared on the basis of Wheebox Employability Skill Test (WEST) taken by 5,00,000 students and employment data from more than 130 corporates

Engineering Graduates are most employable as compared to other domains with 52% of the Engineering Graduates having been found to be employable as per WEST.

### National Institute of Educational Planning and Administration Report

revealed “discrimination” in institutions of higher education correlated to the growing number of underprivileged students over the years

campuses are now becoming the site of political contestation, assertion, and assimilation of different types of identities

The recent incidents of unrest on various campuses are indicative of these trends

despite larger representation of marginal groups like SCs, STs and OBCs at these institutions, problems of inclusion persist

Academic differences remain largely unattended in the classroom.

The need for taking into account unequal learning inputs for students from lower social strata and having weak pre-college credentials is mostly ignored

Since the medium of instruction in most of the institutions… is English, lack of competency in the language poses many challenges for disadvantaged groups

hegemony of students fluent in English and the local language

This knowledge of the elite language among these students also greatly influences their peer and student-teacher relationships

six States covered — Bihar, Delhi, Kerala, Karnataka, Maharashtra, and Uttar Pradesh — Maharashtra colleges offer a better experience for SC and OBC students

### Steps by govt for Education

**National Sports Development Fund (NSDF)** was established with the objective of promotion of excellence in sports

**through support to top level sportspersons who are medal prospects in Olympics and other major international competitions** and

creation of sports infrastructure in priority disciplines etc.

The Fund accepts contributions from private/public corporate sectors, other legal bodies like Trusts/Societies, individuals etc

#### E-learning Initiatives

1. **SWAYAM: The ‘Study Webs of Active Learning for Young Aspiring Minds' (SWAYAM)** an integrated platform for online courses, using Information and Communication Technology (ICT) and covering school **(9th to 12th) to Post Graduate Level**.
   1. At present, about 1000+ MOOCs Courses are listed on SWAYAM, wherein about 30 Lakhs students have enrolled to these courses. It also offers online courses for students, teachers and teacher educators
2. **SWAYAM Prabha:** it is an initiative to provide 32 High Quality Educational Channels **through DTH (Direct to Home)** across the length and breadth of the country on 24X7 basis. It has curriculum based course content covering diverse disciplines.
3. **National Digital Library (NDL):** It is a project to develop a framework of virtual repository of learning resources with a single-window search facility. There are more than 153 Lakhs digital books available through the NDL.
4. **E-pathshala:** E-books of the resources developed by National Council of Educational Research and Training (NCERT), State Council of Educational Research and Training (SCERT) / State Institutes of Education (SIEs), State boards etc. SIEs in multiple languages and uploaded on e-pathshala website and disseminated through mobile app (android, iOS and Windows).
   1. E-pathshala has been listed/made available on the UMANG App of Govt. of India, which was launched by Hon’ble Prime Minister of India on 23 November, 2017 during GCCS-2017.
5. **National Repository of Open Educational Resources (NROER)** : **To make digital resources available for teachers and students as free and open source material.** To enable the participation of the community in development and sharing of digital resources. To facilitate the adoption and creation of digital resources in different Indian languages.

#### Higher education initiatives: by UGC and AICTE

* + 1. Study Webs of Active-Learning for Young Aspiring Minds (SWAYAM)
    2. National Academic Depository (NAD)
    3. Global Initiative for Academics Network (GIAN)
       1. Global Initiative for Academic Networks (GIAN) to help foreign faculty to teach some courses in the higher educational institutions
       2. steps such as outstanding young faculty awards, appointment of Non-Resident Indians (NRIs) and Persons of Indian Origin (PIOs) to permanent faculty positions have been taken.
       3. Government has decided to allow faculty working under the Central Government or Central Autonomous Bodies, to join the newly set up Central Educational Institutions on long-term deputation, for a period of 10 years
       4. age of superannuation for teachers in Central Educational Institutions has already been enhanced to 65 years
    4. Impacting Research, Innovation & Technology (IMPRINT)
       1. ₹1,000 crore for the Phase II of the Impacting Research Innovation and Technology (IMPRINT) India programme.
    5. Technical Education Quality Improvement Programme (TEQIP)
    6. Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT)
    7. National Digital Library
    8. Campus connect programme
    9. Saksham Scholarship Scheme for economically weaker differently abled students to technical education

**Unnat Bharat Abhiyan 2.0**

“India lives in villages” MK gnadhi

the Ministry of Human Resources Development

Unnat Bharat Abhiyan is a flagship programme of, with the intention to enrich Rural India.

The knowledge base and resources of the Premier Institutions of the country are to be leveraged to bring in transformational change in rural developmental process.

Unnat Bharat Abhiyan 2.0, the institutions have been selected on a Challenge Mode and the scheme has been extended to 750 reputed Higher Educational Institutes (both public and private) to cover the 45000 villages of the country

 Each selected institute would adopt a cluster of villages / panchayats and gradually expand the outreach over a period of time.

Institutes through their faculty and students, will carry out studies of living conditions in the adopted villages, assess the local problems and needs, workout the possibilities of leveraging the technological interventions and the need to improve the processes in implementation of various government schemes, prepare workable action plans for the selected villages

**National Institutional Ranking Framework (NIRF) for Higher Educational Institutions**

released by the Ministry of Human Resource Development

third edition of India Rankings

metrics measured by the NIRF in terms of the percentage of

faculty with doctoral degrees,

papers published in credentialed journals,

inclusivity and diversity of students, and

median salaries for the graduates

Latest ranks

IISC,banglore

IIT, Madras

IIT Mumbai

Engineering

IIT,Madras,Bombay,DELHI

Medicine

AIMS

PGI chandigarh

CMC,vellore

MBA

IIM ahemdabad,banglore,calcutta

**Some issues in NIRF**

Ranking educational and research institutes has practical uses, such as helping students make study choices, sponsors to identify research projects, and other universities to form partnerships.

Yet, for the process to evolve and be relevant,

**it should be able to enrol all recognised educational institutions, not just the public** ones. In the absence of such participation, older institutions with historical advantages could enjoy a higher ranking, obscuring newer entrants who may have stronger claims to excellence.

Also, the ranking approach worldwide is critiqued for failing to capture **the crucial metric of learning outcomes, relying instead on proxy data on faculty strength and qualifications**

**It can be improved**

the final responsibility for accuracy of data lies with the participating institution, except for aspects like research publications that are independently verifiable.

**What is positive about the system**

its emphasis on achieving measurable goals and bringing in transparency.

The 2018 exercise added the disciplines of law, medicine and architecture and it hopes to cast the net wider in the future.

Conclude

Beyond competitive ranking, however, the higher order goal is to foster learning and scholarship.

This can be achieved solely by encouraging faculty to exercise complete academic freedom, without the pressure of perception management**.**

**Prime Minister's Research Fellowship (PMRF) Scheme for Doctoral Studies (Ph.D.) in IITs and IISc**

the best students who have completed (in last 5 years) or are in the final year of B. Tech or Integrated M.Tech or M.Sc. in Science and Technology streams from IISc/IITs/NITs/IISERs/IIITs,

with atleast 8.0 CGPA, will be offered direct admission in Ph.D programme in the IITs / IISc.

offered a fellowship of Rs.70,000/- per month for the first two years, Rs.75,000/- per month for the 3rd year, and Rs.80,000/- per month in the 4th and 5th years

a research grant of Rs.2.00 lakh will be provided to each of the Fellows for a period of 5 years to cover their foreign travel expenses for presenting research papers

A maximum of 3000 Fellows would be selected in a three year period

**Samrt campus campaign**

Ministry of Human Resource Development

under which educational institutions will be encouraged to optimize use of water, electricity and also adopt measures for generating power through solar installations.

to set-up five new Research Parks at IIT Delhi, IIT Guwahati, IIT Kanpur, IIT Hyderabad, and IISc Bangalore

#### Secondary education

##### Deen Dayal SPARSH Yojana”

Stamp collection scheme

(Scholarship for Promotion of Aptitude and Research in Stamps as a Hobby)

##### SATH-E

Sustainable Action for Transforming Human Capital-Education

By NITI aayog experiment

aims to create role model States for education and mainstream ‘islands of excellence’ across the country to facilitate qualitative and quantitative transformation of learning outcomes.

Marrying technology with need-based, data-driven assessment and a ‘giving it what it takes’ approach - be it innovation, incubation,

external third party funding and Public- Private- Philanthropic Partnership (PPPP) experimentation

implemented by National Steering Group (NSG), the governing body for the project, which is chaired by the CEO of NITI Aayog.

Tripartite MHRD;NITI aayog and State.

has been envisaged as a programme which aims to transform elementary and secondary school education across these three states

3 states Jharkhand, Madhya Pradesh and Odisha

##### Ek Bharat Shreshtha Bharat scheme

The broad objectives of the initiative are as follows

i. **To CELEBRATE** the Unity in Diversity of our Nation and to maintain and strengthen the fabric of traditionally existing emotional bonds between the people of our Country;

ii. **To PROMOTE** the spirit of national integration through a deep and structured engagement between all Indian States and Union Territories through a year-long planned engagement between States;

iii. **To SHOWCASE** the rich heritage and culture, customs and traditions of either State for enabling people to understand and appreciate the diversity that is India, thus fostering a sense of common identity

iv. **TO ESTABLISH** long-term engagements and,

v. **TO CREATE** an environment which promotes learning between States by sharing best practices and experiences.

Example of cooperative federalism

cuisine, music, dance, theatre, movies & films, handicrafts, sports, literature, festivals, painting, sculpture etc

sharing in first year as follows:

Jammu & Kashmir : Tamil Nadu

Punjab : Andhra Pradesh

Himachal Pradesh : Kerala

Uttarakhand : Karnataka

##### Sarva siksha Abhiyan

Centrally Sponsored Schemes

for creation and augmentation of school infrastructure facilities and for improving quality of education

an amount of Rs. 3000/- per child per annum is allocated for the interventions related to education of children with special needs (CWSN).

home-based education is also provided to those children who have severe intellectual and physical disabilities

At national level, an Empowered Committee, headed by Minister of Human Resource Development and also a National level Steering-cum-Monitoring Committee (NSMC) as well as Programme Approval Board (PAB) monitor the scheme and suggest measures for its smooth and effective implementation.

At the State level, a State Level Steering–cum-Monitoring Committee headed by the State Chief Secretary and,

at the District Level, a District Level Committee under the Chairpersonship of the senior-most Member of Parliament of Lok Sabha of the district monitors the implementation of the scheme in the concerned District.

At local level Gram Panchayats/Gram Sabhas, members of Village Education Committees (VECs), Parent-Teacher Associations (PTAs) and the School Management Committees (SMCs)

monitor the regularity and wholesomeness of the mid-day meal served to children, cleanliness in cooking and serving of the meal, timeliness in procurement of good quality ingredients, fuel, etc.,

implementation of variety in menu so as to make it attractive to children and ensuring social and gender equity on daily basis.

##### Rashtriya Madhyamik Shiksha Abhiyan (RMSA)

Centrally Sponsored Schemes

for creation and augmentation of school infrastructure facilities and for improving quality of education

Inclusive Education for Disabled at Secondary Stage (IEDSS)

objective to provide all students with disabilities an opportunity to complete four years of secondary schooling (Class IX to XII) in an inclusive and enabling environment

3000/- per child per annum, besides support for engagement of special teachers, equipping resource room

stipend for girls with disabilities @ Rs. 200/- per month

Section 23(2) of the RTE Act, 2009 has been amended to ensure that all untrained in-service teachers working in Government, Government aided, and Private un-aided schools should acquire minimum qualification as laid down by an academic authority

##### National Achievement Survey

At district level conducted

invited suggestions on rationalizing curriculum for class I to XII to ensure all round development of students

## Labour

Labour is a concurrent subject

### National skill development fund

**NSDF trust** was incorporated to act as a receptacle for financial contributions from Governmental sources, bilateral/multilateral and other agencies.

Its main objective is to enhance, stimulate and develop the skills of Indian youth force by various sector specific programmes.

NSDF were set up by the Ministry of Finance and registeredJanuary, 2009 for implementing coordinated action for skill development.

### MGNREGS

programme made very significant progress in 2017-18, contributing to livelihood security through durable assets with full transparency using IT;DBT; geo-tagging of each and every asset created under the programme

criticism of the MGNREGS was that works remain incomplete for a long time leading to poor quality assets and unsatisfactory livelihood security.

**Geo tagging of MGNREGA** assets which started on 1stSeptember, 2016 is going on with around 80,000 assets being geo tagged on daily basis

The verification of Job Cards and efforts to provide a Job Card to every deprived household as per the **Socio Economic Census-201**1 has yielded very positive results

Nearly 40 to 50 lakh hectares of land covered through Natural Resources Management for water conservation each year, rejuvenation of rivers, construction of nearly 5 lakh farm ponds every year over the last two years, thrust on roadside plantation and social forestry, provision of goat-shed, poultry-shed and dairy shed as individual beneficiary schemes have led to the creation of livelihood security through durable assets leading to improved incomes

MGNREGS provides 90/95 days work (approx Rs.18,000) for the one **crore Pradhan Mantri Awaas Yojana (Gramin) (PMAY (G) beneficiaries.**

It also provides Rs.12,000 per Individual Household Latrine (IHHL) wherever required and not provided for under Swach Bharat Mission Grameen (SBM-G).

Realizing the importance of Anganwadi Centres as pro-poor initiative where poor women can leave young children in a secure environment**, MGNREGS funds have been used for large scale construction of Anganwadi Centre buildings.**

MGNREGS provided support for Solid and Liquid Waste Management and vermi-composting on a large scale.

In FY 2018-19, Gram Sabhas have come up with proposals for nearly five thousand Gramin Haats and their construction to enable producers specially Women Self Help Groups (SHGs) to sell their produce directly to wholesalers will be taken under MNREGS

River rejuvenation and support for irrigation is also a major area of activity which will be undertaken on large scale in FY 2018-19

Over 6,500 Barefoot Technicians have been trained, nearly 4100 Resource Persons have been capacitated in handling **of Social Audits** and more than 55,000 SHG women have been trained to become social auditors. 26 States have set up their independent Social Audit Units.

Social Audit has been provided full support and will continue to be a priority in FY 2018-19.

### Issue of construction workers

apex court found that ₹28,000 crore meant for the welfare of construction workers lies stagnant in State coffers. This is mainly because successive governments have failed to make use of the money for the health, safety or service conditions of unnamed and unsung construction workers

### Unemployment data 2015-16

During question hour in Rajya sabha

37 out of 100 are unemployed

On basis of employed for majority period of last 365 days

Kerela

Himachal and

Tripura high rates of unemployment

Lowest

Gujarat,

chattisgarh,

karnatka.

### RIHS 2016(revised integrated housing scheme)

Eligibility :

Worker of mine industry(beedi, iron ore, mica mine, limestone,manganese ;dolomite ) registered with labour welfare organisation

Subsidy housing 1.5 lac

Released in 25%;60%;15 %

No ceiling on estimated cost

No upper limit for carpet area

Min carpet area

30 sq mt in metropolitan urban areas

60 sq mt in other cities and rural area

### Rehabilitation of Bonded Labour scheme 2016

Centrally sponsored

Bonded Labour System in India is characterized by a long-term relationship between employer and employee, which is usually solidified through a loan or social obligation, and is embedded intricately in India's socio-economic culture marked by class/caste relations

The Government of lndia has ratified the ILO Convention C029 on 30tn November 1954 which inter alia defines forced labour as "all work or service which is exacted from any person under the menace of penalty and for which the said person has not offered himself voluntarily"

The Rehabilitation package shall be Rs.1,00,0001 per adult male beneficiary. Beneficiary shall have the option to either deposit it in an annuity scheme or receive cash gran

For special category beneficiaries such as children including orphans or those rescued from organised and forced begging rings or other forms of forced child labour. and women. the amount of rehabilitation assistance shall be {2 lakhs out of which at least tl,25,000/- shall be deposited in an annuity scheme in the name of each beneficiary a

In cases of bonded or forced labour involving extreme cases of deprivation or marginalization such as trans-genders, or women or children rescued from ostensible sexual exploitation such as brothels, massage parlours, placement agencies etc., or trafficking, or in cases of differently abled persons, or in situations where the District Magistrate deems fit, the rehabilitation assistance shall be {3 lakhs, out of which at least

Allotment of house-site and agricultural land;

Land development;

Provision of low cost dwelling units;

Animal husbandry, dairy, poultry, piggery etc.;

Wage employment, enforcement of minimum wages etc.;

Collection and processing of minor forest products;

Supply of essential commodities under targeted public distribution system; and

Education for children

A **Bonded Labour Rehabilitation Fund** shall be created at the District level by each State with a permanent corpus of at least Rs.10 lakhs at the disoosal of the District Magishate which should be renewable

Implementation

The implementation and monitoring of the BLR scheme shall be carried out by the Central Monitoring Committee, prescribed under the NCLP scheme

At the State level, the same implementation machinery for NCLP scheme shall also be responsible for implementation of the revised BLR Scheme

At the district and sub-divisional level the same implementation machinery for NCLP scheme shall also be responsible for implementation of the revised BLR Scheme

### Domestic Labour

Proposed National Policy for Domestic Workers

* 1. Inclusion of Domestic Workers in the existing legislations
  2. Registration of Domestic workers.
  3. Right to form their own associations , trade unions
  4. Right to have minimum wages, access to social security, protection from abuse, harassment, violence
  5. Right to enhance their professional skills
  6. Protection of Domestic Workers from abuse and exploitation
  7. Domestic Workers to have access to courts, tribunals, etc.
  8. Establishment of a mechanism for regulation of concerned placement agencies

Rajasthan, Kerala, Punjab, Tamil Nadu and Tripura have included domestic workers in the schedule of the Minimum Wages Act and can thus raise issues to respective authority

### Child Labour

As per 2011 Census, the number of main workers in the age group of 5-14 years in the country is 43.53 lakh which shows a decline from 57.79 lakh as per 2001 Census.

A decline in child labour

As per 2011 Census, the persons **below the age of 14 years account** **for 29% of the total population** while persons between the age group 14-18 **years account for another 10% of the total population**

The 2013 World Report on Child Labour prepared by the ILO has observed that child labour can compromise the productive capacity of workers during adulthood and thereby constrain both national economic growth and efforts to reduce poverty

### National Policy on Child labour

The important pillars of the national policy on the elimination of child labour have been as under:

* + - 1. Legislative Action Plan--Strict and effective enforcement of legal provisions relating to child labour under various laws.
      2. Convergence of government developmental programmes – Focus on converging various developmental initiatives to alleviate poverty, provide access to social security, health and education, economic and social empowerment of the child workers and their families.
      3. Project based plan of action – Implementation of National Child Labour Project Scheme (NCLPS) in the areas of high concentration of child labour.

Government has framed the Child Labour (Prohibition & Regulation) Amendment Rules, 2017

ensures effective enforcement of the provisions of the Child labour Act.

online portal **PENCIL** (Platform for Effective Enforcement of No Child Labour) has been launched To provide an enforcement mechanism an

### National Child Labour Project (NCLP) Scheme for rehabilitation of child labour.

was started in 1988 to rehabilitate child labour.

a survey is conducted of children engaged in hazardous occupations and processes in a district or a specified area;

then children in the age group of **9-14 years** are withdrawn from these occupations and processes, and put into **NCLP Special Training Centres**

NCLP special centers at district level provide bridge education, vocational training, mid-day meal, stipend, health **care and recreation etc**

### Revamped NCLP 2016

The NCLP Scheme seeks:

* + 1. To eliminate all forms of child labour
    2. To contribute to the withdrawal of all adolescent workers from Hazardous Occupations / Processes and their skilling and integration in appropriate occupations
    3. Raising awareness amongst stakeholders and target communities, and orientation of NCLP and other functionaries on the issues of ‘child labour’ and ‘employment of adolescent workers in hazardous occupations/processes
    4. Creation of a Child Labour Monitoring, Tracking and Reporting System

Target

1. All child workers below the age of 14 years in the identified target area.
2. Adolescent workers below the age of 18 years in the target area engaged in hazardous occupations / processes
3. Families of Child workers in the identified target area

Funding

NCLPS is a central sector scheme where 100% of the funding is provided by the Government of India through the Ministry of Labour and Employment

Instituional

Center

Central Monitoring committee

chaired by the Union Labour Secretary

National project monitoring cell

State

State labour dept.-->State level monitoring committte

headed by the Chief Secretary of the State

District

District Project society

Vigilance monitoring committee

**Special training centers**

Data NCLP

|  |  |  |
| --- | --- | --- |
| State | Persecutions 2016 | Persecutions 2017 |
| Bihar | 107 | Nil |
| UP | 409 | Nil |
| Punjab | 307 | 81 |
| Jharkand | 234 | 86 |

### Unorganized labour

Registration of Worker

a Unique ID i.e. Unorganised Workers Identification Number (UWIN) has been approved

Unorganised Workers Social Security Act, 2008 provides that every unorganised worker shall be eligible for registration subject to the fulfilment of the conditions that he or she shall have completed 14 years of age;

and a self-declaration by him or her confirming that he or she is an unorganised worker.

At district level

Steps taken for Unorganised labour

Converged Pradhan Mantri Jeevan Jyoti Bima Yojana/Pradhan Mantri Suraksha Bima Yojana in which premium is shared between Centre and the States in 50:50 ratio.

National Health Projection Scheme

National Family Benefit Scheme

Indira Gandhi National Old Age Pension Scheme

### Rural Wages

Labour Bureau has been compiling average daily wage rates for General Agricultural Labourers and Non-Agricultural Labourers on the basis of the information collected by the National Sample Survey Office (NSSO)

Annual average daily wage rates for General Agricultural Labourers have increased during the last three years.

Rs. 233.84 in 2015

Rs. 248.32 in 2016

Rs. 263.59 in 2017

In the case of Non-Agricultural Labourers, the annual average daily wage rate increased from

Rs. 246.82 in 2015

Rs. 257.95 in 2016

Rs. 270.76 in 2017

Steps

revising minimum wages of workers under the provisions of Minimum Wages Act, 1948 and

periodic revision of wage rates for workers under the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), 2005

## Medical

Organ donation

Kochi,Donating six organs, 29-year-old Arun Raj, in his death, has come to the rescue of seven persons who are either afflicted with terminal stage diseases or disability

## Tribal

**New ST added**

**The Nilgiri Hills receive over 14 feet of rain a year, the second highest rate in India**

Other tribes are **Badaga**, **Toda**, **Kota** and **Kurumba**

Nayaka are another group that lives in the Nilgiri Hills

also known as the Jenu Kurumba, Kattu Naikr, Kattu Nayaka, Naicken, Naikr and Sola Nayaka.

traditionally lived in huts in the forest and migrated every six to 18 months.

Nayaka have no formal marriage ceremony

Added communities 'Parivara and Talawara' as synonym of "Nayaka' in the list of STs in Karnataka

**MFP**

Minor Forest Produce (MFP) is a major source of livelihood for tribals living in forest areas.

The importance of MFPs for this section of the society can be gauged from the fact that

1. Around 100 million forest dwellers depend on MFPs for food, shelter, medicines and cash income.
2. It provides them critical subsistence during the lean seasons, particularly for primitive tribal groups such as hunter gatherers, and the landless.
3. Tribals derive 20-40% of their annual income from MFP on which they spend major portion of their time.
4. This activity has strong linkage to women’s financial empowerment as most of the MFPs are collected and used/sold by women.
5. MFP sector has the potential to create about 10 million workdays annually in the country.

Schemes for MFP’s

Development of MFP by providing financial support to State TDCCs and TRIFED for market development of MFPs.

Newly launched

**first  multipurpose “Van Dhan Vikas Kendra” on pilot basis for establishment in Bijapur  District of Chhattisgarh State** **for providing skill upgradation and capacity building training and setting up of primary processing and value addition facility.**

Kendra to start with will have processing facility for Tamarind brick making, Mahua flower storage facility and chironjee cleaning and packaging

Implemented by TRIFED

**Particularly Vulnerable Tribal groubs**

This was created based on the Dhebar Commission report

In 1973, the Dhebar Commission created Primitive Tribal Groups (PTGs) as a separate category, who are less developed among the tribal groups

2006 renamed PVTG

t identifies 75 PVTGs identified

**Conservation-cum-Development Plan (CCD Plan)**

identified by state govt

New identified

in the State of Maharashtra:

Katkaria (Kathodia)

Kolam

Maria Gond

Creteria for PVTG is:

The criteria followed for determination of PVTGs are as under:

* + 1. A pre-agriculture level of technology;
    2. A stagnant or declining population;
    3. Extremely low literacy; and
    4. A subsistence level of economy.

**Eklavya scheme**

Eklavya Model Residential School. Ekalavya Model Residential School (EMRS) is a Government of India scheme for model residential school for Indian tribals (Scheduled Tribes, ST) across India. It was established by the Tribal Ministry,Government of India**.**

**Scheme of Ashram Schools in Tribal Areas:**

The objective of the scheme is to provide residential schools for STs to increase the literacy rate among the tribal students both boys & girls and to bring them at par with other population of the country. Under the scheme, State Governments are eligible for 100% central share for construction of all Girls’ Ashram Schools and also for construction of Boys’ Ashram Schools in naxal affected areas.

**Scheme of Girls & Boys Hostels for STs:**

Under the scheme, Central assistance is given to States / UTs / Universities for construction of new hostel buildings and / or extension of existing hostels

Funding for girls 100% center

Boys hostel 50-50

**Tribal Finance NSTFDC**

National Scheduled Tribes Finance and Development Corporation (NSTFDC), an apex Organization under the Ministry of Tribal Affairs in 2001 was brought into existence with the sole aim of economic upliftment of the Scheduled Tribes in the country by way of extending concessional financial assistance to the target group under its various schemes.

Also State Scheduled Tribes Finance and Development Corporations (STFDCs) established

NSTFDC implements following schemes for self-employment of Scheduled Tribes who are unemployed or underemployed:

**Term Loan scheme:**

NSTFDC provides Term Loan for any income generation scheme costing upto ₹25.00 lakhs per unit. The financial assistance is extended upto 90% of the cost of the scheme and the balance is met by way of subsidy/ promoter’s contribution/ margin money. The interest rate chargeable is 6% p.a. for loan upto ₹ 5 lakhs, 8% p.a. for loans ranging between ₹ 5 lakhs to ₹ 10 lakhs and 10% p.a. for loan exceeding ₹10 lakhs on the entire amount of loan.

**AdivasiMahilaSashaktikaran Yojana (AMSY)**:

Under the scheme, Scheduled Tribes women can undertake any income generation activity. Loans upto 90% for scheme costing upto ₹1 lakh are provided at a concessional rate of interest of 4% p.a.

**Micro Credit Scheme for Self Help Groups**:

The Corporation provides loans upto ₹50,000/- per member and ₹ 5 Lakhs per Self Help Group (SHG). The interest rate chargeable is 6% p.a.

**Adivasi Shiksha Rrinn Yojana**:

Under this scheme, financial assistance upto ₹5.00 lakh at concessional rate of interest of 6% per annum is provided to ST students for pursuing professional/ technical education including Ph.D. in India.

Minor Forest Produce (MFP) through Minimum Support Price (MSP)and Development of Value Chain for MFP

**Scheme for Strengthening Education among ST Girls in Low Literacy Districts:**

This scheme is being implemented in 54 identified low literacy Districts where the ST population is 25% or more, and ST female literacy rate is below 35%, or its fractions, as per 2001 census.

**Scheme of Vocational Training in Tribal Areas:**

It is aimed at upgrading the skills of the tribal youth in various traditional/modern vocations depending upon their educational qualification, present economic trends and the market potential,

**Grants under Article 275(1) of the Constitution:**

It is 100% grant from Government of India. Funding under this programme is to enable the State to meet the cost of such schemes of development as may be undertaken by the State for the purpose of promoting the welfare of Scheduled Tribes including women in that State or raising the level of administration of Scheduled Areas

**Tribal Research Institute (TRI):**

The basic objective of the scheme is to strengthen the Tribal Research Institutes (i) Research & Documentation: - Documentation of tribal welfare

**TRIFED**

Scheme of “Mechanism for Marketing of Minor Forest Produce (MFP) through Minimum Support Price (MSP) and Development of Value Chain for MFP:

TRIFED provides training to the tribal beneficiaries involved in collection of MFP

Hunar Haats

Tribal and forest produce exhibitions at national levle

## Social security

**Atal Pension Yojana (APY)**

is a Government of India's Old Age Pension Scheme being implemented through all Banks

the First Ever Guaranteed Pension Product to the people of the country.

 minimum guaranteed pension **ranging between Rs. 1000/- to Rs. 5000/- per month** for the subscriber from the **age of 60 years.**

**Small Finance Banks and Payment Banks to offer Atal Pension Yojana**;

To provide a boost to the outreach of subscribers under APY

Payments Banks and Small Finance Banks are a New Model of banks conceptualized by the Reserve Bank of India (RBI).

11 Payment Banks and 10 Small Finance Banks have received license from Reserve Bank of India to start banking operations in India

Pension Fund Regulatory and Development Authority (PFRDA) handles pensions in india

**Pradhan Mantri Vaya Vandana Yojana (PMVVY**)’

to provide social security during old age and to protect elderly persons aged 60 years and above against a future fall in their interest income due to uncertain market conditions.

The scheme enables old age income security for senior citizens through provision of assured pension/return linked to the subscription amount based on government guarantee to Life Insurance Corporation of India (LIC).

**The scheme provides an assured return of 8% per annum for 10 years**.

The differential return, i.e. the difference between return generated by LIC and the assured return of 8% per annum would be borne by Government of India as subsidy on an annual basis.

Pension is payable at the end of each period during the policy tenure of 10 years as per the frequency of **monthly/quarterly/half-yearly/yearly as chosen by the subscriber at the time of purchase**.

**Minimum purchase price under the scheme is Rs.1,50,000/- for a minimum pension of Rs. 1,000/- per month**

and

**the maximum purchase price is Rs.7,50,000/- for a maximum pension of Rs.5,000/- per month**.

The scheme is open for subscription for a period of one year i.e. from 4th May, 2017 to 3rd May, 2018

**Rashtriya Vayoshri Yojana (RVY)’**

Ministry of Social Justice & Empowerment

with an objective to provide senior citizens, belonging to BPL category and suffering from age related disabilities/ infirmities, with such physical aids and assisted living devices which can restore near normalcy in their bodily functions.

Under the Scheme, assisted living devices such as walking sticks, elbow crutches, walkers/ crutches, tripods/ quadpods, hearing aids, wheelchairs, artificial dentures, spectacles are distributed to the beneficiary senior citizens.

The Scheme is entirely funded from the Senior Citizens’ Welfare Fund (SCWF), established vide Senior Citizens’ Welfare Fund Rules, 2016

Maintenance and Welfare of Parents and Senior Citizens Act, 2007

## Employment

MNREGA  
West Bengal has become the best performing State both in terms of allotting jobs and utilising funds under the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA).

Tamil Nadu occupied the second spot

Andhra third

Goa is ranked at the bottom of the list

## Sports

**Khelo India** has chosen Star Sports – India’s leading sports broadcaster- as its broadcast and production partner for the forthcoming Khelo India School Games, 2018

**The revamped Khelo India** was launched to achieve the twin objectives of broad basing of sports and achieving excellence in sports

will act as a catalyst to usher in a change in the mindsets of parents and teachers towards sports

**Khelo India School Games, 2018** is the marquee event under revamped Khelo India porgramme. Khelo India School Games 2018 are being organized for under-17 group (Boys and Girls) from 31st Jan 2018 in 16 different Sports disciplines.

The best talent selected through the competition will be amongst the 1000 (one thousand) budding athletes eligible for **a scholarship worth 5 lakhs each per year for a period of eight years**.

## Dalit Assertion

Two competing nationalisms:The violent clashes that broke out in villages around Bhima [Koregaon](http://indianexpress.com/article/what-is/what-was-the-battle-of-koregaon-mahar-dalit-marathas-maharashtra-bandh-5009488/) near Pune, where Dalits had assembled in large numbers to commemorate the second centenary of the battle between the forces of Peshwa Bajirao II and the British East India Company.

Peshwa Bajirao was defeated by British forces less in number due to valiant contribution of about 200 Mahars i.e Dalit cast. The victory pillar erected by the British at the site of the battle is, in the Dalit narrative, a monument to community assertion and self-respect today.

## Human trafficking

To attain SDG 8.7 for achieving Sustainable Development Goal 8.7 (eradicate forced labour, end modern slavery and human trafficking, and end child labour by 2025)

anti-trafficking laws, ranging from the Indian Penal Code and the Immoral Traffic Prevention Act (ITPA), 1986, to social welfare legislation on contract and bonded labour, and inter-state migrant work

yet, the Trafficking Bill is patently neoabolitionist.

**{**

**Neoabolitionist** (or **neo-abolitionist** or new abolitionism) is a term coined by historians to refer to the heightened activity of the civil rights movement in the late 1950s and early 1960s. The term was soon used by leading historians to refer to the moral impulses of historians influenced by the Civil Rights movement

}

The current definition of trafficking in Section 370 of the IPC is not limited to sex work;

It pursues the classic raid-rescue-rehabilitation model, with stringent penalties for trafficking, including life imprisonment for its aggravated forms, reversals of burden of proof, and provisions for stripping traffickers of their assets.

It creates a plethora of new institutions with unclear roles, capacious powers (including for surveillance) and no accountability, alongside a parallel adjudication machinery with special courts and special public prosecutors.

There is no clarity on how the Bill relates to the ITPA and to labour laws

Steps which can be taken:

extending a criminal law,

raid-rescue-rehabilitation model beyond sex work to other labour sectors.

robust implementation of labour laws;

a universal social protection floor;

self-organisation of workers;

improved labour inspection, including in the informal economy; and

corporate accountability for decent work conditions.

# ENVIRONMENT

## BIODIVERSITY

**Endangered Spices:**

1. chinkaras in the Bikaner
2. Chilika Lake, Asia’s largest brackish water lagoon. Odisha. wetlands of the Nalabana Bird Sanctuary.
   1. As many as 155 endangered Irrawaddy dolphins were spotted during the **monitoring making Chilika the single largest habitat of this species in the world**
   2. “Sponge, which was documented by the Zoological Survey of India to be present in the lake before 1985 and had disappeared thereafter, has made its appearance indicating a clean and healthy ecosystem. Spongillaalba species were identified by the monitoring team in certain locations

**WetLands**

The National Wetland Atlas, prepared by the Indian Space Research Organisation in 2011, found that India has over 2,00,000 wetlands. But a vast majority had not been notified as wetlands thus running the risk of being destroyed.

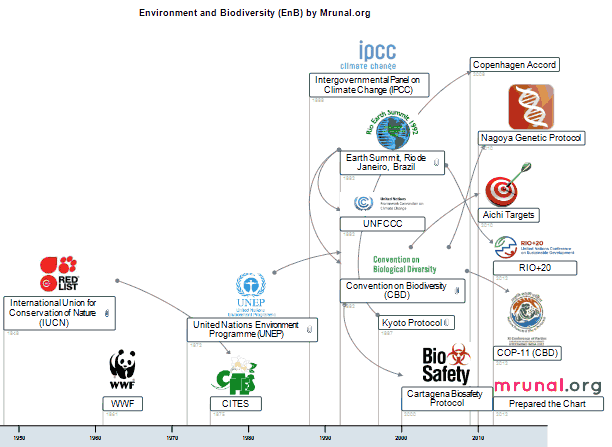
### Rio Declaration

The three Rio Conventions—on Biodiversity, Climate Change and Desertification—derive directly from the 1992 Earth Summit. Each instrument represents a way of contributing to the sustainable development goals.

Convention on Biodiversity

United nations convention on Desertification

United nations Framework convention on climate change



### Rio+20

The 2012 UN Conference on Sustainable Development, or “Rio+20” is a forum on how to make sustainable development a reality for seven billion people today, and to define the future we want for nine billion by 2050.

Marking 20 years of Rio Summit and 10th anniversary of World Summit on Sustainable Development Johannesberg.

Goals:

smart measures for

1. poverty reduction
2. clean energy
3. Sustainable development. And this Sustainble Development has three pillers
   1. economic development,
   2. social development
   3. environmental protection.

Member States decided to launch a process to develop a set of Sustainable Development Goals (SDGs).

The conference agreed on an outcome document entitled “The Future We Want”.

Following are the part of SDG :

We reaffirm our commitment to fully implement following conventions/protocols (and or take follow up action on them)

1. Agenda 21 = it is a non-binding, voluntarily implemented action plan of the United Nations with regards to sustainable development. It is a product of the Earth Summit held in Rio de Janeiro, Brazil, in 1992.
2. Convention on Climate Change (UNFCCC)
3. Convention on Biological Diversity (CBD)
4. United Nations Convention to Combat Desertification (UNCCD)
5. Trade-Related Aspects of Intellectual Property Rights (TRIPS)
6. United Nations Convention on the Law of the Sea (UNCLOS)
7. Convention on Biological Diversity
8. Nagoya Protocol on Access to Genetic Resources
9. CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora)
10. Basel Convention, the Rotterdam Convention and the Stockholm Convention. (Related to Chemical and Waste disposal)
11. Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW)
12. United Nations Convention against Corruption.

### Convention on Biodiversity

History:

The Convention was opened for signature on 5 June 1992 at the United Nations Conference on Environment and Development (the Rio "Earth Summit").

The Convention on Biological Diversity was inspired by the world community's growing commitment to sustainable development.

Latest COP 13th in Cancun in 2016:

implementation of the Convention and the Strategic Plan for Biodiversity 2011-2020 and towards the achievement of the Aichi Biodiversity Targets

Global Biodiversity Outlook:

Global Biodiversity Outlook (GBO) is the flagship publication of the Convention on Biological Diversity. It is a periodic report that summarizes the latest data on the status and trends of biodiversity and draws conclusions relevant to the further implementation of the Convention.

Protocols on Biodiversity:

**Cartagena Protocol on Biosafety**:

Aims to ensure the safe handling, transport and use of living modified organisms (LMOs) resulting from modern biotechnology that may have adverse effects on biological diversity, taking also into account risks to human health.

The Protocol also establishes **a Biosafety Clearing-House** to facilitate the exchange of information on living modified organisms and to assist countries in the implementation of the Protocol.

Entered into force in 2003.Opened in COP 5 in Nairobi, Keneya May 2000.

The Nagoya – Kuala Lumpur Supplementary Protocol to the Cartagena Protocol on Biosafety was adopted by the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol on Biosafety on 15 October 2010.

The Supplementary Protocol(N-KL Supplementary) will enter into force on 5 March 2018. The objective of this Supplementary Protocol is to

contribute to the conservation and sustainable use of biological diversity,

taking also into account risks to human health, by providing international rules and procedures in the field of liability and redress relating to living modified organisms.

It applies to damage resulting from living modified organisms which find their origin in a transboundary movement (unintentional movement also). The living modified organisms referred to are those:

Intended for direct use as food or feed, or for processing;

Destined for contained use;

Intended for intentional introduction into the environment.

India is signatory to above protocols.

**Nagoya Protocol on Access and Benefit-sharing:**

Aims at sharing the benefits arising from the utilization of genetic resources in a fair and equitable way

**Nagoya will be remembered as the city where the biodiversity accord was born**

Entered into force in 2014

The Access and Benefit-sharing Clearing-House (ABS Clearing-House) is a platform for exchanging information on access and benefit-sharing and implementing the protocol

The strategic plan which is outcome of the Nagoya Protocol is “**Aichi Targets**”.

It includes 20 headline targets, organized under five strategic goals that address the underlying causes of biodiversity loss, reduce the pressures on biodiversity, safeguard biodiversity at all levels, enhance the benefits provided by biodiversity, and provide for capacity-building.

**India is member and USA non-signatory.**

**Aichi Targets:**

Resulted from Nagoya Protocol

Set of 20 Targets under 5 goals to be achieved by 2020

Strategic Goal A: Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society

Strategic Goal B: Reduce the direct pressures on biodiversity and promote sustainable use

Strategic Goal C: To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity

Strategic Goal D: Enhance the benefits to all from biodiversity and ecosystem services

Strategic Goal E: Enhance implementation through participatory planning, knowledge management and capacity building

The Strategic Plan will be implemented primarily through activities at the national or subnational level, with supporting action at the regional and global levels.

**The Japan Biodiversity Fund** : To achieve Nagoya and Aichi targets has been established by the Presidency of the tenth Conference of the Parties (COP 10) in support of the implementation of the Nagoya Biodiversity Outcom**es.**

**The Japan Biodiversity Fund was created to support developing countries**

Nagoya capital of State Aichi in Japan.

**South-South Cooperation**

Biodiversity is a key economic, financial, cultural, and strategic asset for developing countries, and is critical for economic and social development as well as poverty reduction.

The South-South Cooperation is a term historically used to **describe the exchange of resources, technology, and knowledge between developing countries, and is being promoted as an essential cross-cutting mechanism designed to deliver capacity building and technology support activities in developing countries and regions of the South to achieve 2010-20 targets.**

For developing countries facing issues with biodiversity conservation.

South-South cooperation can in many ways complement North-South exchanges with a more efficient use of resources.

**Triangular cooperation** involves two or more developing countries in collaboration with a third party, typically a developed country government or organization, contributing to the exchanges with its own know-how and resources.

### United Nations Convention to Combat Desertification:

Established in 1994, the United Nations to Combat Desertification (UNCCD) **is the sole legally binding international agreement linking environment and development to sustainable land management**

The new UNCCD **2018-2030 Strategic Framework** is the most comprehensive global commitment to achieve Land Degradation Neutrality (LDN) in order to restore the productivity of vast expanses of degraded land, improve the livelihoods of more than 1.3 billion people, and reduce the impacts of drought on vulnerable populations to build

The Convention’s 196 parties work together to improve the living conditions for people in drylands, to maintain and restore land and soil productivity, and to mitigate the effects of drought.

Desertification/land degradation and drough(DDLD)

(UNCCD) can play a central role in addressing these issues through capacity-building, the sharing of successful experiences, technology transfer, the provision of scientific support, awareness-raising, mobilization of resources and the provision of assistance to countries in implementing policies at national, subregional, regional and international levels.

### United Nations Framework Convention for Climate Change:

The UNFCCC entered into force on 21 March 1994,

Head quartered in Bonn Germany

Part of Rio Declaration.

Stabilization of GHG in atmosphere to level that would prevent changes in climate.

Goals:

such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change,

to ensure that food production is not threatened, and

to enable economic development to proceed in a sustainable manner.

Results:

Industrialized nations agree under the Convention to support climate change activities in developing countries by providing financial support for action on climate change-- above and beyond any financial assistance they already provide to these countries.

A system of grants and loans has been set up through the Convention and is managed by the Global Environment Facility. Industrialized countries also agree to share technology with less-advanced nations.

**Global Environment Facility**

The Global Environment Facility (GEF) was established on the eve of the 1992 Rio Earth Summit to help tackle our planet’s most pressing environmental problems

Under World bank.

A FINANCIAL MECHANISM for 5 major international environmental conventions:

1. the United Nations Framework Convention on Climate Change (UNFCCC),
2. the United Nations Convention on Biological Diversity (UNCBD),
3. the Stockholm Convention on Persistent Organic Pollutants (POPs),
4. the United Nations Convention to Combat Desertification (UNCCD), and
5. the Minamata Convention on Mercury.

Over the past 25 years, the GEF has supported a range of notable achievements:

1. Creation of more than 3,300 protected areas covering 860 million hectares, an area larger than Brazil.
2. Conservation-friendly management of more than 352 million hectares of productive landscapes and seascapes
3. 790 climate change mitigation projects contributing to 2.7 billion tonnes of GHG emission reductions.

Protocols:

**Kyoto Protocol:**

The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change, which commits its Parties by setting internationally binding emission reduction targets.

Recognizing that developed countries are principally responsible for the current high levels of GHG emissions in the atmosphere as a result of more than 150 years of industrial activity, the Protocol places a heavier burden on developed nations under the principle of "common but differentiated responsibilities."

At COP 3 The Kyoto Protocol was adopted in Kyoto, Japan, on 11 December 1997 and entered into force on 16 February 2005.

Reduction by 5% below 1990 levels

In Doha, Qatar, on 8 December 2012, the "Doha Amendment to the Kyoto Protocol" was adopted. The amendment includes:

1. commitment period from 1 January 2013 to 31 December 2020;
2. A revised list of greenhouse gases (GHG) to be reported on by Parties in the second commitment period;
3. Reduction GHG by developed nation to at least 18% below 1990 level

USA signed but not Ratified. India Ratified

**Cancun Agreement:**

COP 16 2010

a comprehensive package by governments to assist developing nations in dealing with climate ch**ange.**

**The Green Climate Fund, the Technology Mechanism and the Cancun Adaptation Framework are established.Adaptation Fund**

to commit to a maximum temperature rise of 2 degrees Celsius above pre-industrial levels, and to consider lowering that maximum to 1.5 degrees in the near future.

to make fully operational by 2012 a technology mechanism to boost the innovation, development and spread of new climate-friendly technologies;

to establish a Green Climate Fund to provide financing to projects, programmes, policies and other activities in developing countries via thematic funding windows;

on the Cancun Adaptation Framework, which included setting up an Adaptation Committee to promote the implementation of stronger, cohesive action on adaptation

Adaptation fund:est in 2001 launch in 2007:managed by adaptation fund board: in india by NABARD

World Bank serves as trustee of the Adaptation Fund on an interim basis.

**Green Climate Fund:**

The COP in Cancun, Mexico (COP 16), decides to establish GCF

The Green Climate Fund (GCF) is a new global fund created to support the efforts of developing countries to respond to the challenge of climate change.

It was set up by the 194 countries who are parties to the United Nations Framework Convention on Climate Change (UNFCCC) in 2010,

When the Paris Agreement was reached in 2015, the Green Climate Fund was given an important role in serving the agreement and supporting the goal of keeping climate change well below 2 degrees Celsius

**Paris Agreement:**

**At** COP 21 in Paris UNFCCC **The Paris Agreement entered into force on 4 November 2016,** 195 countries.

 22 April 2016 – Earth Day

brings all nations into a common cause to undertake ambitious efforts to combat climate change and adapt to its effects, with enhanced support to assist developing countries to do so.

aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius.

aims to strengthen the ability of countries to deal with the impacts of climate change.

**COP 23**

Held in Bonn 2017, Presided by president of FIJI

Powering Past coal Allaince: by UK and Canada.

**Founding Ceremony** of the International Solar Alliance (ISA) and it came **into force and acquired the status of an international organization** (a treaty-based international intergovernmental)at **Bonn Germany UNFCC COP 23 2017**

**Headquartered** in Gurugram, India

Issues cop 23:

There were two main concerns:

first, developed countries had not yet delivered the promised $100bn per year in climate finance by 2020 agreed in 2009 at Copenhagen; second,

the Doha Amendment, a second commitment period of the Kyoto Protocol for the years leading up to 2020, had still not been ratified by enough countries to bring it into force.

Developing countries, including China and India, were particularly irked that pre-2020 action did not have a formal space on the COP23 negotiation agenda. They insisted space must be made to discuss it, arguing that the meeting of pre-2020 commitments was a key part of building trust in the rest of negotiations.

### Basel Convention

The Basel Convention on the **Control of Transboundary Movements of Hazardous Wastes and their Disposal** was adopted on 22 March 1989

objective of the Basel Convention is to protect human health and the environment against the adverse effects of hazardous wastes

aims:

1. the reduction of hazardous waste generation and the promotion of environmentally sound management of hazardous wastes, wherever the place of disposal;
2. the restriction of transboundary movements of hazardous wastes except where it is perceived to be in accordance with the principles of environmentally sound management; and
3. a regulatory system applying to cases where transboundary movements are permissible

### Stockholm Convention

The Stockholm Convention on Persistent Organic Pollutants was adopted on 22 May 2001 in Stockholm, Sweden entered in force in 2005.

It is a global **treaty to protect human health and the environment from chemicals that remain intact in the environment for long periods,** become widely distributed geographically, accumulate in the fatty tissue of humans and wildlife, and have harmful impacts on human health or on the environment

Exposure to **Persistent Organic Pollutants (POPs)** can lead to serious health effects including certain cancers, birth defects, dysfunctional immune and reproductive systems, greater susceptibility to disease and damages to the central and peripheral nervous systems.

Prohibit and/or eliminate the production and use, as well as the import and export, of the intentionally produced POPs

Initial 12 POPS 3 categories

1. Pesticides: aldrin, chlordane, DDT, dieldrin, endrin, heptachlor, hexachlorobenzene, mirex, toxaphene;
2. Industrial chemicals: hexachlorobenzene, polychlorinated biphenyls (PCBs); and
3. By-products: hexachlorobenzene; polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans (PCDD/PCDF), and PCBs.

Now total 28 POP’s.

Lindane, Pentachlorobenzene etc

Endosulphane latest POP

### Rotterdam Convention

Rotterdam Convention was adopted on 10 September 1998,came into force in 2004

The objectives of the Convention are:

1. to promote shared responsibility and cooperative efforts among Parties **in the international trade of certain hazardous chemicals in order to protect human health and the environment from potential harm;**
2. to contribute to the environmentally sound use of those hazardous chemicals, by facilitating information exchange about their characteristics, by providing for a national decision-making process on their import and export and by disseminating these decisions to Parties.

The Convention creates legally binding obligations for the implementation of the Prior Informed Consent (PIC) procedure

The PIC procedure is a mechanism for formally obtaining and disseminating the decisions of importing Parties as to whether they wish to receive future shipments of those chemicals listed in Annex III of the Convention and for ensuring compliance with these decisions by exporting Parties

Annex III chemical example DDT,ALDRIN,DIELDRIN etc.

**Note: India is signatory to BRS conventions**

### Sustainable Development Goals

**In 2015, the 2030 Agenda for Sustainable Development was adopted under UNEP**

**NITI Aayog is the body entrusted with the task of overseeing implementation of the SDGs in the country**

The 17 Sustainable Development Goals (SDGs) aim

to end poverty,

protect the planet, and

ensure peace and prosperity for all.

It also address the sustainability of natural resources: poverty, health, food and agriculture, water and sanitation, human settlements, energy, climate change, sustainable consumption and production, oceans, and terrestrial ecosystems

Gender Equality, Education Equality, Good life and health, reduced inequalities etc are also part of it



### TRAFFIC

The Wildlife Trade Monitoring Network (TRAFFIC)

* TRAFFIC is a **non-governmental organization** working globally on trade in wild animals and plants in the context of both biodiversity conservation and sustainable development.
* TRAFFIC is a joint programme of **World Wide Fund for Nature (WWF)** and **IUCN**.
* **Traffic is complimentary to Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).**
* The programme was founded in 1976, with headquarters now located in Cambridge, United Kingdom.
* TRAFFIC’s mission is **to ensure that trade in wild plants and animals is not a threat to the conservation of nature**.
* It investigates and analyses wildlife trade trends, patterns, impacts and drivers to provide the leading knowledge base on trade in wild animals and plants.

### Bird Life international

* BirdLife International is the world’s largest nature conservation Partnership.
* Together they are 120 BirdLife Partners worldwide.
* BirdLife International strives to conserve **birds**, their habitats and global biodiversity, working with people towards sustainability in the use of natural resources.
* BirdLife International is the official **Red List** authority for birds, for the International Union for Conservation of Nature.
* It identifies the sites known/referred to as **‘Important Bird and Biodiversity Areas’**.

### IUCN

International Union for conservation of Nature, also known as the World Conservation Union

HQ gland Switzerland

Founded in 1948, france

Consists of both Govt as well as NGO’s organisations

Only organization with Observer status in UNGA.

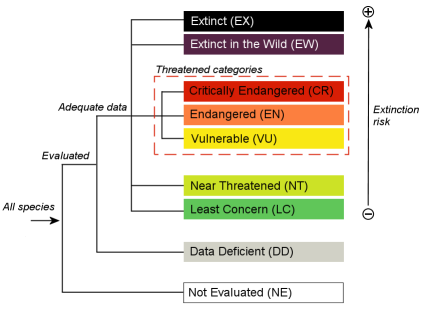
**It is not under UN it is a NGO**

* **(IUCN) is an international organization (NGO) working in the field of nature conservation and sustainable use of natural resources.**

**Red LIST**

The IUCN Red List of Threatened Species™, the IUCN Global Species Programme working with the IUCN Survival Commission (SSC) and with members of IUCN draws on and mobilizes a network of scientists and partner organizations working in almost every country in the world, who collectively hold what is likely the most complete scientific knowledge base on the biology and conservation status of species**.**

Red List Authorities have been established for all major taxonomic groups included on the IUCN Red List.



### Convention on International Trade in Endangered Species Of Wild fauna and Floura(CITES):

**International agreement and brain child of IUCN formed in 1970’s**

Legal binding on “Parties” 183 countries are signatory to the CITES.

HQ=Geneva, Sectriate administered by UNEP

CITES aims to stop illicit trade of wildlife.

All import, export, re-export and introduction from the sea of species covered by the Convention has to be authoriz

ed through a licensing system

How does it work?

CITES has no enforcement authority (i.e. doesn’t have its own police force or militia).

CITES classifies species into three categories Appendix I, II and III and regulates their trade via cooperation of various nations.

Appendix I includes species threatened with extinction. Trade in specimens of these species is permitted only in exceptional circumstances.

Appendix II includes species not necessarily threatened with extinction, but in which trade must be controlled in order to avoid utilization incompatible with their survival.

Appendix III contains species that are protected in at least one country, which has asked other CITES Parties for assistance in controlling the trade

Cites and India:

The Director**, Wild Life Preservation has been designated as the CITES Management Authority for India**.

The enforcement of the provisions of CITES is carried out by **the Regional Deputy Directors, Wild Life Crime Control Bureau(WCCB)**, who have also been designated as the Assistant CITES Management Authority for India

The **Ministry of Environment and Forests has also constituted a CITES Cell on 10th September 2010** to assist the Government of India in CITES implementation

In **2017 India has been awarded a certificate of commendation for its effort to combat illegal wildlife trade by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).**

award was given to WCCB for its efforts in conducting and coordinating a species-specific wildlife enforcement operation, codenamed ‘**Operation Save Kurma’**.

The operation was conducted to combat the proliferating illegal trade of live turtles and its parts from the country to destinations abroad

**OPERATION THUNDERBIRD**

### Convention on the Conservation of Migratory Species of Wild Animals (CMS):

The Convention on Conservation of Migratory **Species (CMS) or Bonn Convention** aims to conserve migratory species throughout their range.

The Convention came into force in 1979. India is a signatory to the convention since 1983.

### International Whaling Commition

The International Whaling Commission (IWC) was set up under the International Commission for the Regulation of Whaling which was signed in Washington on 2nd December 1946.

The purpose of the Convention is to provide for conservation of whale stocks.

The main duty of the International Whaling Commission is to keep under review and revise as necessary the measures laid down in the schedule to the Convention which governs the conduct of whaling throughout the world.

**All the Cetacean species (whales, dolphins, etc.) have been included in Schedule I of the Wild Life (Protection) Act, 1972 thereby giving them the highest degree of protection**.

### World Heritage Convention:

India is a member of World Heritage Convention responsible for listing of World Heritage Sites, which include both Cultural and natural sites.

The World Heritage Convention is a Convention under the aegis of the United Nations Educational, Scientific and Cultural Organization (UNESCO).

Wild Life wing of the Ministry of Environment and Forests is associated with the conservation of the Natural World Heritage sites.

Currently, seven natural World Heritage Sites have been recognized by UNESCO in India, viz.,

1. Nanda Devi National Park(Uttrakhand)- the Valley of Flowers National Park has also been included in the list of World Heritage Sites as an extension of Nanda Devi National Park.
2. Kaziranga National Park (Assam)
3. Manas National Park(a Project Tiger reserve, an elephant reserve and a biosphere reserve in Assam)
4. Keoladeo National Park(Rajasthan)
5. Sundarbans National Park(WB). Apart from these,
6. the Great Himalayan National Park(HP kullu)
7. Western Ghats

Ahemdabad india’s first world heritage city.

Khanghendzonga national park (sikkim) and The Complexe du Capitole in Chandigarh (India), in 2016 got world heritage site tag.

Total 28 cultural UNESCO sites in India

Khanchendzonga:

The property has one of the highest levels of plant and mammal diversity recorded within the Central/High Asian Mountains.

It contains the widest and most extensive zone of **krummholz (stunted forest)** in the Himalayan region

A remarkable six cat species have been confirmed (Leopard, Clouded Leopard, Snow Leopard, Jungle Cat, Golden Cat, Leopard Cat) within the park

Flagship species include Snow Leopard as the largest Himalayan predator, Jackal, Tibetan Wolf, large Indian Civet, Red Panda, Goral, Blue Sheep, Himalayan Tahr, Mainland Serow, two species of Musk Deer, two primates, four species of pika and several rodent species, including the parti-coloured Flying Squirrel.

### The Sendai Framework for Disaster Risk Reduction 2015-2030:

The Sendai Framework is a 15-year, voluntary, non-binding agreement which recognizes that the State has the primary role to reduce disaster risk but that responsibility should be shared with other stakeholders including local government, the private sector and other stakeholders.

**Aim**

The substantial reduction of disaster risk and losses in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries.

The Sendai Framework is the successor to the

**Hyogo Framework for Action (HFA) 2005-2015: Building the Resilience of Nations and Communities to Disasters**.

**UNISDR (UN office for Disaster Risk Reduction)** has been tasked to support the implementation, follow-up and review of the Sendai Framework

**The Seven Global Targets**

* + - * 1. Substantially reduce global disaster mortality by 2030, aiming to lower average per 100,000 global mortality rate in the decade 2020-2030 compared to the period 2005-2015.
        2. Substantially reduce the number of affected people globally by 2030, aiming to lower average global figure per 100,000 in the decade 2020 -2030 compared to the period 2005-2015.
        3. Reduce direct disaster economic loss in relation to global gross domestic product (GDP) by 2030.
        4. Substantially reduce disaster damage to critical infrastructure and disruption of basic services, among them health and educational facilities, including through developing their resilience by 2030.
        5. Substantially increase the number of countries with national and local disaster risk reduction strategies by 2020.
        6. Substantially enhance international cooperation to developing countries through adequate and sustainable support to complement their national actions for implementation of this Framework by 2030.
        7. Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to the people by 2030.

**The Four Priorities for Action**

1. Priority 1. Understanding disaster risk
2. Priority 2. Strengthening disaster risk governance to manage disaster risk
3. Priority 3. Investing in disaster risk reduction for resilience
4. Priority 4. Enhancing disaster preparedness for effective response and to “**Build Back Better**” in recovery, rehabilitation and reconstruction.

A Cancun meet 2017 India became first country in world to have a national and local policy for achieving Sendai Goals.

### UN The Zero Hunger Challenge

was launched by United Nations Secretary-General Ban Ki-moon in 2012.

The Zero Hunger vision reflects five elements from within the SDGs, which taken together, can end hunger, eliminate all forms of malnutrition, and build inclusive and sustainable food systems.

## Forests, National parks , reserves and sanctuary:

**Dudhwa national park Up**

##### Rhino introduced after 34 years of rehabilitation

**Human-animal conflict**

Encroachment in 4 national parks in Assam: Minister These are Kaziranga, Manas, Dibru-Saikhowa and Nameri.

5 elephants killed by train in assam

Debrigarh sanctuary odisha elephants with vilagers stopped by solar fencing

**New species**

**Water striders**

being a good indicator of water quality, water striders also play an important role in the food chain by feeding on mosquito larvae**.**

Ptilomera nagalanda water strider found in Nagaland river

Ptilomera is that they are only found in rocky, fast flowing streams and rivers that are not exposed to a lot of sunligh

river Intanki

Five existing in india These includes Ptilomera agriodes found in peninsular India, Ptilomera assamensis found in northeastern India, Ptilomera laticaudata, northern and northeastern India, Pltilomera occidentalis from Uttarakhand and Ptilomera tigrina found in the Andaman islands

### Loins killed

Gujarat 184 lions (including lionesses and cubs) died in 2016 and 2017, with 32 of them dying of “unnatural” causes

### Krishna Sanctuary:

Famous for **fishing cat🡪iucn vulnerable**

In news recently because 4 species of kingfisher were spotted here

### Kurinjimala Sanctuary:

Kerela, massive flowering of Neelakurinji . Munnar.

The sanctuary is home to threatened species of elephant **and Nilgiri tahr🡪iucn endangered**.

### the Mathikettan Shola National Park in Kerala’s Western Ghats, a global biodiversity hotspot.

### Satkosia tiger reserve

Odisha

Only one pair tiger left here

### National Tiger conservation Authority

Check institution part

### Nation tiger census

Ministry of Environment, Forest and Climate Change

By National Tiger Conservation Authority (NTCA) and scientists from Wildlife Institute of India in collaboration with State Forest Departments, civil society and NGOs

The Tiger Estimation exercise is the world’s largest wildlife survey effort in terms of coverage, intensity of sampling and quantum of camera trapping.

India conducts the All India Tiger Estimation every four years.  Three cycles of the estimation have already been completed in 2006, 2010 and 2014.

The Wildlife (Protection) Act, 1972 was amended in the year 2006.

Since then, the Government has taken several initiatives in the field of tiger conservation.

Tiger conservation was given statutory backing. The newly-created NTCA was mandated to carry out estimation of population of tiger and its natural prey species and assess status of their habitat.

 These estimates showed estimates of 1, 411, 1, 706 and 2, 226 tigers respectively

The Tiger Task Force

Benefits:

details such as the size of tiger population, extent, covariates of prey, co-predators, habitat and human impact.

India’s tiger census, which began late last year, will see coordination with Bhutan, Nepal and Bangladesh in estimating the territorial spread of the animal in the subcontinent **this is the first time all countries are uniting in arriving at tiger numbers, particularly in regions with shared borders.**

**National Tiger Conservation Authority, conducts it 4 years**

Android phone-based application and desktop version of M-STrIPES (Monitoring System for Tigers-Intensive Protection and Ecological Status) for collecting, archiving and analyzing data.

animal sightings with geo-tagged photographs.

the use of android technology, estimates arrived at are likely to be more robust – both in terms of accuracy and precision.

### Decreasing primary forests

Primary forests, which host native vegetation and are still undisturbed by human activities, are declining worldwide.

Globally, more than 40 million hectares of such forest have been converted for other uses since 2000.

A majority of this has been in the tropics, where logging and clearing forests for industrial development are concerns.

Human activities also transform primary forests into agricultural land and secondary forests (disturbed forests which replace logged primary forests).

***Elevation, slope and aspect (the direction a slope faces) influenced land-use patterns.***

### Forest Data

According to the World Wide Fund for Nature, we are losing **130,000 square km of forest cover every day**

India has been trying to achieve **its target of keeping 33 percent of its geographical area under forest cover** for decades,

but the 2017 State of Forest report shows that it is **still struggling to get above 22 percent**.

Nearly 275 million poor people in India (**more than a fifth of the population), especially tribal communities, depend on forests for subsistence and livelihoods.**

**Almost 50 percent of the food requirements of forest dwellers are provided by forests**.

**Examples**

Risks of deforestation and conflict

The new draft policy proposes a Public-Private Partnership model and promotes production forestry to meet the market's growing demand for timber.

**Examples from Latin America, South Asia and Africa point to the conflicts that occur when communities have no rights over resources which are diverted to private corporations**

**government has already signed the UN's Reducing Emissions from Deforestation and Forest Degradation (REDD) programme and**

**enacted Compensatory Afforestation Fund Act 2013 (CAF), which is geared towards aggressive commercial plantation and tapping carbon markets.**

**A forest policy should be a broad vision taking into account the varied political, socioeconomic, and ecological contexts of the country. We cannot return to the colonial-era commercial forestry that will stoke potential conflict through corporate forest grabs. Aligning the needs of the most vulnerable communities, including the tribal peoples, should be the priority. Any exclusionary measure will simply reverse the process, which began in 1988.**

### India State of Forest Report (ISFR) 2017

By  Forest Survey of India, Ministry of Environment, Forest and Climate Change

India ranks among the top ten countries of the world in terms of forest area

India is ranked 10thin the world,

Biennial Survey i.e 2 years

latest assessment shows that there is an increase of 8, 021 sq km (about 80.20 million hectare) in the total forest and tree cover of the country, compared to the previous assessment in 2015

**which is 21.53% of the geographic area of the country.**

Target is to achieve 33%

Categories of forests:

‘very dense forest’— defined as a canopy cover over 70%--> increased🡪2.9%

‘moderately dense forest’🡪decreased—9.3%

‘Scrub’—1.4%

‘Open forest’—9.8%

‘Non Forest’-77%

Andhra Pradesh (2141 sq km), followed by Karnataka (1101 sq km) and Kerala (1043 sq km) have shown the **maximum increase in forest cover**

|  |  |
| --- | --- |
| STATE | AREA |
| MP | 77500 sq km |
| Arunachal |  |
| Chattisgarh |  |

|  |  |
| --- | --- |
| State | %age area |
| Lakshadweep(UT) | 90% |
| Mizoram | 86% |
| Andaman(UT) | 81% |
| Arunachal |  |
| Nagaland |  |
| Meghalaya |  |
| Manipur |  |

## UNEP

### HIGHLIGTHS OF UNEP 2016 REPORT

#### KIGALI AMENDMENT DELIVERS A WIN FOR THE CLIMATE :

In October, nearly 200 countries struck a landmark deal **to reduce the emissions of powerful greenhouse gases, hydrofluorocarbons (HFCs),** in a move that could prevent up to 0.5°C of global warming by the end of this century.

The amendment to the **Montreal Protocol on Substances that Deplete the Ozone Layer,** which is hosted by UN Environment, is the single biggest step the world has taken to limit global warming.

#### PARIS AGREEMENT ON CLIMATE CHANGE

It came into effect after it was ratified by 55 Parties that account for 55 per cent of global greenhouse gas emissions.

This fast-track ratification is a powerful confirmation of countries’ understanding of urgency of the climate change challenge.

Environment is working with countries around the world to help them achieve the Agreement’s ambitious **goal of keeping global warming well below** **2°C.**

World leaders meeting at the G20 Summit in **Hangzhou, China** issued a communiqué recognizing the importance of **scaling up green finance.**

#### Minamata Convention on Mercury

Total 35.

a treaty to protect human health and the environment from the adverse effects of mercury.

adopted later that year on 10 October 2013 at a Diplomatic Conference (Conference of Plenipotentiaries), held in **Kumamoto, Japan**.

a ban on new mercury mines, the phase-out of existing ones,

the phase out and phase down of mercury use in a number of products and processes,

control measures on emissions to air and on releases to land and water, and

the regulation of the informal sector of artisanal and small-scale gold mining.

The Convention also addresses interim storage of mercury and its disposal once it becomes waste, sites contaminated by mercury as well as health issues

India has ratified it in 2017.

India has ratified Minamata mecury convention in 2018

#### UNEA:

The United Nations Environment Assembly is the world’s highest-level decision-making body on the environment.

#### BASEL, ROTTERDAM AND STOCKHOLM CONVENTIONS:

Triple Conference of the Parties

10th anniversary.

#### CONVENTION TO BIODIVERSITY

The Cancun Declaration on Mainstreaming the Conservation and Sustainable Use of Biodiversity for Well-being will enhance the implementation of the Convention and facilitate closer collaboration with related international initiatives.Mexico

The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization, gained 23 new Parties, including Argentina and Antigua and Barbuda.Usa non signatory Japan

Nagoya-Kuala Lumpur Supplementary Protocol on Liability and Redress to the Cartagena Protocol on Biosafety. Just four more ratifications are needed for the supplementary protocol to enter into force.

The Cartagena Protocol have taken measures to integrate socio-economic considerations into decision-making on living modified organisms (LMOs).city in columbia

#### CONVENTIONS ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA

CITES

#### CONVENTION ON THE CONSERVATION OF MIGRATORY SPECIES OF WILD ANIMALS:

**India** signed the Memorandum of Understanding on the Conservation of Migratory Birds of Prey in Africa and Eurasia,

#### MARINE PROTECTED AREA

Marine protected areas (MPA) are protected areas of seas, oceans, estuaries or large lakes. MPAs restrict human activity for a conservation purpose, typically to protect natural or cultural resources.

Antarctica's Ross Sea was finally declared a Marine Protected Area.

The Ross Sea, known as the “Polar Garden of Eden”, is widely considered to be the last great wilderness area on Earth.

#### U4E

U4E is a global effort supporting developing countries and emerging economies to move their markets to energy-efficient appliances and equipment.

Under the leadership of the **United Nations Environment Programme (UNEP**).

Informs policy makers of the potential environmental, financial and economic savings of a transition to high-efficiency products;

Identifies and promotes global best practices in transforming markets;

Offers tailored assistance to governments to develop and implement national and regional strategies and projects to achieve a fast and sustainable market transformation.

#### UN-REDD+:

Reducing emissions from deforestation and forest degradation (REDD+) is a mechanism developed by Parties to the **United Nations Framework Convention on Climate Change (UNFCCC)**.

United Nations 19th Conference of Parties on climate change in Warsaw.

* + It creates a financial value for the carbon stored in forests by offering incentives for developing countries to reduce emissions from forested lands and invest in low-carbon paths to sustainable development.
  + Developing countries would receive results-based payments for results-based actions.
  + REDD+ goes beyond simply deforestation and forest degradation, and includes the role of conservation, sustainable management of forests and enhancement of forest carbon stocks.

## Pollution

### South Asian Cooperative Environment Programme (SACEP)

for cooperation on the response to Oil and Chemical Pollution in the South Asian Seas Region.

to promote closer cooperation between India and other maritime nations comprising the South Asian seas region namely Bangladesh, Maldives, Pakistan and Sri Lanka for protection and preservation of marine environment in the region.

**Indian Coast Guard (ICG) will be the Competent National Authority a**nd national operational contact point for implementation of "Regional Oil Spill Contingency Plan" under the MoU

### Micro factory

World’s first microfactory to help tackle e-waste hazard in AUstralia

e-waste, computer circuit boards can be transformed into valuable metal alloys such as copper and tin while glass and plastic from e-devices can be converted into micromaterials used in industrial grade ceramics and plastic filaments for 3D printing

A microfactory is one or a series of small machines and devices that uses patented technology to perform one or more functions in the reforming of waste products into new and usable resources.

### Coral bleaching

Sun shile made of calcium carbonate to protect corals

Can cut off sunlight of water by 30%

### 3R

8th 3R Regional Forum in Asia and the Pacific in its cleanest city, Indore

addressing the needs and priorities of 3R in Asian countries and sharing best practices from the region, including emergeng concerns in waste management.

**Mission zero waste**

**INDORE 3R DECLARATION by the mayors and city authorities of the participating nations which relevant to vision of sustainable development and achieveing SDG goals.**

**The commitments expressed in the declaration are crucial to promote the principles of 3R . i.e Reduce , Reuse, Recycle and achieveing resource efficiency.**

### Land degradation

Land degradation will unleash a mass migration of at least 50 million people by 2050 — as many as 700 million unless humans stop depleting the life-giving resource, more than hundred scientists warned.

land decay caused by unsustainable farming, mining, pollution, and city expansion is undermining the well-being of some 3.2 billion people — 40% of the global population

The main drivers of land degradation, said the report, were “high-consumption lifestyles” in rich countries, and rising demand for products in developing ones

The problem of land decay threatens food security for all Earth’s citizens, as well as access to clean water and breathable air regulated by the soil and the plants that grow on it.

### Fly ash Issue

Thermal plants

### Air Pollution:

India had the highest share of welfare costs (or a loss of income from labour), of about $220 billion (about ₹1.4 trillion), in South and South-East Asia — of a combined total of $380 billion from mortality due to air pollution, according to a report by the United Nations Environment Programme

#### Air quality index

The National Air Quality Index (AQI) was launched in New Delhi on 17 September 2014 under the Swachh Bharat Abhiyan.

The Central Pollution Control Board along with State Pollution Control Boards has been operating National Air Monitoring Program (NAMP) covering 240 cities of the country having more than 342 monitoring stations.

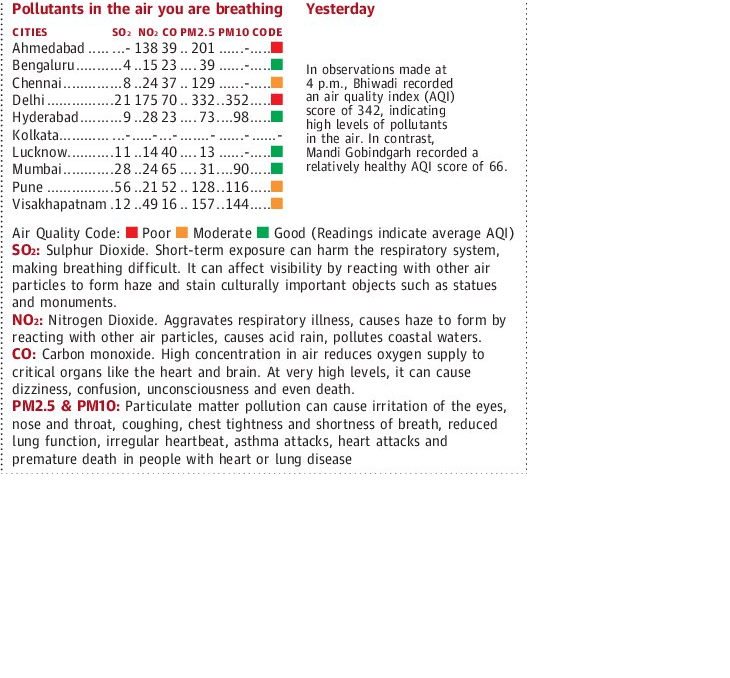
There are six AQI categories, namely Good, Satisfactory, Moderately polluted, Poor, Very Poor, and Severe.

The proposed AQI will consider eight pollutants (PM10, PM2.5, NO2, SO2, CO, O3, NH3, and Pb) for which short-term (up to 24-hourly averaging period) National Ambient Air Quality Standards are prescribed

Associated likely health impacts for different AQI categories and pollutants have also been suggested, with primary inputs from the medical expert members of the group

**0-500 scale 500 being worst**

#### Air Pollutants



### Crop Residue Management

Agriculture Ministry issued an advisory to the state governments to create awareness among the farmers about the harmful effect of straw burning.

1. Facilitate farmers residue management machines and equipment such as Zero Till Seed Drill**, Happy Seeder**, Straw Baler, Rotavator, Paddy Straw Chopper/ Mulcher, Gyro Rake, Straw Reaper, Shredder, etc., to through Custom Hiring Centres or village level **Farm Machinery Banks.**
2. The State Governments have also been **directed that Rs. 4000/ Hectare** shall be used from the funds available for demonstration of machines **under Sub-Mission on Agricultural Mechanization** for demonstration of straw management machinery at farmers’ fields

### Bio Fuels:

first Second Generation (2G) Ethanol Bio-refinery in India is being held on 25th December, 2016 at village Tarkhanwala, Bathinda (Punjab),

Aim:

* + 1. production of Second Generation (2G) Ethanol from agricultural residues to provide additional sources of remuneration to farmers,
    2. address the growing environmental concerns and
    3. support the Ethanol Blended Petrol (EBP) programme for achieving 10% Ethanol Blending in Petrol.

**first step towards achieving 10% blending of Ethanol in petrol**

Benefits:

* + 1. utilizing agriculture residues for production.
    2. The proposed Bio-refinery will generate employment
    3. generate an additional income of approximately Rs 20 crores per annum for the farmers through purchase of their agriculture residues.
    4. The project shall also help in reducing CO2 emissions from the paddy straw which currently is being burnt after harvesting.
    5. outputs of this Bio-refinery shall be Bio-fertilizer which shall be incorporated into the soil for improving soil fertility and overall productivity of farms in Punjab.

### INTERNATIONAL SOLAR ALLIANCE

ISA was jointly launched on 30 November 2015 by Prime Minister of India, Shri Narendra Modi, and then-President of France, H.E. François Hollande, on the side lines of the UNFCCC Conference of Parties 21 (CoP21) at Paris, France

ISA has presently four ongoing programmes:

Scaling Solar Applications for Agricultural Use,

Affordable Finance at Scale,

Scaling Solar Mini Grids and Scaling Solar Rooftop catering to the needs of solar energy in specific areas.

1st treaty based organization having headquartered in India

Consist of 121 solar rich countries lying between tropics and equator.

48 has signed it and it is ratified by 19 countries including India, France, Australia and others.latest is Tavalu

**Founding Ceremony** of the International Solar Alliance (ISA) and it came **into force and acquired the status of an international organization** (a treaty-based international intergovernmental)at **Bonn Germany UNFCC COP 23 2017**

**Headquartered** in Gurugram, India

The ISA is open to 121 prospective member countries, most of them located between the Tropics of Cancer and Capricorn as this is the region worldwide with a surplus of bright sunlight for most of the year

So far, however, only 56 countries have signed the ISA Framework Agreement

**Objectives**:

1. **aims to deploy over 1,000 Gigawatt of solar energy and mobilise more than USD 1,000 billion into solar power by 2030**,
2. facilitating and accelerating the large-scale deployment of solar energy in developing countries in order to meet soaring energy demand and
3. help fight climate change.

ISA’s ongoing programmes:

1. facilitating affordable finance for solar,
2. scaling up solar applications for agriculture, and
3. promoting solar mini-grids in Member Nations.
4. ISA’s Common Risk Mitigation Mechanism (CRMM) project, aimed at de-risking investments into solar energy projects in developing countries, and thereby, encouraging flow of funds into the sector.

### ISA updates

India to provide The $1.4 billion line of credit will cover 27 projects in 15 countries and boost the much-required financial power to the solar sector

ndia will start a solar technology mission with international focus, which will cover all government technical and educational institutions,

a 10-point action plan aimed at making solar power more affordable while raising the share of power generated

India Role:

India will produce 175 GW electricity from renewable sources by 2022 and 100 GW will be from solar energy

Distribution of 28 crore LED bulbs in three years has saved $2 billion and 4 GW of electricity.

### Electric charging project:

NITI Aayog released a proposal to develop electric vehicle charging infrastructure in Delhi.

### Water

Of the 445 rivers monitored by the Central Pollution Control Board, as many as 275 are polluted, a number that has risen steeply from 121 in five years, the premier pollution-monitoring agency found in a survey

The board also found that as many as 150 stretches of India’s rivers have a biological oxygen demand — a key measure of water quality — of over 3 mg per litre. In fact, it was 10 times more than the safe limit on 35 stretches.

However, the concern is mainly restricted to the Ganga, the cleaning of which has been declared a key policy goal.

The plight of the Cauvery is a case in point. The 765 km-long lifeline of Karnataka and Tamil Nadu gets national attention only when conflicts break out every year like clockwork regularity over the sharing of its water between the two states.

The high levels of pollution, mainly due to indiscriminate discharge of effluents from textile, dyeing, cement and chemical industries located along the river’s course, is rapidly making its water unsuitable even for drinking. The Cauvery, it is becoming increasingly clear, is dying. So all that political posturing and fighting over the sharing of its water between Karnataka and Tamil Nadu when it can’t be used for any practical purpose is nothing but a pathetic attempt to score brownie points.

The Cauvery must be saved and the best way to go about it is to raise awareness so that public opinion forces the authorities to act. The river can still be saved but the push must come from the people. If the river is worth fighting over, surely it’s worth cleaning up.

Recently 56 cows in Andhra died, eating jowar in draught conditions due to presence of **hydrocyanic acid which is secreted by the secondary shoots of the plant. The acid is poisonous and is secreted in plants when there is water stress**

## IUCN

The categories are:

1. EXTINCT — the last individual in the species has died.
2. EXTINCT IN THE WILD — it now lives only in captivity and not in its natural habitat.
3. CRITICALLY ENDANGERED — facing an extremely high risk of extinction in the wild.
4. ENDANGERED — facing a very high risk of extinction in the wild.
5. VULNERABLE — facing a high risk of extinction in the wild.
6. NEAR THREATENED — likely to qualify for a threatened category in the near future.
7. LEAST CONCERN — it is widespread and abundant in the wild.
8. DATA DEFICIENT — inadequate information.
9. NOT EVALUATED — not yet been evaluated against the criteria.

### Latest Updates:

Conservation story

eastern quoll — a furry carnivore about the size of a domestic cat — disappeared from the mainland in the 1960s, but clung on in the island state of Tasmania

after a 15-year project to bring feral predators in one area under control

India became a State Member of IUCN in 1969, through the Ministry of Environment, Forest and Climate Change (MoEFCC)

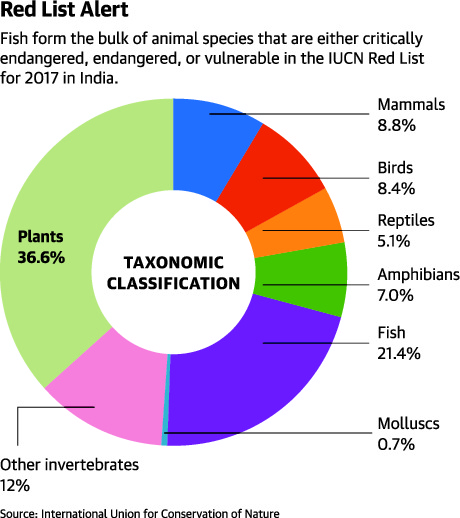
Project mike

international project to check illegal killing of elephants

Bangladeh;Bhutan;India;Nepal;srilaka

MIKE was established through a Conference of the Parties (COP) resolution to CITES

India data 2017



1. Blue-tailed Skink (Cryptoblepharus egeriae) of Christmas Island, Australia has gone extinct in the wild.
2. Irrawaddy Dolphin (Orcaella brevirostris) has moved from **vulnerable to endangered category**. In the Mekong River, the majority of Irrawaddy Dolphin deaths in recent years have been caused by entanglement in gillnets ̶ ‘curtains’ of fishing net that hang in the water.The Irrawaddy dolphin (aka the Mekong or Mahakam River dolphin) can be found swimming in parts of the Bay of Bengal, Southeast Asia, Philippines and Papua New Guinea.The Irrawaddy dolphin gets its name from the river that it is found swimming in, “the Irrawaddy river” in Myanmar**. it is also found in India’s Ganges, and Southeast Asia’s Mekong River. India Chilika lake lagoon in oddisha**
3. Success:
   1. Rodrigues Flying Fox (Pteropus rodricensis) improved enough to move the species into a less threatened category in 2017; it moved from Critically Endangered to Endangered (EN).
4. Lister’s Gecko (Lepidodactylus listeri) native to Australia has gone extinct in the wild
5. Narcondam Hornbill endangered bird of Andaman Nicobar island
   1. Others in Andaman and nicobar:the leatherback turtle, hawksbill turtle, green sea turtle and Olive Ridley turtle. All of these have been declared endangered by the iucn.
   2. Anadaman State biodiversity:
   3. State bird Andaman wood pigeon.
   4. State Animal **Dugong-sea cow endemic to AN,Endangered.Only found in AN,Gulf of Mannar,Gulf of kutch,Palky bay areas**
   5. **State tree Andaman Padauk.**
6. Nilgiri marten vulnerable :endemic in western ghats,kerela and TNadu
7. Three Species of EEL discovered in BOB newar Visakhapatnam
   1. Now it has 5 species living in BOB area
8. “Romeo” Sehuencas water frog only single left,last of it’s species
   1. max life 15 years
   2. in Bolivia
   3. he could follow the route of “**Lonesome George**”, a Galapagos tortoise that died in 2012, taking his entire subspecies with him.
9. world’s last male northern white rhino declines in Kenya
   1. Sudan became “The Most Eligible Bachelor in the World” on Tinder dating app last year in a fundraising effort.
10. Musk deer:
    1. Kasturi is procured from the gland of the endangered musk deer and law prohibits killing of the animal.
11. The Aldabra atoll in Seychelles, a UNESCO World Heritage Site, is home to the **world’s largest population of giant tortoises, critically endangered sea cows** and spawning grounds for a number of rare species
12. CHIRU farming rejected by ministry of environment:
    1. **chiru wool was the same as shahtoosh chiru Near threatened Tibetan antelope antelope**
13. The Great Hornbill is a near threatened species, and is on the IUCN red list
    1. Unique to western ghats
14. Drypetes kalamii,critically endangered plant by IUCN named after abdul kamal ,a plant found tin west bengal
15. Himalayan Griffin, endangered vulture(Gyps himalayensis)
    1. 30 died in poison due to eating goat caracas
    2. Linked with usage of diclofenac in animals which should be banned
    3. Blow to conservation programme
16. Goliath grouper fish
    1. Also known as jewfish
    2. discovered in vishakapatnam
    3. considered the keystone species of an ecosystem. The fish is entirely protected from harvest in the U.S. and is recognised as a critically endangered species by the IUCN (International Union for Conservation of Nature).

## India Environment

### Wetland Rules 2017:

Role:

whereas many wetlands are threatened by reclamation and degradation through drainage and landfill, pollution (discharge of domestic and industrial effluents, disposal of solid wastes), hydrological alteration (water withdrawal and changes in inflow and outflow), over-exploitation of their natural resources resulting in loss of biodiversity and disruption in ecosystem services provided by wetland

article 51A of the Constitution stipulates that it shall be the duty of every citizen of India to protect and improve the natural environment including forests, lakes, rivers and wildlife a

Application

Rules apply to :

wetlands categorised as 'wetlands of international importance' under the Ramsar Convention; (b) wetlands as notified by the Central Government, State Government and Union Territory Administration

**National Wetlands Committee** replaces central wetlands authority

**Secretary, Ministry of Environment, Forest and Climate Change, Government of India - Chairperson;**

The Committee shall meet at least once in every six months.

**Functions**

advise the Central Government on appropriate policies

monitor implementation of these rules by the Authority

recommend designation of wetlands of international importance under Ramsar Convention;

recommend trans-boundary wetlands for notification;

Based on the Brief Document(prepared by UT or state authority), the National Wetlands Committee shall make recommendations to the Central Government for notification of the wetland.

Central Government shall create a dedicated web portal for information relating to wetlands

**State Wetlands Authority** in each State and union territories that will be headed by the

State’s environment minister and include a range of government officials.

wetlands shall be conserved and managed in accordance with the principle of 'wise use' as determined by the Wetlands Authority

**The Authority shall meet at least thrice in a year.**

non-official members of the Authority nominated by State Government or Union Territory Administration, shall be for a period not exceeding three years

**Setting up technical committee and grevience committee in states and ut which will meet once in every quarter**

**Union Territory Wetlands Authority** for each Union Territory headed by administrator of UT

They will also include one expert each in the fields of wetland ecology, hydrology, fisheries, landscape planning and socioeconomics to be nominated by the state government

**Functions**:

State authorities will also need to prepare a list of all wetlands of **the State or union territory within three months,**

**a list of wetlands to be notified within six months**,

a comprehensive digital inventory of all wetlands within one year which will **be updated every ten years**

### Environmental Performance Index

Across 24 indicators

0 worst performance

100 best performance

Objectives

Environment health and

Measures threats to human health in environment

ecosystem vitality

Measures natural resources and ecosystem services

24 indicators are grouped within 10 issue categories:

1. Air Quality,
2. Water & Sanitation,
3. Heavy Metals,
4. Biodiversity & Habitat,
5. Forests,
6. Fisheries,
7. Climate & Energy,
8. Air Pollution,
9. Water Resources, and
10. Agriculture.

Airquality

Includes PM2.5 and

Fine PM is defined as 2.5 microns or less in diameter (PM2.5). PM2.5 is small enough to lodge into human lungs and has the potential to cause serious heart and lung disease

household solid fuels

Household air pollution (HAP) occurs from the incomplete combustion of solid fuels, which is predominantly from biomass burning, such as wood, crop wastes, charcoal, coal, and dung, in households

Top five France (83.95), Denmark (81.60), Malta (80.9), and Sweden (80.51)

Environmental Health,

Denmark, Malta, and Sweden on air quality

Ecosystem vitality

France, Denmark, and Malta in biodiversity and habitat

Bottom of the list

Nepal (31.44), India (30.57), the Democratic Republic of the Congo (30.41), Bangladesh (29.56), and Burundi (27.43).

Air quality

Nepal ,Bangladesh, India (Air Quality score of 5.75), China (14.39), and Pakistan (15.69)

Under developing economies

China and India rank 120th and 177th respectively,

Brazil 69th and south Africa 149th

Japan (20th), Taiwan, (23rd), and Singapore (49th) emerge as regional leaders in asia

2018 The report was released on the sidelines of the ongoing World Economic Forum in Davos

Overall, India (at 177) and Bangladesh (179) come in near the bottom of the rankings, with Burundi, Democratic Republic of the Congo and Nepal rounding out the bottom five

India is at the bottom of the list in the environmental health category, it ranks 178 out of 180

**The Clean Cooking Forum**

was a landmark, biennial gathering of people working to accelerate the production, deployment, and use of cleaner, more efficient cookstoves and fuels.

The Japanese and the Chinese trace the origins of their popular martial arts, karate and kung-fu, to India

### Bhungroo:

System developed in Gujrat SHG for recharging ground water and reduce waterlogging in fields.

Wide cemented pit with a deep 80m pipe extended into ground.

Once installed, bhungroo can harvest rainwater for up to 25 years

### Solar Mission:

National Solar Mission, revised the target for setting up solar capacity from 20 GW to 100 GW by 2021-22

efforts of six thousands people of Akola, Prime minister said they are continuing campaign to clean Morna river in Maharashtra

## Climate change

### Impact of global warming

* 1. Latest study
     1. Even if humanity stops global warming in its tracks at two degress Celsius, long seen as the guardrail for a climate-safe world, Arctic sea ice will still disappear in some years,
  2. Distribution of plant species on mountains tend to move uphill due to global warming. A study of the European Alps shows that the abundance of plants from lower regions increases as they shift uphill as compared to their higher-elevation counterparts, showing the latter could eventually lose ou
  3. With one degrees of warming so far, Earth has already seen a crescendo of droughts, heatwaves, and storms ramped up by rising seas
  4. snow reflecting the Sun’s radiation back into space are replaced with dark blue ocean that absorbs it instead.
  5. After remaining flat for three years, global CO2 emissions in 2017 went up by 1.4%, dashing hopes that they had peaked, the International Energy Agency

### Global Adaptation Fund,

an international fund managed by the United Nations climate secretariat to help developing countries with climate change adaptation projects

National Action Plan on Climate Change(NAPCC)

Ministry of Environment and Climate change

The Prime Minister’s Council on Climate Change is in charge of the overall implementation of the plan

It says these national measures would be more successful with assistance from developed countries, and pledges that India’s per capita greenhouse gas emissions “will at no point exceed that of developed countries even as we pursue our development objectives.”

The guiding principles of the plan are:

* + - * 1. Inclusive and sustainable development strategy to protect the poor
        2. Qualitative change in the method through which the national growth objectives will be achieved i.e. by enhancing ecological sustainability leading to further mitigation
        3. Cost effective strategies for end use demand side management
        4. Deployment of appropriate technologies for extensive and accelerated adaptation, and mitigation of green house gases
        5. Innovative market, regulatory and voluntary mechanisms to promote Sustainable Development
        6. Implementation through linkages with civil society, local governments and public-private partnerships
        7. International cooperation, transfer of technology and funding

includes eight national missions being implemented by various Ministries in specific areas of

Solar Energy,

National Solar Mission:

to promote the development and use of solar energy for power generation and other uses with the ultimate objective of making solar competitive with fossil-based energy options

Specific goals for increasing use of solar thermal technologies in urban areas, industry, and commercial establishments

increasing production of photo-voltaic to 1000 MW/year; and

a goal of deploying at least 1000 MW of solar thermal power generation.

establishment of a solar research centre,

increased international collaboration on technology development, strengthening of domestic manufacturing capacity, and increased government funding and international support

National Mission for Enhanced Energy Efficiency,

Building on the Energy Conservation Act 2001,

Mandating specific energy consumption decreases in large energy-consuming industries

a system for companies to trade energy-savings certificates; Energy incentives, including reduced taxes on energy-efficient appliances;

Financing for public-private partnerships to reduce energy consumption through demand-side management programs in the municipal, buildings and agricultural sectors.

National Mission for Sustainable Habitat,

To promote energy efficiency as a core component of urban planning,

Extending the existing Energy Conservation Building Code;

A greater emphasis on urban waste management and recycling, including power production from waste; Strengthening the enforcement of automotive fuel economy standards and using pricing measures to encourage the purchase of efficient vehicles; and

Incentives for the use of public transportation.

National Mission for Water,

a goal of a 20% improvement in water use efficiency through pricing and other measures

National Mission for Sustaining the Himalayan Ecosystem,

to conserve biodiversity, forest cover, and other ecological values in the Himalayan region, where glaciers that are a major source of India’s water supply are projected to recede as a result of global warming.

National Mission for Green India,

the afforestation of 6 million hectares of degraded forest lands and

expanding forest cover from 23% to 33% of India’s territory

National Mission for Sustainable Agriculture

to support climate adaptation in agriculture through the development of climate-resilient crops, expansion of weather insurance mechanisms, and agricultural practices.

National Mission for Strategic knowledge for Climate Change

To gain a better understanding of climate science, impacts and challenges,

the plan envisions **a new Climate Science Research Fund,**

improved climate modeling, and increased international collaboration.

It also encourages private sector initiatives to develop adaptation and mitigation technologies through venture capital funds

State Action Plans on Climate Change (SAPCC) consistent with the objectives of NAPCC

Other steps

One Million Solar Study Lamps Scheme

distribution of 70 lakh solar study lamps in the states of Assam, Bihar, Jharkhand,Odisha and Uttar Pradesh

a separate skill development programme “**Surya Mitra**” for imparting training in the field of solar energy for installation and repair and maintenance of solar power systems.

National adaptation Fund to implement adaptation actions in vulnerable sectors across the country.

India announced its voluntary goal to reduce **the emission intensity of its Gross Domestic Product (GDP) by 20-25 per cent from 2005 levels by 2020** and is on target to achieve them under (UNFCCC)

India has achieved 12% reduction in emission intensity between 2005 and 2010

Under Paris agreement

**Nationally Determined Contribution (NDC)** to the UNFCCC outlining eight targets for 2021-2030, including

to reduce **Emission Intensity of its Gross Domestic Product (GDP) by 33 to 35 percent by 2030 from 2005 level,**

**to achieve about 40 percent cumulative electric power installed capacity from non-fossil fuel** based energy resources by 2030 with the help of transfer of technology and low cost international finance including from Green Climate Fund (GCF),

to create **an additional carbon sink of 2.5 to 3 billion tonnes of CO2** equivalent through additional forest and tree cover by 2030.

sustainable lifestyles;

climate friendly growth path;

climate change adaptation;

climate change finance;

capacity building and technology.

# International and National reports

### ILO REPORTS

**Human Trafficking:**

Global estimates of modern slavery: forced labour and forced marriage’,

a collaborative effort of the International Labour Organisation (ILO),

the Walk Free Foundation, and the International Organisation for Migration

 61.78% of the “modern slaves” were in Asia and the Pacific

report forms the baseline for achieving Sustainable Development Goal 8.7 (eradicate forced labour, end modern slavery and human trafficking, and end child labour by 2025)

# ECONOMICS

## Monetary Policies

International

U.S. Federal Reserve raises key interest rate by a quarter-point

Step shows confidence that nation’s economy remains sturdy nine years after the Great Recession ended

The actions mean consumers and businesses will face higher loan rates over time.

Indian

RBI

* + - all payment system operators’ data must be stored only within the country.
    - GDP calculation
      * Dumps GVA methodology
      * switched back to the gross domestic product (GDP)-based measure to offer its growth estimates from the gross value added (GVA) methodology, citing global best practices
      * GVA gives a picture of the state of economic activity from the producers’ side or supply side,
      * the GDP model gives the picture from the consumers’ side or demand perspective
      * Globally, the performance of most economies is gauged in terms of gross domestic product (GDP).

M-policy

The Reserve Bank of India (RBI) kept interest rates unchanged in the first policy meeting of 2018-19

repo rate at 6%,

projection retail inflation for the first half of the current financial year **to 4.7-5.1% from 5.1-5.6%**

PMI

India’s manufacturing sector activity fell to a five-month low in March

Nikkei India Manufacturing Purchasing Managers Index (PMI) fell from 52.1 in February to a five-month low of 51.0

FD

fiscal deficit for April-February was 120% of the revised estimates on account of increased expenditure and subdued revenue receipts

Bonds Rally

Bonds, bank stocks rally in relief after **Centre plans lower borrowing next fiscal**

Foreign buying bonds india

inflation-indexed bonds linked to the CPI or retail inflation. Also, government securities of 1-4 years duration would be introduced.it will lead to Ease in bond yields

USA Rising interest rates narrow the yield differentials leading to foreign investors backing out of the economy as emerging markets continue to lose favour.

Chief among those concerns is **inflation**, which has stayed above the Reserve Bank of India’s 4% target for five consecutive months, feeding fears the central bank could raise its policy rate as early as this year.

Rising energy prices are widening India’s trade and current account deficits, while the government has also loosened its fiscal deficit targets to finance increased spending ahead of general elections due by 2019.

Danger of them turning to net sellers.

March 2018

IIP quickens to 7.5%, inflation softens(Base year 2011-12)

Manufacturing, electricity, capital goods drive industrial activity;

4.4% inflation at four-month low

Recovery of economy

**Trends**

1. Coal production (weight: 10.33 per cent) increased by 1.4 per cent in February, 2018 over February, 2017.
2. Crude Oil production (weight: 8.98 per cent) declined by 2.4 per cent in February, 2018 over February, 2017
3. The Natural Gas production (weight: 6.88 per cent) declined by 1.5 per cent in February, 2018 over February, 2017
4. Petroleum Refinery production (weight: 28.04 per cent) increased by 7.8 per cent in February, 2018 over February, 2017
5. Fertilizers production (weight: 2.63 per cent) increased by 5.3 per cent in February, 2018 over February, 2017.
6. Steel production (weight: 17.92 per cent) increased by 5.0 per cent in February,
7. Cement production (weight: 5.37 per cent) increased by 22.9 per cent in February, 2018 over February, 2017.
8. Electricity generation (weight: 19.85 per cent) increased by 4.0 per cent in February, 2018 over February, 2017.

RBI

RBI fixes cap of 1 year for trade finance instruments(All banking instruments)

tightened the guidelines for hedging commodity price risks and freight risks in overseas markets

## GDP and National incomes

India’s share in global GDP

Increasing since 2014

Now at 3.1%

*IMF’s World Economic Outlook October 2017 Database*

Revised estimates

GDP 6.6

GVA 6.4%

The ‘agriculture, forestry and fishing’ sector is likely to show a growth rate of 3.0 percent in its GVA during 2017-18, as against the previous year’s growth rate of 6.3 percent

Based on

The approach for compiling the advance estimates is based on benchmark-indicator method.

The Sector-wise estimates are obtained by extrapolation of indicators like

Index of Industrial Production of first 9 months of the financial year,

(ii) financial performance of listed companies in the private corporate sector available upto quarter ending December, 2017

Second advance estimates of crop production,

accounts of Central & State Governments, information on indicators like deposits & credits, passenger and freight earnings of railways, passengers and cargo handled by civil aviation, cargo handled at major sea ports, sales of commercial vehicles etc. available for first 9/10 months of the financial year

## Corporate Governance

Sebi updated rules accepting Kotak committee recommendations

40 recommendations accepted as it is and 15 with changes

Some of the rules are:

1. to reduce the maximum number of directorships to seven from 10 in a phased manner
   1. appointment of at least one independent woman director and
   2. time limit for holding annual general meetings
2. expansion of eligibility creteria
3. roles of the audit committee along with those of the nomination and remuneration committee and the risk management committee at companies.
4. Listed companies would also be required to make enhanced disclosures related to related party transactions and subsidiaries(so regulation are for both listed and non listed companies
5. steps to strengthen the guidelines for algorithmic trading, including stock exchanges providing tick-by-tick data feed free-of-cost to trading members
6. mutual funds (MFs),
   1. the regulator has reduced the cap for expenses charged for each scheme.
   2. The maximum limit has been reduced from 20 basis points of the daily net asset value of the schemes to 5 basis points, which would benefit the investors in the form of marginally higher net asset value (NAV) of the scheme
   3. NAV is simply the price per share of the fund,buy mutual fund at NAV

## APA

An advance pricing agreement1(APA) is a contract, usually for multiple years, between a taxpayer and at least one tax authority specifying the pricing method that the taxpayer will apply to its related-company transactions. These programmes are designed to help taxpayers voluntarily resolve actual or potential transfer pricing disputes in a proactive, cooperative manner, as an alternative to the traditional examination process.

## Stocks and Indices

European Stock market

Indices:STOXX 600;STOXX 50

USA:

NYSE;NASDAQ

Indices: DOW JONES or DOW JONES 30;S&P500

JAPAN

Indices: Nikei

Nikkei India Services Business Activity Index 0-100(>50 expansion);india’s current is in contraction phase

Nikkei PMI 0-100 (>50 expansion)

The Nikkei India Manufacturing PMI is composite index based on five individual indices with their own weightages —

1. new orders (weightage 0.3),
2. output (0.25),
3. employment (0.2),
4. suppliers’ delivery times (0.15),
5. stock of items purchased (0.1)

One important advantage the PMI has over the IIP is how quickly the data for any reporting period comes out.

The IIP, however, comes out after considerable delay. The data for a given month comes out almost one and a half months later

Hong Kong:

Indices: Hang Seng

## Banking

### SEBI

plans to introduce new corporate governance norms as proposed by the Kotak Committee, in a phased manner for listed entities,

with only the bigger companies required to comply in the initial phase

as opposed to all the listed companies

Kotak committee proposals

the panel proposed that audit committees should monitor the flow of funds to unlisted subsidiaries, including those established overseas, and that listed entities should put in place proper regulatory framework while sharing unpublished price-sensitive information with promoters or any other significant shareholders.

that listed companies should be required to have at least six directors on the board with a minimum of 50% representation of independent directors, including one woman director.

### PNB fraud

20:80 gold import scheme

Opened to private sector in 2014

Reason for PNB fraud

scheme was designed to restrict the import of gold, conserve foreign exchange by imposing export obligations

Now stands abolished since 2015 due to 320 % surge in gold imports

the letter of undertaking (LoU). This is a bank guarantee that enables a bank’s customer to raise short-term credit from another Indian bank’s foreign branch

It was created by the RBI as an additional incentive to importers who could then avail of cheaper credit abroad, even though import credits already exist.

**RBI Ban on LoUs — used in trade finance — was hurting genuine importers as their borrowing costs had increased**

CVC bats for more robust auditing system,

“no apparent audit” by the central bank during the period of the scam.

### PSL

foreign banks to mandatorily create sub-targets so that they lend a portion of their loans to small and marginal farmers as well as micro enterprises, from April.

With more than 20 branches

foreign banks to eventually lend 40% of their total loan book to priority sector areas, such as agriculture, from April 2020

Biased law not a solution

In the eyes of the lenders, the borrowers who were protected by biased courts became high-risk individuals who were more likely to default. The lenders had very little legal protection to recover their dues.

So, in response, they cut down their lending to these groups, which in turn caused interest rates to rise

### National Financial Reporting Authority (NFRA)

National Financial Reporting Authority (NFRA)

### Electoral bearer bonds

The Government of India has notified the Electoral Bond Scheme 2018

Electoral Bonds may be purchased by a person, **who is a citizen of India or incorporated or established in India.**

A person being an individual can buy Electoral Bonds, either singly or jointly with other individuals.

Only the Political Parties registered under section 29A of the Representation of the People Act, 1951 (43 of 1951) and

which **secured not less than one per cent of the votes polled in the last general election to the House of the People or the Legislative Assembly of the State, shall be eligible to receive the Electoral Bonds.**

The Bond shall be encashed by an eligible political party only through a bank account with the authorized bank.

**State Bank of India (SBI)** has been authorised to issue and encash Electoral Bonds initially

Electoral **Bond shall be valid for 15 days from the date of issue and no payment shall be made to any payee Political Party if the Bond is deposited after expiry of the validity period**

### Nostro Account:

Banks’s overseas account in another bank

### E wallets:

RBI had directed all mobile-wallet operators, to make all accounts fully KYC-compliant.

### NBFC

A list of 9,491 “high risk financial institutions” has been published by **the Financial Intelligence Unit (FIU)** that functions under the Union Finance

### SBI LOSS:

For the first time in almost 19 years, the State Bank of India reported a quarterly loss

the loss was the result of both a massive increase in provisions to account for bad loans and a substantial amount of mark-to-market losses on its holding of government bonds

Provisions for non-performing assets (NPAs) more than doubled

On treasury operations, SBI recorded a loss

write-offs recognising losses may be the most honest and practical way to deal with the bad loans problem

the problem of lax corporate governance, which has plagued public sector banks and contributed in no small measure to the present crisis still remains largely unaddressed by the government.

The bad loans problem is likely to remain a festering sore and risks undermining the health of the economy until meaningful structural reforms to the banking system are undertaken.

### European Bank of Reconstruction and Development:

India's Membership for European Bank for Reconstruction & Development (EBRD) in 2017

**The minimum initial investment towards the membership of EBRD will be approximately €1 (one) million.** However, this assumption is based on India deciding to buy the minimum number of shares (100) required for obtaining the membership. If India were to buy a higher number of Bank shares, the financial implications could be higher.

Reasons:

India should expand its presence on the global developmental landscape beyond its association with the Multi-lateral Development Banks (MDBs) such as the World Bank, Asian Development Bank and African Development Bank.

The decision to join the Asian Infrastructure Investment Bank (AIIB) and the New Development Bank (NDB) was taken earlier in this backdrop.

Impact:

1. **India's investment opportunities would get a boost.**
2. It would increase the scope of cooperation between India and EBRD through co-financing opportunities in manufacturing, services, Information Technology, and Energy.
3. **EBRD's core operations pertain to private sector development in their countries of operation**. **The membership would help India leverage the technical assistance and sectoral knowledge of the bank for the benefit of development of private sector.**
4. For Indian firms Access to international markets in terms of business opportunities, procurement activities, consultancy assignments etc.
5. This would open up new vistas for Indian professionals on the one hand, and give a fillip to Indian exports on the other.
6. Increased economic activities would have the employment generating potential.

### Branchless banking:

Basic banking services are provided without having to open an physical expensive branch. Each identified person is given a Smart Card which is akin to e-wallet.

Example:DBS Bank launched a ‘mobile-only bank’ in India. The ‘digibank’ uses technologies, such as biometrics and artificial intelligence, to enable paperless, signature-less and **branchless bank**.The bank will leverage biometrics-enabled ID and Aadhaar card to ensure that that there is no paperwork. It will provide customer service via a 24x7 artificial intelligence-driven virtual assistant, which understands natural language and has learning ability, so that it is able to respond in real-time.

### Payments Bank

Latest news:

RBi rule: payments banks have to complete KYC verification independently through third parties.

**Objectives**:

The objectives of setting up of payments banks will be to further financial inclusion by providing

small savings accounts and

payments/remittance services to migrant labour workforce, low income households, small businesses, other unorganised sector entities and other

**Eligibility**

* + - * 1. usersPre-paid Payment Instrument (PPI) issuers; and other entities such as individuals / professionals;
        2. Non-Banking Finance Companies (NBFCs), corporate Business Correspondents(BCs),
        3. mobile telephone companies, super-market chains, companies,
        4. real sector cooperatives; that are owned and controlled by residents; and
        5. public sector entities may apply to set up payments banks

**Scope of work**

* + - * 1. Acceptance of demand deposits. Payments bank will initially be restricted to holding a maximum balance of Rs. 100,000 per individual customer.
        2. Issuance of ATM/debit cards. **Payments banks, however, cannot issue credit cards**.
        3. Payments and remittance services through various channels.
        4. BC of another bank, subject to the Reserve Bank guidelines on BCs.
        5. Distribution **of non-risk sharing simple financial products like mutual fund units and insurance products**, etc.
        6. FDI according to rules specified by RBI

**Benefits**

* + - * 1. he payments bank is like normal banks, they perform almost all banking operation but doesn't engage in any credit providing service and
        2. functions on a rather smaller business scale compared with other banks
        3. payments banks cannot lend they can only take deposits or accept payments and remittances
        4. they can only accept deposits of up to Rs 1 lakh per customer in a savings/current account
        5. benefit of PBs is their wide distribution network since the model allows retail outlets, fuel stations, post offices, dairy milk collection centres and everything in between to double as a mini bank branch.
        6. Best for cashless transactions
        7. Short time period for account openeing

Paytm Payment Bank.

Airtel Payment Bank.

India Post Payment Bank.

Fino Payment Bank

Both Payments bank and small finance banks are private sector banks with paid up capital of 100cr

### Small finance banks

It may be recalled that the Committee on Financial Sector Reforms (Chairman: Dr. Raghuram G. Rajan), 2009 had examined the relevance of small banks in the Indian context

Banks with a small finance bank license can provide basic banking service of acceptance of deposits and lending.

The minimum paid-up equity capital for small finance banks shall be Rs. 100 crore.

The foreign shareholding in the small finance bank would be as per the Foreign Direct Investment (FDI) policy for private sector banks as amended from time to time.

**Objectives**:

The objectives of setting up of small finance banks will be to further financial inclusion by

* + - * 1. provision of savings vehicles, and
        2. supply of credit to small business units; small and marginal farmers; micro and small industries; and other unorganised sector entities, through high technology-low cost operations.

**Scope**

* + - * 1. The small finance bank shall primarily undertake basic banking activities of acceptance of deposits and lending to unserved and underserved sections including small business units, small and marginal farmers, micro and small industries and unorganised sector entities.
        2. There will not be any restriction in the area of operations of small finance banks

**Eligibility**:

* + - * 1. Resident individuals/professionals with 10 years of experience in banking and finance;
        2. companies and societies owned and controlled by residents will be eligible to set up small finance banks.
        3. Existing Non-Banking Finance Companies (NBFCs), Micro Finance Institutions (MFIs), and Local Area Banks (LABs) that are owned and controlled by residents can also opt for conversion into small finance banks.

**Loan Responsibility**

* + - * 1. The small finance banks will be required to extend 75 per cent of its Adjusted Net Bank Credit (ANBC) to the sectors eligible for classification as priority sector lending (PSL) by the Reserve Bank.
        2. At least 50 per cent of its loan portfolio should constitute loans and advances of upto Rs. 25 lakh

### Bank frauds

### NPA

RBI had asked banks to initiate insolvency proceedings for **accounts if the stress was not resolved in 180 days**

the Reserve Bank of India (RBI) had scrapped all loan restructuring programmes in February

result will be more NPA will be generated

More than 50,000 MW of stressed power projects, worth more than ₹2.5 lakh crore, with bank exposure of more than ₹1.75 lakh crore, are likely to face bankruptcy proceedings

Centre’s decision to write off the non-performing assets (NPAs) of public sector banks to the tune of ₹2,41,911 crore “unbelievable.”

Centre’s refusal to disclose “credit information”

**Government has announced and initiated recapitalisation of PSBs to the tune of Rs. 2,11,000 crore, over the current and the next financial years**

**AXIS first loss quarter due to NPA**

## Direct Taxes

### BEPS(Base Erosion and Profit Shifting):

1. Agreement between India and Qatar for the avoidance of double taxationand for the prevention of fiscal evasion with respect to taxes on income
2. **Agreement between India and the Hong Kong Special Administrative Region (HKSAR)** of China for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with respect to taxes on income.
   1. stimulate flow of investment, technology and personnel from India to HKSAR & vice versa,
   2. prevent double taxation and provide for exchange of information between the two Contracting Parties.
   3. It will improve transparency in tax matters and **will help curb tax evasion and tax avoidance**.
3. CBDT to allow mutual agreement procedures (MAPs) and advance pricing agreements (APAs) with all countries, abandoning a stance that disallowed such agreements with major trade partners like France, Germany, Italy, Singapore and South Korea.
   1. MAP is a procedure which allows the Competent Authorities or designated representatives of the Competent Authorities from the governments of the Contracting States/Parties to interact with the **intent to resolve international tax disputes** .Mostly common **for avoiding DOULBLE TAXATION**.
   2. **An advance pricing agreement (APA)** is an ahead-of-time agreement between a taxpayer and a tax authority on an appropriate transfer pricing methodology (TPM) for a set of transactions at issue over a fixed period of time
   3. The concept of **Advanced Pricing Agreement (APA)** was introduced in India via the Finance Act 2012
   4. The sole objective of the APA is to bring tax certainty in international transactions and overcome the issues due to transfer pricing between related parties.

## INDIAN TRADE

### Indo China trade

The India-China bilateral trade has reached $84.44 billion last year, a historic high, notwithstanding bilateral tensions over a host of issues, including the Doklam standoff.

‘40% rise in exports’ 40% increase of Indian exports to China

### Annual Report 16-17:

By ministry of commerce and industry, Department of commerce

World Trade :

Trend:

Since the onset of global financial crisis, global economy is still struggling to revive and grow at a healthy rate. A large number of political and economic disturbances have been witnessed over the past one year, **from uprisings in the Middle East, economic turmoil in Euro Area and Brexit**. **Volatility in commodity prices and general uncertainty has impacted business environment across the globe** and recovery pace in both mature and emerging markets.

**Impact: a wide-ranging yet differentiated impact across the globe which includes economic slowdown and contraction in world trade**

Indian Prospects:

According to world bank global economic prospects 17, India is expected to grow at 7.6 percent in FY2018, rising to 7.8 per cent in FY 2019-20.

1. Various reforms are expected to ease domestic supply bottlenecks and increase productivity.
2. Infrastructure spending should improve the business environment and attract FDI.
3. The “Make in India” initiative can support India’s manufacturing sector, backed by boosting domestic demand and further regulatory reforms.
4. Moderate inflation and a civil service pay hike should enhance real incomes and consumption.
5. helped by good harvests after favourable monsoon.
6. A benefit of ‘demonetization’ in the medium run may ease liquidity in the banking system, leading to lower
7. lending rates and boost economic activity.

Conclusion:

Given the global economic scenario and all available trade indicators, it can be said that growth prospect remains weak and asymmetric across regions.

Projection on Indian economy by IMF, World Bank and United Nations provides positive output and trade growth.

There are several threats and challenges like conflicts around the world and increasing protectionist attitude of advanced economies like U.S. and U.K.

However, India can take suitable measures as outlined in the FTP 2015- 20 along with

* improving the regulatory environment and
* ease of doing business by increasing digitization of the trade process,
* infrastructure development,
* working on building the Brand and value promotion.

**Exports:**

India’s merchandise exports reached a level of US$ 262.29 billion during 2015-16 (P) registering **a negative growth of 15.48 per cent as compared to a negative growth of 1.29 per cent** during the previous year.

Agriculture and Allied Products as a group Rice-Basmati; Non-Basmati; other cereals; pulses; tobacco; cashew; meat; fresh fruits & vegetables, etc. registered a negative growth of 4.46 per cent.

export of marine products registered a positive growth of 19.44 per cent

export of ores and minerals increased registering a positive growth of 26.80 per cent compared to corresponding period previous year.

Export of Gems and Jewellery increased in the corresponding period of the previous year registering a positive growth of 14.06 per cent.

Machinery export increased from the corresponding period of the previous year registering a positive growth of 4.80 per cent. Scientific advancement.

export of Optical, Medical & Surgical Instruments increased registering a positive growth of 12.98 per cent.

**Share of Top 5 comodities exported:**

petroleum products;

pearls, precious, semi-precious stones; 15.8056%

gold and other precious metal jewellery;

drug formulations biological; and 4.4%

Ready Made Garments cotton including accessories 5%

**Direction of exports:**

**Continent wise**

the share of Asia comprising of East Asia, ASEAN, West Asia, Other West Asia, North East Asia and South Asia accounted for 48.32 per cent of India’s total exports.

The share of America in India’s exports stood at 20.94 per cent and

EU 19.39 per cent respectively of which EU countries (27) comprises 17.10 per cent.

**Country Wise:**

USA

UAE

Hong kong

china

Singapore

**Imports:**

import of Agriculture and Allied Products increased by 1.96 per cent, Out of 39 commodities under this group, 15 have registered negative growth during this period

import of Ores and Minerals decreased from the corresponding period of the previous year registering a negative growth of 18.06 per cent.

mport of Gems & Jewellery from the corresponding period of the previous year registering a negative growth of 21.07 per cent except Pears and precious, Semi precious Stones registering a positive growth of 20.07 per cent

the import of Chemicals and Related Products decreased from corresponding period of the previous year registering a negative growth of 14.48 per cent

import of Optical, Medical & Surgical Instruments increased from the corresponding period of the previous year registering a positive growth of 3.84 per cent. This is mainly due to positive growth of Medical & Scientific Instrument by 5.95 per cent.

Import of Computer Hardware, Peripherals; Electronics Instruments and Telecom Instruments declined by 14.13 per cent, 2.64 per cent and 5.17 per cent respectively

import of Machinery stood decreased in the corresponding period of the previous year registering a negative growth of 0.62 per cent

import of Textiles & Allied Products increased from corresponding period of the previous year registering a positive growth of 6.13 per cent.

**Share Top 5 commodities imported:**

Petroleum Crude;

Pearls, precious and semi-precious stones;

Gold;

Petroleum Products; and

Telecom Instruments

**Import Direction**

**Continent wise**

Asia accounted for 60.75 per cent of India’s total import during the period 2016-17

Europe (15.53 per cent) and

America (11.72 per cent).

**Country wise**

China (16.73 per cent) stood highest

USA (5.62 per cent),

UAE (5.59 per cent),

Saudi Arabia (5.30 per cent) and

Switzerland (3.80 per cent).

**Trade Balance:**

Most -ve

China -51 thousand Million dollars

Switzerland -16

Saudi Arabia -14

Most +ve

USA 19 thousand Million dollars

UAE 9

Hongkong 5

Singapore 2

### Mid Term Review of FTA 15-20:

**Background:**

Over the last 10 years, exports have grown at a CAGR of 8 percent which is fairly creditable

**Highlights FTP:**

1. FTP will leverage the long term advantages of the historic reform of the GST, in terms of reduced compliance and logistics costs.
2. The FTP will focus on exports from labour intensive and MSME sectors by way of increased incentives in order to increase employment opportunities.
   1. Medium and Small scale industries require handholding:
      1. thus rates for **Merchandise Exports Imports Scheme**(MEIS) for such sectors have been enhanced.
      2. Support to **Export Credit Guarantee Corporation** is also being enhanced to increase insurance cover to exporters particularly MSME’s exploring new or difficult markets
3. Emphasis will be given on ‘**Ease of Trading’ across borders**. A professional team to handhold, assist and support exporters in their export related problems, accessing export market and meeting regulatory requirements
4. Information based policy interventions will be ensured through a State-of-the-Art Trade Analytics Division. State-of-the-Art Trade Analytics division has been set up in DGFT for data based policy actions
5. Share in traditional products and markets will be maintained, the focus will be on new products and new markets.
6. Focused on transparency and trust with the industry and maintenance of Quality Standards to succeed in the international market.
7. Exports boosting:
   1. Export promotion schemes of duty free imports under **Advanced Authorisation, Export Promotion Capital Goods** and 100 percent **Export Oriented Units** and thus resolving the problem of blocked working capital for exporters following the roll out of GST
   2. Incentives under **Services Exports from India Scheme** (SEIS) have also been increases
   3. **Self-Assessment based duty free procurement of inputs required for exports** scheme has been introduced
8. A new **Logistics Division** has been created in the Department of Commerce to develop and co-ordinate integrated development of **the logistics sector**,
   1. identification of bottlenecks and gaps, and
   2. introduction of technology based interventions in this sector.
   3. These steps would improve India’s ranking in the Logistics Performance Index (LPI) and promote exports and enhanced growth

**Benefits:**

1. FTP will help in making Indian exports more competitive.
2. GST will be very beneficial for exporters in the long run.
3. boost in exports from the labour intensive sectors and increased employment opportunities

**Challenges**:

* infrastructure bottlenecks, high transaction costs, complex procedures, constraints in manufacturing and inadequate diversification in our services

\*\*\*\*\*

### India’s Trade 16-17

**Exports**

In 2017, Major commodity groups of export having a share of 72.09% in total export basket which have shown

**positive growth**

Engineering Goods (8.25%),

Gems& Jewellery (6%),

Petroleum Products (24.92%),

RMG of all Textiles (8.06%),

Organic & Inorganic Chemicals (15.34%),

Rice (27.08%),

Marine Products (44.58%) and Electronic Goods (8.57%)

**Import**

Major commodity group of imports are

Petroleum, Crude &products (29.54%),

Gold (236.69%),

Electronic goods (34.16%),

Pearls, precious & Semi-precious stones (37.61%) and

Machinery, electrical & non-electrical (6.42%).

Due to declining prices of crude oil, the **Current Account of India became surplus for the first time**

**The trade deficit increased to USD 32.8 billion from USD 25.6 billion a year ago with imports rising more than exports**

## Textiles

Textiles and apparel sector has made a significant contribution by providing both direct and indirect employment to almost 35 and 50million Indians respectively,

it is the largest employment sector after agriculture

Khadi an important segment for concentrating towards export promotion.

More and more people are becoming conscious of responsibility towards the environment and ecology and greater demand is being generated for bio-degradable and Eco-friendly products.

It is for this reason the new MEIS 2015-20 policy also emphasizes on export incentives on eco-friendly textiles

Apart from the supply side constraints for raw material procurement and production,

there is also a strong need for establishing a strong demand in global markets.

This will require the innovation in terms of diversification in product and market.

Lack of product diversification is quite visible through limited export basket of Khadi which currently includes silk and muslin, readymade garments, textile-based Khadi and charkha

## AGRICULTURE

### **Restructured National Bamboo mission**

National Bamboo Mission (NBM) started as a Centrally Sponsored Scheme in 2006-07

benefit directly and indirectly the farmers as well as local artisans and associated personnels engaged in bamboo sector

center+ state An **outlay of Rs.1290 crore** (with Rs. 950 crore as Central share)

ission will focus on development of bamboo in limited States where it has social, commercial and economical advantage, particularly in the North Eastern region and States including Madhya Pradesh, Maharashtra, Chhattisgarh, Odisha, Karnataka, Uttarakhand, Bihar, Jharkhand, Andhra Pradesh, Telangana, Gujarat, Tamil Nadu and Kerala.

Bamboo plantation will contribute to optimizing farm productivity and income thereby enhancing livelihood opportunities of small & marginal farmers including landless and women as well as provide quality material to industry.

The restructured NBM strives to -

(i)      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.

(ii)    To improve post-harvest management through establishment of innovative primary processing units, treatment and seasoning plants, primary treatment and seasoning plants, preservation technologies and market infrastructure.

(iii)   To promote product development at micro, small and medium levels and feed bigger industry.

(iv)   To rejuvenate the under developed bamboo industry in India.

(v)    To promote skill development, capacity building, awareness generation for development of bamboo sector.

### **KrishiVigyanKendras**

669 KrishiVigyanKendras(KVKs) established till 31.03.2017,

act as knowledge and resource centre in the field of agriculture in the district

100% Central funding pattern under the ambit of the Indian Council of Agricultural Research (ICAR),

Technology Assessment and Demonstration for its Application and Capacity Development

special programmes which shall be initiated through the KVK Scheme are:

* a Network Project on New Extension Methodologies and Approaches; Nutri-sensitive Agricultural Resources and Innovations (NARI);
* programs tilted Knowledge Systems and Homestead Agriculture Management in Tribal Areas (KSHAMTA),
* Value Addition and Technology Incubation Centres in Agriculture (VATICA),
* Farm Innovation Resource Management (FIRM) and
* establishment of Agricultural Technology Information Centre

**Directorate of Knowledge Management in Agriculture (DKMA)** is mandated for dissemination and sharing of agricultural knowledge and information through value added information products in print, electronic and web mode;

**The ARYA component** is being implemented currently in 25 States through KVKs, **one district from each State with technical partners from ICAR Institutes and Agricultural Universities for taking up entrepreneurial activities through skill development of rural youth leading to employment generation.**

achievements

achievements of KVKs during XII Plan Include,

1. establishment of 97 **Pulses Seed Hubs** and organising 1,11,150 **technology demonstrations on pulses** leading to its record production during 2016-17;
2. **sensitization about climate change effect and implementing mitigation strategies** by establishing 151 **climate smart villages** in different climate stressed regions;
3. developing a successful model of custom hiring centre being adopted by State Governments;
4. facilitating adoption of conservation agriculture **specially raised bed planting of soybean** (3 million hectare in Madhya Pradesh) and
5. resource conservation technologies including **Zero tillage, laser land levelling and Happy Seeder (Punjab, Haryana, Uttar Pradesh and Bihar**);
6. creating a platform of convergence at KVK level for educating farmers **about benefits of soil health and involving agricultural students in soil testing process**;
7. linking 13,500 villages with research **system under MeraGaonMera Gaurav initiative**;
8. empowering 4400 youth for initiating economic enterprises under program titled "Attracting and **Retaining Youth in Agriculture (ARYA)"** and
9. involving 20,000 farm family in participatory technology adaptation process under the Farmer FIRST Project.

### Mutant Rice By BAARC

(BARC) has developed two mutants of rice **{Trombay Raipur Rice-1(TRR-1), Trombay Konkan Kolam (TKKR-13)\*} and one mutant of cowpea {Trombay Cowpea 901 (TC901)\*}** which are identified for release.

BARC has also developed several mutants of groundnut, mustard, cowpea, blackgram, greengram, soybean, rice and wheat which are undergoing advance field trials in State Agricultural Universities.

The major desirable traits in these crops include higher yield, seed size, improved agronomic and quality traits, early maturity and stress tolerance.

The BARC developed mutant crop varieties have high patronage from the farming community and are extensively grown in different states of the country.

### Export duty suger to 0%

### Edible Oil

**Export of all edible oils in bulk (except mustard oil)**

**Mustard oil will continue to be exported only in consumer packs upto 5 Kgs and with a minimum export price of US $ 900 per tonne.**

Why

The production of oilseeds in 2016-17 has seen a quantum jump in comparison to past two years.

Impact:

 additional marketing avenues for edible oils and oilseeds and will benefit the farmers by way of better realisation for oilseeds

is a step towards Ease of Doing Business by removing confusion arising out of prohibition on export of edible oils and a plethora of exemptions.

### NUP-2015

Nation urea policy 2015 extended to 2015

### Irrigation schemes

PMKSY

AIBP

an objective of expediting completion of ongoing Major/Medium including Extension, Renovation and Modernization (ERM) irrigation projects and Surface Minor Irrigation schemes.

CAD

to bridge / narrow the gap between irrigation potential created and actually utilized in major and medium irrigation schemes. This scheme was supposed to develop adequate delivery of the irrigation water up to the fields

renamed as Command Area Development and Water Management Programme (CADWMP) since April 1, 2004.

DRIP Dam rehabilitation and improvement programme

with the financial assistance of the World Bank for the repair and rehabilitation of initially about 225 dam projects across the seven states of India(south Indian and uttrakhand)

80% of the total project is provided by the World Bank as loan/credit and remaining 20% is borne by the States / Central Government (for CWC)

objectives of DRIP are to improve the safety and operational performance of selected existing dams

Atal bhujal yojana

In 2018

Background

Central Ground Water Board report regarding groundwater depleting at an alarming rate in 30% of the assessed blocks from the assessment of groundwater in the country

to tackle ever-deepening crisis of depleting groundwater level and water conservation

objective of scheme is to recharge ground water and create sufficient water storage for agricultural purposes...

also focuses on revival of surface water bodies so that ground water level can be increased

Fund

6000 crores

50-50

50% by India govt

50% by WORLD Bank

Implementation

Ministry of Water Resources, River Development and Ganga Rejuvenation.

Target states

to be launched in Madhya Pradesh, Uttar Pradesh, Rajasthan, Karnataka, Haryana, Maharashtra, Gujarat across 78 districts, 193 blocks and about 8300 gram panchayats

Interlinking rivers

(1) Krishna (Almatti)-Pennar link,

(2) Bedti-Varda link,

(3) Netravati-Hemavati

link latest proposals in karnatka

### Spirulina farming brings prosperity

Alternative ways to diversify income

blue-green algae a type of cynobacteria used in food supplements

### Big Dams

Command Area Development (CAD), an initiative under the Accelerated Irrigation Benefit Programme (AIBP)

The Command Area Development (CAD) programme was launched by the Government of India in 1974-75.

It was restructured and renamed as Command Area Development and Water Management (CADWM) Programme in 2004

The programme was being implemented under the Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) as a component of Har Khet Ko Pani.

2016 onwards, the CADWM implementation has focused on completing 99 priority irrigation projects through NABARD funding

### Mega food park

The first Mega Food Park in the state of Maharashtra, M/s Satara Mega Food Park Pvt. Ltd.

harsi**mrat Kaur Badal inaugurates Rajasthan’s first mega food park at Ajmer.**

### Fisheries

India becomes second largest fish producing country in the world.

India contributes to about 6.3 % of global fish production which is also 1.1% of the national GDP and 5.15 % of the agricultural GDP of the country

2nd largest aquaculture producer in the world. The country has not only been able to meet the demand of the fish for the domestic need, it has also been able to add substantially to the foreign exchange earnings through export of fish and fisheries products.

More than 50 different types of fish and shellfish products are exported from India to 75 countries around the world

### India-Africa initiative:

aim of South-South Cooperation through research for development, capacity building, access to Indian market, and support to Indian investments in agriculture in Africa.

 first leg of his State Visit to three African nations –Equatorial Guinea, Swaziland and Zambia. This is the first ever visit of a Head of State from India to Equatorial Guinea.

### National Food Security Mission (NFSM):

### National Horticulture Mission (NHM):

### National Mission on Oilseeds and Oil Palm (NMOOP):

### Agricultural Trade:

CCEA approves removal of prohibition on export of all types of pulses to ensure that farmers have greater choice in marketing their produce and in getting better remuneration for their produce.

Encouraging Pulses production to reduce burden on export of pulses.

1. India is the largest producer in the world of milk, cashew nuts, coconuts, tea, ginger, turmeric and black pepper, Coffee. It also has the world's largest cattle population (281 million).
2. It is the second largest producer of wheat, rice, sugar, groundnut and inland fish.
3. India is the leading country in coconut production and productivity in the world

To increase the area under coconut cultivation in Bihar, the focus is on ‘Expansion of area under coconut’ scheme and financial assistance is being provided under the scheme for the new plantations

In the year 2016, we started exporting coconut oil to Malaysia, Indonesia, and Sri Lanka, the countries from where we were importing earlier. For the first time, desiccated coconut is being exported to the US and Europe in large quantities from India.

1. It is the third largest producer of tobacco.
2. India accounts for 10% of the world fruit production with first rank in the production of banana and sapote

### NCDEX

Agri-options are an important tool which will contribute to the Prime Minister’s vision of doubling the farmers’ incomes by 2022.

National Commodity & Derivatives Exchange Limited is an online commodity exchange based in India.

Public limited company est in 2005.

Guarseed is the first agri-commodity options.

### 4th ASEAN Ministers of Agriculture and Forestry

progress made in the implementation of the ASEAN – India Plan of Action (POA) 2011-2015 to implement the ASEAN-India Partnership for Peace, Progress and Shared Prosperity.

under the Action Programme “Promote Capacity Building, Technology Transfer, and R&D as Mutually Agreed for Global Competence in Agriculture

four capacity building activities were implemented during the 2013–2015, on

IT Application for Agricultural Extension (e-Extension),examples soil health card,e-NAM etc

National seed quality control system,

At present 22 States in the country have their own Seed Certification Agencies established under the Seed Act, 1966.Goals

The systematic increase of superior varieties;

The identification of new varieties and their rapid increase under appropriate and generally accepted names.

Provision for continuous supply of comparable material by careful maintenance

Certification Agency notified under Section 8 of the Seeds Act, 1966

distribution of seed minikits of newer varieties of pulses free of cost, production of quality seed (breeder, foundation and certified seed), creation of seed hubs at SAU and KVKs, strengthening of bio-fertilizers and bio agent labs at SAUs/ICAR Institute, technological demonstration by KVKs and enhancing up breeder seed production have been included under NFSM during 2016-17

Organic certification for fruit and vegetables and

National Programme for Organic Production (NPOP)

 accreditation programme for Certification Bodies, standards for organic production, promotion of organic farming

Accredited agencies for certification

APEDA offers an internet based **e-service called Tracenet** to collect, record and report data on organic certification and thus facilitating the process of organic certification

Conventional and molecular techniques for diagnosis of trans-boundary animal diseases.

 more capacity building programme in 2018 on the Empowerment of ASEAN and Indian women through cooperatives

collaborative projects in the areas of

(i) Agroforestry interventions for livelihood opportunities, (ii)  Demonstration   and  exchange  of  farm  implement  and  machinery,  and

(iii)  Genetic improvement of parental lines and development of heterotic rice hybrids.

Medium Term Plan of Action for ASEAN-India Cooperation in Agriculture and Forestry for 2016–2020

addressing Climate Change as it negatively impacts food security, and lookforward to cooperation on exchanging expertise as to promote enhanced resilience of natural systems, and improve the adaptive capacities of people to cope with environmental hazards.

## GST

### Data

2017-18, total revenue collected under GST in the period between August 2017 and March 2018 has been Rs. 7.19 lakh crore.

This includes Rs. 1.19 lakh crore of CGST, Rs. 1.72 lakh crore of SGST, Rs. 3.66 lakh crore of IGST (including Rs. 1.73 lakh crore on imports) and Rs. 62,021 crore of cess (including Rs. 5702 crore on imports). For this eight months,

**the average monthly collection has been Rs. 89,885 crore.**

**revenue of the States is protected at the level of 14% over the base year tax collection in 2015-16.**

**The revenue gap of each State is coming down over last eight months. The average revenue gap of all states for last year is around 17%.**

**Return Filling compliance has also increased from 54% to 65%**

### Rising trend in GST a new Hope with E way bill

Equally heartening is the revival in GST collections, that had dipped to ₹83,716 crore in November 2017, **after a fairly robust ₹90,000 crore-plus inflow for the first three months of the new indirect tax system**

As per final data released by the Centre on Monday, collections for the three months since then are far healthier than initial indications suggested, with **February recording ₹89,264 crore, the highest since September 2017**

Expect collections to pick up further as the authorities get a better sense of who is regularly filing returns and paying taxes.

analytics deployed on GST data compiled for nine months would deliver a bigger bounty, even as e-way bills make it tougher to avoid tax dues.

Everyone’s fingers are **crossed that the e-way bill portal,** which now has over 20,000 registered transporters and 11 lakh taxpayers, will hold up, going forward

Looking forward with e way bills

It is important to note that since the system for tracking inter-State movement of goods was launched at the beginning of a financial year, the actual load that the portal will have to bear on a normal business day may be much higher than the initial trends.

This is because many businesses had already moved and stocked up goods by March 31, ahead of the system kicking in, and are still completing usual year-end processes such as recording closing stock.

A staggered schedule for rolling out e-way bills for intra-State trade in a few States at a time is expected soon.

Possible upcoming issues

Given that India’s **transport sector is still largely unorganised** and

**many vehicle drivers are not fully conversant with the technical nuances**,

it is important that **anti-evasion squads deployed to check e-way bills operate** with a light touch to start with, and limit the frequency of inspections for goods moving across States.

Else, the system could end up creating a bottleneck for transporting goods in a country where goods movement already takes inordinately long due to infrastructure deficiencies.

### Issue with army and Navy

Increase import tax they have to pay and no provision in this year budget to caret or this need

### Composition Scheme:

Track new changes.

### National Anti Profiteering committee:

More in Institutions section of this document

E-Way billing now operational

all consignments worth more than Rs50,000 moving over 10 km from their origin will require prior registration and generation of an e-way bill through the GST network

validity of e-way bill is one day for goods moving from 0 to 100 km, three days for 100 to 300 km, five days for 300 to 500 km, 10 days for 500 to 1,000 km and 15 days for goods moving beyond 1,000 km.

E wallet

The e-wallet scheme proposed for exporters whose cash flows have been affected by delays in refunds on GST paid on domestic inputs

e-wallets will address exporters’ woes

Reverse charge mechanism

only 16% of the summary sales returns under GST matching with the final returns

points to Gap in implementation or profiteering practices.

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## Labour

### Employement Genration Programmes:

#### PMRPY

**Pradhan MantriRojgarProtsahanYojana**

informal sector workers would get social safety net and there would be more job creation

Government is paying the **8.33% contribution of Employers to the Employees' Pension Scheme (EPS)** in respect of new employees (who have joined on or after 1st April 2016) having a new Universal Account Number (UAN), with salary up to Rs. 15,000/- per month.

employers are incentivized for increasing the employment base of workers in the establishments,

A direct benefit is that these workers will have access to social security benefits of the organized sector.

#### MNREGS:

New Data from A Rapid Assessment of Natural Resource Management Component under MGNREGS (on which minimum 60% is spent since 2015) and its impact on Sustainable Livelihoods carried out by the Institute of Economic Growth:

1. incomes of households by nearly 11%,
2. increase in cereal productivity by 11.5% and vegetable productivity by 32.3%.
3. 78% Households have reported benefitting **from increase in water table**,ranging from 30% in Muktsar to 95% in Vizianagram.
4. 66% Households have also reported benefitting from availability of fodder on account of the water conservation works both in public and private lands of Small and Marginal Farmers.
5. The range of water conservation measures, including farm ponds and dugwells, seem to have made a difference to the lives of the poor.
6. The improved incomes from livestock have also happened through individual beneficiary schemes of MGNREGS that provide goat, poultry and cattle shed as per need of poor households.
7. The livelihood thrust in MGNREGS has been adopted to raise incomes and improve skills for diversification of earning opportunities of poor households.

### Unemployment data 2015-16

During question hour in Rajya sabha

37 out of 100 are unemployed

On basis of employed for majority period of last 365 days

Kerela

Himachal and

Tripura high rates of unemployment

Lowest

Gujarat,

chattisgarh,

karnatka.

### Skill India:

Skill India partners with **Airbnb** to Upskill Hospitality Entrepreneurs

**Parties: NSDC, Airbnb, Ministry of tourism.**

Under the terms of the MoU, the parties agree to:

1. **ESTABLISH occupation standards and competency matrices** for job roles and develop the courses for hospitality entrepreneurs offering homestay and facilities, other unique accommodations and local experiences for travellers;
2. **CREATE standards for certification and accreditation** as per the requirements and global benchmarks of Tourism and Hospitality industry for hospitality entrepreneurs offering homestay facilities, other unique accommodations and local experiences for travellers;
3. **SET the framework for long-term** Council-Industry partnership;
4. **STRENGTHEN the Skilled Labour Pool** required by Tourism and Hospitality industry.

### Remittances:

India receives about 56% of its remittances from migrants in West Asia

Since 2014 steady decline in remittances

with remittances amounting to over 36% of the State’s GDP. Kerala is unique in this sense that no other large State in India depends so much on remittances

## International Economics

### Trade war

After USA and EU row

Now china put 25% trade tariif on over 100 goods from USA in a reactionary measure

### RCEP

The Association of Southeast Asian Nations (ASEAN) has free trade agreements with six partners namely People’s Republic of China (ACFTA), Republic of Korea (AKFTA), Japan (AJCEP), India (AIFTA) as well as Australia and New Zealand (AANZFTA).

16 countries

In order to broaden and deepen the engagement among parties and to enhance parties’ participation in economic development of the region, the leaders of 16 participating countries established **the Regional Comprehensive Economic Partnership (RCEP).**

The RCEP was built upon the **existing ASEAN+1 FTAs** with the spirit to strengthen economic linkages and to enhance trade and investment related activities as well as to contribute to minimising development gap among the parties**.**

Launched by ASEAN and 6 FTA countries

**during the 21st ASEAN Summit** and Related Summits in Phnom Penh, **Cambodia in November 2012**.

objective of launching RCEP negotiations is to achieve a modern, comprehensive, high-quality, and mutually beneficial economic partnership agreement among the **ASEAN Member States and ASEAN’s FTA partners**

The RCEP negotiation includes: trade in goods, trade in services, investment, economic and technical cooperation, intellectual property, competition, dispute settlement, e-commerce, small and medium enterprises (SMEs) and other issues.

RCEP has the potential to deliver significant opportunities for businesses in the East Asia region, given the fact that the 16 RCEP participating countries account for almost half of the world’s population; contribute about 30 per cent of global GDP and over a quarter of world exports

RCEP will provide a framework **aimed at lowering trade barriers and securing improved market access for goods and services for businesses in the region**

**Focus on SMEs (including micro-enterprises)** make up more than 90% of business establishments across all RCEP participating countries and are important to every country’s endogenous development of their respective economy,

### FTA with China

Bilateral trade

In 2017, the bilateral trade reached $84.4 billion, registering a growth of 20.3% from the year before and a record high.

In particular, China’s import from India soared by 40%, helping ease the bilateral trade imbalance.

China remained India’s largest trading partner.

India had become one of the most important overseas investment destinations for Chinese companies.eg alibaba

### Oil issue

India is likely to lobby heavily for an end to the discriminatory **“Asian premium”** on oil prices and a “responsible” price mechanism

“Asian premium” on prices that was pioneered by Saudi Arabia, which distinguished consumers in Asia from the U.S. and European countries.

Oil consumers 16-17 data

China

USA

India

Significant increase in case of india and china ,USA dropped by 0.46 points

**Crude oil imports by China, India, Japan and South Korea alone make up more than 20% of global demand, according to official numbers.**

### WTO

#### Export subsidies issue

Merchandise Exports from India Scheme; Export Oriented Units Scheme and sector specific schemes, including Electronics Hardware Technology Parks Scheme; Special Economic Zones; Export Promotion Capital Goods Scheme, and a duty free imports for exporters programme as distorting trade

India’s export promotion schemes face an uncertain future after the United States Trade Representative (USTR) decided to challenge their legality in the World Trade Organisation (WTO)

The complaint of the USTR is that India is violating its commitments under the Agreement on Subsidies and Countervailing Measures (SCM Agreement) using five of the most used export promotion schemes, namely,

1. the export-oriented units scheme and sector-specific schemes, including electronics hardware technology parks scheme,
2. merchandise exports from India scheme,
3. export promotion capital goods scheme,
4. special economic zones and
5. duty-free import authorisation scheme

Argument of the USTR is that India’s five export promotion schemes violate Articles 3.1(a) and 3.2 of the SCM Agreement, since the two provisions prohibit granting of export subsidies

Until 2015, India had the flexibility to use export subsidies as it is among the 20 developing countries included in Annex VII of the agreement that are allowed to use these subsidies **as long as their per capita Gross National Product (GNP) had not crossed $1,000, at constant 1990 dollars, for three consecutive years**

Except Annex VII countries, all other developing countries were allowed a period of eight years from the entry into force of the WTO Agreement, i.e. 1995, to eliminate export subsidies.

That India had crossed the $1,000 GNP per capita threshold in 2015 became known when the WTO Secretariat produced its calculations in 2017

Annex VII of the agreement, says that countries like India must eliminate export subsidies immediately upon crossing the above-mentioned threshold

**Extension**

In a submission made in 2011, India, along with Bolivia, Egypt, Honduras, Nicaragua and Sri Lanka, argued that the Annex VII countries should be eligible to enjoy the provisions applicable to the other developing countries, namely, those that had GNP per capita above the threshold.

The latter set of countries was required to phase out their export subsidies within eight years of joining the WTO

this is not the first time that the U.S. has put India’s export promotion schemes under the scanner;

although this is the first instance when its Trade Administration has initiated a WTO dispute involving these schemes

any Annex VII developing country which had reached export competitiveness in one or more products must gradually phase out export subsidies on such products over a period of eight years

**some serious introspection about the future of export promotion schemes,**

FTP 2015

The policymakers recognised that the extant WTO rules and those under negotiation were aimed at eventually phasing out export subsidies. The FTP took this as a pointer to the direction which export promotion efforts in the country must take in the future: a movement towards more fundamental systemic measures and away from incentives and subsidies

FTP 2017

A similar note was sounded in the mid-term review of the FTP released in December 2017. This document was significant also because the Indian government showed its awareness that the country was at the verge of losing the benefits of being an Annex VII country.

Contrary to the pronouncements made in the FTP, the government has continued to increase its outlays on export promotion schemes

**MEIS**

During this period, the largest export promotion scheme in place currently, the Merchandise Exports from India Scheme (MEIS), was introduced to promote exports by offsetting the infrastructural inefficiencies faced by exports of specified goods and to provide a level playing field

In recent months, there has been a two-fold expansion of the scheme:

one, to enhance the MEIS rates of ready-made garments from 2% to 4%; and

two, to increase the MEIS benefits for all labour-intensive and MSME sector products by 2%.

**Conclusion**

The utility of export subsidies to promote exports has long been questioned. While the real impact of these subsidies has never been clearly measured, what has been quite evident is they have benefited the rent-seekers. There is, therefore, a strong case for the government to invest in trade-related infrastructure and trade facilitation measures, which can deliver tangible results on the export front.

### India and China:

#### DRC-NITI AAYOG

Dialogue between the NITI Aayog and the Development Research Council of China, the DRC- NITI Aayog Dialogue

**Objective**:

1. to discuss key macro- economic issues impacting both countries and areas of mutual interest .
2. India-China economic cooperation and practices for sustainable growth

### Regional Groupings:

#### East asia summit

In 2005 the ASEAN Ministerial Meeting (AMM) held in Vientiane on July 26, 2005

India participated in first **a founding member of the East Asia Summit**

It is ASEAN +8

Includes Russia and USA

Indian Prime Ministers have participated in all the Summits, stands testimony to the importance India attaches to this process

six priority areas of regional cooperation within the framework of the EAS.

These are –

Environment and Energy,

Education,

Finance,

Global Health Issues and Pandemic Diseases,

Natural Disaster Management, and

ASEAN Connectivity

**15th ASEAN-India Summit and 12th East Asia Summit in Manila, Philippines**

East Asia is one of the world’s most dynamic economic region, with its 18 member countries representing collectively 55% of the world’s population and accounting for around 55% of global gross domestic product (GDP)

adoption of the framework of the Code of Conduct for the South China Sea (COC), which will facilitate the work and negotiation for the conclusion of a substantive and effective COC.

support for initiatives to improve inter-Korean relations toward establishing permanent peace in the Korean Peninsula

next EAS in singapore

India

In the area of Education, at the 4th East Asia Summit (EAS), held in Thailand on 24-25 October 2009, the EAS Leaders endorsed the proposal for the revival of Nalanda University, to bring together the brightest minds from all the countries of Asia.

The idea was first mooted by former President APJ Abdul Kalam in 2006

archaeological site of Nalanda Mahavihara, that is, Nalanda University, was inscribed as a UNESCO World Heritage site in July 2016

A Flagship ASEAN India Programme for combating Malaria towards elimination was taken note of in the Chair's statement of the 11th East Asia Summit

At the 6th EAS held on 19 November 2011 in Bali, Indonesia, Prime Minister announced India’s intention of hosting an EAS Workshop in 2012 on Disaster Management and Relief in the case of an earthquake.

7th EAS in November 2012, the Leaders of 16 EAS participating countries launched **the Regional Comprehensive Economic Partnership (RCEP).** ASEAN and the 6 FTA Partners of ASEAN, which includes India, are the RCEP participating countries.

Maritime Cooperation has emerged as a significant priority area of cooperation in recent times. India hosted the EAS Conference on Maritime Security and Cooperation on 9-10 November 2015 in New Delhi which called for a more cooperative and integrated future for the region through overall development of the ocean-based blue economy.

#### Shanghai cooperation:

Shanghai Cooperation Organisation (SCO) is a **permanent intergovernmental international organization**, the creation of which was announced **in 2001 in Shanghai (China)** by the Republic of Kazakhstan, the People's Republic of China, the Kyrgyz Republic, the Russian Federation, the Republic of Tajikistan, and the Republic of Uzbekistan

Headquartered in **Beijing china.**

**Structure:**

1. the SCO Secretariat based in Beijing and
2. the Executive Committee of the **Regional** **Anti-Terrorist Structure (RATS) based in Tashkent, Uzbekistan**

**Objectives:**

1. strengthening mutual trust and neighborliness among the member states;
2. promoting their effective cooperation in politics, trade, the economy, research, technology and culture, as well as in education, energy, transport, tourism, environmental protection, and other areas;
3. making joint efforts to maintain and ensure peace, security and stability in the region; and moving towards the establishment of a democratic, fair and rational new international political and economic order.

At Shanghai Cooperation Organisation meeting in **Astana, Kazakhstan in 2017** **India and Pakistan** became a full member of the Organization.

Current 8 member states including India,china,Russia,Kazakhstan,kyrgys,Uzbekistan,Tajikistan,pakistan

Meeting of the Ministers of Member States in Sochi,Russia 2017.

* + Free Trade Agreement between India and the Eurasian Economic Commission, as well as the potential and opportunities for increasing trade cooperation discussed.

#### Indian ocean Rim association

Intergovernmental body

**India founding member**

21 member countries and 7 dialogue partners

Council of **foreign ministers** who meet annually

Revolving chair for 2 years

Current is South Africa next is Saudi arabia

secretariat of the Indian Ocean Rim Association (IORA) is hosted by the Government of the Republic of Mauritius which is based in Cyber City, Ebène, Mauritius.

Secretary general selected for 2 years

Background

Found in 1997

As the third largest ocean woven together by trade routes, commands control of major sea-lanes carrying **half of the world’s container ships**,

**one third of the world’s bulk cargo traffic** and

**two thirds of the world’s oil shipments**,

the Indian Ocean remains an important lifeline to international trade and transport.

Priority areas

Maritime security

Trade and investment

Fisheries management

Disaster risk management

Tourism and cultural exchange

Academic and S&T

Meetings

Committee of senior officials meets twice every year to moniter implementation progress on IORA’s agenda

IORA special fund

20th Anniversary

The year 2017 is a landmark for IORA, celebrating the 20th Anniversary of the Association as a proactive inter-governmental organisation

IORA indonaesia 2017

It was first IORA leaders summit

IOD🡪Indian ocean dialogue

Started in 2013 IORA summit in perth

 first IOD was held in Kerala, India in 2014,

topics such as economic cooperation, maritime safety and security, blue economy, human assistance and disaster relief, et

4th and latest in 2017 in abhu bhabi:

**ABHU DHABI concensus**

* Maritime Safety and Security: Enhancing Cooperative Mechanisms in the IOR
* Session 2: Renewable Energy and Innovation: New Technologies for Sustainable Energy Security
* Session 3: Climate Change: Adaptation and Resilience of Coastal Communities in the IOR
* Session 4: Cyber Security in the IOR: Partnership for Sustainable Development

Blue carbon

The IORA Indian Ocean Conference **on Blue Carbon**, which was organised by Commonwealth Scientific and Industrial Research Organisation (CSIRO) and the Australian Department of Foreign Affairs and Trade, in collaboration with the Indian Ocean Rim Association (IORA),

Wetland vegetation such as seagrass, mangroves and saltmarsh, **occupy only 2 per cent of the world's seabed area, but are responsible for 50 per cent of the carbon transfer to ocean sediments**.

The atmospheric carbon captured by living organisms is stored in coastal and marine ecosystems habitats which account to 50 and 70 percent.

As this carbon can remain stored for millennia, there is great interest in Blue Carbon resources to respond to climate change and associated pressures.

#### Mekyong ganga cooperation

The Mekong-Ganga Cooperation (MGC) is an initiative by six countries – India and five ASEAN countries, namely, Cambodia, Lao PDR, Myanmar, Thailand and Vietnam.

It was launched in 2000 at Vientiane, Lao PDR.

cooperation in tourism, culture, education, as well as transport and communications

aims to facilitate closer contacts among the people inhabiting these two major river basins

The 1st MGC Ministerial Meeting was held in Vientiane from 9-13 November 2000. It issued the Vientiane Declaration on MGC covering cooperation in the 4 traditional area

8th meeting held in delhi in 2017

reviewing the implementation of the Plan of Action proposed during the previous MGC SOM in Vientiane in July 2016 as well as the achievements the two sides have made in main cooperation fields, including culture, tourism, education, health and agriculture

implementation of cooperation projects among MGC countries supported by India, including the building of the

Asian traditional textile museum in Siem Reap (Cambodia) and

a data centre at India’s Nalanda University.

Trans Asian highway

Asian Highway (AH) project, popularly known as the Trans-Asian Highway, is a cooperative project among countries in Asia and Europe,

supported by the **United Nations Economic and Social Commission for Asia and Pacific (ESCAP),** to improve the highway systems in Asia.

The project is one of the three pillars of the Asian Land Transport Infrastructure Development (ALTID)

Asian Highway is marked from AH1 to AH88

AH1 is the longest route of the AH network running 20,557 Km from Tokyo via South Korea, China, South-East Asia, India, Pakistan, Afghanistan and Iran to the border between Turkey and Bulgaria where it joins with European route E80.

 AH1 extends along Moreh-Imphal-Kohima-Dimapur; Dimapur-Nagaon; Nagaon-Numaligarh-Jorabat; Jorabat-Shillong-Dawki; Petrapole-Barasat; Barasat-Kolkata; Kolkata-Durgapur-Barhi-Kanpur-Agra-New Delhi, and New Delhi-Attari.

India benefits

Bilateral trade will receive a boost because of Trans-Asian Highway as it provides the transport infrastructure necessary for building and strengthening trade and economic interaction with Association of Southeast Asian Nations (ASEAN) states.

Northeast India, considered as one of the country’s economically backward areas can now become India’s gateway to the fast developing ASEAN region.

East west corridor

connecting India to the Mekong region

#### BIMSTEC

The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation.

A **sector driven** organization came into being on 6 June 1997 through **the Bangkok Declaration.**

**it has identified fourteen priority sectors**

**Nomenclature**

Initially, the economic bloc was formed with four Member States with the acronym **‘BIST-EC’ (Bangladesh, India, Sri Lanka and Thailand Economic Cooperation.**

20th anniversary of BIMSTEC, Bodhi Parva: BIMSTEC Festival of Buddhist Heritage,Delhi

Following the inclusion of Myanmar on the Group was renamed ‘BIMST-EC’ (Bangladesh, India, Myanmar, Sri Lanka and Thailand Economic Cooperation)

With the admission of Nepal and Bhutan at the 6th Ministerial Meeting (February 2004, Thailand), the name of the grouping was changed to **‘Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation’ (BIMSTEC).**

**Objectives**

1. constitutes a bridge between South and South East Asia and represents a reinforcement of relations among these countries
2. To harness shared and accelerated growth through mutual cooperation in different areas of common interests by mitigating the onslaught of globalization and by utilizing regional resources and geographical advantages.
3. To create an enabling environment for rapid economic development through identification and implementation of specific cooperation projects in the sectors of trade, investment and industry, technology, human recourse development, tourism, agriculture, energy, and infrastructure and transportation.
4. To accelerate the economic growth and social progress in the sub-region through joint endeavors in a spirit of equality and partnership.
5. To promote active collaboration and mutual assistance on matters of common interest in the economic, social, technical and scientific fields.
6. To provide assistance to each other in the form of training and research facilities in the educational, professional and technical spheres.
7. To cooperate more effectively in joint efforts that are supportive of and complementary to national development plans of Member States which result in tangible benefits to the people in raising their living standards, including generating employment and improving transportation and communication infrastructure.

**Achievements**:

1. Asian Trilateral Highway connecting India and Thailand through Myanmar:
   1. Moreh in Manipur to Mae Sot in Thailand via Myanmar and represents a significant step in establishing connectivity between India and Southeast Asian countries
2. Bangladesh, Bhutan, India and Nepal (BBIN) have signed a pact for the movement of goods and vehicles among them. BBIN could prove itself as a regional economic sub-grouping, given the willingness of all the countries in the grouping to cooperate.
3. One is the Kaladan Multimodal project that seeks to link India and Myanmar. The project envisages connecting Kolkata to Sittwe port in Myanmar, and then Mizoram by river and road.

**India Importance**

1. India sees BIMSTEC as a natural platform to fulfil its key foreign policy priorities of 'Neighbourhood First' and 'Act East'.
2. Alternative to SAARC
3. Driven by INDIA
4. expedite development in India’s North-East, which is the only link to the BIMSTEC region,
5. BIMSTEC will not only boost their regional standing, it could also alleviate the status of the region as it rightfully deserves.
6. BIMSTEC can prove to be an apt platform for member countries to discuss bilateral issues and foster relations among each other to strengthen the regional bloc and promote peace and stability in the region

**Challenges:**

1. Free Trade Agreement which is being spoken about for the past sixteen years means that there is a lack of political will to take such crucial measures seriously.
2. the domestic problems in most of the countries is spiraling out of control

Thailand is undergoing a huge political unrest as an anti-government wave in the country

Myanmar Rakhine crisis

Bangladesh is also undergoing huge economic and political stress, especially in light of the controversial war crime trials.

#### Asia cooperation Dialogue

India founding members

Asia Cooperation Dialogue (ACD) was inaugurated in June 2002 in Cha-Am, Thailand, where 18 **Asian Foreign Ministers** met together for the first time

ACD Ministers have met annually at the ACD Ministerial Meetings to discuss ACD developments, issues of regional cooperation and ways to enhance and solidify Asian unity

**On the projects dimension,**

currently, many countries have proposed to be prime movers in 20 areas of cooperation, such **as energy, agriculture, biotechnology, tourism, poverty alleviation, IT development, e-education and financial cooperation**.

Objectives:

promote interdependence among asian countries

expansion of trade and financial market in Asia

increase bargaining power of Asian countries in lieu of competition

To ultimately transform the Asian continent into an Asian Community, capable of interacting with the rest of the world on a more equal footing

### International Ratings:

#### Moody’s Ratings:

Credit ratings agency, rates fixed income debt securities or bonds.

reflect both the likelihood of default and any financial loss suffered in the event of default.

Moody's Investors Service ("Moody's") has upgraded the Government of India's local and foreign currency issuer ratings to Baa2 from Baa3.

Best rating is AAA least is C.

outlook on the rating to stable from positive.

This is in recognition of major economic and institutional reforms undertaken by Government of India:

* + GST
  + DBT
  + JAM
  + demonetization, the Aadhaar system of biometric accounts.
  + Fiscal Responsibility and Budget Management Act (FRBM) Committee recommendations, and NPA resolution measures.

### Masala Bonds:

"Masala Bonds" are the 10 year off-shore rupee bonds issued by **International Finance Corporation (IFC), a member of the World Bank group**, in the international capital market in November 2014,

to raise funds for supporting private sector infrastructure development initiatives in India.

Masala bonds are listed in London Stock Exchange.

Masala Bonds are similar to dimsum bonds -bonds issued outside China but denominated in Chinese currency..

The settlement of the bonds will be in US dollars but since they are pegged to the Indian currency -rupee-, investors will directly take the currency risk or exchange rate risks. Settlement is done in US dollars because of the **limited convertibility of rupee.**

**+ve:**

Competition from offshore markets may induce improvements in domestic bonds markets such as strengthening of domestic market infrastructure, improving investor protection and removing tax distortions that hinder domestic market development etc

**-ves**

the risks associated with financial openness and sudden shifts in capital flows, and the risk that offshore markets may draw liquidity away from the domestic market.

As per the September 2015 and the April 2016 guidelines of RBI, any corporate or body corporate as well as Real Estate Investment Trusts (REITs) and Infrastructure Investment Trusts (InvITs) can issue such off-shore rupee denominated bonds.

### FDI Policy

In the financial year 2016-17, total FDI of US $ 60.08 billion has been received, which is an all-time high.

Further liberalized following sectors

1. 100% FDI under automatic route for Single Brand Retail Trading
   1. The five-year holiday on the 30% local-sourcing requirement is expected to give companies setting up shop here adequate time to identify, train and even technologically assist in the creation of local supply chains
2. 100% FDI under automatic route in Construction Development
3. Foreign airlines allowed to invest up to 49% under approval route in Air India
4. FIIs/FPIs allowed to invest in Power Exchanges through primary market
5. Definition of ‘medical devices’ amended in the FDI Policy

### Ease of doing business

**Government Process Re-engineering (GPR) initiatives** for making the Incorporation Process Speedy, Smooth, Simple and reducing the number of procedures involved for starting a Business.

* + 1. Introduction of “RUN – Reserve Unique Name” Web service for name reservation, which will be launched on 26.01.2018.
    2. Zero fee for incorporation of all companies with authorized capital upto Rs. 10 lakh.
    3. Re-engineering the process of allotment of DIN by allotting it through the combined SPICe form only at the time of an individual’s appointment as Director (in case he/she doesn’t have a DIN).

### India Un Partnership fund:

India-UN Development Partnership Fund is supported and led by the Government of India and managed by the United Nations Office for South-South Cooperation

Fund supports Southern-owned and led, demand-driven, transformational sustainable development projects across the developing world, with a focus on least developed countries and small island developing states.

establishment on June 8, 2017

first project under the fund focuses on climate early warning systems in Pacific Island countries including the Cook Islands, the Republic of Kiribati, the Republic of Marshall Islands, the Federated States of Micronesia, the Republic of Nauru, the Solomon Islands and the Kingdom of Tonga

USD 100 million

hurricanes Irma and Maria, India provided a sum of USD 2 million for rehabilitation projects in Antigua and Barbuda and Dominica through the India-UN Development Partnership Fund.

## SECTORS OF INDIAN INDUSTRY

### MSME:

MSME Sambandh: The objective of the portal is to monitor the implementation of the Public Procurement from MSEs by Central Public Sector Enterprises.

Background: **The Procurement Policy launched in 2012** mandates the Central Government Departments / CPSUs to procure necessarily from MSEs i.e. every Central Ministry / Department / PSU shall set an annual goal for procurement from the MSE (Micro Small)sector at the beginning of the year, with the objective of achieving an overall procurement goal of minimum of 20 per cent of the total annual purchases of the products or services produced or rendered by MSEs.

#### Criteria for MSME changes

Now annual turnover will be considered

time limit to declare them NPAs has been extended from 90 days to 180 days

The companies with Rs 250 crore turnover, who are registered under GST, will get 5% rebate in income tax

This move is expected to increase ease of doing business,

New Criteria

A micro enterprise will be defined as a unit where the annual turnover does not exceed 5 crore rupees;

A small enterprise will be defined as a unit where the annual turnover is more than 5 crore rupees but does not exceed Rs 75 crore;

A medium enterprise will be defined as a unit where the annual turnover is more than 75 crore rupees but does not exceed Rs 250 crore.

#### CriSidEx ,

India’s first sentiment index for micro and small enterprises ( MSEs) developed jointly by CRISIL & SIDBI.

measures MSE business sentiment on a scale of 0 (extremely negative ) to 200 ( extremely positive)

CriSidEx will have 2 indices , one for the ‘survey quarter’ and another for the ‘next quarter’

CriSidEx is a composite index based on a diffusion index of 8 parameters

benefit of CriSidEx

its readings will flag potential headwinds and changes in production cycles and thus help improve market efficiencies.

And by capturing the sentiment of exporters and importers , it will also offer actionable indicators on foreign trade

It is one of the largest employer in the country and with the vast population.

### PSU

5-P formula – Performance, Process, Persona, Procurement and Prepare.

improving operational and financial performance; transparency and accountability in processes; procurement through the GeM platform and from MSMEs; and preparation for technological disruptions such as Artificial Intelligence, Quantum Computing and Robotics.

### Startup

 incentivesof the Income Tax Act 1961(hereinafter referred as Act):

1. Exemption from levy of income tax on share premium received by eligible Startups under section 56 of the Act.
2. **100% deduction of the profits and gains from income of Startups** for **three out of seven consecutive assessment years under 80 IAC of the Act.**

## Infrastructure:

### Energy

**International Energy forum**

International Energy Forum (IEF) aims to foster greater mutual understanding and awareness of common energy interests among its members.

Its 72 Member Countries are signatories to the [IEF Charter](https://www.ief.org/about-ief/ief-charter.aspx), which outlines the framework of the global energy dialogue through this inter-governmental arrangement.

Covering all six continents and accounting for around 90% of global supply and demand for oil and gas, the IEF is unique in that it comprises not only consuming and producing countries of the [IEA](http://www.iea.org/) and [OPEC](http://www.opec.org/opec_web/en/), but also Transit States and major players outside of their memberships, including Argentina, China, India, Mexico, Russia and South Africa.

**Hosted by India and co-hosted by China and Korea, IEF16** aims to focus on how global shifts, transition policies and new technologies influence market stability and future investment in the energy sector

Rural elect

### Roads:

#### NHAI first international project

In Myanmar

Part of trilateral highway project

#### Logistics index

 a logistics index that would score States on their performance in the sector,

multi-modal transport issue is now being addressed by the new logistics division under the Commerce Ministry.

#### New method for calculating length constructed:

According to global standards

Length of each lane constructed is also considered

So if 1 km 4 lane is constructed ,it will be considered as 4 lane km constructed according to global standards

#### Intermodal terminals:

Pilot projects in Nagpur and varanasi

Intermodal Stations are terminal infrastructure which integrate various transportation modes like rail, road, mass rapid transit system, bus rapid transit,inland waterways , auto-rickshaws, taxis and private vehiclesetc, so that people can move from one mode to another seamlessly, with minimum use of automobiles.

In most cities today, transport hubs like bus terminals, railway stations and others are located far from each other, so inter-modal transfers create pressure on the already congested roads.

By bringing the different transport modes at one point, IMS will reduce congestion on roads and also vehicular pollution.

**Highway Capacity Manual**

India’s first ever

The manual, known as Indo-HCM, has been developed by CSIR – CRRI on the basis of an extensive, country-wide study of the traffic characteristics on different categories of roads like single lane, two-lane, multi-lane urban roads, inter-urban highways and expressways and the associated intersections on these roads.

The manual lays down guidelines for when and how to expand or manage different types of roads and their intersections and the level of services to be put in place.

It is designed to be a useful tool for guiding road engineers and policy makers in the country. It has been developed based on the unique nature and diversity of traffic on Indian roads.

**Ranking System for Toll Plazas**

to address issues that affect highway users, such as ease of tolling, electronic tolling/FASTag lane, cleanliness at toll plazas, behavior of the toll plaza staff, deployment of marshals, cleanliness of toilets, functioning of Highway Nest (Mini), wayside amenities and availability of ambulance and cranes in case of any emergency on the highway

#### Year in Review of Road Infra

**Chenani- Nashri Tunnel**

An ideal example of the government’s ‘Make in India’ and ‘Skill India’ initiative, the 9 km long, twin-tube, all-weather tunnel between Udhampur and Ramban in Jammu & Kashmir is not only India’s longest highway tunnel but also Asia’s longest bi-directional highway tunnel.

**Dhola Sadiya Bridge**

The Hon’ble Prime Minister, Shri Narendra Modi, inaugurated India's longest bridge- the 9.15 km long Dhola-Sadiya Bridge over River Brahmaputra in Assam on 26th May 2017. The bridge has ensured 24x7 connectivity between upper Assam and Eastern part of Arunachal Pradesh, marking a major transformation from the ferry-based, day-only connectivity that collapsed during floods

**Extra-dosed Bridge across River Narmada at Bharuch**

A new four lane, Extra-dosed Bridge across river Narmada at Bharuch, inaugurated by the Prime Minister on 9th of March 2017, has brought major relief for people travelling on the Vadodara- Surat section of NH-8. **The 1.4 km ‘Extradosed’ cable stayed bridge is the longest in India and the second such bridge in the country after Nivedita Setu over Hooghly.**

**Bridge over River Chambal at Kota**

A 6-lane Cable Stayed Bridge across river Chambal at Kota. **this bridge marks the completion of the East-West corridor.**

**Setu Bharatam**

Ministry has envisaged a plan for replacement of Level Crossings on National Highways by ROBs/ RUBs under a scheme known as Setu Bharatam

**Toll- Operate-Transfer (TOT)**

The Ministry is monetizing its road assets constructed with public funds through Toll-Operate-Transfer (ToT) scheme. The scheme envisages bidding of bundled national highways for a concession period of 30 years.

**Masala Bonds**

Targeting mobilization of funds, NHAI launched an issue of Masala Bonds at the London Stock Exchange in May 2017. The Masala Bond saw an overwhelming response from a wide spectrum of investors.

NHAI’s Masala Bonds have been rated the best for the year 2017.

**Eastern Peripheral Expressway– Western Peripheral Expressway**

The project of Peripheral Expressways around Delhi, comprising Eastern Peripheral Expressway (EPE) and Western Peripheral Expressway (WPE) emanating from NH-1 (near Kundli) and terminating at NH-2 (near Palwal), bypassing Delhi aims to decongest Delhi and reduce pollution levels in the NCR

**Decentralisation & Administrative Measures**

(a) Enhanced powers for approval of projects have been delegated to the NHAI Board specifically in the case of EPC projects and all PPP (BOT) projects where no VGF is involved. This will fast track the decision making process.

(b) Powers for appraisal and sanction of NH projects implemented through the state PWDs have been enhanced and certain field offices of MoRTH are now headed by the CE-ROs with a view to further streamlining various processes. This is expected to increase efficiency and speedier decision making.

(c) Within the Bharatmala Parijoyna 10% of the funds will be ear-marked under the **Grand Challenge mechanism** for the State Governments where sufficient and timely land is made available. This will fast track the projects.

**ROAD SAFETY**

Decrease in road accidents and fatalities

India is committed to bring down fatalities from road accidents.

As per the report **Road Accidents in India-2016**, there has been a decrease in road accidents by 4.1% in 2016

**New Accident Reporting Format**

A strong Road safety action plan requires a credible database.

**Rectification of Black Spots**

The Ministry has so far identified 789 road accident black spots in various States of which 138 are on State roads. 189 spots have already been rectified and sanctions for rectification of 256 spots accorded till date which are in different stages of bidding/ progress.

**Training of Drivers**

Ministry has been working in association with States, Vehicle manufacturers and NGOs for strengthening the driving training.

**New steps for safety of vehicles :**

1. **Two Wheelers**: Two Wheelers account for a major share of accidents and consequent fatalities.
2. **Motor Cars**- All the passenger cars are also mandated to be fitted with ABS to improve their safety and stability. One of the highlights of the year is the mandate for car manufacturers to fit additional safety features on cars to be manufactured from 1st July, 2019. These include compulsory air-bags, speed warning audio alert, seat belt audio alerts and reverse sensors.
3. **Heavy Vehicles**: All heavy vehicles have been mandated to have ABS fitted on them.

**Passenger Safety and Security**

To enhance the passenger safety and specially the safety and security of women and children in transit, all the passenger buses and taxis have been mandated to be fitted with GPS devices to enable real time tracking and intervention in times of crisis.

**Motor Vehicle (Amendment) Bill, 2017**

         The Ministry constituted a Group of Ministers across states to deliberate upon and propose strategies for reducing road fatalities and to suggest actionable measures for implementation.  On the basis of recommendations of the GoM, MoRTH introduced the Motor Vehicle (Amendment) Bill 2016 in Parliament (Lok Sabha) on 9th August, 2016. The Bill addresses road safety issues by providing for stiffer penalties, permitting electronic enforcement, improving fitness certification and licensing regime, statutory provisions for protection of good Samaritans and recognition of IT enabled enforcement systems.  The Bill also paves way for reforms in public transport which in turn will help in improving road safety.  The Bill contains provisions for treatment of accident victims during golden hour which will help in saving precious lives. The Bill also aims to simplify processes for the citizens dealing with transport departments and usher in an era of transport reforms in the country.

**Measures undertaken to combat vehicular pollution:**

(i)            Ministry has taken a landmark step towards reducing the vehicular pollution. Emission norms for Tractors and Construction Equipment vehicles have been notified for low Sulphur fuel, to be implemented from 01st October, 2020.

(ii)          Ministry has also taken initiatives to promote alternate fuels in vehicles. The Electric vehicles are being given a big push by the Ministry. India’s first multi modal Electric Vehicle passenger transport project was launched in Nagpur with integrated solution of buses, taxis and E-Rickshaws.

The government is, however, incentivising purchase of electric vehicles through the Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India (FAME) programme

(iii)        The E-Rickshaw, which has proved to be an effective substitute for manual Rickshaws, has emerged as a cost effective, environment friendly solution for improving last mile connectivity.

**E-Initiatives:**

**INAM-Pro+,** an upgraded version of INAM-Pro, was launched on 01 June 2017. More than 700 construction companies have used INAM-Pro during the last two years. With 37 Cement companies registered on it, the portal facilitated comparison of price, availability of materials etc. and made it convenient for prospective buyers to procure cement at reasonable rates in a transparent manner

**Implementation of Hybrid ETC system**

Electronic toll collection (ETC) system, the flagship initiative of MoRT&H, has been implemented on pan-India basis in order to remove bottlenecks and ensure seamless movement of traffic and collection of user fee as per the notified rates, using passive Radio Frequency Identification (RFID) technology.

**Indian Highways Management Company Limited (IHMCL),** a Company registered under the Companies Act, has been incorporated for working as implementing agency for ETC with National Payment Corporation of India (NPCI) functioning as the Central Clearing House (CCH)

Transport Mission Mode Project, driven by Ministry of Road Transport & Highways,  has successfully automated RTO operations, set up a consolidated nation-wise transport database and has launched a host of citizen and trade-centric applications .

  Mobile app **e-Challan and m-Parivahan**   – developed for comprehensive enforcement solution.

**mParivahan** App - for information and comprehensive services to citizen

**Wayside Amenities**

The National Highways Authority of India has started the process of developing wayside amenities at land acquired at 183 locations along side the national highways The facilities having an area more than 5 acres will be developed under the brand name “**HIGHWAY VILLAGE”** and facilities on smaller area less than 5 Acres will be developed with brand name **“HIGHWAY NEST.**

### Railways

* Rashtriya Rail Sanraksha Kosh (RRSK)
  + with a corpus of ₹1 lakh crore over a period of five years
  + current year 20000cr
* **Project Swarn** has been started to upgrade the condition of Rajdhani and Shatabdi Express Trains.
* Categorization of staions
  + The stations have been clubbed into 3 groups i.e.
  + Non-suburban (NSG),
    - 6 sub categories NSG1🡪NSG6
  + Suburban (SG) and
    - SG1🡪SG3
  + Halt (HG)
    - HG1🡪hg3
* **Green Corridor**
  + As a part of “Swachh Bharat Mission”, Indian Railways is proliferating bio-toilets on its coaching stock so that no human waste is discharged from coaches on to the track. In order to demonstrate the advantage of fitment of Bio-toilets
* Cag report
  + An operating ratio of 99.54% means that Railways is spending 99.54 paise to earn 100 paise
  + 96.5%, the operating ratio was at its poorest level since 2000-01 when it was 98.34%
  + CAG said passenger fares and freight charges should be based on the cost involved so that it brings both rationality and flexibility in pricing
  + There is a need to strengthen internal control mechanisms to reduce instances of misclassification of expenditure
* **‘SRIJAN’ (Station Rejuvenation Initiative through Joint ActioN),** an idea competition for 635 Station Development on Indian Railways
* **Sfoorti**
  + Look at above in document
* Safety features:
  + - use of Ultrasonic Flaw Detection of rails and welds at predefined periodicity to detect internal flaws in rails/welds
    - Pre-stressed Concrete Sleepers
    - Electronic monitoring of track geometry is carried out to detect defects and plan maintenance
    - improvement of their working conditions of pilots including proper rest and periodic medical examination
    - educate staff for observance of safe practices
  + Action Plan for modernization
    - Coaches:
    - Proliferation of LHB coaches(Linke Hoffman Busch)
    - Passenger information system in new coaches
    - Utkrisht Double Decker Air-conditioned Yatri (UDAY) trains have been conceptualized as double-decker rakes with improved amentities
    - Closed-Circuit Television (CCTV) cameras in Mainline coaches/EMU/MEMU and Metro coaches are being provided in a phased manner to improve security of passengers.
    - Provision of CCTV cameras has been made over 394 railway stations. Installation of CCTV cameras is also under progress over 983 stations with allocation of budget under Nirbhaya Fund
    - Pilot for introduction of precooked food (‘ready to eat’ meals) in the range of options available to passengers
  + Speed:
    - LHB coaches fit for running at 60km/h
    - Semi speed gatimaan exress between agra and delhi
    - Mumbai goa tejas express at 200kmph

#### Rail Avataran

7 mission mode programme

***Mission 25 Tonne*** –

It aims to increase revenue by augmenting carrying capacity. To achieve this 10-20% freight loading will be done through 25-tonne axle-load wagons in 2016-17 and target movement of 70% of freight traffic on high axle load wagons by FY19-20.

***Mission Zero Accident***:

It comprises of two sub missions

a.       Elimination of unmanned level crossings: The goal is eliminate all unmanned level crossings on Broad Gauge in the next 3-4 years through innovative financing mechanisms. It will reduce deaths due to accidents and improve throughput of the network

b.      TCAS (Train Collision Avoidance System): An indigenous technology has been developed to equip 100% of the High Density Network with TCAS in the next 3 years. This will prevent head on collisions and improve throughput by increasing average sectional speeds.

***Mission PACE (Procurement and Consumption Efficiency)****:*

This mission aims to improve our procurement and consumption practices to improve the quality of goods and services. It will introduce a culture of optimum usage by adopting practices such as Vendor Managed Inventory, direct procurement of HSD, new procedures for identification and disposal of scrap.

***Mission Raftaar***:

It targets doubling of average speeds of freights trains and increasing the average speed of superfast mail/express trains by 25 kmph in the next 5 years.

It will complement Mission 25 Tonne to increase throughput of the railway system.

***Mission Hundred****:*

This mission will commission at least a hundred sidings in the next 2 years. The current siding/ PFT policy would be revised to elicit greater private participation.

***Mission beyond book-keeping****:*

It will establish an accounting system where outcomes can be tracked to inputs

***Mission Capacity Utilisation****:*

It proposes to prepare a blueprint for making full use of the huge new capacity that will be created through two Dedicated Freight Corridors between Delhi-Mumbai and Delhi-Kolkata scheduled to be commissioned by 2019.

Missions will be headed by a Mission Director reporting directly to the Chairman, Railway Board

**Railway Board**

The Railway Board is the apex body of the Indian Railways.

It reports to the Parliament of India through the Ministry of Railways headed by the Railway Minister of India.

#### Kakodkar Committee report

High Level Safety Review Committee under the chairmanship of Dr. Anil Kakodkar to review the safety of the Indian Railways and recommend improvements

Recommendations

The Committee recommends a total financial investment of Rs 1,00,000 crore over a five year period

The ‘present environment on Indian Railways reveals a grim picture of inadequate performance’ largely due to poor infrastructure and resources, and lack of empowerment at the functional level.

The financial state of Indian Railways is ‘at the brink of collapse’ unless some concrete measures are taken. Passenger fares have not been increased in the last decade and the infrastructure is severely strained. All safety margins have been squeezed. This has led to a neglect of infrastructure maintenance.

In the present situation, the three vital functions (rule making, operations and the regulation) are all vested in the Railway Board. There is need for an independent mechanism for safety regulation. The Committee recommends the creation of a statutory **Railway Safety Authority with enough powers to have a safety oversight on the operational mode of Railways**

The Research Design and Standards Organization (RDSO), the apex technical wing of the Railways, is highly constrained. This has hampered the ability of the system to internalize emerging technologies. The Committee recommends restructuring of RDSO for greater empowerment. It also recommends that a Railway Research and Development Council (RRDC) be set up directly under the government

The Committee recommends the adoption of an Advanced Signalling System (akin to the European Train Control System) for the entire trunk route length of 19,000 km within 5 years. This is estimated to cost Rs 20,000 crore.

All Level Crossings (both manned and unmanned) should be eliminated over five years. An estimated expenditure of Rs 50,000 crore will be required for achieving this target. The Committee is of the belief that this amount will be recovered within 7-8 years through savings in maintenance costs and improved train operations.

The Committee also recommends a switch over from the ICF design coaches to the much safer LHB design coaches. This is likely to cost Rs 10,000 crore over the next five years.

Other Committee recommendations on the maintenance of safety related infrastructure are estimated to cost about Rs 20,000 crore.

### Waterways

**Port Logistics: Issues & Challenges in India report:**

Dun & Bradstreet released the report

To achieve a target of 5% share in world exports, India’s exports need to grow at an average rate of over 26% for the next five years

Looking at 13 major ports,

3 ports (JNPT, Kamarajar, Vizag) have received ‘Good’ score;

7 ports (Cochin, Kandla, Paradip, Chennai, Mormugao, New Mangalore and VOC) have received ‘Average’ score and &

3 ports (Haldia, Kolkata and MbPT) have received ‘Poor’ score.

Issues with Indian Ports:

Five issues, namely

port congestion,

customs clearance (including scanning & ICEGATE),

shipping line issues & charges,

documentation & paperwork, and

regulatory clearance are the most common problems across ports and

out of these just 4 issues, constitute 80% of total issues causing detention & demurrage.

The three major findings of the report are –

Processes and operations across the ports are not standardized or uniform;

Costs and time for key processes are unpredictable and there is an unacceptable level of variation across ports as well as within port;

Several government initiatives taken need to be followed through to completion

### Shipping

Sagarmala project

Coastal SEZ or coatal economic zones under sagarmala;JNPT to establish india’s first CEZ.

waterways equivalent of the Golden Quadrilateral

1. modernise port infrastructure, add up to six new ports and enhance capacity.
2. improve port connectivity through rail corridors, freight-friendly expressways and inland waterways.
3. create 14 coastal economic zones or CEZs and a special economic zone at Jawaharlal Nehru Port Trust in Mumbai with manufacturing clusters to enable port-led industrialisation.
4. develop skills of fishermen and other coastal and island communities.

Implementation

State governments would set up State Sagarmala committees, headed by the chief minister or the minister in charge of ports.

At the central level, **a Sagarmala Development Company (SDC)** will be set upto provide equity support to assist **various special purpose vehicles (SPVs) set up for various projects**.

Importance

Such a project looks promising, going by the example of Shenzhen in China. Since 1978, it helped create an estimated seven million jobs and the city’s GDP grew 50 times to $180 billion after the development of ports. If Indian port development takes off similarly, local and foreign funds would flow in and coastal regions may become good bets for real estate too,

### Airways

Issues

Air cargo traffic to grow 60% in 5 years, infrastructure bottlenecks retarding the sector’s growth

Solu:

High dwell time [time from cargo arrival to custom clearance] leads to significant transaction costs and operating expense for the air cargo operators.

One way to achieve lower dwell time to match with global standards is air freight stations, which can help decongest airports

**Nabh Nirman scheme launched**:

Will use funds of AAI,

Used to expand capacity of Airports in INDIA

### Electricity issue

Rural electrification

**The government deems a village “electrified” if 10 per cent of its households, as well as public places such as schools and health centers, are connected.**

**less than 8 per cent of the newly electrified villages had all homes electrified, the data showed,**

**India had electrified about 13 per cent of the almost 36.8 million homes identified**

leaving swaths of rural India without power, which can hinder economic growth, basic health care and education 

Such vague definitions only create a false sense of achievement and take us further away from the ground reality of duration and quality of supply in these areas, 

It’s not simple connectivity that triggers economic activity. It is continuous and good quality power supply that does it. 

IAEA 2014 data released by world bank, India is ranked 1 in number of people **not having access to electricity**

Electricity supply is controlled and maintained by India’s state governments, which have used cheap power to rural homes and farmers as a political tool, often at a financial loss.

State distribution companies were saddled **with accumulated debts of almost 4.1 trillion rupees ($61.7 billion) as of March 2015,**

**The distributors, known as discoms, have traditionally coped with losses by limiting power supplies to heavily-subsidized consumers in rural areas and selling more expensive electricity to industrial consumers**

**Electricity Act**

“Hey, you are selling power at ₹2.44; I’ll pay you (say) ₹6, why don’t you sell it to me?” Simple, right?

Rationale

Electricity Act, 2003,The push to make such deals possible came in the form of the Electricity Act in 2003.

The central idea of the Act, which is still hailed as a ‘landmark legislation’ for the power sector, was the creation of an open market for electricity, where anyone could produce power anywhere and sell it to anyone else at mutually agreed prices.

In developed countries, consumers can switch suppliers over the laptop.

But in India, a decade and half after the legislative framework came into being, a free and open market for power, as it exists for instance, for telecom, is still elusive.

The reason is that State governments, through the electricity distribution companies (discoms) owned by them, are still a monopoly, and exhibit monopolistic tendencies — their instinct is to make their customers pay for their inefficiencies.

There again, only some customers pay, while the others have to be subsidised and what better strategy than to make the paying customers pay more to defray the costs of the subsidies?

**cross-subsidy surcharge’ (CSS).** This is a surcharge that a discom levies on a customer for defraying costs of free or subsidised power to some sections of the society.

In an open market, the customers who are thus made to pay more would go to other suppliers if they find them economical.

But in a monopoly, the monopolist would not let the customer deal directly with the supplier.

While on paper, there is scope for a large consumer of power to directly purchase power from a supplier, by-passing over the State discom, in practice this has proved to be difficult because the owner of the discom.

“State governments use the respective State Load Dispatch Centre (which routes the power) as the instrument of control,”

State governments have often seized upon a certain provision (Section 11) in the Electricity Act, which allows them to force a power producer in that State not to supply outside the borders.

The provision was meant for use in rare circumstances of emergency-like power shortage

The Electricity Act allows CSS, but the idea clearly was that the charge “shall be progressively reduced and eliminated”.

Instead, the CSS is only increasing. Assam, for example, saw CSS rise from 54 paise in 2016-17 to ₹1.31 in 2017-18; Bihar 79 paise to ₹1.79 and A.P. ₹1.61 to ₹1.65.

The National Tariff Policy of 2016

it says “direct subsidy is a better way to support the poorer categories of consumers than the mechanism of cross subsidising the tariff across the board

**‘additional surcharge’** which is meant to compensate discoms for the fixed cost of their long-term contracted capacity, which is stranded as a result of consumers moving to Open Access (OA)

These charges, collectively known as **‘open access charges’** have made a free market economically unviable

There are structural issues in improving discom efficiencies. A case in point is the instance in Karnataka, where the unions stopped substation automation because it would render staff surplus, requiring them to be transferred

At the heart of the the absence of a free market for electricity is the mismatch of perception of the central and State governments.

While the Centre wants a vibrant, 24-by-7 market, the States are more concerned about their immediate finances and electoral issues.

On top of all this is the proposed **New Electricity Act which proposes to separate** “carrier and content”, meaning the transmission lines will be like tolled highways for use by anybody, while the power itself could be supplied by anybody, so that the consumer will have a choice to switch seamlessly between suppliers.

### Electric vehicles

Issue of lithium discussed in editorial section

Issue of regulation in electric and hybrid vehicls

India must index its vehicle taxation to emissions and treat hybrid and electric vehicles (EVs) as children of the same parent,

Currently, GST is levied on vehicles based on their length, ground clearance and engine capacity

It should gradually move to pollution and emission based tax

electric vehicles in the form of 12% GST compared with 43% on hybrid vehicles

A Dedicated policy

No India does not have one

The government is, however, incentivising purchase of electric vehicles through the Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India (FAME) programme

Benefits

Converting a significant part of the transport fleet, led by public transport, to electric or hybrid vehicles is predicted to sharply cut dependence on imported oil, and reduce carbon emissions.

A 2017 report issued jointly by NITI Aayog and the Rocky Mountain Institute in the U.S. projects that, for an oil price benchmark of $52 a barrel, shared, electric, and connected mobility options would help the country save $60 billion (₹3.9 lakh crore) in 2030, besides eliminating cumulative emissions of 1 gigatonne of carbon dioxide.

Challenges

One major challenge in scaling up electric mobility is the availability of charging infrastructure across the country.

As part of a FAME pilot project, 25 charging stations were created in Bengaluru by one automaker. Since 2015, the Department of Heavy Industry has sanctioned 435 charging stations.

Infrastructure is needed to produce, maintain and recycle a large number of batteries as the population of EVs rises.

The current economics of EVs favour larger vehicles in the longer term, given the high capital expenditure involved. But it has good cost-benefit outcomes even now for two-wheelers and rickshaws.

### Smart city

 Smart Cities Mission, which was described as ‘Mission Transform nation’ by the Prime Minister, Shri Narendra Modi, seeks to transform cities into sustainable centres of economic activity and provide improved quality of life to citizens.

The Government have started a campaign to do the credit rating of cities.

This exercise to understand the financial health of our urban local bodies by credit rating has been completed in 348 cities. 1

146 cities have “Investment Grade” with more than BBB(minus) grades and 30 cities with more than A(minus) grades.

Constitutional mandate to devolve funds, functionaries and functions on local bodies, the progress has been slow. However, it is heartening that in a threefold increase over that of the 13th Finance Commission, the 14th Finance Commission awarded total grants of Rs.87,114 Crore to Urban Local Bodies.

important strategic element of the Smart Cities Mission is the use of digital technology to bring about transparency and accountability, as well as improving the service delivery to its citizens.   In the Smart Cities Mission, cities are rolling out fast network of sensors and cameras to collect data, which is then analysed by using artificial intelligence to make predictions and decisions regarding collection of solid waste, traffic management, control of crime, etc.

Smart Cities Mission is Area Based Development - cities pick up one area, develop it fully and then proceed to develop all other areas of the city one by one

the Urban Local Bodies financially self-sufficient is very important for sustainable development.  I am happy to note that Pune and Ahmedabad have issued Municipal Bonds and the proposals of another eight cities are in an advanced stage to issue the bonds.

Another financial tool, having a large potential is Value Capture Finance (VCF). Government invests a lot of money in cities, which leads to increase in property values.  Government policies also have a positive effect on house values.  In Value Capture Finance, a small share of this increase in property value due to actions by Government is taken by the local bodies for constructing public projects.

### Coal Mining

**UTTAM APP for Coal Quality Monitoring**

Ministry of Coal and Coal India Limited (CIL) developed UTTAM,aims to provide an App for all citizens and coal consumers to monitor the process of Third Party Sampling of coal across CIL subsidiaries

UTTAM is an Example of Leveraging Technology to Ensure Transparency and Efficiency in Coal Quality Monitoring Process

The Centre opened up commercial coal mining for the private sector.

There will be an ‘ascending forward auction’ -- a two-stage online auction comprising (i) technical bid and (ii) financial bid with initial and final price offers.

**There will be no curbs on the sale or use of coal from the mine.**

With an aim to boost coal production, the state-owned Coal India Limited (CIL) was set up in 1975. Ever since, it has monopolised the sector, and is now the world’s largest coal-producer.

The coal ministry had, from 1993 to 2011, allocated 218 coal blocks to **eligible Public-Sector Undertakings and private firms for specified end-use projects, that is power, steel and cement, as well as for commercial mining by PSUs**

Increased competition in the market will lead to higher domestic production, better utilization of mining resources for development of India and ensure assured coal supply.

## Tourism:

The percentage share of Foreign Tourist Arrivals (FTAs) in India during December, 2017 among the top 15 source countries was highest from Bangladesh (19.04%) followed by USA (16.90%), UK (10.41%), Australia (5.31%), Canada (3.85%)

In T.Nadu Varkala emerges prime beach destination

Schemes for tourism

 ‘e-FRRO’ (e-Foreigners Regional Registration Office)

aimed at building a centralized, transparent online platform for the foreigners to avail visa related services and to provide Faceless, Cashless and Paperless services to the foreigners with user friendly experience.

e-FRRO include facilitation of legitimate foreigners through “Digital India” vision of the Government, foreigners need not visit FRRO/FRO office – “Services from the comfort of home”,

Incredible India 2.0

to promote various destinations and tourism products of the country including

spiritual,

medical and

wellness tourism in important and potential source markets overseas.

HRIDAY Scheme

National Heritage City Development and Augmentation Yojana (HRIDAY), a Central Sector Scheme

Ministry of Housing and Urban Affairs

aims at preserving and revitalizing the soul and the unique character of the heritage cities in lndia.

Under the Scheme, twelve cities namely, Ajmer, Amritsar, Amaravati, Badami, Dwarka, Gaya, Kanchipuram, Mathura, Puri, Varanasi, Velankanni, and Warangal have been identified for development.

civic infrastructure projects which includes revitalization of urban infrastructure for areas around heritage, religious, cultural and tourism assets of the cities

Swadesh Darshan Scheme

thirteen thematic circuits have been identified, for development namely:

North-East India Circuit,

Buddhist Circuit,

Himalayan Circuit,

Coastal Circuit,

Krishna Circuit,

Desert Circuit,

Tribal Circuit,

Eco Circuit, : Eco-Tourism, Adventure Sports, Associated Tourism related Infrastructure for Development

Wildlife Circuit,

Rural Circuit,

Spiritual Circuit,

Ramayana Circuit and

Heritage Circuit.

Prasad

Pilgrimage Rejuvenation and Spiritual, Heritage Augmentation Drive (PRASHAD) is of holistic development of identified pilgrimage and heritage destination

## IPO

### Geographical indicator

Chicken issue:

A protein-rich breed of chicken known **as ‘Kadaknath’** has become a bone of contention between Madhya Pradesh and Chhattisgarh

### Patents Act Issue

Patent law grants to the patentees the privilege of enjoying a limited monopoly in order to achieve the objective of public benefit.

Thus, the quid pro quo for getting patent monopoly is patent disclosure

As part of the disclosures, patentees are required to disclose if they are locally working their patented invention in exchange for the conferred benefits

“patents are granted to encourage inventions and to secure that the inventions are worked in India on a commercial scale and to the fullest extent that is reasonably practicable”

that the monopoly granted to the patentees is not merely to import the invention.

Historically, laws in India have considered “working” the invention as being so crucial to the enjoyment of the monopoly that non-working in India entitled a third party to apply for a compulsory license

In streamlining the local working requirement, especially in the field of pharmaceuticals, India is in line with its international trade obligations.

The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) provides flexibilities and underscores the sovereign rights of countries to weave in the ground realities of each country while honouring their international trade commitments.

Paragraph 5(2) of the Doha Declaration outlines the right of national governments to compulsorily license patents and the “freedom to determine the grounds upon which such licences are granted”

including the use of grounds not explicitly specified in Article 31 of TRIPS

Thus, lack of local working of the patent can be grounds for granting a compulsory licence along with other grounds such as high prices and non-supply of the patented invention locally.

Seeking local working information is part of India’s use of its sovereign rights.

The state is obligated to protect the right to life of its citizens under Article 21, and this duty is heavier than any duty that the state may owe the patentees.

The state should ensure that patentees perform their duties as monopoly holders.

This means that the grant of patents must contribute to the promotion of technological innovation and to the transfer and dissemination of technology in a manner conducive to social and economic welfare and to a balance of rights and obligations

the Indian Patents Act (Section 146) empowers the Controller to require a patentee or a licensee to furnish statements of how the invention has been commercially worked in India.

It also requires the patentees and every licensee to furnish the prescribed statements regarding the invention. The Controller also has the right to publish the information received.

World Trade Organisation (WTO) rules do not prohibit getting information on the local working

The Article 27 prohibition against discrimination based on whether the goods are locally manufactured or imported applies to the grant of a patent and not to grounds for issuing a compulsory license

Importance of FORM 27

Countries like India signed up to the intellectual property bandwagon to maximise opportunities for technology transfer.

Part of this exercise involves allowing local firms to compete and improve innovation, especially on life-saving pharmaceuticals.

There is no wisdom in enacting patent laws that mainly enable foreign companies to import into a jurisdiction, without using it as a tool to foster scientific and technological progress at home.

Thus, disclosures under Form 27 are required as part of a national strategy to improve innovation and further technology transfer into India, to maintain public health and to ensure supply of pharmaceuticals nationally.

A great opportunity

The U.S. has set a precedent with its America First approach, leading to an imposition of 25% steel tariffs.

**Article XXI of the General Agreement on Tariffs and Trade that allowed the U.S. to impose the steel and aluminium tariffs to prevent importation** will also justify India’s position in requiring local working to ensure access to medication.

India has been subjected to this unwanted bullying regularly.

The amendment of Form 27 presents a great opportunity for India to reiterate the limits and limitations of the unilateral approach, should the U.S. choose to take unilateral action

Concluded

In a world in which the structure of monopolistic drug development is the norm, there are consequences for both health and democracy, since the initial rationale of patents as a purely instrumental monopoly in public interest is subverted and forgotten.

The patent system is misconstrued (wrongly interpreted ) as serving the patent owner.

Similarly, there is wide misconception by trade lobbyists that trade obligations are subservient to sovereign rights.

Neither of these propositions is correct.

That is why the question raised in the petition filed by Professor Basheer is not to be lightly taken.

It is not only about the right to health but also about the state’s sovereign right to preserve public health and duty to fulfil a Constitutional mandate.

### Intellectual property rights

**Improving efficiency**

**Department of Industrial Policy and Promotion (DIPP)** has taken multipronged approach to increase disposal of patent applications.

**The pendency of patent applications** at examination stage has come down from 2.04 lakh as on 31st March 2017 to 1.72 lakh as on 28th of February this year.

under the Ministery of Commerce and Industry,

**International Intellectual Property (IP) Index,**

India ranking 44th among 50 nations

The US tops the list with 37.98 points, followed by United Kingdom (37.97) and Sweden (37.03)

Only two countries were ranked below India – Pakistan (44th) and Venezuela (45th)

China was ranked 27th, South Africa (33rd), Brazil (32nd) and Russia (23rd).

based on 40 unique indicators that benchmark activity critical to innovation development surrounding patent, trademark, copyright, and trade secrets protection

**reported by U.S. Chamber of Commerce**

**how Indian patent law helps thwart evergreening practices by pharmaceutical companies?**

Evergreening practice is a practice of applying for secondary patent before expiration of 20 years of original patent to prevent revenue or profits from plummeting by drug makers.

India has repeatedly rejected secondary patents for many so called blockbuster drugs in past. It’s ethical practices have paved the way for less expensive generics which has helped in bringing the cost of medicine down by a great margin. Compared to USA cost some generics sold in India are much cheaper because of rejection of secondary patents by Indian Patent office or in some cases by SC

As per Section 2(1)(ja) of the Patents Act, the product in question must feature a technical advance over what came before that’s not obvious to a skilled person.

Because secondary patents for pharmaceuticals are often sought for trivial variants, they typically fail to qualify as an invention.

Further, when a medicine is merely a variant of a known substance, Section 3(d) necessitates a demonstration of improvement in its therapeutic efficacy.

The provision also bars patents for new uses and new properties of known substances.

This additional requirement is unique to Indian law, and along with Section 2(1)(ja), ensures that bad patents stay out of the system.

Together, Sections 3(d), 3(e) and 3(i) have been instrumental in rejecting close to 1,000 secondary patents for pharmaceuticals we studied.

These provisions also extend to biologics, the new big players in the therapeutics marketplace. More lucrative than small molecule medicines, biologics are no stranger to the lure of secondary patenting for extending patent terms. For instance, a quarter of the secondary patents for Humira, a biologic, are directed towards new uses and methods of treatment. Thanks to the provisions in the patent law, Humira enjoys no patent protection in India, since AbbVie restricted their Indian filings to only cover their secondary patents.

Blockbuster medicines are crucial to the success of public health. But they have been gamed, and rendered inaccessible to the people and governments who need them. In order for these medicines to be accessible, there can be no surer way than to enact strong standards that put bad patents where they belong.

**Cheaper drugs to treat HIV became possible** at the time as the Indian Patents Act did not provide for product patents on pharmaceutical products, until required by the Trade Related Intellectual Property Rights (TRIPS) framework of the World Trade Organization (WTO)

## Budget 2018-19

First defence corridor in T.Nadu

# INTERNATIONAL AFFAIRS

## India-Nepal

**India Nepal- friendship treaty,1950**

There shall be everlasting peace and friendship between the Government of India and the Government of Nepal. The two Governments agree mutually to acknowledge and respect the complete sovereignty, territorial integrity and independence of each other.

The two Governments agree to appoint Consuls-General, Consuls, Vice-Consuls and other consular agents, who shall reside in towns, ports and other places in each other's territory as may be agreed to.

focus of the official pronouncements has been on connectivity,

External Affairs Minister Sushma Swaraj made an unusual departure from protocol to visit Mr. Oli in Kathmandu and congratulate him for his election win even before he had been sworn in.

It was a significant shift from 2015-17, when the five-month-long blockade of truck trade at the Nepal-India border and Nepal’s ties with China placed a severe strain on the relationship.

Mr. Oli put aside the anti-India rhetoric of his election campaign, and came to India on his first post-election visit abroad seeking ‘friendship first, and friendship second and third

 From here on it will be the deliverables, such as road and railway links, power projects and post-earthquake reconstruction commitments, that will determine the success of the partnership, not just the announcement of new initiatives. India has residual concerns over enhancing the constitution’s provisions for Nepal’s plains-based Madhesi population, but these should be taken up discreetly and diplomatically.

Recovery in the relationship is still fragile, and any grandstanding must be avoided.

## India-Pak

114th meeting of the Permanent Indus Commission (PIC) will take place in India

## Strategic Dialogue

India- Japan strategic dialogue

External affairs minister inida and Foreign minister japan

9th in japan

Instituted in Japan

## Yemen and Saudi war

## India and USA

Indo-U.S. Science and Technology Forum (IUSSTF) celebrated its 18th Foundation Day

The genesis of IUSSTF can be traced back to the year 2000, when after nearly five decades of the India-U.S. relationship in S&T, the Governments of India and the United States of America decided that it was time to create a more formal mechanism to take this long history of productive engagement to the next level. This led to the formation of the binational Indo-U.S. Science and Technology Forum

IUSSTF has developed an evolving program portfolio largely conceived and driven by the scientific community from both countries.

U.S.-India S&T Endowment Fund (USISTEF) that provides grant-in-aid support (upto INR 25 Million / USD 400,000 approx.) through a highly competitive process, to commercialize S&T-based innovations with significant societal impact.for innovation and entrepreneurship

After Crude oil , India will get delivery of the first ever shipment of LNG from the U.S. on March 30

Two plus two meet postponed

## North korea and USA

“track 1.5 talks” in finland between USA and KOREA

At Beijing Summit North Korea's leader pledges to denuclearise the peninsula and meet officials from the U.S

90% of NK trade is with china

## Rohingya crisis

Rohingya seek return to home villages

They want to return to home country

## China

Financial tools applied by china:

BRO

State International Development Cooperation Agency (SIDCA)

to “better serve the country’s global strategy and to build the Belt and Road Initiative

will be responsible for making strategic guidelines, plans and policies on foreign aid

Beijing’s emergence as a global aid donor, nearly at par with the U.S

Global aid rise buy china

China pitched $350 billion in foreign aid and other forms of state financing between 2000 and 14.

The U.S. overseas aid figures at $394.6 billion

## Smart Diplomacy

The U.S. can no longer be the only mediator,” he said, referring to the U.S.’s decision to recognise Jerusalem as Israel’s capital.

India, which will be a strong leader in a multipolar world

the renewed engagement in West Asia as “smart diplomacy” by India.

When USA proposed Jerusalem

India was one of the “few countries in the world” that had no problems with most of the countries in the region

## LOOK EAST POLICY

Northeast’s geographical location makes it the obvious gateway to India, linking the vast economies of the Indian subcontinent and of today’s ASEAN countries.

BIMSTEC also part of look eat policy.

## INTERNATIONAL AGREEMENTS

### Wassenaar Arrangement

42 country group including India(china not part of it)

Korea and japan only other Asian nations in it.

Head quartered in Vienna, Austria.

History:

In the light of cold war , COCOM (Coordinating Committee on Multilateral Export Controls) was not enough to deal with risks to regional and international security and stability related to the spread of conventional weapons and dual-use goods and technologies. So it cease to exist and new multilateral arrangement, temporarily known as the “New Forum” was established in 1993.

It used COCOM control lists as a basis for global export controls on a national level until the new arrangement could be established.

In Wassenaar arrangement was established in 1996 in the Netherlands,.

First meeting in Vienna in 1996.

The founding document of the Wassenaar Arrangement is known **as the “Initial Elements”.** The Initial Elements were originally established in 1996 and set out the purposes and scope of the Arrangement.

**‘Dual-use’ refers to technology that can have peaceful and military applications. The technology used to harness nuclear energy, for example, is a good example of ‘dual-use’.**

**Structure**:

the General Working Group (GWG) dealing with policy-related matters, and

the Experts Group (EG) addressing issues related to the lists of controlled items.

**Objectives**:

1. Contributes to regional and international security and stability
2. Promotes transparency and greater responsibility in transfers of conventional arms and dual-use goods and technologies
3. Complements and reinforces the export control regimes for weapons of mass destruction and their delivery systems
4. Is not directed against any state or group of states
5. Uses export controls as a means to combat terrorism.

**How it works**:

States signing arrangement:

* export controls on items included in the WA Control Lists. These controls are implemented via national legislation;
* have agreed to report on transfers and denials of specified controlled items to destinations outside the Arrangement;
* exchange information on sensitive dual-use goods and technologies.

**Control Lists:**

Munitions List :

* + Contains 22 main entries on items designed for military us

List of Dual-Use goods and technologies:

* + Cat 1 to Cat 9 and Sensitive List (SL) , Very Sensitive List (VSL).

**Impact on India:**

India gained entry into this group in 2017.

* a big step forward in its quest for formal acceptance as a responsible nuclear power.
  + a broad acceptance among its members of the country’s credentials as a fastidious adherent to export controls
* As a non-signatory to the Nuclear Non-Proliferation Treaty (NPT), New Delhi has been at pains to convey to the international community that it adheres to, and is invested in, a rules-based order and India had trouble accessing dual-use technology from member nations of these export control regimes, even after signing the nuclear deal with the United States.
* expected to facilitate high technology tie-ups with Indian industry and ease of access to high tech items for our defense and space programme.
* The Wassenaar Arrangement clubbed with mechanisms such as the Nuclear Suppliers Group (NSG), the Missile Technology Control Regime (MTCR) and the Australia Group
* Help in India’s enrty to NSG and Australian group.

### Australia group

India got entry into AG

## Africa Policy

### State visits

first leg of his State Visit to three African nations –Equatorial Guinea, Swaziland and Zambia. This is the first ever visit of a Head of State from India to Equatorial Guinea.

### Trade

trade between India and Africa stood at about $53 billion, it was “far below the potential”

### The 18 new Indian Missions in Africa:

will be opened in **Burkina Faso, Cameroon, Cape Verde, Chad,** Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Guinea, **Guinea Bissau, Liberia, Mauritania, Rwanda, Sao Tome& Principe,** Sierra Leone, Somalia, **Swaziland and Togo** over a four year period from 2018-2021

decision will enhance India's diplomatic outreach in the African continent and allow India to engage with Indian diaspora in African countries.

### Nigeria:

India has been the largest trading partner of Nigeria and Nigeria is India’s largest trading partner in Africa

India has noted with great interest the new initiatives of the Federal Government of Nigeria, particularly the Green Alternative initiative – a roadmap to make Nigeria self-sufficient in agriculture and a major exporter of agricultural product.

Will contribute to Nigerian Government’s priorities in the field of agriculture and allied sectors.

has increases training slots under Indian Technical and Economic Cooperation (ITEC) to Nigeria.

India had announced in **2015 concessional loans of US $10 billion to African countries**

## Maldivian crisis

the nation severed diplomatic ties with Iran in 2016 (accusing it of fomenting unrest in the Gulf) and with Qatar in 2017(Shia countries).

any intervention by India can be spun into an anti-Islamic rhetoric in the island, by interests inimical to Indian influence in the Indian Ocean. It would be impossible for India to counter this narrative in a nation where as much as a spark in these troubled times can make the otherwise disinterested Maldivian into an actual participant in defending the cause. Yameen know this far too well, and might just be waiting for India to take the mis-step. It would help his cause in cementing his role as a defender and protector of the faith, while everything else, including the economy of Maldives is troubled

To compare India’s intervention 30 years ago to help Maldives as a case in point is as naïve as it is uninformed. At that time, 1) in the mind of the Maldivian, India was helping them against a foreign aggressor (LTTE) and 2) there was no narrative that could be plausibly spun around faith.

Trade sanction However, any restrictions on the trade of essential commodities could lead to severe shortages, fuelling antagonism towards India among the Maldivians. Nepal’s antagonism towards India serves as a distinct and fresh example of any such attempt

It’s just that India should avoid any intervention that can be spun into an anti-Islamic rhetoric by interests within and outside. The Indian diplomatic arsenal has a host of weapons and India will have to patiently wait to deploy them

## Arctic council

The Ottawa Declaration lists the following countries as Members of the Arctic Council:

Canada,

the Kingdom of Denmark,

Finland,

Iceland,

Norway,

the Russian Federation,

Sweden and

the United States.

* 8 Permanent members
* Chairmanship passes to all member for 2 years; current chair Finland
* The participants of the Arctic Council are:
  + Governments of the eight member states.
  + The Permanent Participants PPS.
  + Working Groups.
  + Observers
    - India became observer in 2013 in Kiruna ministerial meeting
* Issues:
  + actions to reduce emissions and other releases of pollutants.
  + to support governments as they tackle pollution and adverse effects of climate chang
  + to ensure the sustainability of the Arctic’s living resources
  + The Environment and climate change.
  + Bio-diversity.
  + Oceans.
  + The indigenous Arctic peoples.

## India bangaldesh

Chakma issue

History

The Chakmas (budhist)and Hijongs(Hindu’s ) opposed their inclusion in undivided Pakistan during Partition.

They later opposed their inclusion in Bangladesh when East Pakistan was fighting the Liberation War with West Pakistan, on grounds that they are an ethnic and religious minority group.

A group of Chakmas resorted to armed conflict with Bangladeshi forces under the **name 'Shanti Bahini'**. The conflict increased the inflow of refugees to India.

**In 1997, the Bangladeshi government headed by Sheik Hasina signed a peace accord with the Shanti Bahini, which resulted in the end of the insurgency**.

According to the accord, the Chakma, Marma, Tripura, Murang and Tanchangya were acknowledged as tribes of Bangladesh entitled for benefits and a Regional Council was set up to govern the Hill Tracts.

The agreement also laid out plans for the return of land to displaced natives and an elaborate land survey to be held in the Hill Tracts.

Bangladesh was willing to take back a section of Chakma refugees living in India, but most of them were unwilling, fearing the return of religious persecution.

Issue in Arunachal

They were given vacnt lands in arunachal,people opposed them as they fear demographic changes.

Now SC says

In 2015, the [Supreme Court directed the Centre](http://thehindu.com/news/national/other-states/chakmas-hajongs-not-a-threat-to-indigenous-people-says-report/article7921031.ece) to grant citizenship to Chakma and Hajongs who had migrated from Bangladesh in 1964-69.

The order was passed while hearing a plea by the Committee for Citizenship Rights of the Chakmas. Following this, the Centre introduced amendments to the Citizenship Act, 1955.

The Bill is yet to be passed, as the opposition says **the Bill makes illegal migrants eligible for citizenship on the basis of religion, which is a violation of Article 14 of the Constitution**.

## India japan

**Japan and the U.S. held the 9th trilateral meeting**

here on Wednesday, focussing on connectivity, counter-terrorism and other regional and global issues of common concern, a joint press release issued after the meeting, said.

## India-Israel

Namaste Shalom”, a magazine on India-Israel relations

a food processing centre with collaboration of Israeli expertise will be inaugurated in Aizwal, Mizoram

## India-france

India-France Strategic Partnership

launched in 1998

enhanced cooperation in diverse fields covering civil nuclear, defence, space, counter-terrorism, education, research and development in science and technology, culture, urban development, climate change, trade and economics and people-to-people contacts.

Multipolar world

As a country that has prided itself on its ‘exceptionalism’, France has always been sympathetic to similar Indian claims based on its ancient civilisation.

This is why both countries were quick to voice support for global multi-polarity once the Cold War ended.

French discomfort with the U.S.’s unipolar moment in the 1990s was evident when it described it as a ‘hyperpower

Defence cooperation

Defence cooperation with France began in the 1950s when India acquired the Ouragan aircraft and continued with the Mystères, Jaguar (Anglo-French), Mirage 2000

Joint naval exercises, later christened Varuna, date back to 1983.

An agreement for building six Scorpène submarines in India with French help was signed in 2005

Joint exercises between the air forces and the armies were instituted in 2003 and 2011, respectively

Nuclear

nuclear field, an agreement was signed about a decade ago for building six EPR nuclear power reactors with a total capacity of 9.6 GW for which negotiations have been ongoing between the Nuclear Power Corporation of India (NPCIL) and Areva, and now EdF.

The agreement on the industrial way forward between NPCIL and EdF affirms that work at Jaitapur will commence before the end of 2018

Jaitapur worlds largest proposed nuclear plant

Space cooperation

Cooperation in the space sector has continued since the 1960s when France helped India set up the Sriharikota launch site, followed by liquid engine development and hosting of payloads.

Today, it is a relationship of near equals and the ‘vision statement’ refers to world class joint missions for space situational awareness, high resolution earth observation missions with applications in meteorology, oceanography and cartography.

GeoPolitics

After the Cold War, France decided that its preferred partner in the Indian Ocean Region would be India

It was the first P-5 country to support India’s claim for a permanent seat in an expanded and reformed UN Security Council

Partner in IOR

France has expressed concern about China’s growing presence in the Indian Ocean Region

It has long maintained bases in Reunion Islands and Djibouti and established one in Abu Dhabi in 2009

**signing of MoUs regarding the provision of reciprocal logistics support to each other’s armed forces**, exchange and reciprocal protection of classified information and developing shared space studies and assets for maritime awareness provide the basis on which to strengthen joint naval exercises

strengthening cooperation with France, particularly in the western Indian Ocean Region makes eminent strategic sense even as India develops its presence in Oman (Duqm) and Seychelles (Assumption Island).

Trade and Commerce

Trade has grown in recent years but at $10 billion is half of the trade with Germany.

The signing of nearly $16 billion worth of agreements at the business summit indicates that private sectors in both countries are beginning to take notice.

In the past, Indian companies saw the U.K. as the entry point for Europe; now with Brexit approaching

India should look at France as its entry point for Europe and Francophonie

The flagship programme of Smart Cities in which France is focussing on Chandigarh, Nagpur and Puducherry is taking shape as more than half the business agreements signed related to electric mobility, water supply, waste management and smart grids.

Education

The agreement on mutual recognition of academic degrees and the follow-on Knowledge Summit, where 14 MoUs between educational and scientific institutions were signed

Currently about 2,500 Indians go to France annually to pursue higher education

ISA  
 Climate change and renewable energy resources, particularly solar, soon emerged as a new plank, reflected in the multilateral initiative of the International Solar Alliance.

Conclusion

The Strategic Partnership has already created a solid foundation; other aspects have now received the much needed focus and with proper implementation, it can add to the growing strategic convergence that draws India and France together.

## India -vietnam

**45 years of relation:**

Both sides affirmed the long-term and time-tested friendship between the two countries, the foundation of which was laid by the Fathers of the Nations, Mahatma Gandhi and President Ho Chi Minh and nurtured by successive generations of leaders and people of the two countries.

Both sides expressed their satisfaction at the excellent state of Comprehensive Strategic Partnership between the two countries, and commended various commemorative activities held in both countries in **the Year of Friendship 2017** to celebrate the forty-fifth anniversary of diplomatic relations and tenth anniversary of the Strategic Partnership

Indian Technical and Economic Cooperation (ITEC) programme,

the Mekong - Ganga Cooperation (MGC) framework

the Addis Ababa Action Agenda

# IMPORTANT DATES

### World Tuberculosis day:24 march

Theme:2018:Wanted leaders for TB free world

### World health day:7 april

Theme :2018: universal health coverage

### Earth day

By WWF on 22 april

End plastic pollution

### World homeopathy day:

Samuel Hahnemann father of homeopathy

### World Human rights day: 10 December.

70 years of human rights in 2018 completing

**Human Rights Day** commemorates the day the General Assembly of the UN adopted and proclaimed the Universal Declaration of Human Rights.

The UDHR is one of UN’s major achievements as well as the first enunciation of human rights across the world.

Adopted on 10th December 1948, the Declaration stipulates universal values and a shared standard of achievement for everyone in every country.

While the Declaration is not a binding document, it inspired over 60 human rights instruments that today make a common standard of human rights.

It is the most translated document around the globe – available in over 500 languages.

Despite the efforts to protect human rights, the hostility toward human rights and those who defend them continues to rise

### UHC Day:

first commemorated on 12 December 2014, marks the anniversary of the landmark UN resolution. Universal health coverage. UHC is about ensuring that everyone has access to the health care they need without suffering financial hardship.UHC part of UNSDG United Nations Sustainable Development Goals 2030.

Steps in India:

1. The Safe Delivery Application is a mHealth tool that can be used for health workers who manage normal and complicated deliveries in the peripheral areas
2. Another important aspect related to maternal mortality is availability of critical care for complicated cases. GOI released Guidelines for setting up of **Obstetric High Dependency Units (HDUs) and Intensive Care Units (ICUs)** in 2016.
3. **Laqshy**a| Labour Room Quality Improvement Initiative :There is enough evidence that supports the fact that improving the quality of care in Labour rooms especially on the day of birth, is central to maternal and neonatal survival. This initiative will be implemented in Government Medical Colleges (MCs) besides District Hospitals (DHs), and high delivery load Sub- District Hospitals (SDHs) and Community Health Centres (CHCs).
4. Free Drugs and Diagnostics Program**; AMRIT outlets** subsidized medicine
5. **Mission Indradhanush**, one of the largest global public health initiatives was launced in 2014. Since 2014, we have launched Rotavirus vaccine, Pneumococcal Conjugate Vaccine (PCV), and the Measles-Rubella (MR) vaccine, and also the JE vaccine for adults,

### Army Day 15 Jan:

In recognition of **Field Marshal Kodandera M. Cariappa's** (**then a Lieutenant General**) taking over as the **first Commander-in-Chief of the Indian Army** from **General Sir Francis Butcher, the last British Commander-in-Chief of India,** on 15th January 1949

# Misc

Sikkim has been declared ‘Organic State’ by the Government. by implementing organic practices on around 75,000 hectares of agricultural land

Sikkim is the first state to be declared as ODF state,

1. Sikkim,
2. Himachal Pradesh
3. Kerala
4. Rural Uttarakhand
5. rural Haryana Latest two declared ODF in 2017.

# Geography

## Geology

Nitrogen

Researchers found **nearly 26% of nitrogen in natural ecosystems is sourced from rocks**.

This source could also feed carbon cycles, thereby allowing ecosystems to pull more emissions from the atmosphere, improving climate change projections.

Lithium:

Rare earth metal

**Spodumene (lithium aluminum silicate) is a mineral from where it is extracted**

**Spodumene is found in igneous rocks**

**Also from brine**

largest producer of lithium in the world is Chile, which extracts it from brine at the Atacama Salt Flat. Argentina also produces lithium from brine at the Hombre Muerto Salt Flat.

There is also an enormous lithium deposit in Bolivia at the Uyuni Salt Flat (the world's largest salt flat),

The largest producer of lithium from spodumene is Australia, which has a large deposit near Perth. Other major lithium producers include China, which produces it at salt lakes in Tibet and Qinghai, and the United States, which produces it from brine in Nevada.

**Bolivia has the world’s larg­est deposits of lithium in Salar de Uyuni. Some studies indicate that Salar de Uyuni has 140 million ton­nes of lithium. The Bolivian government is inviting expr­ession of interest from Indian companies to set up and operate a lithium carbonate plant in Salar de Uyuni.**

**Salar de Uyuni (or Salar de Tunupa) is the world's largest salt flat at 10 582 square kilometers**

**Extracting brine is cheaper**

**Exct order**

**Chile**

**China**

**Australia**

**Argentina**

**portugal**

the Earth's crust contains approximately 20 parts per million of lithium, and

it is highly reactive: lithium is highly flammable, and will even react spontaneously with water.

the oceans contain 0.17 parts per million;

It goes into glasses, ceramics, pharmaceuticals, and aluminum and magnesium alloys. But the highest potential for growth is in the battery market, where lithium is used as electrode and electrolyte material in lithium disposable batteries and in lithium-ion rechargeable batteries

## Demography

Chain migration

This refers to the process wherein the emigration of a certain group of people from a region causes more people from the same region to move to a particular foreign destination.

Such migration happens as a result of the increasing spread of positive information about the foreign destination among a certain population through the early settlers. This encourages more people from the same region to move to the foreign country in search of better economic and other opportunities. The first movers to a foreign country are also likely to help more people from their family and hometowns to move out and settle into a new foreign destination.

## Hydro Projects

Mizoram: 60 MW Tuitial Hydroelectric Power Project largest in Mizoram.

Mizoram 3rd power surplus after Sikkim and Tripura.

Kaleshwaram lift irrigation project in Telangan

KLIP has many unique features, including the **longest tunnel to carry water in Asia, running up to 81 km, between the Yellampally barrage and the Mallannasagar reservoir**.

Kaleshwaram is at the juncture of the rivers **Godavari** and its **Pranahita** tributary

## Oceanography

**UNESCO Category-2 Centre** in hydrabad will provide an opportunity for India to emerge as a leading country in the Indian Ocean

Currently Indian Centre for Ocean Information Services (INCOIS), Hyderabad.

#### Dead zones

Dead zones, or Oxygen Minimum Zones (OMZs), are areas largely devoid of oxygen, and in the ocean, they are naturally occurring between 200 and 800 meters deep.

The new research has confirmed that the largest OMZ in the world is located in the Gulf of Oman – which is actually a strait, bordered by Iran, Pakistan, Oman, and the UAE – encompassing almost the entire 165,000 square kilometres (63,700 square miles) that make up the ocean region.

#### POLAR code

​IMO has adopted the International Code for Ships Operating in Polar Waters (Polar Code) in 2017

it is mandatory under both the International Convention for the Safety of Life at Sea (SOLAS) and the International Convention for the Prevention of Pollution from Ships (MARPOL)

IT APPLIES TO SHIPS OPERATING IN ARCTIC AND ANTARCTIC WATERS: ADDITIONAL TO EXISTING MARPOL REQUIREMENTS

This marks an historic milestone in the Organization’s work to protect ships and people aboard them, both seafarers and passengers, in the harsh environment of the waters surrounding the two poles

Concerns with ship design, construction and equipment; operational and training concerns; search and rescue; and, equally important, the protection of the unique environment and eco-systems of the polar regions

The Polar Code includes mandatory measures covering

safety part (part I-A) and

pollution prevention (part II-A) and

recommendatory provisions for both (parts I-B and II-B)

The Code will require ships intending to operating in the defined waters of the Antarctic and Arctic to apply for a **Polar Ship Certificate**, which would classify the vessel as

Category A ship - ships designed for operation in polar waters at least in medium first-year ice, which may include old ice inclusions;

Category B ship - a ship not included in category A, designed for operation in polar waters in at least thin first-year ice, which may include old ice inclusions; or

Category C ship - a ship designed to operate in open water or in ice conditions less severe than those included in Categories A and B.

A MARPOL regulation, to protect the Antarctic from pollution by heavy grade oils, was adopted by the Marine Environment Protection Committee (MEPC)

FAST ICE: Sea ice which forms and remains fast along the coast, where it is attached to the shore, to an ice wall, to an ice front, between shoals or grounded icebergs

ICE SHELF: A floating ice sheet of considerable thickness showing 2 to 50m or more above sea-level, attached to the coast

## Disaster Management

### NDMA:

National Disaster Managemnt Authority of India

Under Chairmanship OF PM

Under Ministry of Home Affairs

SDMA: State Disaster anagement Authority Of India

Unser CM of State

NDMA Policy:

1. Capacity development in all related areas.
2. Community-based disaster management, including last mile integration of the policy, plans and execution.
3. Consolidation of past initiatives and best practices.
4. Cooperation with agencies at the national, regional and international levels.
5. Compliance and coordination to generate a multi-sectoral synergy.

In line with International Strategy for Disaster Reduction, the Rio Declaration, the Millennium Development Goals and the Hyogo Framework 2005-2015 and Sendai Framework 2015-2030

Current:

The Asian Ministerial Conference on Disaster Risk Reduction (AMCDRR) held in New Delhi, India in November 2016, brought together more than 50 countries and adopted the Asia Regional Plan which sets biennial milestones at the regional level for the implementation of the Sendai Framework.

Disaster Risk Resilient Infrastructure for Sustainable Development”, which highlighted the need for stronger collaboration and cooperation in the area of disaster resilient infrastructure.

International disaster databases show that on an average over 50 disasters of a given magnitude occurred every month in the last ten years, resulting in the death of over 220 persons per day and affecting over 2 billion people cumulatively. The year 2017 itself saw a loss of US$ 306 billion resulting from disasters, which was a 2/3rd increase in disaster losses over year 2016.

Infrastructure systems that can anticipate, absorb, adapt to and or rapidly recover from a disruptive hazardous event are considered resilient.

National Disaster Management Authority, India in collaboration with the UNISDR will host an international workshop on Disaster Resilient Infrastructure (IWDRI) in New Delhi in January 2018. The workshop will bring together experts from partner countries, multilateral development banks, the United Nations, the private sector and academia.

The main objectives of the workshop are:

To take stock of impact of disasters on different infrastructure sectors and good practices in making infrastructure disaster resilient;

Identify critical gaps in current practices that need to be addressed in the coming years

### National Disaster Management Services (NDMS) Pilot Project for 120 locations

The terrestrial communication networks are prone to failures during disasters as were the case in recent past in case of J&K and Uttarakhand.

* based on providing reliable VSAT communication backed up with terrestrial network and HF Radios.
* The project is being implemented by Bharat Sanchar Nigam Ltd. (BSNL).
* The scope of the pilot project is to provide the reliable telecommunication infrastructure and technical support for Emergency Operation Centre (EOC) operations at MHA, NDMA, NDRF HQ, States & selected vulnerable Districts

The broad objects of the project are as follows:

1. Voice Calls between EOCs of Disaster affected Districts, States, NDMA, NDRF HQ and MHA during disaster on priority and peace time to other EOCs in a restricted way depending upon the availability of Bandwidth.
2. Internet, Email, Landline (outgoing) & Mobile (outgoing), Web Services from the disaster site freely and to other places in a restricted way depending upon the availability of Bandwidth.
3. EPABX feature will be made available through the Universal Gateway which will have the facility to transfer the Telephone Calls on any of the Media including HF, Satellite, Terrestrial Network or any other mode including intercoms and IVRS
4. HF Radio connectivity
5. Receive information/services as provided by various forecasting and warning agencies (CWC, IMD, INCOIS, GSI, etc.) from their portal.
6. Provide single view of disaster from the disaster affected site as far as possible to all the stakeholders through integration of various information (Audio, Video and Data) feeds.
7. Provide platform for strategy and information interchange with MHA, NDMA, NDRF HQ, States/UTs/Selected Districts and other disaster relief agencies

### First India-Japan Workshop on Disaster Risk Reduction

In Delhi

For earthquackes

Japan and India could collaborate for the implementation of the Sendai Framework so as to contribute to Disaster Risk Reduction globally.

## Rivers

River Tel or Telnadi

Tel is the second largest river of Odisha state of India

River has gone dry

Right bank tributary of Mahanadi in Odisha

Major tributary of mahanadi

It meets the main river at Sonpur or Subarnapur

Interlinking of rivers

Par Tapi Narmada Project

Linking of Nar-par,

Damanganga and

Girnar rivers

River Devika:

Ganga of Duggar

Flows in J&K(jammu)

it merges with the river Ravi in Pakistan.

Added to National River conservation Project

National river conservation project

Under ministry of environment and forest

RushiKulya river:

IN odhisha;originate **at Daringbadi hills in eastern ghats ; is called the ' Kashmir of Odisha '**,

It has no delta.

Meets BOB at Puruna bandha,Ganjam

Recently in news because of olive ridley turtles and rookery and Shoal.

large scale nesting of Olive Ridley turtles was taking place near the mouth of the Rushikulya river.

Its tributaries are the Jarao(right bank );Bara river(left bank);Ghoda hada(right bank);Baghua, the Dhanei, the Badanadi

Garimhatha marine and wild life century

River disputes:

Dispute between Odisha and Chhattisgarh over sharing of Mahanadi.

Lakes

Crater lakes

Lunar lake in Maharashtra

Deltaic lake

Kolleru lake in AP

Lagoons

Chilka🡪largest lake of india odisha

Pulicat lake 🡪near Chennai shallow lagoon🡪shri harikota

Vembanad 🡪 lagoon in kerela

## Forests

New classification

they identified five major forest regions in the tropics:

the Indo-Pacific,

Subtropical,

African,

American and

Dry forests.

dry forests found in India, America, Africa and Madagascar are also closely related to each other.

different forests may be more vulnerable or resilient to climate change and deforestation, so understanding similarities and differences between forests will help inform conservation efforts.

### State fruits

Jackfruit to be Kerala’s State fruit

### Endemic shrubs of western ghats

Crotolaria species (ripe fruits of which are used by children as rattles) are small shrubs bearing bright yellow blooms and are common across the Indian countryside.

73 survive only in peninsular states.

High concenteration in wetern ghats

## International projects

### Zaranj Delaram Project:

investment of the Indian side in setting up plants in sectors such as fertilizers, petrochemicals and metallurgy in the Chabahar FTZ.

In Afghanistan

Chabahar-🡪Zabol(Iran)🡪Zaranj(Afghanistan)🡪Delaram(Afghanistan)🡪Garland Highway(Afghan)

BRO build it Border road organisation with ITBP

The road passes through the districts of Delaram(Farah Province), Chankhansur, Khash Rod and Zaranj(capital of Nimuroz province).

From Zaranj, the highway connects to Zabol across the border in Iran. Zabol is well-connected by road to the Port of Chabahar.

The highway thus provides land-locked Afghanistan an alternative way to access the Arabian Sea and the Persian Gulf, instead of relying solely on the unstable Pakistani routes.



**Importance of Chabahar port**

Located on the Gulf of Oman

**Economic**

* Chabahar port is the part of North-South Transport Corridor, will make India to export the goods to central asia and Europe.
* The International North–South Transport Corridor is the ship, rail, and road route for moving freight between India, Russia, Iran, other European countries and Central Asia. Hence connectivity will help in better economic prosperity.
* It would provide an alternative access to trade with Afghanistan bypassing Pakistan.
* The free-trade zone around the port can be an important trade centre with West Asia.
* Reduced Current Account Deficit due to reduced transportation costs and thus lower petroleum products cost

**Political**

It will reduce dependence of Afghanistan on Pakistan and thus help establish good relations with Afghan. Both Iran and India has stake in the stability of Afghanistan. Chabahar provides India an easier land-sea route to Afghanistan, where it has fostered close security cooperation and economic interests over the years.

**Strategic**

India is building a 220-kilometre road in the Nimroz province of Afghanistan and this road will connect Chabahar port and thus very strategic

Chabhar port will also provide India access to the Middle East and Gulf countries increasing trade and economic ties.

promote India’s strategic interests in the Gulf and Strait of Hormuz.

**Diplomatic**

It will provide a link to promote cultural linkages between India and Iran.

### Chabahar rail link

building of the 500-km Chabahar rail link to Zahedan to western Border of Iran

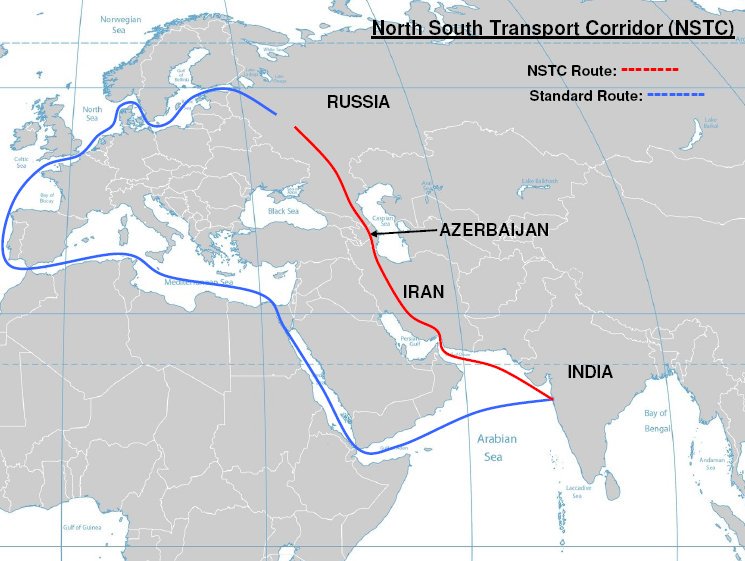
by IRCON (IRCON International Ltd, the state-run company to which the contact was given

It will connect CHabahar to zaranj in afganistan

Also part of INSTC



### International North–South Transport Corridor (INSTC)



The International North–South Transport Corridor (INSTC) is the ship, rail, and road route for moving freight between India, Russia, Iran, Europe and Central Asia

The 7,200 km International North South Transport Corridor (INSTC) is a multi-mode transport network linking Indian Ocean and Persian Gulf to the Caspian Sea via Iran, and onward to northern Europe via St. Petersburg, Russia.

But the current INSTC project was initiated by Russia, India and Iran in September 2000 in St. Petersburg. The agreement was signed on 16th May 2002.

Central Asia as a podium has received renewed interests after the swearing-in of the new Government. India attaining full membership in the Shanghai Co-operation Organisation (SCO), PM Modi’s historic visit to the five Central Asian countries etc. stand testimony to this.

INSTC would enhance accessibility to the land locked central Asian nations.

It is a not a new concept. This ancient route was used by European, Indian and many other foreign traders to reach out to the Central Asian markets. During the time of the Safavid dynasty, it is estimated that around 10,000 Indian traders were spread across the empire

Objectives of InsTC:

The primary objective of the NSTC project is to reduce costs compared to the use of Suez Canal route [1]. Specific objectives of the INSTC include:

1. To increase the effectiveness of transport ties in order to transport goods and passengers along the international ‘North-South’ Transport corridor.
2. To promote access to international markets through rail, road, sea, river and air transportation of the parties to the Agreement.
3. To provide assistance in increasing the volume of international transportation of passengers and goods.
4. To provide security of travel, safety of goods as well as the environmental protection according to the international standard.
5. To harmonize policies as well as legal and legislative basis in the field of transport in order to implement this agreement.
6. To create equal and non-discriminatory conditions for all types of transport service providers from all the parties.
7. Linking Indian Ocean and Persian Gulf to the Caspian Sea via Iran, and then onwards to northern Europe via St. Petersburg in Russia.

The current members are India, Iran, Russia, Azerbaijan, Kazakhstan, Armenia, Belarus, Tajikistan, Kyrgyzstan, Oman, Syria, Turkey, Ukraine, and Bulgaria (observer).

Azerbaijan and Armenia are heavily involved in the project with both countries currently building new train lines and roads to complete the missing links in the NSTC.

**The Route**

**Route 1**

Nhava Sheva, India —> Bandar Abbas, Iran — by Sea

Bandar Abbas, Iran —> Astara, Iran (Astara is on Iran-Azerbaijan border and also touches Caspian Sea) — by Road

Astara (Iran) —> Baku, Azerbaijan — by Road

**Route 2**

Nhava Sheva, India —> Bandar Abbas, Iran — by Sea

Bandar Abbas, Iran —> Amirabad, Iran — by Road

Amirabad, Iran —> Astrakhan, Russia — by Sea

Each of the two Routes (Route 1 and Route 2) connects only three countries, which was originally intended when the agreement was signed

**Benefits:**

* + 1. Foreign trade:
       1. The INSTC a very important for India trade-wise, and its importance might significantly increase in years to come. In 2016, India exported engineering goods, to members of INSTC, (including Bulgaria which is having an observer status) worth USD 3,567 million.
       2. improved transport connectivity between Russia, Central Asia, Iran and India, their respective bilateral trade volumes will increase. The Foreign Trade Policy of India, 2015-20, has highlighted the importance of the International North-South Transport Corridor (INSTC) in expanding India’s trade and investment links with Central Asia.
       3. At the moment most of India’s trade is concentrated in four countries within INSTC. Turkey accounts for over 45 percent of India’s total engineering exports to the INSTC member countries. It is followed by Oman (17%) and Russia (16%). Iran is another country which accounts for more than 10 percent share in India’s intra-INSTC engineering export.
       4. Imports by India At the country level, there are three countries, namely Russia, Tajikistan, and Oman in whose share of India in their total export is nearly two percent or more.
    2. The successful activation of the corridor will help connect India to Russia within 16-21 days at competitive freight rates leading to development of trade on the INSTC. At present we have to either use Rotterdam port or land route via China to reach Russia and Central Asia. These are long, expensive and time-consuming.
    3. A study conducted by the Federation of Freight Forwarders’ Associations in India found the route is, “30% cheaper and 40% shorter than the current traditional route”
    4. Counter China’s OBOR
    5. Potential of this route is manifold, if India can bring on board its South East Asian neighbours too. The Suez Canal route takes 45-60 days, whereas the INSTC would take 25-30 days. Turkey has offered to provide necessary information for linking Black Sea Economic Cooperation (BSEC) with INSTC.
    6. Since connectivity is critical for promotion of trade, one can expect that with better understanding, improving political relations and broadening of scope of the two initiatives, countries in Asia and Europe will emerge better integrated and attain a position towards fuller exploitation of trade and business opportunities.

**Issues**

1. **T**he lack of a strong mechanism to address the operational issues on ground;
2. problems related to customs procedure and documentation;
3. issues related to the funding of various infrastructure projects;
4. low level of container trade on the INSTC (it can be noted that due to the low level of trade; containers often come back empty, increasing the cost of container movement on this route);
5. lack of common border crossing rules among the member countries;
6. problems related to the insurance and data exchange between the member states;
7. gradient problem restricting speed;
8. higher tariffs by rail vis-à-vis road transport for movement from Bandar Abbas to Amirabad;
9. wagon shortage and load restrictions for transit traffic in Iran;
10. problem of break of gauge; and,
11. security fears emanating from Afghanistan.

### India Myanmar Thailand trilateral highway

The 1,700-km Trilateral Highway, connecting India, Myanmar and Thailand

a motor vehicles agreement (MVA) between the three countries.

India Myanmar Thailand Trilateral highway project starts from Moreh goes via Tamu towards Myanmar and end at Mai Sot in Thailand

The India–Myanmar Friendship Road, forms part of the trilateral highway

Moreh🡪**Tamu**(Myanmar)🡪Mandalay(Myanmar)🡪**Mai sot**(Thai)

 Imphal-**Mandalay**-Bagan**-Naypyidaw(capital of myanmar)** route

Tamu-Kalewa-Kalemyo Kalewa to Yargi

**Myawaddy**-Thinggan Nyenaung-Kawkareik section of the highway was inaugurated by Thai and Myanmar officials

As Delhi gives a further diplomatic push to strengthening ties with the CLMV countries (Cambodia, Laos, Myanmar and Vietnam) and Thailand under the Modi government’s ‘Act East’ policy, the IMT highway project could be a game changer for India-Mekong ties and the wider Southeast Asia

the strategic salience of the sub-region lies in the fact that

it shares long land and maritime boundaries with one of the CLMV countries, Myanmar, in the Bay of Bengal, and

its important strategic partner Vietnam has maritime territorial disputes with China in the South China Sea—through which about 50 percent of India’s trade passes.

The direct impact of China’s rise has been playing out in the CLMV countries in recent years, with China emerging as either the largest, or a major, trading and investment partner of all the CLMV countries.

On the strategic front, Beijing has been taking advantage of the geostrategic location of the CLMV countries to reach the Indian Ocean and to tie their economies with its bigger and stronger economy by building rail and road networks and laying energy pipelines

An important element of the Act East policy is using cultural diplomacy to further India’s interests. Buddhism is the predominant religion of all the CLMV countries and Modi has been tapping the rich Buddhist connection between India and the CLMV nations. Like most of the leaders from the CLMV nations, President Kyaw of Myanmar and Vietnamese Prime Minister Nguyen visited the most revered place for the followers of Buddhism—Bodh Gaya in Bihar—during their India visits.

Bilateral trade between India and the CLMV nations has grown from $0.46 billion in 2000 to over $10 billion in 2015-16, showing annual growth of 24 percent

Recognising the trade potential, an India-CLMV business conclave was established in 2013 to create and provide a platform for decisionmakers and industry leaders to meet and identify opportunities for collaboration.

### TAPI

Gas pipeline

Turkmenistan;Afghanistan;Pakistan;india

Trans Afghanistan pipeline

The project is being funded by the Asian Development Bank (ADB)

In india it will enter Fazilka

The Saudi government is investing heavily in the project from the Saudi Development Fund

### Tuidimjang dam by Myanmar,

Dam is on the Twigem river flowing into Myanmar from Manipur.

Khangtung, inhabited by the **Thadou tribe**

Other dam issues in Manipur **Tipaimukh, the mega hydroelectric project proposed on river Barak in Manipur** 35 years ago.

Dhaka is against the project, as Barak flows into Bangladesh from Manipur through southern Assam and feeds the Surma and Kushiara rivers in the country

## Climatology

### Cyclones

#### IMD Scale

|  |  |
| --- | --- |
| **Super Cyclonic Storm** | ≥120 [kt](https://en.wikipedia.org/wiki/Knot_(unit)) ≥221 km/h |
| **Extremely Severe Cyclonic Storm** | 90–119 kt 166–220 km/h |
| **Very Severe Cyclonic Storm** | 64–89 kt 118–165 km/h |
| **Severe Cyclonic Storm** | 48–63 kt 89–117 km/h |
| **Cyclonic Storm** | 34–47 kt 63–88 km/h |
| **Deep Depression** | 28–33 kt 51–62 km/h |
| **Depression** |  |

#### Saffir-Simpson scale

|  |  |
| --- | --- |
| **Saffir–Simpson scale** | |
| **Category** | **Wind speeds** |
| **Five** | ≥70 [m/s](https://en.wikipedia.org/wiki/Meter_per_second), ≥137 [knots](https://en.wikipedia.org/wiki/Knot_(unit)), ≥157 mph,≥252 km/h |
| **Four** | 58–70 m/s, 113–136 knots,130–156 mph, 209–251 km/h |
| **Three** | 50–58 m/s, 96–112 knots,111–129 mph, 178–208 km/h |
| **Two** | 43–49 m/s, 83–95 knots,96–110 mph, 154–177 km/h |
| **One** | 33–42 m/s, 64–82 knots,74–95 mph, 119–153 km/h |

#### Cebile

super cyclone *Cebile* in the Southern IOR

#### Tropical cyclone Gita

IN south pacific island of Tonga

India UN partnership Fund?

#### Maarutha

**Cyclone Maarutha** was the first tropical cyclone of the [201](https://en.wikipedia.org/wiki/2017_North_Indian_Ocean_cyclone_season)7

Landfall in Myanmar in april 2017

April to December with two peaks in May and November

Named by Sri lanka

**Tropical storm as per saffir simpson scale**

**Cyclonic storm (IMD scale)**

#### Cyclone Mora –

a strong tropical cyclone in 2017 which made landfall near Maarutha’s landfall

**Category 1 (Saffir–Simpson scale)**

**Severe cyclonic storm (IMD scale)**

severe category

Named by thailand

#### Ockhi

Cat-3 cyclone on saffir-simpson scale

**Very severe Imd scale**

**Ockhi, suggested by Bangladesh, refers to the eye**

Started in BOB ended in arabian sea

From south srilanka to arabian sea

Kanyakumari kerela lashdweep

Unused names

Maarutha by Sri lanka 1st in 2017

Mora Thailand Mora is the name of one of the healing stones and also means star of the sea

Ockhi Bangladesh the eye

Sagar india

Mekunu maldives

## Geomorphology

SHOAL:

sandbar, or shoal is a landform which is in or partly in a body of water. Usually it is made of sand, silt, and/or small pebbles. IN news because in Rushikulya (Major river of oddisha) rookery; Odisha Olive Ridley turtles come for laying eggs. Endangered species

Rookery: A rookery is a colony of breeding animals, generally birds;example Rushikulya rookery

## Geology

Coalification

Most of the world’s coal was formed in **Carboniferous age [350 million years ago][Best quality coal].**

In the process of transformation (coalification),

1. peat 🡪lignite,
2. lignite 🡪sub-bituminous,
3. sub-bituminous🡪 bituminous coal, and
4. bituminous 🡪 anthracite

Lignite:

Brown coal

40%--50% carbon

Spontaneous combustion create fire in mines

Bituminous

Soft coal

40-80% carbon

Production of Coke

Anthracite

Best quality

Hard coal

80—90% carbon

Ignites in Blue flame with no residue like LPG

it is found only in **Jammu and Kashmir** and that too in small quantity

## Choke points

Cremian peninsula:

Balck sea and sea of azov

Cape horn:

Where pacific and Atlantic meets

Cape aghulaz :

South most tip of Africa

Gulf of suez:

Between Egypt and egypt

Gulf of aqaba:

Between Egypt and Saudi arabia

Strait of gibralter

Mediterranean sea and atlantic ocean

Spain and morocco

Europe and africa

Bosphosrous strait:

Between turkey and turkey

Separates marmara sea and black sea

Or separates Mediterranean sea and black sea

Bab-al mandab strait:

Between Djibouti and Yemen

Separating red sea and gulf of aden

Strait of hormuz:

Between Iran and UAE;Oman

Separates gulf of oman from Persian gulf

Malacca Strait

the **Malay Peninsula and the Indonesian island of Sumatra**.

It is named after the Malacca Sultanate that ruled over the archipelago

Sunda strait

The Sunda Strait is the strait between the **Indonesian** **islands of Java and Sumatra**.

It connects the Java Sea to the Indian Ocean

Lombok strait

The Lombok Strait, is a strait connecting the **Java Sea to the Indian Ocean**, and

is located between the islands of **Bali and Lombok in Indonesia**.

North to south

Mellecca🡪Sunda🡪Lombok

# Some quotes

Free speech

George Orwell once pointed out that free speech doesn’t mean anything unless someone is offended. And if that person is the Prime Minister or a colleague, they have to accept it as the price of freedom.