



Cracking IAS Academy - Current Affairs 2016- August

National

1-WHO report sounds alarm on 'doctors' in India

A WHO study titled 'The Health Workforce in India', published in June 2016, rang the alarm bells on India's healthcare workforce. The data for each district in the country from the 2001 census were specially extracted for this study, which provided a comprehensive picture of health workers in each district.

Highlights of the report:

Medical qualification:

- Almost one-third (31 per cent) of those who claimed to be allopathic doctors in 2001 were educated only up to the secondary school level and 57 per cent did not have any medical qualification. The situation was far worse in rural India, where just 18.8 per cent of allopathic doctors had a medical qualification.▪

Interestingly, female healthcare workers – 38 per cent of the total – were found to be more educated and medically qualified than their male counterparts.

Density of doctors:

- The study revealed that the density of all doctors – allopathic, ayurvedic, homoeopathic and unani – **at the national level was 80 doctors per lakh population compared to 130 in China.**
- Ignoring those who don't have a medical qualification, the number for India fell to 36 doctors per lakh population. As for nurses and midwives, India had 61 workers per lakh population compared to 96 in China. The number reduced tenfold to 6 per lakh population, if only those with a medical qualification were considered.
- **substantial variation in the density of health workers across States and districts**The study found . For instance, Kerala had 38.4 per cent of the country's medically qualified nurses but constituted only 3.1 per cent of the total population. Similarly, West Bengal had 30.6 per cent of all homoeopathic doctors in the country but only 7.8% of the population. Better-off States seemed to afford more doctors plus nurses per capita.
- **District-wise, the inequalities were massive.** The density of allopathic doctors with any level of education in the lowest 30 districts – half of which were in north-eastern States and the other in central States – was a little over 9.4 per lakh of the population whereas, in the highest 30 districts, it was 159 per lakh of population, it said.
- **In the case of dentists, the situation was even worse.** The national density of dentists was extremely low at 2.4 per lakh population, with 58 (of the total 593) districts having no dentists at all in 2001. In fact, 175 districts (30 per cent) had no dentists with a medical qualification.

The Food Safety and Standard Authority of India (FSSAI) has joined hands with ASCI in its bid to check misleading

2-FSSAI inks MoU with ASCI to check misleading advertisements in food and beverages sector

advertisements in the food and beverages sector.

- This partnership will put in place a mechanism to monitor misleading advertisements and lead to streamlining advertisements effectively through structured guidelines and appropriate action.

- Under the MoU, Advertising Standard Council of India (ASCI) will comprehensively monitor these advertisements across various media. The council has been given a suo motu monitoring mandate by FSSAI to process complaints against misleading advertisements of food and beverages.

- The agreement also requires ASCI to report to FSSAI non-compliance of ASCI's decisions for further action as required per provisions of the Food Safety Standards Authority of India (FSSAI) Act.

- FSSAI will also redirect complaints against misleading food and beverages advertisements to ASCI, which will be reviewed using ASCI's code and guidelines.

- The review will include violation of the FSS Act and regulations related to advertisements making misleading, unsubstantiated or false claims.

ASCI

- Advertising Standards Council of India (ASCI) is a self-regulatory voluntary non-governmental organization (NGO) of the advertising industry in India.

Its aim is to maintain and enhance the public's confidence in advertising.▪

It was established in 1985 by three main constituents of advertising industry viz advertisers, advertising agencies and media.

3- Mallakhamba

- It is a traditional Indian sport in which a gymnast performs feats and poses in concert with a vertical wooden pole or rope. The word also refers to the pole used in the sport.

- Mallakhamba derives from the terms malla which denotes a wrestler and khamba which means a pole. Mallakhamba can therefore be translated to English as "**pole gymnastics**".

. On April 9, 2013, the Indian state of **Madhya Pradesh** declared mallakhamba as the **state sport**.

The earliest recorded reference to mallakhamba is found in **Someshvara Chalukya's** classic **Manasollasa** (1135 AD).Mallakhamb evolved in the 18th century by **Balambhat Deodhar** is similar to gymnastics.The two-day Deodhar a wrestler from the Peshwa court in Pune developed Mallakhamb meeting of Ministers of Disaster Management as a training aide for wrestlers over the years, it gradually evolved into a sport similar to gymnastics.(MDM) of BRICS

4-Udaipur Declaration

countries concluded in Udaipur, Rajasthan with the adoption of the Udaipur Declaration. Under the Udaipur Declaration, **BRICS nations** to set up a dedicated Joint Task Force for Disaster Risk Management for regular dialogue, exchange, mutual support and collaboration among them.

5-National Committee on Trade Facilitation launched

The Union Government has constituted a National Committee on Trade Facilitation (NCTF) to develop the pan-India road map for trade facilitation. It has been constituted in line with the World Trade Organisation (WTO's) Trade Facilitation Agreement (TFA), which India also has ratified.

The NCTF will inter – ministerial body on trade facilitation and will be headed by Pradeep Kumar Sinha, who is the Cabinet Secretary of India.

national level body It will be a that will facilitate

domestic co-ordination and implementation of TFA provisions.

pan-India road map for trade facilitation. It will play lead role in developing the,

three tier structure It will have with main national committee for monitoring implementation of TFA,

It will synergise the various trade facilitation perspectives across the country and focus on an outreach programme for sensitization of stakeholders about it.

It will be responsible for identifying the nature of required legislative changes and spearheading the diagnostic tools needed for assessing compliance to TFA.

6- AMRIT outlets launched in three areas to reduce the burden of out-of-pocket expenses on patients

With the aim to reduce the expenditure incurred by common patients on treatment of cancer and heart diseases, the Union Minister for Health & Family Welfare, Shri J P Nadda inaugurated three outlets located at North Eastern **Affordable Medicines and Reliable Implants for Treatment (AMRIT)** Indira Gandhi Regional Institute of Health and Medical Sciences (NEIGRIHMS), Shillong, the Regional Institute of Medical Sciences (RIMS), Imphal, and All India Institute Medical Sciences (AIIMS), Jodhpur.

We have now 12 AMRIT outlets across the country. More than 2141 drugs (including cardiovascular, cancer, diabetes, stents, etc.) for treatment of Cancer and Cardiovascular Diseases are being sold through AMRIT at a discount of more than 70% to the patients.

The benefits of the AMRIT clinics can be availed by both in-patients as well as out-patients.

About 300 outlets shall be started by the end of this year and basket of choices of drugs shall also be enhanced further.

AMRIT clinics have sold drugs worth Rs. 28 Crores as per the MRP. However, the costs to the patients through these outlets have only been Rs 9 crores. This has resulted in saving of Rs. 19.00 Crores out of pocket expenditure to the patients.

Government is exploring the possibility of scaling up the facility and also making it accessible to larger number of people in various parts of the country. The State Governments have been informed about the AMRIT Pharmacies and have been advised to consider opening such pharmacies.

big boost to the healthcare This initiative is going to be a in the region. It will not only go a long way in **cost-effective medicines** providing to lower strata of the society but through this we will also have a healthcare system that will be more trustworthy.

7- Union Government has allowed online authentication using Aadhaar for new mobile connections

- The Union Government has allowed online authentication using Aadhaar for new mobile connections.

In this regard Department of Telecom (DoT) has issued guidelines for Aadhaar

Electronic-Know Your Customer (e-KYC).

- The e-KYC seeks to make the online process of application and authentication faster and simpler for subscribers.

Customer through their Aadhaar number and biometrics will online authorise UIDAI to provide demographic details.

- The details will include name, address, date of birth and gender, along with the digitally-signed photograph, to the mobile operator.

- The e-KYC seeks to bring down the cost of subscriber acquisition significantly as telecom companies will not have to spend on physical transportation of forms, verification, scanning and storage.

- Besides it will be an instant, secure and green mobile subscriber verification project, where a customer's Aadhaar card and fingerprints are adequate for both validating and activating prepaid and postpaid connections.

8-NHAI collaborates with PFC under Adopt a Green Highway Program

- National Green Highways Mission (NGHM) under NHAI has collaborated with Power Finance Corporation Ltd. (PFC) for plantations work on NH 7 in Nagpur region (Borkhedhi – Wadner, & Khatara – Kelapur) covering 87 km stretch.

- Power National Green Highways Mission Finance Corporation Ltd. has provided financial assistance of Rs. 13 crore for plantation and five year maintenance under their CSR funds.

- This marks the first collaboration with the National Green Highways Mission – NHAI under their 'Adopt a Green Highways' Program.

- Adopt a Green Highway Program is an initiative by NGHM to engage Corporates, Public Sector Units, Governmental organizations, institutions and individuals under CSR and Public Private Partnership for developing green corridor along NHs.

National Green Highways Mission:

- NGHM was launched under the Green Highways Policy, 2015 to provide a holistic vision of developing eco-friendly and green National Highways.

- The mission aims to provide a green canopy along 100,000km of highways and create jobs for 1 million youth.

The government has made it mandatory to set aside 1% of the total project cost of any national highway contract to a Green Fund for plantation.

- Main motto of this mission is to help the environment, help local communities, and generate employment by planting trees along all the highways in the country.

9- ICHR plans encyclopedia of village folklore from across India

- ICHR is planning a mammoth encyclopedia of Indian villages complete with its heroes, myth, ballads and history as well as histories of princely states.

- **aims to connect people better with the oral and folk traditions.** This initiative

Along with this, ICHR is also planning to conduct a study of the princely States of modern India and studies to fill the gaps between the Harappan civilisation and the 6 century BC.

- The idea behind doing the history of princely states is to showcase their contribution and how Indian culture was protected by them.

According to historians, the present generations are gradually delinking themselves from their cultural heritage. Hence, they think it's their responsibility to collect, preserve and transmit this knowledge of history for the generations to come.

- The students of history will be taken as apprentices, as barefoot historians, and will be encouraged to collect information of the villages around them. For these projects, the ICHR would seek part funding by corporate houses.

10- Union Ministry of mines launches a web portal for Star Rating of Major Mineral Mines

- The Union Ministry of Mines has launched web portal for Star Rating of Major Mineral Mines with an aim to promote sustainable mining.

The online portal was developed by IBM (Indian Bureau of Mining) through NISG (National Institute of Smart Government), Hyderabad.

- The innovative scheme of star rating of mines was launched by the Union Ministry of Mines through IBM as part of **Sustainable Development Framework (SDF) in the mining sector.**

all mines to a minimum standard of Star Rating The main objective of this system is to bring in the shortest possible time frame to adopt sustainable practices.

- Based on the performance of the mining leases, a one to five star rating would be given to the mines.

Initially, the star rating will be done for mines of major minerals. The star rating will be based on the following parameters: (i) scientific and systematic mining, (ii) addressing social impact of resettlement and rehabilitation, (iii) local community engagements and welfare programmes, (iv) progressive and final mine closure and adoption of international standards and (v) adoption of international standards for mining operations and reporting.

- The star rating will help in collation of various technical, environmental and social data by IBM, which will be utilised to allow better management and monitoring of mining areas.

In the long run, it will help in formulation of Comprehensive Regional Plans to address cumulative impact in mining areas through coordinated and collective action.

11-India Post Payments Bank Limited receives Certification of Incorporation.

- The India Post Payments Bank Limited (IPPBL) has received the Certificate of Incorporation from the Registrar of Companies, Ministry of Corporate Affairs under the Companies Act 2013.

IPPBL would be the first PSU under the Department of Posts (DoP).

The incorporation of the IPPB Ltd paves the way for it to begin hiring of banking professionals to set up the bank and begin its operations in 2017.

The Union Government has given its approval for setting up IPPB as a Public Limited Company under the DoP with 100% Government of India (GOI) equity.

The DoP had received the “in-principle approval” of the RBI in September 2015 to set up the IPPB. The project will be rolled out in a phased manner in the entire country.

The IPPB will leverage DoP’s network, resources and reach to make low-cost, quality and simple financial services easily accessible to customers in the country.

It will Further the cause of .

financial inclusion by providing basic banking, remittance services and payments services to customers

Facilitate spread of financial services like insurance, pensions, mutual funds to customers especially from rural areas and the unbanked and under-banked segments.

Generate opportunities for propagating financial literacy across the country by using state of the art banking and payments technology.

Generate new employment opportunities for skilled banking professionals.▪

Encourage citizens to move towards a cashless economy by creating the largest bank network in the world in terms of accessibility.

12- India ranks 66th in Global Innovation Index

India has ranked 66th in the 2016 Global Innovation Index (GII). In this edition, India has jumped up by 15 spots from 81st position in 2015 GII.

INSEADThe annual index was released by France-based international business school and World Intellectual **WIPO**Property Organisation (), a specialised agency of the United Nations.

The index ranks world economies since 2007 according to their innovation capabilities using more than 80 indicators.

India’s better performance in the 2016 GII readings was due to its strengths in tertiary education, corporate R&D, software export and market sophistication.

India has starting to excel in ICT and creative goods exports. It is setting a good example highlighting how its policy is improving the innovation environment.

Among the middle income countries, India (25th) came second after China (17th) in innovation quality by overtaking Brazil (27th). China has figured at the 25th position (29th in 2015 GII) is the only middle-income country in the top 25.

13-First DNA index system to tackle crime introduced by Andhra Pradesh

Andhra Pradesh became the first state in the country to launch DNA Index System (DIS) for DNA (Deoxyribonucleic acid) profiling of criminals.

DNA technology tool (also known as RapidHIT DNA System)The system uses the latest developed by IntegenX of United States.

The DNA Index System (DIS) allows generation of DNA profiles from live samples like buccal swabs, saliva and blood stains etc. It creates DNA profiles within 90 to 120 minutes compared to currently available technologies which take at least two days or more.

- DIS has vast potential to bring down crimes as it can create a huge database of DNA profiles of offenders. It could also help the suspects prove their innocence.

- With DNA in the database, repeat offenders will be easily and quickly caught which will further help to bring down crime rate.

- The system can help resolve missing persons' cases with on the spot DNA testing and also reduce backlogs of trying of criminal cases.

14-Cabinet approves National Highways Interconnectivity Improvement Project

- The Cabinet Committee on Economic Affairs, chaired by the Prime Minister Shri Narendra Modi, has given its approval for development of 1120 kms of National Highways in the States of Karnataka, Odisha, Bihar, Rajasthan and West Bengal.

- The work for development to two lane standards are under Phase-I of the National Highways Interconnectivity Improvement Project (NHIIP) with World Bank assistance.

- The revised estimated cost is Rs. 6,461 crore including cost of land acquisition, resettlement and rehabilitation and other pre-construction activities.

- The projects are already taken up for implementation and 429 kms has been completed. The civil works are expected to be completed by July, 2019 and maintenance works are expected to be completed by July, 2024.

- **safe, fast and all weather movement of traffic**The project will ensure on the proposed National Highways mostly located in backward regions thereby improving socio economic development.

- The proposal was initially approved for Rs.5,193 crore. The cost has increased due to higher bid prices, and increase in cost of land acquisition, resettlement and rehabilitation and other pre-construction activities.

15-Inter link rivers to tackle drought, suggests Central body

Inter linking of rivers and repair of water-bodies are among several measures suggested by a central agency which studied water situation in drought-hit areas in 2015-16. **The Central Water Commission (CWC), which conducted the spot study,** said "consecutive failure of monsoon" for two years was the main reason behind the scarcity of water and suggested short and long term measures specific to region, area, and state to deal with the situation.

As per report

- The report has recommended **construction of water harvesting structures, mass awareness, construction of new water storage structures, inter-linking of rivers, renovation and repair of existing water bodies** as some of the important measures.

- The CWC has pitched for inter-linking of rivers in regions like Marathwada in Maharashtra and Bundelkhand of Uttar Pradesh and Madhya Pradesh, which reeled severe water shortages last summer.

- The Commission also recommended **water budgeting and planning cropping patterns for the coming agricultural seasons** and suggested formulating a strategy to avoid taking water intensive crops. "Micro irrigation (sprinkler and drip) should be adopted to achieve more-crop-per-drop."

▪ **The minimum domestic water requirements in almost all the affected places** are being met by importing water and by digging local deep bore wells.

▪ **Ground water levels have been reported as falling in almost all regions of the country** due to over exploitations and inadequate recharging mechanism. However, no specific observation on water quality has been reported at most of the areas except in Gujarat, where problem of salinity in coastal areas has been reported.


▪ Some pockets like Marathwada, Bundelkhand, Telangana and Andhra Pradesh are worst hit by water scarcity.

▪ **The main cause of water scarcity in the country is consecutive failure of monsoon**, resulting low storages in dams, during last two years. Rainfall deficit in country as a whole during 2015 was 14 percent and in 2014 it was 12 percent.

▪ **Year 2012 was also a deficit year with 11 percent rainfall deficiency.** Consecutive less rainfall also resulted less carryover storage in reservoirs.

16-Surrogacy (Regulation) Bill, 2016 approved

The Union Cabinet has given its approval for introduction of the "Surrogacy (Regulation) Bill, 2016". The Bill will regulate surrogacy in India by establishing National Surrogacy Board at the central level and State Surrogacy Boards and Appropriate Authorities in the State and Union Territories. The legislation will ensure effective regulation of surrogacy, prohibit commercial surrogacy and allow ethical surrogacy to the needy infertile couples. All infertile Indian married couple who want to avail ethical surrogacy will be benefited. Further the rights of surrogate mother and children born out of surrogacy will be protected. The Bill shall apply to whole of India, except the state of Jammu and Kashmir.

BRINGING ABOUT A CHANGE		STARS AND SURROGACY		Salient features of the proposed Bill
 <p>▪ At present, there is no legislation for regulation of surrogacy in India, resulting in exploitation of poor women. HT FILE</p>		<p>IN INDIA</p> <ul style="list-style-type: none"> ▪ Tusshar Kapoor for son Lakshya ▪ Shahrukh Khan for youngest boy AbRam ▪ Aamir Khan for boy Azad <p>ACROSS THE GLOBE</p> <ul style="list-style-type: none"> ▪ Nicole Kidman for second daughter Faith Margaret ▪ Neil Patrick Harris for twins, Harper and Gideon ▪ Sarah Jessica Parker's twin girls, Marion and Tabitha ▪ Sir Elton John for sons, Zachary and Elijah ▪ Ricky Martin for twins, Valentino and Matteo ▪ Dennis Quaid for twins, Thomas and Zoe 		
<p>WHAT DOES THE LAW SAYS</p> <ul style="list-style-type: none"> ▪ Ban on commercial surrogacy in any form ▪ Surrogacy clinics cannot operate unless registered under proposed Act 	<p>PENALTIES</p> <p>10-year jail and fine of ₹10 lakh for: Commercial surrogacy, abandonment of surrogate child, exploitation of surrogate mother, selling human embryo</p>	<p>HIGHLIGHTS OF THE NEW BILL</p> <ul style="list-style-type: none"> ▪ Surrogacy will be allowed when either one or both of a couple suffer from proven infertility ▪ The couple has to be married for at least five years and should be Indian citizens ▪ No charges or monetary incentive except the medical costs 		Background

The draft surrogacy Bill aims at **regulating commissioning of surrogacy in the country** in a proper manner.

As per the 2009 Law Commission Report, the artificial reproduction treatment industry is Rs. 25,000 crore industry.

The Bill aims to prevent exploitation of women, **especially those in rural and tribal areas.**"

The Bill promises to ensure parentage of children born out of surrogacy is "legal and transparent."

The new Bill proposes complete ban on commercial surrogacy.

As per the Bill, only legally—wedded Indian couples can have children through surrogacy, provided at least one of them have been proven to have fertility-related issues.

Foreigners, even Overseas Indians, are barred from commissioning surrogacy.

A woman will be allowed to become a surrogate mother only for altruistic purpose and under no circumstances money shall be paid to her, except for medical expenses.

Unmarried couples, single parents, live-in partners and homosexuals cannot opt for surrogacy as per the new bill.

Surrogacy regulation board will be set-up at Central and State-level. **Australia's 'The Australian' newspaper** 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.

Widespread condemnation of commercial surrogacy prevalent in India has also been regularly published in different print-and electronic media since last few years highlighting the need to prohibit commercial surrogacy and **allow ethical altruistic surrogacy**.

The **228th report of the Law Commission of India** has also recommended for prohibiting commercial surrogacy and allowing ethical altruistic surrogacy to the needy Indian citizens by enacting a suitable legislation.

17-Scorpene Stung

uploaded a fresh tranche of leaked documents relating to information about operating instructions of underwater warfare system of the six Scorpene submarines which are being built in India by French firm DCNS. However, a top defence analyst allayed fears that it could compromise the security of the strategically important combat vessels. Like in the previous case, the newspaper has blacked out all details which it felt would compromise India's security interests.

SCORPENE STUNG	
<p>WHAT WE KNOW</p> <ul style="list-style-type: none"> ➤ Leak running into 22,400 pages details entire secret combat capability of 6 Scorpene-class submarines designed by French shipbuilder DCNS for Indian Navy. Can be intel trove in China, Pak hands ➤ Rs 23,650cr deal inked in 2005. Sea trials began only in May. India finalising plans for 3 more Scorpene. India has 13 aging diesel-electric subs of which only 6-7 are operational at any time 	 <p>LEAKED DETAILS</p> <ul style="list-style-type: none"> ➤ Frequencies at which subs gather intelligence ➤ Levels of noise they make at various speeds ➤ Diving depths, range and endurance ➤ Locations on the boat where crew can speak safely to avoid detection by enemy ➤ Specifications of torpedo launch & combat systems ➤ Speed and conditions needed for using periscope ➤ Propeller noise specifications ➤ Radiated noise levels that occur when sub surfaces <p>WHERE IS THE LEAK?</p> <ul style="list-style-type: none"> ➤ DCNS says it may be victim of economic warfare. Def min orders probe

However, the new set of documents, with Indian Navy insignia on it and marked "**Restricted Scorpene India**", gives details about the sonar system of the submarines which is used to gather intelligence underwater. It talks about a wide range of technical specifications of the sonars and at what degree and frequency it will function. The documents detail the "**Operating Instruction Manual**", which talks about how to select a target for weapon firing, weapon configuration selection, among others. Though

the Navy has not yet officially reacted to the release of new documents, sources maintained that it does not compromise national security.

What has it to do with India?

▪

In **October 2005, India had signed a USD 3.75 bn deal for six of submarines to be built by Mazgaon Dock Limited (MDL)** in Mumbai with transfer of technology. Additional deals were signed with Thales and MBDA for systems and weapons.

What is the status of the deal?

▪

After **repeated delays over four years**, the first submarine began sea trials in May this year and is expected to be commissioned into the Navy by October.

▪

The **remaining five submarines are at various stages of construction** and MDL has assured to hand over one submarine every nine months.

Why are submarines so important?

▪

A submarine is the quietest military platform and extremely tough to detect. **Their main cover is their ability to move stealthily under water** and keep an eye on enemy movement of vessels.

▪

Submarines are the **most potent military platforms currently available even ahead of aircraft carriers** which need a large entourage to protect it.

▪

The fact that nations which possess nuclear weapons base their second strike capability (ability to strike back after being hit first by nuclear strike) on nuclear powered ballistic missile submarines (SSBN) underscores their importance.

What is stealth?

▪

Every military platform has a footprint which shows up on radar by which is used by adversaries to track it. So it is **extremely important to minimise the footprint to protect our military assets and retain the element of surprise in case of an offensive**

▪

For a submarine, stealth is the most important protection. **Stealth is a relative concept.** It can be increased relatively to varying levels by adopting several measures right from the platforms design to operational measures to reduce noise and vibrations to stay away from prowling radars and sonars.

How do submarines operate?

▪

As Submarines **operate under water they rely on sonar or sound waves for communication and detection.** Each class of submarine operates over specific frequencies, their signature, and is highly guarded.

What is the leak all about?

▪

The 22,400 pages of documents leaked are essentially the manufacturer's, in this case DCNS, manual detailing the technical specifications of the submarine.

▪

They detail the combat and stealth capabilities of the Scorpene, including what frequencies they gather intelligence at, what levels of noise they make at various speeds and their diving depths, range and endurance and so on. It also discloses magnetic, electromagnetic and infra-red data as well as specifications of the submarine's torpedo launch system and the combat system.

So does it mean the submarines are compromised?

▪

Not entirely but the fact that such information has been leaked is a concern in itself. Rival navies take years to collect such kind of information and this coming out in public domain is not a healthy sign.

▪

While the manufacturer's technical manual has come out in the public domain, the operational and tactical procedures are developed by the user, the Indian Navy, once the submarine is inducted. In addition as the submarines are still under construction small tweaking can be done to change their signatures, as a precautionary measure.

18-INSPIRE is now MANAK

The INSPIRE Awards (Innovation in Science Pursuit for Inspired Research), as they are now called, will be rechristened **MANAK (Million Minds Augmenting National Aspirations and Knowledge)** from this year.

About the INSPIRE programme:

“**Innovation in Science Pursuit for Inspired Research (INSPIRE)**” is an innovative programme sponsored and managed by the Department of Science & Technology for attraction of talent to Science.

Objective of INSPIRE:

The basic objective of INSPIRE is to:

Communicate to the youth of the country the excitements of creative pursuit of science.▪

Attract talent to the study of science at an early age and thus▪

Build the required critical human resource pool for strengthening and expanding the Science & Technology system and R&D base.

Feature of the programme:

A striking feature of the programme is that it does not believe in conducting competitive exams for identification of talent at any level.

It believes in and relies on the efficacy of the existing educational structure for identification of talent.▪

INSPIRE Awards:

INSPIRE Awards The are part of a larger INSPIRE programme, initiated by the previous government in 2010.▪

The awards are meant to attract — and retain — talented students, collegians and doctorates to careers in science via scholarships and early-career support.

The awards component — directed at school children between 10-15 years — consists of selecting 100,000 school students with the best science ideas.

They are selected from a pool of one million ideas from across the country with school principals and headmasters recommending two students from each school and passing them on to the DST/NIF by respective district authorities.

The existing INSPIRE Awards programme emphasised science-fair models rather than take students through the innovation chain.

Each of the 100,000 will be given Rs. 5,000 each to build a model or prototype that showcases a practical use of technology or science.

What's new from this year?

This year, for the first time, the top 60 ideas will also get incubation support, professionals will work on these and the children will share the intellectual property.

19-Remains of Kurumba period found near Villupuram

Red ware pottery, microlithic tools and other remains of Kurumba lineage were discovered at Kurumbankottai in Villupuram district, Tamil Nadu.

The excavation led to the discovery of two different natures of soil and levels at Kurumbankottai — indicating that the **Kurumbas, the pre-Pallava chiefs** region might have been ruled by .

20-UGC amends anti-ragging regulations

The University Grants Commission has amended its anti-ragging regulations to include physical or mental abuse on grounds of ethnicity, caste, religion, colour, regional background, linguistic identity, nationality and sexual orientation.

The changes are incorporated in the , which have come into force.

Curbing the Menace of Ragging in Higher Educational Institutions (third amendment), Regulations, 2016

Previous definition

Earlier, ragging was defined as teasing and physical or psychological harm of different kinds.■

Wider definition of ragging

■
Now ragging means not just physical or mental hurt caused to a fresher. It covers “any other student” too, meaning a senior student inflicting harm on another senior student is also ragging.

The rules kick in if the harm is caused anywhere on a campus or even in a campus transport facility.■

Suggested actions

■
The anti-ragging committee of the institution can debar violators from classes, fellowships and examinations, withhold results and order suspension from hostel, rusticate and even order expulsion from the institution, depending on the severity of the offence.

Background

■
There are plenty of complaints of harassment to a student from the north-east on the basis of ethnicity or a Bihari student on the basis of regional background.

■
To publicise this, the Human Resource Development released Rs. 5-crore to the UGC in the last financial year. The publicity material includes an FM Radio message on calling a student “rustic” (ganwaar) to a film featuring cricketer Virat Kohli. Posters and messages have also been dispatched to universities and colleges to spread awareness.

International

1-Ulaanbaatar Declaration

The two-day 11th Asia Europe meeting (ASEM) Summit ended in the Mongolian capital with the adoption of **Ulaanbaatar declaration** in which leaders renewed resolve to work together on areas of common interest, including countering terrorism and violent extremism.

- Vice President Mohammed Hamid Ansari is also attending the summit.
- The summit also focused on greater connectivity between Europe and Asia as the theme of the summit is “20 Years of ASEM: Partnership for the Future through Connectivity”.

Under Ulaanbaatar Declaration

- ASEM will enhance its partnership in order to meet the aspirations of the people for peace and stability, sustainable development, economic prosperity and a better quality of life.
- It will also focus on countering terrorism, maritime security and safety, fighting piracy and armed robbery at sea, as well as drug and human trafficking.
 - ASEM will reaffirm its commitment for cyber security, cyber-crime, security of in the use of information and communication technologies.
 - It will also reaffirm upholding the purpose and principles of the UN Charter, rule of law and enforcement of international law, human rights, anti-corruption, migration, Sustainable Development and climate change.

ASEM

The Asia-Europe Meeting (ASEM) is an informal process of dialogue and cooperation bringing together the 28 European Union

member states, 2 other European countries, and the European Union with 21 Asian countries and the ASEAN Secretariat.

- The ASEM dialogue addresses political, economic and cultural issues, with the objective of strengthening the relationship between the two regions, in a spirit of mutual respect and equal partnership.

ASEM Summit ▪ The is a biennial meeting between the Heads of State and Government, the President of the European Council, the President of the European Commission, and the Secretary-General of the Association of Southeast Asian Nations (ASEAN).

2-Walking a tightrope - Prachanda

Nepal has witnessed another change in its top leadership. Pushpa Kamal Dahal 'Prachanda', president of the United Communist Party of Nepal (Maoist) has returned as prime minister of Nepal after seven years, in alliance with the Nepali Congress.

Prachanda's election comes after the resignation of K.P. Oli, leader of the CPN (UML) as prime minister in the face of an impending no-confidence motion in parliament where he had ceased to command a majority.

Election of new P.M. could be seen as part of the process of political adjustment in an era of unstable coalitions. But the circumstances leading to it and the challenges ahead, both for his party and for the state of Nepal, are significant.

Faulty policies of previous government:▪

K.P. Oli had led a government that sought to divide and not unite the nation. In the debate on the no-confidence motion against his government, senior members of his own party had expressed dismay at his methods and manner of functioning.

Oli had decided that the future lay with hill-based castes and classes and treated Madhesi aspirations with open disdain.

His reaching out to China in the pursuit of Nepali national interests cannot be faulted, but his palpable stoking of anti-Indian sentiments may not have been in Nepal's interests.

The challenges for new government:▪

New government will try to provide effective relief to Madhesi aspirations and bringing relations with India on an even keel.

But, the former will be difficult as the issue of demarcation of state boundaries, which is at the core of Madhesi demands, will not be possible without constitutional amendments, and this, in turn, cannot be effected in the present parliament without the support of Oli's UML. At the least, there would need to be engagement with the Madhesi and movement wherever possible.

In the aftermath of earthquake which affected lives of millions the task will be to display good governance and bring the change in lives of affected people.

The world had responded generously after Nepal's devastating earthquake of April 2015. But successive governments remained too preoccupied with the politics of Kathmandu to be able to utilise even a fraction of the aid offered. This should engage the attention of the new prime minister.

The new government would need to capitalise and build on Oli's openings to China for the benefit of Nepal, without needlessly aggravating India.

Xi Jinping's proposed visit to Nepal in October should be indicative of how seriously the Chinese wish to pursue the proposals

mooted during the visit of previous Nepal's P.M., which appeared at the time to reflect a Nepali wish list.

For Prachanda, finding a new relevance for his party and himself in the post constitution and pre-election scenario would be the greatest challenge.

3-World Risk Report 2016

While **Bangladesh is among the top five countries at risk of disaster, India ranks 77 on the World Risk Index - marginally better positioned than Pakistan** which is placed at 72. **The index is part of the World Risk Report 2016** released by the **United Nations University Institute for Environment and Human Security (UNU-EHS)** and **Bundnis Entwicklung Hilft** in cooperation with the University of Stuttgart in Germany.

What

▪ **The index assessed the risk of disaster in 171 countries** through the combined analysis of natural hazards and societal vulnerabilities.

▪ **Ranking No.1, the island state of Vanuatu displayed the greatest risk in 2016.**

▪ The researchers concluded in the report that lack of critical infrastructure and weak logistic chains substantially increase the risk that an extreme natural event will become a disaster.

Sufficient, high-quality infrastructure, which is well-managed institutionally, can not only prevent the often catastrophic consequences of natural hazards such as flooding or storms, but it can also play a **crucial role in the distribution of humanitarian aid** supplies in the event of a disaster. Critical infrastructure can thus reduce the risk of natural hazards for populations and absorb economic losses.

4-Colombian government & rebel group FARC sign historic peace accord

Colombian government and the rebel group Revolutionary Armed Forces of Colombia (FARC) on 24 August 2016 signed a historic peace accord to end more than five decades of conflict.

As per the terms of agreement, FARC will give up its armed struggle and join the legal political process.

The agreement was signed by the head of the Colombian delegation, Humberto de la Calle, and the chief FARC negotiator, Ivan Marquez in the Cuban capital Havana, Cuba. Now, the deal will need approval of Colombians via a referendum that will be held on 2 October 2016.

A joint statement released after signing of the accord said both sides have agreed to work together to address social exclusion, to deliver justice to the victims of the conflict and build a stable and enduring peace.

The left-wing rebels have been fighting Colombian government since 1964. The conflict has killed an estimated 220000 people and displaced millions.

Background

The peace accord was reached after the two sides earlier in June 2016 signed the **bilateral ceasefire agreement**. Over the past four years, peace negotiators have managed to reach agreement on six areas and they are land reform, political participation for ex-rebels, justice for victims of the conflict, fighting drug trafficking, disarmament and the implementation and monitoring of the accord.

5-Kurdish forces free Manbij from IS

U.S.-backed fighters have seized a key Islamic State stronghold in northern Syria after two months of heavy fighting and freed hundreds of civilians the extremists had used as human shields.

The Syria Democratic Forces launched its offensive in late May to capture Manbij under the cover of U.S.-led airstrikes. The town lies on a key supply route between the Turkish border and the city of Raqqa, the de facto capital of the IS's self-styled caliphate.

The capture of Manbij is the biggest defeat for the extremist group in Syria since July 2015, when they lost the town of Tal Abyad on the border with Turkey.

6-India ranks 39th in Asia Pacific on fixed broadband

According to a study by the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), **India ranks a low 39th in terms of fixed broadband adoption among Asia Pacific countries**, with just 1.3 per cent of its citizens subscribing

to such a service in 2015.

The report is titled, 'State of ICT in Asia and the Pacific 2016: Uncovering the Widening Broadband Divide'.

Highlights of the report:

- India ranks lower than countries such as Bhutan, Sri Lanka and Bangladesh in fixed broadband subscriptions per 100 inhabitants in ESCAP countries in 2015.
- Hong Kong, New Zealand, Japan, Macao, Australia and Singapore topped the list of 53 countries covered in the report.
- According to the latest ITU data for 2015, more than half of the global fixed broadband subscriptions are from Asia and the Pacific (52.3%).
- The report pointed out that this was a dramatic increase from 2005 when subscriptions in the ESCAP region merely constituted 38.1% of the global total fixed broadband subscriptions.
- However, the subscriptions per 100 inhabitants in the ESCAP region is behind Latin America and the Caribbean, and far lower than Europe and North America.
- Fixed broadband penetration in Asia and the Pacific is even below the world's average of 11.2 subscriptions per 100 inhabitants in 2015.

About UNESCAP:

The United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP or ESCAP) is the regional development arm of the United Nations for the Asia-Pacific region.

- It is one of the five regional commissions of the United Nations Economic and Social Council, under the administrative direction of the United Nations headquarters.

located in Bangkok, Thailand It is .

It was established in 1947 (then as the UN Economic Commission for Asia and the Far East, ECAFE) to encourage economic cooperation among its member states. The name was changed to the current in 1974.

53 member States and nine Associate members ESCAP has . As well as countries in Asia and the Pacific, it includes France, the Netherlands, the United Kingdom and the United States.

ESCAP's regional focus is managing globalization through programs in environmentally sustainable development, trade, and human rights.

7-Prices of essential drugs capped

Prices of 42 essential medicines have been capped by the Drug price regulator, National Pharmaceutical Pricing Authority (NPPA), reducing their cost by up to 15 per cent.

- These medicines are used in treatment of various ailments including tuberculosis, cancer, cardiac diseases, tuberculosis, asthma, epilepsy, rheumatoid arthritis and depression.

The calculation for essential drugs is based on the simple average of all medicines in a particular therapeutic segment

with sales of more than 1%.

Background:

■

The government had notified DPCO, 2013, which covers 680 formulations, with effect from May 15, 2014, replacing the 1995 order that regulated prices of only 74 bulk drugs.

What are Essential medicines?

■

Essential medicines, as defined by the World Health Organization (WHO) are those drugs that satisfy the health care needs of the majority of the population; they should therefore be available at all times in adequate amounts and in appropriate dosage forms, at a price the community can afford.

About National List of Essential Medicines (NLEM)

■

The NLEM is a dynamic list and reviewed every three years to include or exclude drugs as relevant to the newest medical innovations and aligned to the current market competition.

■

National Pharmaceutical Pricing Authority (NPPA) It should be noted that under the Union Ministry of Chemical and Fertiliser decides the ceiling prices essential medicines under The Drug (Prices Control) Order 2013.

The Indian government recognized the national list of essential medicines as a key instrument in balanced healthcare delivery system which includes accessible, affordable and quality medicine at the primary, secondary, tertiary levels of healthcare.

About National Pharmaceutical Pricing Authority (NPPA)

■

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

■

The organization is also entrusted with the task of recovering amounts overcharged by manufacturers for the controlled drugs from the consumers.

It also monitors the prices of decontrolled drugs in order to keep them at reasonable levels. ■

Functions of National Pharmaceutical Pricing Authority:

■

To implement and enforce the provisions of the Drugs (Prices Control) Order in accordance with the powers delegated to it.

To deal with all legal matters arising out of the decisions of the Authority. ■

■

To monitor the availability of drugs, identify shortages, if any, and to take remedial steps. ■

To collect/ maintain data on production, exports and imports, market share of individual companies, profitability of companies etc., for bulk drugs and formulations.

To undertake and/ or sponsor relevant studies in respect of pricing of drugs/ pharmaceuticals. ■

■

To recruit/ appoint the officers and other staff members of the Authority, as per rules and procedures laid down by the Government.

To render advice to the Central Government on changes/ revisions in the drug policy. ■

■

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

8-Highest and Longest glass-bottomed bridge

China opens “world’s highest and longest” glass-bottomed bridge. It connects two mountain cliffs known as the Avatar mountains in Zhangjiajie, Hunan province.

9- China and ASEAN agreed for a framework for a code of conduct to ease tension in South China Sea

- China and ten member countries of Association of Southeast Asian Nations (ASEAN) have agreed to form a framework for a code of conduct to ease tension in disputed South China Sea.

- The two sides also agreed to get the framework for the code of conduct done by mid-2017.

- They also approved guidelines for a China-ASEAN hotline for use during maritime emergencies.

- They also agreed that a pact on unplanned maritime encounters signed by countries in the region in 2014 is applied to the SCS.

- This decision is considered as a significant rapprochement between China and ASEAN bloc, especially after Permanent Court of Arbitration (PCA) ruling against China in July 2016.

- The PCA had ruled that China has no historical title over the disputed South China Sea and it has breached the Philippines sovereign rights.

- However, China had dismissed the ruling and had urged bilateral talks to resolve the issue.

- Since 2010, China and the 10 members of ASEAN have been discussing a set of rules aimed at avoiding conflict among rival claimants in the busy waterway in South China Sea.

- China based on historical assumptions has claimed almost the entire South China Sea as its part.

- ASEAN members Brunei, Malaysia, Philippines, Vietnam and Taiwan (not member) also have claimed their rights in the sea through which more than \$5 trillion of trade moves annually and is believed to be rich in energy deposits.

10-Ventotene Summit to deal with Brexit

- The leaders of the eurozone’s three largest countries will meet on a small southern Italian island for further talks on the way forward for the European Union following Britain’s shock vote to leave.

- Italy’s prime minister, Matteo Renzi, will welcome the German chancellor, Angela Merkel, and the French president, François Hollande, to Ventotene off the coast of Naples for a second round of trilateral talks before an informal EU summit in September.

- The meeting aims “to show the unity of Europe’s three biggest countries, but not to create a specific club. The main goal was to prepare the informal Bratislava summit to map out a post-Brexit course for the bloc.

- Renzi chose the island because of its part in the foundation of the EU, the Italian government said. Imprisoned there during the second world war, two Italian intellectuals, Ernesto Rossi and Altiero Spinelli, wrote the influential “Ventotene manifesto” calling for a federation of European states.

- **Euro-scepticism**, EU states are divided on what direction the bloc should take to counter mounting of which the Brexit vote is the most dramatic example. Brussels and other capitals fear calls for similar in/out referendums could multiply, most imminently in the Netherlands.

- **“better Europe” rather than “more Europe”.** Berlin has made plain it wants The goal must first of all be to preserve the status quo and to prevent a further disintegration of the EU-27.

- The three leaders also differ over how to boost the eurozone’s flagging economy, with Hollande and Renzi both broadly backing more investment and greater harmonisation, but Merkel anxious to preserve the bloc’s integrity and above all not undermine its deficit and debt rules.

- The fallout from the Brexit referendum is expected to feature near the top of the diplomatic agenda for most of the week.

- While the question of similar breakaway movements in other northern European member states is expected to be raised at Saturday’s get-together, Merkel’s tour of central and eastern Europe is designed to scope out common ground on changes to freedom of movement and the future of EU citizens based in UK.

- Also on the Ventotene agenda are likely to be internal and external security questions prompted by the recent string of Islamist militant attacks, and Europe’s migration crisis.

11-Myanmar has given nod for OBOR Initiative by China

- Myanmar has officially announced to support for **China’s ambitious One Belt and One Road (OBOR)** connectivity initiative along the ancient Silk Road.

- Myanmar also **Bangladesh-China-India-Myanmar (BCIM)** economic corridor meant to industrialise a stretch spanning more than 2,000-km.

- BCIM corridor links Kunming in China with Mandalay in Myanmar and passes through Bangladesh and ends at Kolkata in India.

- Myanmar also asked for China’s support to realise peace and national reconciliation through political dialogue in case of militancy.

- Myanmar has been a victim of militancy which for decades is fuelled by clandestine sale of drugs, jade and timber, mostly channelled through China.

- Myanmar also discussed on issues for China’s support for it infrastructure projects including on **Myitsone dam project.**

- **Myitsone dam project is controversial China-backed project in Northeastern Myanmar stalled since 2011 on the grounds of causing extensive ecological damage.**

12-Myanmar names Kofi Annan to head panel on Rohingya Muslims

Myanmar’s government has **set up an advisory panel headed by former U.N. Secretary General Kofi Annan** to find “lasting solutions” to the conflict in **Rakhine state**, where human rights groups have documented widespread abuses against **the minority Rohingya Muslims**. A statement by the office of State Counsellor Aung San Suu Kyi said an agreement will be signed between her office and the Kofi Annan Foundation to set up a **nine-member advisory commission to resolve “protracted issues in the region.”**

What

The council will **comprise three international and six national experts.**

- **Rohingya Muslims have lived in the north-western state of Rakhine** for generations but are denied

citizenship because they are considered outsiders. More than 100 people, mostly Rohingya, were killed in clashes with members of **Myanmar's Buddhist majority in 2012**. Tens of thousands of Rohingya have fled in rickety boats to seek refuge in other Southeast Asian countries, and many have perished in the perilous journeys or fallen victim to human traffickers.

- Many displaced Rohingya are now sheltering in refugee camps within the country in squalid conditions with little medical care.

- In a reflection of how sensitive the Rohingya issue is, the statement did not name the community in the entire text, only describing it as “the complex and delicate issues in the Rakhine state.”

- The closest it came to acknowledging the Rohingya was by saying that the commission will “examine international aspects of the situation, including the background of those seeking refugee status abroad.”

- The commission will “**consider humanitarian and development issues**, access to basic services, the assurance of basic rights, and the security of the people of Rakhine.

- The Commission will **make recommendations on conflict prevention, humanitarian assistance, rights and reconciliation**, institution building and promotion of development of Rakhine state.

- The Commission will **submit its findings and recommendations within 12 months of its establishment**. The recommendations will be given to Suu Kyi, who holds the dual titles of state counsellor and foreign minister.

- She is barred by the Constitution from becoming president, but for all intent and purposes has been the country's leader since her party won elections in November 2015 and replaced a quasi-civilian government controlled by the military.

- **Kofi Annan was the U.N. chief from 1997 to 2006**, when he was replaced by Ban Ki-moon. **He shared the Nobel Peace Prize with the United Nations in 2001.**

13-'World's deepest' sinkhole in South China Sea



- Chinese researchers claimed to have found the world's deepest underwater sinkhole, or blue hole near the disputed islands in the South China Sea.

-
-
- Norway is pondering an unusual birthday gift for its neighbour Finland, an Arctic mountain peak.

- , but its 4,478-foot summit is in Norway.

- To help commemorate the 100th

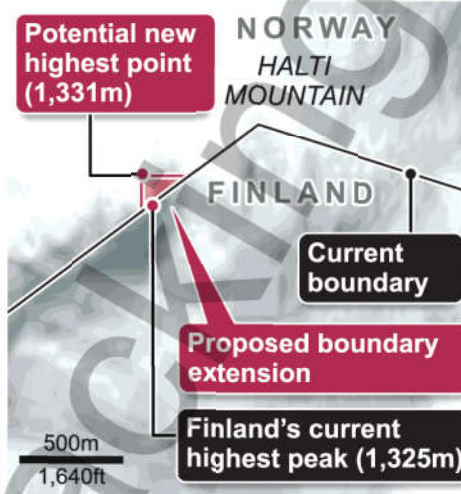
The blue hole is 300.89 meters deep, surpassing the current record of 202 meters. The hole was found near the **Paracel islands** called as Xisha Islands by China. The 202-meter-deep **Dean's Blue Hole** anniversary of Finland's declaration of

on Long Island in the Bahamas was considered the world's deepest known blue hole prior to the new findings.

14-Norway considers Mount Halti as a birthday gift for Finland

Norway may give mountain to Finland

Norway could give Finland a mountain next year to celebrate 100 years of Finnish independence from Russia. Moving the border 40 metres would make the 1,331-metre summit of Halti mountain Finland's new highest peak



Galdhopiggen: Norway's highest peak (2,469m)

Proposed gift is brainchild of **Bjorn Geirr Harsson**, former Norwegian state surveyor, who first suggested idea in 1972

Pictures: Associated Press, Facebook
Source: www.facebook.com/Haltijubileum/



independence from Russia on Dec. 6, 1917, a group of Norwegians is urging the government to move a point on its border with Finland some 490 feet to the north and 650 feet to the east. ■ Halti's peak would become the highest point in Finland, surpassing a spur of the mountain that tops out at 4,344 feet.

Norway's highest:

Norway's highest peak, **Galdhopiggen**, has an elevation of 8,100 feet, making it nearly twice as high as Mount Halti, which is not even among the top 200 of Norway's highest peaks.

Mount Halti is the highest mountain in Finland

Economics

1-SC concerned over "rampant" adulteration of petro products

▪ A criminal-politician mafia nexus run petrol pumps and subsidised kerosene distribution in rural and urban parts of "rampant" adulteration of petroleum products the country have led to, the Supreme Court said .

▪ It is rampant and unfortunate that very powerful people like politicians have petrol pumps. ,

They can tamper with the machine. They are the people who will resist the change. ,

Recognising the immediate need to find a strategy to curb the menace, the Supreme Court asked the Solicitor-General, appearing for the Ministry of Petroleum, to detail measures taken to stop fuel adulteration and siphoning of subsidised kerosene meant for the poor.

▪ **installing equipment which can detect fuel adulteration.** The court even suggested the possibility of ,

The Bench, which did not pay heed to SG's submission that private interest was being raised under the garb of PIL by a rival politician, directed that the inquiry report be submitted to the apex court within six weeks.

Demerits of adulterated fuel

Adulteration of fuels mainly involves adding kerosene or diesel to petrol. World statistics on adulteration indicate that 70 per cent of drivers and mechanics have experienced this problem in petrol engines and rarely on diesel and compressed natural gas (CNG) engines.

- Engine malfunctions, failure of components and compromised safety are on record as results of using adulterated fuel.

- Increased emissions, of hydrocarbons, carbon monoxide, oxides of nitrogen and particulate matter intoxicate the air from such fuels. Experts say health problems could result from harmful tailpipe emissions and cancer causing pollutants, though not all forms of adulteration are harmful.

- Kerosene mixed with petrol on the other hand, results in higher emissions because they do not form a uniform mixture, leading to incomplete combustion and even more particulate products.

- The high levels of sulphur in kerosene compromises the conversion properties of engine pollutants on the catalysts, leading to engine deposit formation and engine knock. Poor handling of the fuel at adulteration points also leads to pollution and further dereliction of the soil.

2-SWIFT - a Step towards Ease of Doing Business

- In line with the Budget announcement made by the Union Finance Minister and as part of the “Ease of Doing Business” initiatives, the Central Board of Excise and Customs (CBEC) launched the Customs’Clearances Project with **SWIFT (Single Window Interface for Facilitating Trade)st** effect from 1 April 2016.

- SWIFT will help India to improve its ranking in World Bank’s Doing Business Report 2016. India now ranks 130 out of 189 countries in the Ease of Doing Business, moving-up four places from last year’s (2015) adjusted ranking of 134.

- The Customs’ SWIFT enables importers/exporters to file a common electronic ‘Integrated Declaration’ on the Indian Customs Electronic Commerce/Electronic Data Interchange (EC/EDI) Gateway i.e. ICEGATE portal.

- With the roll-out of the Single Window, CBEC has also introduced an Integrated Risk Management facility for Partner Government Agencies (

PGAs

), which will ensure that consignments are not selected by agencies routinely for examination and testing, but based on the principle of risk management.

It will also help the participating agencies in handling their respective work areas (related to human and animal health, bio-safety and environment safety) more effectively.

- With this development today, Indian Customs is amongst the few select countries in the world that have functional Single Window clearances, inclusive of multiple

PGAs and integrated risk based selection.

Implementation of Single Window is by far one of the most complex systems integration efforts that have been taken-up by the Directorate General of Systems.

To introduce the **Single Window and the ‘Integrated Declaration’**,

IT Systems of both the Government Departments and private sector agencies had to be changed. The whole exercise has been coordinated well and all this was made possible due to unstinting efforts put in by the officers of Directorate General of Systems and Single Window team.

- The Single Window system is a crucial implementation of trade facilitation measure for goods’ clearances at the country’s points of entry and exit.

Efficiency in the import and export procedures would save large sums of money for the importers and exporters due to reduced trade-related costs and delays.

In order to reduce the transaction costs and decrease cargo release time, a number of steps have been initiated by the Central Board of Excise and Customs (CBEC) in last two years.

A significant leap in this direction is the launch of the Customs' Single Window clearances.

The Department's outreach program and enthusiastic private sector participation helped the department to launch the project in a timely manner.

Merits

- It will provide a single point interface for clearance of import goods.
- Replaces 9 separate documents with one Integrated Customs Electronic Declaration.
- Facilitates trade by reducing Dwell Time & improving Ease of Doing Business.
- Reduces Documentation & Cost of Clearance.
- Brings 6 participating Government agencies on a single platform.
- Eliminates need for tax-payers to interact separately with these agencies.

3-Unified Payment Interface

National Payments Corporation of India (NPCI) announced that bank applications for the **Unified Payment Interface** have **officially become operational**, which means that **UPI apps of banks can now be downloaded and used for transactions:-**

What is UPI?

▪ UPI is a payment system that **allows money transfer between any two bank accounts by using a smartphone.**

▪ It allows a customer to **pay directly from a bank account to different merchants, both online and offline**, without the hassle of typing credit card details, IFSC code, or net banking/wallet passwords.

How can one download the UPI app?

▪ The **UPI app of 19 banks** -- Andhra Bank, Axis Bank, Bank of Maharashtra, Bhartiya Mahila Bank, Canara Bank, Catholic Syrian Bank, DCB Bank, Federal Bank, ICICI Bank, TJSB Sahakari Bank, Oriental Bank of Commerce, Karnataka Bank, UCO Bank, Union Bank of India, United Bank of India, Punjab National Bank, South Indian Bank, Vijaya Bank and YES Bank -- will be available on the Google Play Store of Android phones in the next few days for customers to download.

Steps to get started with UPI

1. Download the app from Play Store and install in phone; 2. Set app login; 3. Create virtual address; 4. Add your bank account; 5. Set M-Pin; and 6. Start transacting using UPI

How safe is UPI?

▪ It is safe as the customers **only share a virtual address and provide no other sensitive information.**

What kind transactions can be performed via UPI?

Merchant payments, remittances, bill payments among others."

Is there a per transaction limit?"

The per transaction limit is Rs.1 lakh."

How exactly does one make a payment transaction?"

A user can make an in-app payment for goods or services purchased online."

For instance a site allows purchase of a movie-on-demand."

Challenges

▪
The number of non-cash transactions per person per year is only 6. This is bad because cash transactions are often hard to trace. Cashless transactions can be tracked, eventually eliminating black money from society.

▪
Only a fraction of retailers in India have card payment facilities. The biggest sufferers in these are local and small shops. However, the ubiquity and ever-falling prices of smart phones is making it an attractive and convenient option to facilitate transactions.

Of the six lakh villages in the country, fewer than one lakh villages have banking services (as of May 2011)."

▪
Financial inclusion has also been hard to achieve. With DBT and Jan Dhan Yojana, we are yet to see how far does this go.

▪
There are more than 150 million smartphone users in the country, a number set to more than triple within 5 years. Here was a readymade solution that wasn't being addressed.

Road ahead

▪
The impact of UPI on electronic wallets is to be seen. Some people say it could mean the end for wallets—a transitory step between traditional payments mechanisms and a full-fledged digital one such as UPI—while others say it will simply make it easier to own and operate wallets.

▪
Dr Rajan had also sounded a note of caution as well and asked banking entities to and use technologies such as UPI to **improve grievance redressal systems** expand access to formal financial channels.

▪
Somewhere along this chain, a transaction may go wrong. Therefore, NPCI should now work towards **protecting the system from security breaches and fraudulent transactions.**

▪
Apart from this, the focus should also be towards bringing in those outside the payments universe and those without smartphones.

▪
There have been developments in recent times to put in place automated fare collection for mass transit systems, all of them work on proprietary systems and standards, thus coming in the way of inter-operability.

▪
The focus will be to ensure that the payment mechanisms being put in place in this segment are interoperable and built on open standards, preferably using open system payment instruments.

▪
The launch of UPI and a host of other products are expected to bring banks back into reckoning in the technology revolution in the banking sector. Banks have been the traditional gateway to payment services.

▪
But, the success of UPI is dependent on the adoption of the platform by all banks. On the acquiring front, there needs to be an aggressive push from the PSPs to maximise newer merchants to popularise UPI as a payment option.

▪
Having said that, in the future, with the way payments industry is shaping up, we are seeing a burst of new technologies in the form of contactless payments, host card emulation technology, and tokenisation that can make payments simple for consumers without compromising security and could compete with UPI.

▪
India continues to have low credit card penetration and low debit card activation leading to a poor reach of electronic

payments—still in single digits. With debit cards mostly used at ATMs to withdraw cash, it is clear that they are being used more like a substitute to cash than as a true payment instrument.

In this context, there is a strong case for UPI: it could be that master stroke that turns the tide in favour of electronic payments in India.

4-Monetary Policy Committee - Q & A

1. What is a monetary policy committee?.

The Monetary Policy Committee (MPC) is a committee of the central bank — Reserve Bank of India, headed by its Governor. It was set up by amending the RBI Act after the government and RBI agreed to task RBI with the responsibility for price stability and inflation targeting. The RBI and the government signed the Monetary Policy Framework Agreement on February 20, 2015.

2. What is the committee's mandate?

The MPC is entrusted with the task of fixing the benchmark policy interest rate (repo rate) to contain inflation within the target level. The government may, if it considers necessary, convey its views, in writing, to the MPC from time to time. RBI is mandated to furnish necessary information to the MPC to facilitate their decision making.

3. How is this committee structured?.

According to the government, the MPC will have six members. Three each will be nominated by the government and the RBI and each member will have one vote. While the majority voice of the committee will be final in deciding the interest rates and the RBI will have to accept the verdict, the governor gets a casting vote in case of tie.

4. Explain Decision Making at MPC.

The proceedings of MPC are **confidential** and the **quorum for a meeting shall be four Members**, at least one of whom shall be the Governor and in his absence, the Deputy Governor who is the Member of the MPC.

The MPC takes decisions based on **majority vote** (by those who are present and voting). In case of a tie, the RBI governor will have the second or casting vote. The decision of the Committee would be binding on the RBI.

No act or proceeding of the Monetary Policy Committee shall be invalid merely by reason of—
any vacancy in, or any defect in the constitution of the MPC; or

any defect in the appointment of a person acting as a Member of the MPC; or,

any irregularity in the procedure of the MPC not affecting the merits of the case. As per the Act, RBI has to organise at least four meetings of the MPC in a year. (More meetings can be held if the RBI Governor is of that opinion)

The government may, if it considers necessary, convey its views, in writing, to the MPC from time to time.

RBI is mandated to furnish necessary information to the MPC to facilitate their decision making and if any Member of the MPC, at any time, requests the RBI for additional information, including any data, models or analysis, the same have to be provided, not just to that member but to all members.

5. How is it different from current practice followed by the RBI?.

Currently, a technical advisory committee constituted by the RBI, which consists central bank's top brass including the deputy governor and the governor and external advisors, give their opinion and suggestions on what the RBI should do. But the governor's word is final on the rates and the advice of the technical advisors is not binding on the RBI.

6. What are its functions?.

Under the Monetary Policy Framework Agreement, the RBI will be responsible for **containing inflation targets at 4%** (with a standard deviation of 2%) in the medium term. Under Section 45ZA(1) of the RBI Act, 1934, the Central Government determines the inflation target in terms of the Consumer Price Index, once in

every five years in consultation with the RBI.

Though the central bank already had a monetary framework and was implementing the monetary policy, the newly designed statutory framework would mean that the **RBI would have to give an explanation in the form of a report to the Central Government, if it failed to reach the specified inflation targets.** It shall, in the report, give **reasons for failure, remedial actions** as well as **estimated time** within which the inflation target shall be achieved. (The factors that constitute failure shall be such as may be notified by the Central Government in the Official Gazette.) Further, **RBI is mandated to publish a Monetary Policy Report every six months**, explaining the **sources of inflation and the forecasts of inflation** for the coming period of **six to eighteen months.**

Given this backdrop, **MPC decides the changes to be made to the policy rate** (repo rate) so as to contain the inflation within the target level specified to it by the Central Government. Each Member of the Monetary Policy Committee has to write a statement specifying the reasons for voting in favour of, or against the proposed resolution, and the same alongwith the resolution adopted by the MPC is published as minutes of the meeting by RBI after 14 days of the said meeting. In addition, subsequent to the MPC meeting, RBI has to publish a document explaining the steps to be taken by it to implement the decisions of the Monetary Policy Committee, including any changes thereto.

7. What is the global experience in this regard?

Most of these countries have implemented their monetary policy targets through MPCs after formally adopting inflation targeting as a monetary policy objective. Notable among countries which have adopted inflation targeting as a monetary policy objective are New Zealand, England, Canada, South Africa, Sweden, among others. Research has found that inflation, in general, had come down to a much acceptable level in many countries after adopting inflation targeting than before.

8. A brief history

The history of suggestions for setting up a MPC is not new and traces back to 2002 when the Y. V. Reddy Committee recommended for a MPC to decide policy actions. Subsequently, suggestions were made to set up a MPC in 2006 by the Tarapore Committee, in 2007 by the Percy Mistry Committee, in 2009 by the Raghuram Rajan Committee and then in 2013, both in the report of the Financial Sector Legislative Reforms Commission (FSLRC) and the Dr. Urjit R. Patel (URP) Committee.

Road Ahead

The MPC has been welcomed as imparting **transparency and accountability** to monetary policy making. The idea that such power or responsibility ought not to reside in a single person but be more broadly shared has strong moral appeal, besides the belief that more heads are wiser than one. Not just the advanced countries, but an increasing number of emerging ones too have been assigning the job of achieving inflation targets to a committee, indicating the growing popularity of the format.

The possibilities for the evolution and functioning of the MPC are several. Think, for example, about the role of the three external experts, each eminently capable and independent, as it ought to be.

Although the MPC may be compositionally similar to those in most advanced countries, the tasks faced are significantly different. Against a fairly simple process in the advanced economies, where boards or committees operate upon the business cycle, formulating monetary policy is much more complex and difficult in India, as in most emerging markets.

This is because price behavior is impacted by structural factors, which distort interpretation and analyses; in turn, this leads to differential understandings about future inflation outcomes and hence, different outlooks on the course of policy action.

This is very different from the advanced countries where structural problems are absent, markets are well-integrated and there are few diversities and divergences. Then again, the monetary policy framework is given; no member disputes the framework.

The persistence and domination of structural shocks in headline-CPI carries infinite scope for disagreements; and not only within the outside members.

Again, even when all members are genuine, a different position about the framework could either force an adaptation, or even a total disregard. Amidst all such arguments and concerns, explanations of policy positions

would be external, creating further confusions.

For although the inflation target is numerically defined, the means to attain that objective are neither clear nor straightforward; the path to the target through interest rate changes is dotted with structural impediments, which constrain policy effectiveness.

In the future though, it is entirely possible that the Deputy Governor, who will be appointed by the Financial Sector Regulatory Appointment Search Committee, a completely independent mechanism, could choose to differ from the institutional position.

Here, therefore, is potential for RBI to genuinely evolve as an institution where the first, if not the second rung leadership can differ in their outlook and debate it freely, openly at a wider forum. It must be underlined that RBI's responsibilities, or now that of the MPC, involve normative judgements with respect to achieving a specified inflation objective.

In order to sustain credibility, the new committee must quickly display a fair amount of convergence on the **FIT (flexible inflation targeting) framework**. Any dithering or public display of strong disagreements could be a source of fresh uncertainties because market participants will be keenly watching its initial few steps.

5-Suresh Prabhu announces four new trains

With an aim to improve the facilities, provide convenience and cater to the needs of passengers belonging to different economic spectra, Minister of Railways Shri Suresh Prabhu announced four new categories of trains. These new categories of trains are:

Antyodaya Express:

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These will be totally unreserved, long-distance superfast trains which will cater to the needs of the poorest section of the society.

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Most of these general unreserved coaches will be the newly designed Deendayalu coaches with comfortable seats, bio-toilets, water-vending machines, LED lighting and higher number of mobile charging points.

These trains will operate on highly dense trunk routes.

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Hamsafar Express:

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It will be superfast express trains with only 3-tier Airconditioned coaches, catering to the needs of middle class passengers.

These trains will also run on long-distance dense routes.

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Tejas Express

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It will be luxury trains plying on short, busy routes.

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The train will have Wi-Fi on board, delicious local cuisines and entertainment systems.

UDAY Express:

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UDAY, an acronym for Utkrisht Double-decker Air-conditioned Yatri, will be double-decker trains plying on medium-distance routes, which are the busiest throughout the year.

6-New central bank governor

Urjit Patel has been appointed the Reserve Bank of India (RBI) Governor. The appointment has been made based on

the **recommendation of the Financial Sector Regulatory Appointments Search Committee (FSRASC)**, headed by the Cabinet Secretary. The Committee undertook an extensive exercise to suggest a panel of names to the Appointments Committee of Cabinet (ACC). Mr. Patel has been serving as **Deputy Governor of the central bank for more than three years**. A panel under his chairmanship had proposed inflation-targeting and the setting up of a monetary policy committee. He appointed as the New Governor of Reserve Bank of India (RBI) for a period of three years with effect from 4th September, 2016. He will replace the present RBI Governor Dr. Raghuram Rajan. He headed a panel that recommended landmark changes to monetary policy in India, including a switch to inflation-targeting and the creation of a panel to set interest rates.

His Brief outline

- Born October 28,1963 Urjit Patel completed his BA from the London School of Economics [LSE, University of London], and M. Phil. degree from Oxford University
Did his Phd in Economics from Yale University"
- Worked at the **International Monetary Fund in the U.S., India, Bahamas and Myanmar desks between 1990 and 1995.**
- Deputed from the IMF to the RBI between 1996 and 97, during which period he advised on the development of debt market, banking sector reforms, pension fund reforms, real exchange rate targeting and evolution of the foreign exchange market
Served as a consultant to the Ministry of Finance, Department of Economic Affairs between 1998 and 2001."
- Between 2000 and 2004, he worked closely with several high-level Central and State government committees such as the Task Force on Direct Taxes, the Ministry of Finance, and the Secretariat for the Prime Minister's Task Force on Infrastructure.
Served as president of Business Development at Reliance Industries Limited from 1997 to 2006"
- Before his appointment as Deputy Governor of RBI in 2013, he was an advisor on energy and infrastructure at The Boston Consulting Group.

7-Award in e-market services

Karnataka's Rashtriya e-Market Services (ReMS) was awarded the **DL Shah Platinum Award** at the **11th National Quality Conclave (NQC)**, the annual flagship event of the Quality Council of India (QCI) held in New Delhi. **NQC 2016 had more than 1,000 national and international delegates across sectors.**

- The "**Karnataka model**" focused on addressing problems plaguing the agricultural marketing sector, bringing in efficiency and transparency in the functioning of agricultural markets by adopting better technology options so as to enable efficient price discovery to benefit farmers and other market participants.
Karnataka has become a guidepost for states taking up market reforms in the country."
- The salient features of the model are: increasing competition for a better price discovery, single unified license for traders, simplification of market practices, easier access to market price information, enhanced transparency in all market operations and quality based bidding, said an official release.
- **A total of 142 out of 157 Agriculture Produce Marketing Committees (AMPCs) in the state transact online, first of its kind in the Country.** "Till date, we have traded 49 lakh lots with cumulative volume of 320 lakh quintals, valued at Rs. 26,000 crore on the electronic platform. About 25 lakh farmers are registered on the online markets," Mr. Rajan said.
- **ReMS offers complete technology and management solution for modernising agricultural markets in state.**
-

ReMS is responsible for establishing, operating, managing, specialised electronic trading platform called Unified Market Platform (UMP) for auctioning of farmer's produce in the agricultural regulated markets in the State. Department of Agricultural Marketing, ReMS, and the markets work in close coordination to implement the ambitious market reforms agenda of the State.

8-Goods and Services Tax - Q & A

What is GST? How does it work?

GST is one indirect tax for the whole nation, which will make India one unified common market. GST is a single tax on the supply of goods and services, right from the manufacturer to the consumer. Credits of input taxes paid at each stage will be available in the subsequent stage of value addition, which makes GST essentially a tax only on value addition at each stage. The final consumer will thus bear only the GST charged by the last dealer in the supply chain, with set-off benefits at all the previous stages.

What are the benefits of GST?

For business and industry

- **Easy compliance:** A robust and comprehensive IT system would be the foundation of the GST regime in India. Therefore, all tax payer services such as registrations, returns, payments, etc. would be available to the taxpayers online, which would make compliance easy and transparent.
- **Uniformity of tax rates and structures:** GST will ensure that indirect tax rates and structures are common across the country, thereby increasing certainty and ease of doing business. In other words, GST would make doing business in the country tax neutral, irrespective of the choice of place of doing business.
- **Removal of cascading:** A system of seamless tax-credits throughout the value-chain, and across boundaries of States, would ensure that there is minimal cascading of taxes. This would reduce hidden costs of doing business.
- **Improved competitiveness:** Reduction in transaction costs of doing business would eventually lead to an improved competitiveness for the trade and industry.
- **Gain to manufacturers and exporters:** The subsuming of major Central and State taxes in GST, complete and comprehensive set-off of input goods and services and phasing out of Central Sales Tax (CST) would reduce the cost of locally manufactured goods and services. This will increase the competitiveness of Indian goods and services in the international market and give boost to Indian exports. The uniformity in tax rates and procedures across the country will also go a long way in reducing the compliance cost.

For Central and State Governments

- **Simple and easy to administer:** Multiple indirect taxes at the Central and State levels are being replaced by GST. Backed with a robust end-to-end IT system, GST would be simpler and easier to administer than all other indirect taxes of the Centre and State levied so far.
- **Better controls on leakage:** GST will result in better tax compliance due to a robust IT infrastructure. Due to the seamless transfer of input tax credit from one stage to another in the chain of value addition, there is an in-built mechanism in the design of GST that would incentivize tax compliance by traders.
- **Higher revenue efficiency:** GST is expected to decrease the cost of collection of tax revenues of the Government, and will therefore, lead to higher revenue efficiency.

For the consumer

- **Single and transparent tax proportionate to the value of goods and services:** Due to multiple indirect taxes being levied by the Centre and State, with incomplete or no input tax credits available at progressive stages of value addition, the cost of most goods and services in the country today are laden with many hidden taxes. Under GST, there would be only one tax from the manufacturer to the consumer, leading to transparency of taxes paid to the final consumer.
- **Relief in overall tax burden:** Because of efficiency gains and prevention of leakages, the overall tax burden on most commodities will come down, which will benefit consumers.

Which taxes at the Centre and State level are being subsumed into GST?

At the **Central** level, the following taxes are being subsumed:

- a. Central Excise Duty,
- b. Additional Excise Duty,
- c. Service Tax,
- d. Additional Customs Duty commonly known as Countervailing Duty, and
- e. Special Additional Duty of Customs.

At the **State** level, the following taxes are being subsumed:

- a. Subsuming of State Value Added Tax/Sales Tax,
- b. Entertainment Tax (other than the tax levied by the local bodies), Central Sales Tax (levied by the Centre and collected by the States),
- c. Octroi and Entry tax,
- d. Purchase Tax,
- e. Luxury tax, and
- f. Taxes on lottery, betting and gambling.

GST Council

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The GST Council will consist of: (a) the Union Finance Minister (as Chairman), (b) the Union Minister of State in charge of Revenue or Finance, and (c) the Minister in charge of Finance or Taxation or any other Minister, nominated by each state government. All decisions of the GST Council will be made by three fourth majority of the votes cast; the centre shall have one-third of the votes cast, and the states together shall have two-third of the votes cast.

▪

The GST Council will make recommendations on: (a) taxes, cesses, and surcharges to be subsumed under the GST; (b) goods and services which may be subject to, or exempt from GST; (c) the threshold limit of turnover for application of GST; (d) rates of GST; (e) model GST laws, principles of levy, apportionment of IGST and principles related to place of supply; (f) special provisions with respect to the eight north eastern states, Himachal Pradesh, Jammu and Kashmir, and Uttarakhand; and (g) related matters.

The GST Council may decide the mechanism for resolving disputes arising out of its recommendations. ■

Compensation to states

Parliament may, by law, provide for compensation to states for revenue losses arising out of the implementation of GST, based on the recommendations of the GST Council. Such compensation could be for a maximum of five years.

Key Issues and Analysis

An ideal GST regime intends to create a harmonised system of taxation by subsuming all indirect taxes under one tax. It seeks to address challenges with the current indirect tax regime by broadening the tax base, eliminating cascading of taxes, increasing compliance, and reducing economic distortions caused by inter-state variations in taxes.

The provisions of this Bill do not fully conform to an ideal GST regime. Deferring the levy of GST on five petroleum products could lead to cascading of taxes.

The additional 1% tax levied on goods that are transported across states dilutes the objective of creating a harmonised national market for goods and services. Inter-state trade of a good would be more expensive than intra-state trade, with the burden being borne by retail consumers. Further, cascading of taxes will continue.

The Bill permits the centre to levy and collect GST in the course of inter-state trade and commerce. Instead, some experts have recommended a modified bank model for inter-state transactions to ease tax compliance and administrative burden

There are three important political economy issues that need a fresh airing.

1. there is the fundamental idea from Adam Smith that the division of labour is limited by the extent of the market. In other words, the integration of the domestic market through the GST will improve economic efficiency.
2. Two classic papers in the modern theory of taxation by Peter Diamond and James Mirrlees—both Nobel laureates—presented the theory of optimal taxation. One of the lessons from their celebrated productive efficiency theorem is that optimal tax systems should not tax the production of intermediate goods. The idea underlying this insight is that taxation on intermediate goods leads to the diversion of resources away from the production of final goods. The burden of taxation should fall on income and consumption in order to maximize efficiency. The GST is actually a tax on final consumption rather than a tax paid across the value chain, and is hence close to the Diamond-Mirrlees norm. The GST in effect will eliminate taxes on production and distribution—only final consumption will be taxed.
3. A new discussion paper published by the finance ministry last year makes a point: “It is worth emphasising that the GST is intrinsically a regressive tax, and the higher the rate, the greater the regressivity.” The key issue here is that a high GST rate will hurt the poor.

9-Commodity hedging framework

The Reserve Bank of India (RBI) has proposed a review of the the **existing framework for hedging of commodity price risk in markets abroad**. A working group of members from RBI, the Securities and Exchange Board of India, and a few external experts will do the review, RBI said on 25 August 2016.

"Exposure of Indian entities to commodity price risks has been accentuated by the growing integration of the Indian economy with the rest of the world and increasing cross-border trade," the central bank noted.

In a fundamental shift in foreign exchange market regulations, greater leeway was being proposed for residents to maintain open positions. The permissible limits for hedging in the over the counter and

exchange-traded markets were also being rationalised.

- A number of **Indian entities have been importing commodities for both captive consumption and trading**, with a ceiling on the quantity and value fixed by RBI.

- "Importers require RBI's permission for trades, **based on their record for the past three years**. Sometimes, they import commodities in large volumes in the physical market and simultaneously take buy positions in overseas futures markets, thereby doubling their price volatility risk. Instead of a 'buy position' (long), the importer requires to take a 'sell position' (short) to complete the hedging risk.

- **The working group might compulsorily ask importers to hedge their positions**, either on global or domestic exchanges," said Gnanasekar Thiagarajan, director, Commtrendz Research.

- It might also **allow domestic traders who procure from an existing importer to directly hedge their risk in global exchanges**, rather than wait for suppliers to take such risks. In this case, more entities would be allowed to hedge their commodity risk in the global exchanges.

- India imports base metals, precious metals and many agricultural commodities, including pulses and edible oils, with and without adequate hedging on global commodity exchanges.

10-Tarun Ramadorai Committee on Household Finance

The Reserve Bank of India (RBI) on 4 August 2016 constituted a committee to look at various facets of household finance in India. The Committee will be chaired by Tarun Ramadorai, Professor of Financial Economics, University of Oxford.

It will have representation from financial sector regulators namely, Securities and Exchange Board of India (SEBI), Insurance Regulatory and Development Authority of India (IRDAI), Pension Fund Regulatory and Development Authority (PFRDA) apart from Reserve Bank of India (RBI).

Terms of reference of the Tarun Ramadorai Committee

- To benchmark the current depth of household financial markets in India among those in other major world markets and to identify areas of priority for growth and change.
- To characterize and evaluate Indian households' demands in formal financial markets (for assets such as pensions as well as liabilities such as home loans) over the coming decade.
- To consider whether, how and why the financial allocations of Indian households deviate from desirable financial allocation and behaviour like the large household allocation to gold.
- To evaluate the design of new systems and the redesign of existing systems of incentives and regulations to encourage better participation by Indian households in formal financial markets.
- To assess the role of new financial technologies and products in the cost-effective provision of high-quality financial products to Indian households while containing risks.
- The Committee is expected to submit its report by end of July 2017.

Background

The demand for formal financial market investment product like pension as well as liability product like home loan from the Indian household was discussed during the meeting of the Sub Committee of Financial Stability and Development Council (FSDC-SC) held on 26 April 2016.

It was decided during the meeting that a Committee should be set up to look at various facets of household finance in India and submit a report.

11-HDFC issues world's first Masala bond listing in LSE

Housing Development Finance Corporation (HDFC), India's largest private sector mortgage lender raised Rs. 30 billion (\$450 mn) by issuing the world's first ever "Masala" or rupee-denominated bond outside India in London Stock Exchange (LSE).

The event is considered a landmark as it will boost economic ties between India and the UK post Brexit.▪

The listing follows Prime Minister Narendra Modi's announcement of USD 1 billion dollar equivalent of Masala bond issuance in the UK, made during his visit to London in 2015.

What are Masala Bonds?

- Masala bond is a term used to refer to a financial instrument through which Indian entities can raise money from overseas markets in the rupee, not foreign currency.

Background

- The International Finance Corporation (IFC), the investment arm of the World Bank, in November 2014, issued a Rs. 1,000 crore bond to fund infrastructure projects in India.

- These bonds were listed on the London Stock Exchange (LSE). IFC then named them Masala bonds to give a local flavour by calling to mind Indian culture and cuisine.

Features of the Masala Bond

- Analysts say that if the masala bonds take off it could lower India Inc's the cost of capital over a period of time, which remains one of the highest in Asia. Also, inflows from these financial instruments could also support the rupee.

- They are issued to foreign investors and settled in US dollars. Hence the currency risk lies with the investor and not the issuer, unlike external commercial borrowings (ECBs), where Indian companies raise money in foreign currency loans.

- While ECBs help companies take advantage of the lower interest rates in international markets, the cost of hedging the currency risk can be significant.

- If unhedged, adverse exchange rate movements can come back to bite the borrower. But in the case of Masala bonds, the cost of borrowing can work out much lower.

12-Cabinet clears bill for speedy recovery of bad loans

The Lok Sabha has passed The Enforcement of Security Interest and Recovery of Debts Laws and Miscellaneous Provisions (Amendment) Bill, 2016.

The bill seeks to amend the debt recovery laws with an overall objective of improving the ease of doing business.▪

The bill seeks to amend

The Bill seeks to amend four laws –

Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest (SARFAESI) Act, 2002,▪

The Recovery of Debts due to Banks and Financial Institutions Act, 1993, The Indian Stamp Act, 1899 and▪

The Depositories Act, 1996. What are the salient features of the Bill?

Amendments to the SARFAESI Act

- The SARFAESI Act allows secured creditors to take possession over a collateral, against which a loan had been provided, upon a default in repayment. This process is undertaken with the assistance of the District Magistrate, and does not require the intervention of courts or tribunals. The Bill provides that this process will have to be completed within 30 days by the District Magistrate.

- In addition, the Bill empowers the District Magistrate to assist banks in taking over the management of a company, in case the company is unable to repay loans. This will be done in case the banks convert their outstanding debt into equity shares, and consequently hold a stake of 51% or more in the company.

Central Registry

The Act creates a central registry to maintain records of transactions related to secured assets. ■

The Bill creates a central database to integrate records of property registered under various registration systems with this central registry. This includes integration of registrations made under Companies Act, 2013, Registration Act, 1908 and Motor Vehicles Act, 1988.

Secured Creditors

- The Bill provides that secured creditors will not be able to take possession over the collateral unless it is registered with the central registry.

Further, these creditors, after registration of security interest, will have priority over others in repayment of dues. ■

Power for RBI

- The Act empowers the Reserve Bank of India (RBI) to examine the statements and any information of Asset Reconstruction Companies related to their business.

- The Bill further empowers the RBI to carry out audit and inspection of these companies. The RBI may penalise a company if the company fails to comply with any directions issued by it.

Amendments to the RDDBFI Act

The RDDBFI Act established Debt Recovery Tribunals and Debt Recovery Appellate Tribunals. ■

The Bill increases the retirement age of Presiding Officers of Debt Recovery Tribunals from 62 years to 65 years. ■

Further, it increases the retirement age of Chairpersons of Appellate Tribunals from 65 years to 67 years. ■

It also makes Presiding Officers and Chairpersons eligible for reappointment to their positions.

13-RBI on-tap bank licence: Rajan's reform step would mean end of banking dreams for big corporates

Reserve Bank of India (RBI) has taken one of the key reform steps in the country's banking sector by announcing final norms for 'on tap licensing' or continuous licensing.

What is 'on tap' licensing?

- In simple words, 'on tap' licensing means bank licensing process will no longer be a once-in-a-decade affair. It will be an ongoing process.

- Under the 'on tap' licensing, the licensing window will be open on-tap, and the applications could be submitted to the RBI at any point of time.

Key features of the guidelines

In the final guidelines on on-tap licensing,

'Fit and Proper' criteria:

▪
The central bank has allowed individuals with 10 years of experience in banking and finance, as well as business groups with 10 years' track record to promote universal banks.

Large industrial houses

▪
For large industrial houses, with more than Rs. 5,000 crore in total assets to be eligible for a licence, their income from non-financial businesses should not account for 40% or more in terms of total assets/in terms of gross income.

However, they are allowed to pick up 10 per cent stake in banks.

NBFCs

▪
The existing non-banking financial companies (NBFCs) that are controlled by residents and have a successful track record for at least 10 years will also be eligible.

▪
However, an NBFC, which is a part of the group where the non-financial business of the group accounts for 40% or more in terms of total assets/gross income, is not eligible.

Banking requirements

▪
The bank should have a minimum capital of Rs.500 crore and should list on the stock exchanges within six years of commencing operations.

The bank shall open at least 25 per cent of its branches in unbanked, rural centres. ▪

▪
The bank should also maintain a capital adequacy ratio of 13 per cent in the first three years of operation as compared to 9 per cent in existing banks.

NOFHC

▪
Setting up of a non-operative financial holding company (NOFHC) has not been made mandatory for individuals and standalone promoting entities that do not have any other group entities. For others, the RBI has mandated that at least 51 per cent stake in the NOFHC should be owned by the promoter group.

After setting up the bank, the NOFHC will not be allowed to set up any financial services entity for three years ▪

14-MIP extension key to health of India's steel industry

The Steel Ministry has requested to the Centre for an extension of the Minimum Import Price (MIP) on 173 categories of steel.

Why the Steel Ministry demands an extension?

▪
India is the world's third-largest steel producer with a total installed capacity of 110 million tonnes. But the industry says its margins have been squeezed due to cheap imports from China, as well as Russia, Japan and South Korea.

So the steel ministry is urging the Centre to continue the minimum import price (MIP) protection scheme to guard against increased imports.

MIP scheme

The MIP scheme was introduced in February, 2016 for six months.▪

Post-MIP, the industry has been able to marginally improve its viability after a prolonged period of subdued prices and eroded profit margins.

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While MIP cannot possibly be an all-encompassing framework for a complete turnaround of the Indian steel industry, it has provided a cushion against surging imports.

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The Indian steel industry does not see MIP as a perpetual protectionist step, but as a necessary temporary measure that will allow time for recovery.

The Indian steel industry's outstanding loan is estimated at Rs.3,00,000 crore, of which 35 per cent may be stressed.▪

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MIP was imposed on February 5, 2016 on 173 steel items covering both flat and long products.▪

Accelerating imports at predatory prices from three steel-surplus Asian countries has been a major concern for the domestic industry since September 2014.

Steel imports, which had peaked in July 2015 registering a 114.6 per cent increase year-on-year, started to decline around November 2015 (when a provisional safeguard duty was imposed). Post-MIP it has dropped in range of 24.6 per cent and 43.1 per cent in the first quarter of the current fiscal.

India is expected to impose an anti-dumping duty

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The Directorate General of Anti-Dumping and Allied Duties (DGAD), under the Commerce Ministry, has found that hot-rolled flat products of alloy or non-alloy steel have been exported to India from China, Japan, Korea, Russia, Brazil and Indonesia at "below-normal value".

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So, India is expected to impose an anti-dumping duty of up to \$ 557 per tonne on imports of certain steel products from six countries.

15-CHAMAN project for horticultural crops launched

Under the Mission of Integrated Horticulture Development (MIDH), the Department of Agriculture, Cooperation and Farmers Welfare has initiated the **project CHAMAN (Coordinated Horticulture Assessment and Management using geoinformatics)** for assessment and development of Horticulture through Remote Sensing & geo-informatics.

Details

This programme envisages use of satellite remote sensing data for area and production estimation of **7 horticultural crops (Potato, Onion, Tomato, Chili, Mango, Banana and Citrus)** in 12 major states in 180 districts.

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The programme also uses GIS (Geographical Information System) tools along with remote sensing data for generating action plans for horticultural development.

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Another component of CHAMAN is to carry out research activities on horticultural crop condition studies, diseases assessment and precision farming.

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The project is being implemented by Mahalanobis National Crop Forecast Centre (MNCFC) in collaboration with ISRO Centres (SAC & NRSC) and 12 state horticulture departments, NHRDF, IMD, ICAR Centre and State Remote Sensing Centres.

Science and Technology

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1-S wave Microseism

Japanese scientists have detected a rare deep-Earth tremor, known as an S (secondary) wave microseism. Microseism S waves are so faint that they occur in the 0.05 to 0.5 Hz frequency range.

They successfully detected not only P wave microseisms triggered by a severe and distant North Atlantic storm, known as a

weather bomb

, but also S wave microseisms, too. P waves, or primary wave microseisms, can be detected during major hurricanes. S waves refer to secondary waves, which are slow and move only through rock, not liquid. Humans feel them during earthquakes. While P waves, or primary wave are fast-moving, and animals can often sense them just before an earthquake hits.

2-India's First Green Rail Corridor Launched In Tamil Nadu

In order to contribute to mission 'Swachh Bharat Abhiyan' Indian Railways have taken up a big task of providing human discharge free bio-toilets in all its coaches and the same would be completed by September 2019.

With provision of bio-toilets in all its coaches discharge of human waste from trains on to the ground would be completely stopped which in turn would help in improving cleanliness and hygiene.

Indian Railways have already provided 40,750 bio-toilets in its coaches till 30th June, 2016 and in the current financial year, it is planned to fit additional 30,000 bio-toilets.

Indian Railways inaugurated 'First Green Train Corridor-Rameswaram-Manamadurai' free from human waste discharge from trains on 24 July.

The Rameswaram-Manamadurai (114 kms) track was identified to make it Green Train Corridor—free from human waste discharge from trains.

Accordingly, 10 passenger trains consisting of 286 coaches moving over this section have been provided with bio-toilets.

After Rameswaram-Manamadurai, Okha-Kanals Junction (141 kms), Porbandar-Wansjaliya (34 kms) and Jammu-Katra (78 kms) would also be taken up for making them free from human waste discharge from trains.

For this around 35 trains consisting of nearly 1110 coaches would be further provided with bio-toilets and the work is underway. These sections and stations were chosen, because the number of trains originating and terminating at these stations and sections are few, thus making it operationally easier and faster to make them human-discharge free.

Indian Railways in its commitment to provide hygienic environment to passengers and to keep station premises/tracks clean, have developed environment-friendly Bio-toilets for its passenger coaches.

The technology has been developed jointly by Indian Railways and Defence Research & Development Organization (DRDO) for railway passenger coaches through an MoU.

This environment friendly, low cost and robust technology, is the first of its kind in Railway Systems in the world.

In the bio-toilet fitted coaches, human waste is collected in tanks below the toilets and the same is decomposed by a consortium of bacteria.

How do the Bio-Toilet works ?

Bio-Digester or bio-toilet is a decomposition mechanized toilet system which decomposes Human Excretory Waste in the digester tank using specific high graded bacteria further converting it into methane and water, discharged further to the desired surface.

Bio-digester technology treats human waste at the source.

A collection of anaerobic bacteria that has been adapted to work at temperatures as low as -5°C and as high as 50°C act as inocula (seed material) to the bio-digesters and convert the organic human waste into water, methane, and carbon-dioxide.

- The anaerobic process inactivates the pathogens responsible for water-borne diseases and treats the fecal matter without the use of an external energy source.

- The only by-products of the waste treatment process are pathogen-free water, which is good for gardening, and bio-gas, which can be used for cooking.

- Bio-toilets do not require sewage connectivity and because the process is self-contained, bio-toilets are also maintenance-free.

- The bacteria used in the bio-toilet have been collected and analysed by DRDO from Antarctica and the efficiency of this system has been tested in extreme climates and conditions.

3-NAVIC: India's eye in the sky

- **NAVIC (Navigation with Indian Constellation)**, India's indigenous global navigation satellite system, is expected to become fully operational from this month.

- Consisting of a constellation of three geostationary, four geosynchronous and two on-standby satellites, NAVIC will facilitate accurate real-time positioning and timing services over India and the region around it extending to 1,500km.

- While India is joining a club of global powers—the US, EU, China and Russia—who control their own navigation satellite systems, NAVIC's reach is regional. This is an auspicious occasion for South Asian cooperation.

Benefits of navigation system

- The benefits of NAVIC to Indian citizens and dedicating the acronym to Indian fishermen and navigators, its full operationalization carries profound implications and opportunities for the South Asian region at large.

- At a time when neighbours like Sri Lanka and Nepal harbour misgivings over Indian interference in their internal affairs and question the Indian commitment to a balanced regional order, sharing the benefits of NAVIC could countenance India's credentials as a collaborative partner in the region.

- "Net security providers" are states that deploy their surplus national assets for the safety and stability of other countries, including by way of responding to natural and man-made disasters.

- Having a global navigation system bolsters the ability of a nation to serve as a net security provider, especially through the guarantee of such assurance policies.

- Through land-area mapping, yield monitoring and precision-planting of crops, NAVIC allows for the development of civic capabilities in food and livelihood security.

- In the wake of the 2015 earthquake in Nepal, NAVIC also arrives as an instrument for environmental and meteorological monitoring, as well as climate research.

- These capabilities can be leveraged to design reliable and efficient response mechanisms for natural disasters, alleviating the devastation they wreak through well-managed disaster relief.

- Charting out growth routes for South Asian economies, South Asian Association for Regional Cooperation (Saarc) governments can also welcome the launch of NAVIC as an opening shot to accelerated innovation.

- Several present-day civilian and commercial pursuits, from vehicle tracking to mobile phone integration, owe their very existence to satellite navigation technologies.

- It will also reduce the dependence on import of technologies from West.

At the same time, NAVIC's interoperability with GPS can ensure the minimization of technical snags when used complementarily with existing GPS-enabled solutions.

- NAVIC exemplifies a hybrid technology, providing both civilian and military benefits—it serves Indian security interests in the sense that many of India's weapon systems, such as guided missiles and bombs, as well as fleet management, rely on satellite navigation.

- Seeking to move away from the US-owned GPS system, India initially sought collaboration with the EU, entering into an agreement in 2005 to participate in its Galileo Satellite Project.

- But various security concerns, including China's substantial involvement in the project, resulted in negotiations falling apart, and India deciding to chart an indigenous development course.

- Now, India should work to shift the regional frame of mind from defence thinking to subcontinental cooperation, pushing back against isolationist impulses that stand in the way of realizing the civilian and commercial promise of NAVIC.

4-Norovirus - Winter Vomiting Bug

Human noroviruses - the leading viral cause of acute diarrhea around the world - have been difficult to study because scientists had not found a way to grow them in the lab. Now, more than 40 years after Dr. Albert Kapikian identified human noroviruses as a cause of severe diarrhea, scientists at Baylor College of Medicine have, for the first time, **succeeded at growing noroviruses in laboratory cultures of human intestinal epithelial cells**. This work, published in Science, represents a **major step forward in the study of human gastroenteritis viruses** because it establishes a system in which a number of norovirus strains can be grown, which will allow researchers to explore and develop procedures to prevent and treat infection and to better understand norovirus biology.

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Bhabha Atomic Research Centre and Sree Chitra Tirunal Institute for Medical Sciences & Technology (SCTIMST), Thiruvananthapuram have agreed to join hands to develop 'Deep Brain Stimulator' (DBS).

What is DBS and how it operates?

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-

As part of the **Government's initiatives for improving the Ease of Doing Business**, several facilitation measures are being taken by the **Central Board of Excise & Customs (CBEC)** in last two years. In line with the Budget announcement made by the Union Finance Minister and as part of the "**Ease of Doing Business**" initiatives, the Central Board of Excise and Customs (CBEC) launched the Customs' **SWIFT (Single Window Interface for Facilitating Trade)** Clearances Project with effect from 1st April 2016.

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Stop Norovirus!

Norovirus causes diarrhea and vomiting. It spreads easily from an infected person to others, especially in long-term care facilities. Elderly residents are more likely to become very sick or die from norovirus.

Protect yourself and elderly residents from norovirus.

WASH YOUR HANDS



Wash your hands often with soap and water for at least 20 seconds each time and avoid touching your mouth.

CLEAN SURFACES



Use a bleach-based cleaner or other approved product* to disinfect surfaces and objects that are frequently touched.

WASH LAUNDRY



Remove and wash soiled clothes and linens immediately, then tumble dry.

USE GOWN AND GLOVES



Use gown and gloves when touching or caring for patients to reduce exposure to vomit or fecal matter.

STAY HOME WHEN SICK



If you're sick, stay home and don't take care of or visit people in long-term care facilities for at least 2 days after your symptoms stop.

 **CRACKING**
IAS ACADEMY

— Feel the Pulse of UPSC... —

How will SWIFT help:

Airlander 10 is the world's largest and longest aircraft. Recently, it has embarked its maiden flight at an airfield in Cardington in central England. It is a hybrid airship made by Hybrid Air Vehicles in

Noroviruses, also known as the cruise ship viruses, do not grow in laboratory cultures that traditionally support the growth of other viruses, such as **transformed cells that are derived from cancerous tissues**.

noroviruses are species specific - **human noroviruses only infect and cause disease in humans**, and **mouse noroviruses only do so in mice**. Human noroviruses **do not grow in mice** or other small animal models typically used for research.

Rotavirus grew well in the human intestinal epithelial cell cultures. United Kingdom.

The human intestinal epithelial cultures are truly unique and the researchers anticipate that the cultures will allow them to answer important questions, such as why one strain of norovirus infects one person, but not another.

These novel cultures are really remarkable as they retain properties of the different regions of the small intestine, and are **physiologically active**. Each culture is unique and reflects the genetics of the individual from whom the culture was established. This allowed us to show that some cultures, like some people, are susceptible to only one or to several human norovirus strains. These cultures will allow us to determine the

mechanisms that restrict replication in some people, but not others.

5-Deep Brain Stimulator

DBS involves implanting electrodes within certain areas of brain and the regular electrical pulses generated by a pacemaker-like device placed under the skin in upper chest regulates the abnormal impulses of the brain.

The DBS consists of implanted pulse generator, electrodes and extension cables which interface with external Programmer module and wireless battery charger.

DBS is used in typical neurological conditions of Essential tremor, Parkinson's disease and Dystonia. Airlander 10 is These devices are currently being imported, limiting its wider usage due to the high cost. The planned joint development is targeted to provide an affordable alternative.

6-SWIFT

SWIFT will help India to improve its ranking in World Bank's Doing Business Report 2016.

India now ranks **130 out of 189 countries in the Ease of Doing Business**, moving-up four places from last year's (2015) adjusted ranking of 134.

The Customs' SWIFT enables importers/exporters to file a common electronic 'Integrated Declaration' on the Indian Customs Electronic Commerce/Electronic Data Interchange (EC/EDI) Gateway i.e. ICEGATE portal.

The Integrated Declaration compiles the information requirements of Customs, FSSAI, Plant Quarantine, Animal Quarantine, Drug Controller, Wild Life Control Bureau and Textile Committee.

It replaces nine separate forms required by these 6 different agencies and Customs. With the roll-out of the Single Window, CBEC has also introduced an Integrated Risk Management facility for Partner Government Agencies (PGAs), which will ensure that consignments are not selected by agencies routinely for examination and testing, but based on the principle of risk management.

It will also **help the participating agencies in handling their respective work areas** (related to human and animal health, bio-safety and environment safety) more effectively.

Implementation of Single Window is by far one of the most complex systems integration efforts that have been taken-up by the Directorate General of Systems. To introduce the Single Window and the 'Integrated Declaration', IT Systems of both the Government Departments and private sector agencies had to be changed.

The whole exercise has been coordinated well and all this was made possible due to unstinting efforts put in by the officers of Directorate General of Systems and Single Window team.

The Single Window system is a crucial implementation of trade facilitation measure for goods' clearances at the country's points of entry and exit. Efficiency in the import and export procedures would save large sums of money for the importers and exporters due to reduced trade-related costs and delays.

By requiring all participating Government agencies to publish Standard Operating Procedures (SOPs) and timelines, the Committee of Secretaries headed by the Cabinet Secretary has set benchmarks and goals for all related Regulatory Agencies. In order to work collaboratively with the agencies and industry stakeholders, port and central level Customs' Clearance Facilitation Committees (CCFCs) have been established to simplify and streamline their inter-agency procedures and documentary requirements for import and export of cargo.

It will provide a single point interface for clearance of import goods.hybrid ship i.e. it is a partly plane and partly

Replaces 9 separate documents with one Integrated Customs Electronic Declarationairship filled Facilitates trade by reducing Dwell Time & improving Ease of Doing Business with helium

Reduces Documentation & Cost of Clearance gas. It can stay airborne for more

Brings **6 participating Government agencies on a single platform**than two weeks unmanned and up to Eliminates need for tax-payers to interact separately with these agencies. five days if manned.

7-Airlander 10

It was first developed for the US Government as a surveillance aircraft, but the project was shelved amid defence cutbacks. It can also be used for commercial purpose.

8-Web Portal for Star Rating of Major Mineral Mines

The Union Ministry of Mines launched a web portal for star rating of major mineral mines.

Objective:

The main objective of this system is to bring all mines to a minimum standard of Star Rating in the shortest possible time frame to adopt sustainable practices.

Key facts:

A web enabled online system for evaluation of measures has been developed with the help of National Institute of Smart Governance (NISG), Hyderabad.

Based on the performance of the mining leases, a one to five-star rating would be given to the mines.

The Star Rating will be done initially for mines of major minerals.

The positive impact of getting higher Star Rating will drive miners to quickly adopt sustainable mining practices.

The Scheme of Star Rating will be a vital step for ensuring compliance of environmental protection and social responsibility by the mining sector

The star rating will be based on the following parameters:

Scientific and systematic mining to mitigate environmental impact.

Addressing social impacts of resettlement and rehabilitation of mining affected people.

Local community engagements and welfare programmes for socio-economic development of local community.

Progressive and final mine closure to ensure for restoration of mined out land in better conditions than original.

Adoption of international standards for mining operations and reporting.

The main advantages of the Star Rating of Mines will be:

Comprehensive mitigation of environmental impacts on land, air and water by mining activities.

Collation of various technical, environmental and social data of the mining sector at one platform by IBM, which would be utilised to enable better management and monitoring of the compliance of various conditions laid down by statutory authorities for mining.

In addressing cumulative impacts in mining areas through coordinated and collective action in the long run by helping in formulation of Comprehensive Regional Plans, which is a robust Environment & Social Management framework.

Availability of the information on mining as well as the conservation activities in public domain to enable greater transparency to enable effective participation of stakeholder and speedy resolution of conflicts.

Reduced delays in obtaining various clearances (environmental, forest, mining plan, etc.) for mines. Self-certification to be allowed for the approvals for scheme of mining.

The progressive and final mine closures will be monitored to ensure that the lessee leaves the area after proper management of any adverse impact over the mined area.
Encourage adoption of highest standards and sharing and good practices. Chinese scientists have discovered a small

9-XMU-MP-1

molecule (new drug) named XMU-MP-1 that can regenerate tissue.

It has potential to eliminate transplants of some organs. ■

■

The drug, XMU-MP-1 can promote repair and regeneration in the liver, intestines and skin. ■

It was found that it has ability to inhibit the activity of two enzymes MST1 and MST2, the central component of this pathway which normally prevent cells from proliferating.

Significance of the findings

■

This study paves the way for medicines that help to rebuild organs instead of relying on complicated therapeutic strategies such as regenerative cells to specific spots and delivering biomaterials in the body to repair and restore injured tissue.

10-U.S. set to hand over Internet's naming system to ICANN

The U.S. is set to cede power of the Internet's naming system to a non-profit organisation on October 1, ending the almost 20-year process to hand over a crucial part of the Internet's governance.

- The U.S. will give up its power fully to Los Angeles-based ICANN (Internet Corporation for Assigned Names and Numbers), a non-profit organisation.
- The terms of the change were agreed upon in 2014, but it was not until now that the U.S. said it was finally satisfied that ICANN was ready to make the change.

What is DNS?

DNS ■ The Domain Naming System, , is one of the Internet's most important components.

- The Domain Name System (DNS) is used to resolve human-readable hostnames like iastoppers.com into machine-readable IP addresses like 192.169.176.151
- DNS also provides other information about domain names, such as mail services.
- It pairs the easy-to-remember web addresses with their relevant servers.
- Without DNS, one would only be able to access websites by typing in its IP address, a series of numbers such as "194.66.82.10".

Why is DNS important?

- DNS is like a phone book for the Internet. If you know a person's name but don't know their telephone number, you can simply look it up in a phone book. DNS provides this same service to the Internet.

Background:

- The Internet Corporation for Assigned Names and Numbers (ICANN), in March 2016, submitted the plan for the global stewardship of the internet to the US government for review.
- The plan aims to maintain Internet governance under a "multi-stakeholder" model which avoids control of the online ecosystem by any single governmental body.
- The plan is the result of an inclusive, global discussion among representatives from government, large and small business, technical experts, civil society, researchers, academics and end users.
- It provides a comprehensive package to transition the US Government's stewardship of the internet's key technical

functions, called the IANA (Internet Assigned Numbers Authority), and proposes ways to enhance ICANN's accountability as a fully independent organization.

About the Internet Corporation Assigned Names and Numbers (ICANN):

ICANN is the global body that oversees operation and administration of the Internet domain name system.

- It was formed in 1998.
- It is a not-for-profit partnership of people from all over the world dedicated to keeping the Internet secure, stable and interoperable.
- It promotes competition and develops policy on the Internet's unique identifiers.

doesn't control content on the Internet▪ ICANN .

- It cannot stop spam and it doesn't deal with access to the Internet. But through its coordination role of the Internet's naming system, it does have an important impact on the expansion and evolution of the Internet.

- It is responsible for coordinating the maintenance and methodologies of several databases, with unique identifiers, related to the namespaces of the Internet – and thereby, ensuring the network's stable and secure operation.

Who governs ICANN?

- ICANN is governed by an internationally diverse Board of Directors overseeing the policy development process.
- ICANN's President directs an international staff, working from three continents, who ensure that ICANN meets its operational commitment to the Internet community.

11-OSIRIS Rex Mission

The Origins, Spectral Interpretation, Resource Identification, Security, Regolith Explorer (OSIRIS REx) is a planned NASA asteroid study and sample return mission. The launch is planned for September 8 2016.

The mission is to study asteroid **101955 Bennu**, a carbonaceous asteroid (formerly designated 1999 RQ36) and in 2023 to return to Earth a sample for detailed analysis.

Material returned is expected to enable scientists to learn more about the time before the formation and evolution of the Solar System, initial stages of planet formation, and the source of organic compounds which led to the formation of life.

12- ATM SKIMMING

A method used by criminals to capture data from the magnetic stripe on the back of an ATM card. Devices used are smaller than a deck of cards and are often fastened in close proximity to, or over the top of the ATM's factory-installed card reader. **ATM skimming** is a world-wide problem.

13-Green panel directs MoEF to submit report on River Regulation Zone

The National Green Tribunal recently expressed concerns to the undue delay in filing of a draft report on the River Regulation Zone and directed the Ministry of Environment to submit the report by October 3.

Background:

-
- NGT expressed displeasure that despite its 2013 direction the Environment Ministry was sitting on the report for the past three years.
-

The Environment Ministry in February had come out with a blueprint for river regulation zones where it proposes to prohibit or regulate developmental activities on river fronts and floodplains.

What is RRZ?

The River Regulation Zone (RRZ) is a central policy for the protection of rivers and their floodplains on the lines of the Coastal Regulation Zone.

The blueprint seeks to have a National River Conservation Authority headed by secretary of the ministry. ■

The proposed river regulation zones will be under the ambit of the Environment Protection Act, 1986.

14-A new Goldilocks for habitable planets

The search for habitable, **alien worlds needs to make room for a second "Goldilocks,"** according to a Yale University researcher. For decades, it has been thought that the **key factor in determining whether a planet can support life was its distance from its sun.** In our solar system, for instance, **Venus is too close to the sun** and **Mars is too far**, but Earth is just right. That **distance is what scientists refer to as the "habitable zone,"** or the "Goldilocks zone."

■
It also was thought that planets were **able to self-regulate their internal temperature via mantle convection** -- the underground shifting of rocks caused by internal heating and cooling. A planet might start out too cold or too hot, but it would eventually settle into the right temperature.

■
A new study, appearing in the journal Science Advances on Aug. 19, suggests that simply **being in the habitable zone isn't sufficient to support life.** A planet also must start with an internal temperature that is just right.

■
If you assemble all kinds of scientific data on **how Earth has evolved in the past few billion years** and try to make sense out of them, you eventually realize that mantle convection is rather indifferent to the internal temperature.

■
The lack of the self-regulating mechanism has enormous implications for planetary habitability. Studies on planetary formation suggest that planets like Earth form by multiple giant impacts, and the outcome of this highly random process is known to be very diverse.

■
Such diversity of **size and internal temperature would not hamper planetary evolution** if there was self-regulating mantle convection.

■
The NASA Astrobiology Institute supported the research, which is organized around the principle of understanding how the Earth has maintained a persistent biosphere through most of its history, how the biosphere manifests in "biosignatures" on a planetary scale, and how reconstructing this history can inform the search for life within and beyond the solar system.

15-9 new breeds of indigenous livestock registered

Nine new breeds of livestock and poultry have been registered with Karnal-based National Bureau of Animal Genetic Resources (NBAGR).

With this the total number of indigenous breeds reaches to 160. ■

■
The breed registration committee of the ICAR in its recent meeting approved the registration of the new breeds of livestock and poultry.

Key facts:

Among the newly registered breeds, the cattle is found to be more disease resistant than the other known indigenous breeds.

Newly registered breeds include one breed of cattle, two breeds each of goat and sheep, three breeds of pig, and one breed of chicken.

Newly identified and registered breeds	States
Badricow	Uttarakhand
Teressa goat	Nicobar Island
Kodi Adu goat	Tamil Nadu
Chevaadu sheep	Tamil Nadu
Kendrapada sheep	Odisha
Tenyi Vo pig	Nagaland
Nicobari pig	Nicobar Island
Doom pig	Assam
Kaunayenchicken	Manipur

Background:

The ICAR had initiated the mechanism for 'Registration of Animal Germplasm' through the NBAGR. It had in 2008 constituted a Breed Registration Committee that takes a call on registration of newly found indigenous breeds based on scientifically produced evidence.

Registration of breeds is also aimed at creating a sense of ownership among local communities responsible for development of breeds.

The registration of various unique populations as breeds shall also help in inventorisation, improvement, conservation and sustainable utilisation of animal genetic resources of the country.

16-Tarang mobile app and DEEP e bidding web portal launched to enhance transparency in power secto

TARANG' (Transmission App for Real Time Monitoring & Growth) Mobile App & Web Portal has been developed by RECTPCL, under the guidance of Ministry of Power.

Introduction of the electronic platform shall enhance ease, accountability & transparency and would boost confidence of investors in power transmission sector. Better price discovery shall ultimately benefit the power consumers in India.

TARANG is a powerful monitoring tool that tracks upcoming transmission projects and monitor the progress of Inter-State & Intra-State transmission systems in the country, being developed through Regulated tariff mechanism as well as Tariff Based Competitive Bidding(TBCB) route.

TARANG shall also include status of stalled/delayed transmission systems in country which would enable the stakeholders viz. Ministry of Power, State Governments, all private sector transmission developers and PSUs like Power Grid Corporation of India Ltd., for expeditious completion of such projects.

Green Energy Corridors, an important component of our renewable energy mission, would also be monitored through TARANG and help to meet our ambitious targets in same on time. The web portal can be accessed at .

www.tarang.website

'e-Trans' web platform for e-bidding and e-reverse auction Apart from Tarang, the for Tariff Based)Competitive Bidding (TBCB in transmission projects, was also unveiled.

Till date transmission sector providers have been participating in transmission bids through manual mode. With e-Trans, the interface will be electronic. Further, on the lines of coal sector, reverse auction is being introduced in transmission sector to facilitate better price discovery in transmission projects.

The Minister also launched the , on the occasion. Portal will provide a to facilitate nation-wide power procurement **'DEEP (Discovery of Efficient Electricity Price) e-Bidding' portal for medium term (1-5 years) purchase of power**

common e-bidding platform with e-reverse auction facilitythrough a wider network so as to bring uniformity and transparency in the process of power procurement.

By the introduction of e-Bidding and e-reverse auction process for medium term (1-5 years), the time span of the complete bidding process and the cost of procurement of power is expected to be reduced substantially, thereby significantly benefiting the ultimate consumers.

The system of e-reverse auction is being introduced with concept of L-1 matching. The provision of multiple progressive bidding based on the fuel choice has also been incorporated in the system.

The Portal is based on the Guidelines for Medium Term procurement of Power which was notified by Government of India, in 2014 and further amended on May 2015. In order to facilitate the use of portal and to bring clarity in the system necessary amendments will be brought in the guidelines through addendum at the earliest.

17-Murray Buttes

NASA's **Curiosity Mars rover has captured a stunning 360-degree panoramic view of features** called **'Murray Buttes'**, combining more than 130 images taken on the fourth anniversary of probe's landing on the red planet. The image was acquired by the **Mast Camera (Mastcam) on as the rover neared on lower Mount Sharp on Mars**, during the afternoon of the mission's 1,421st Martian day.

The **visual drama of Murray Buttes along Curiosity's planned route up lower Mount Sharp** was anticipated when the site was informally named nearly three years ago, NASA said.

A butte is an isolated hill with steep, often vertical sides and a small, relatively flat top. Mesa is an elevated area that has a top that is wider than its height, while a butte has a top that is narrower than its height.

The buttes and mesas of **Murray Buttes are capped by material that is relatively resistant to erosion**, just as is the case with many similarly shaped buttes and mesas on Earth.

This helps preserve these monumental remnants of a layer that formerly more fully covered the underlying layer that the rover is now driving on.

In the image a dark, flat-topped mesa is seen towards the left, which is about 90 meters from the rover's position. It stands about about 15 meters high.

- **A horizontal ledge near the top of the mesa is about 60 metres across.** An upper portion of Mount Sharp appears on the distant horizon to the left of this mesa in the image.

- The relatively flat foreground is part of a geological layer called the Murray formation, which formed from lakebed mud deposits.

- The buttes and mesas rising above this surface are eroded remnants of ancient sandstone that originated when winds deposited sand after lower Mount Sharp had formed.

- Curiosity closely examined that layer - **known as the Stimson formation** - during the first half of 2016 while crossing a feature called "Naukluft Plateau" between two exposures of the Murray formation.

- The scene is presented with a colour adjustment that approximates white balancing, to resemble how the rocks and sand would appear under daytime lighting conditions on Earth.

- Early in its mission on Mars, Curiosity accomplished its main goal when it found and examined an ancient habitable environment.

- In an extended mission, the rover is examining successively younger layers as it climbs the lower part of Mount Sharp.

- A key goal is to learn how freshwater lake conditions, which would have been favourable for microbes billions of years ago if Mars has ever had life, evolved into harsher, arid conditions much less suited to supporting life. The mission is also monitoring the modern environment of Mars.

18-BARC develops portable kit for detection of Chromium contamination of water

- Chromium is widely used in various industries like leather, steel, chrome plating, paint manufacturing, wood preservation etc. Untreated effluents from these industries cause widespread contamination of water as been reported in several parts of the country.

- Chromium in the environment primarily exists as T. The later is toxic and the World Health Organization has **trivalent Chromium Cr(III) and Hexavalent Chromium Cr(VI)** classified it as carcinogenic and can cause stomach ulcers and cancers and severe damage to kidneys and liver.

- As per Indian standard IS10500 for drinking water, the maximum permissible concentration of Cr(VI) in drinking **50 microgram per litre**.water is

- The US Environmental Protection Agency (EPA) recommends a still lower permissible concentration of 10 microgram per liter.

- Detection of Cr(VI) at such low levels is not only technically challenging but also expensive and time consuming since it involves collection of water samples from affected areas, transport to laboratory, storage and finally analysis.

- BARC has developed a simple, which meets IS10500 as well as EPA criterion. **user friendly, quick and cost effective kit for onsite determination of Cr(VI),**

- It provides the much needed solution to measure the level of Chromium contamination in drinking water and tap

water, lakes, rivers as well as ground water.

▪
The procedure involves adding a specified amount of **specific reagents to the water sample and identifying the developed colour.**

▪
The colour develops within 5 minutes and the distinction can be made with naked eye. Water samples can be immediately categorized as being safe or toxic for drinking from Chromium(VI) point of view. The kit provides several advantages including onsite detection and instantaneous results, elimination of use of sophisticated instruments for analysis, low investment on infrastructure for production of the kit, easy availability of raw materials and very good accuracy for the intended purpose.

19-China has successfully launched world's first quantum satellite- QUESS

▪
China has successfully launched the world's first quantum satellite dubbed as Quantum Experiments at Space Scaler (QUESS) satellite.

▪
The satellite was launched on board of Long March-2D rocket from the Jiuquan Satellite Launch Centre in the remote northwestern province of Gansu.

▪
The QUESS satellite has been nicknamed as Micius after a 5th century BC Chinese philosopher. **sun-synchronous orbit** It will be located in at an altitude of 500 km and will circle the Earth once every 90 minutes.

▪
The satellite will help China to establish hack-proof communications system by transmitting uncrackable keys from space to the ground.

▪
Applications, range from highly secured military and government communications to online shopping. Earlier, researchers around the world had successfully sent quantum messages on land. But this first of its kind satellite-based quantum network would make it possible to send quickly encrypted (hack proof) messages around the world. It also opens door to other possible uses of the technology.

Quantum communication

Quantum communication boasts ultra-high security communication. It uses subatomic particles to securely communicate between two points. In case intruder (hacker) tries to crack the message in Quantum communication, it will change its form in a way that would alert the sender and cause the message to be altered or deleted.

20-Made-in-India leprosy vaccine

A first-of-its-kind leprosy vaccine developed in India is to be launched on a pilot basis in **five districts in Bihar and Gujarat**. If it shows good results, the vaccine programme will be extended to other high-prevalence districts in the country, said Soumya Swaminathan, director general, Indian Council of Medical Research. Dr. Swaminathan was speaking at a National Awareness Convention on Leprosy organised by Sri Ramakrishna Math, Chennai, the Central Leather Research Institute, Chennai and Saksham, Nagpur.

What

The disease, , affects around 1.25 lakh people every year in India. **caused by the bacteria, Mycobacterium leprae** **Sixty per cent of the world's leprosy patients live in India**

The vaccine, called **Myco bacterium indicus pranii (MIP)**, will be administered as a preventive measure to people living in close contact with those infected.

It was developed by the **National Institute of Immunology, New Delhi**, and has been approved by the Drug Controller General of India and the FDA in the U.S.

The government had begun screening in 50 high prevalence districts. **phase will cover 163 districts including Erode**

A total of 7.5 crore people were screened out of which 5,000 had leprosy. The next **The National Institute of**

Nutrition does regular dietary surveys and the guidelines for nutrition for Indians have been updated

. They will recommend the number of calories per day, based on sex, height, weight and level of activity. There is also an analysis of diet and what you get from different types of Indian food. The book on the nutritive value of foods will cover foods from across India.

▪ The South Asian genome

was predisposed to metabolic syndrome, a lot more research was needed on what happens during foetal life -- the epigenetic changes that make it develop a particular way. "Science and research has a big role to play.

21-'Artificial atom' created in graphene

In a **tiny quantum prison, electrons behave quite differently as compared to their counterparts in free space**. They can only occupy discrete energy levels, much like the electrons in an atom - for this reason, **such electron prisons are often called "artificial atoms"**. Artificial atoms may also feature properties beyond those of conventional ones, with the potential for many applications for example in quantum computing. Such additional properties have now been **shown for artificial atoms in the carbon material graphene**. The results have been published in the journal Nano Letters, the project was a collaboration of scientists from TU Wien (Vienna, Austria), RWTH Aachen (Germany) and the University of Manchester (GB).

Building Artificial Atoms

Artificial atoms open up new, exciting possibilities, because we can directly tune their properties. ▪

▪
In semiconductor materials such as **gallium arsenide**, trapping electrons in tiny confinements has already been shown to be possible.

▪
These structures are **often referred to as "quantum dots"**. Just like in an atom, where the electrons can only circle the nucleus on certain orbits, electrons in these quantum dots are forced into discrete quantum states.

▪
Even more interesting possibilities are opened up by **using graphene, a material consisting of a single layer of carbon atoms**, which has attracted a lot of attention in the last few years.

▪
In most materials, **electrons may occupy two different quantum states at a given energy**. The high symmetry of the graphene lattice allows for four different quantum states.

Cutting edge is not enough

▪
There are different ways of creating artificial atoms: The simplest one is **putting electrons into tiny flakes, cut out of a thin layer of the material**. While this works for graphene, **the symmetry of the material is broken by the edges of the flake** which can never be perfectly smooth. Consequently, the special four-fold multiplicity of states in graphene is reduced to the conventional two-fold one.

▪
Therefore, different ways had to be found: It is not necessary **to use small graphene flakes to capture electrons**. Using clever combinations of electrical and magnetic fields is a much better option. With the tip of a scanning tunnelling microscope, **an electric field can be applied locally**. That way, a tiny region is created within the graphene surface, in which low energy electrons can be trapped. At the same time, **the electrons are forced into tiny circular orbits by applying a magnetic field**.

▪
The new artificial atoms now open up new possibilities for **many quantum technological experiments**: "Four localized electron states with the same energy allow for switching between different quantum states to store information.

▪
The electrons can preserve arbitrary superpositions for a long time, ideal properties for quantum computers. In addition, the new method has the big advantage of scalability: it should be possible to fit many such artificial atoms on a small chip in order to use them for quantum information applications.

22- Project Alloy : Set of virtual reality goggles by Intel

Intel has unveiled its next evolution of virtual-reality goggles which drags real-world objects into the virtual world. **Project Alloy for so-called mixed reality**, using 3D cameras.

- The new head-mounted display consists of a set of goggles that resemble the likes of Facebook's Oculus Rift or HTC's Vive VR headsets, but they do not need to be connected by a series of cables to a computer. Instead, they contain the **computing power needed to run the headset in the headset.**

- **RealSense cameras** The headset uses Intel's , which have depth-sensing capabilities, to allow, without the need for additional sensors, objects such as the user's hands to be tracked and entered into the virtual world displayed within the goggles.

- Most other VR headsets, including Sony's upcoming PSVR, require a series of cameras, sensors and accessories to be placed about a room or held in the hand to enable similar functions.

- Merged reality delivers virtual-world experiences more dynamically and naturally than ever before – and makes experiences impossible in the real world now possible.

- Intel has backing from Microsoft, which announced it will support Project Alloy with its Windows Holographic system. The software is in development with Microsoft's own AR solution, HoloLens.

- VR and AR systems, yet to go mainstream, are held back by capability, cost and the social stigma displayed towards devices such as Google's Glass smartglasses.

- But given the failure of technology with similar burdens of having to wear glasses or apparatus, such as 3D TV, whether VR and AR systems will become a mass-market item remains to be seen.

23-Gymnothorax indicus , a new species of eel discovered in Bay of Bengal

- **Gymnothorax indicus** Scientists have discovered (proposed name Indian unpattered moray), a new species of eel (a snake-like fish) in the northern Bay of Bengal region along the West Bengal coast.

- The eel species *Gymnothorax indicus* is slender-bodied. It was found at a depth of 35 metres in the sea. It is about one foot-long and edible. It has 194 vertebrae. Its dorsal fin has a black margin.

- The body of the eel is uniformly pale brown without spots or patterns.

- Its eye rim is pale.

- **contribute to food security in the future.** Scientists believe that these newly discovered eel species may

- Eaten in coastal areas Eels are found mostly at the bottom of rivers and seas. Globally, about 1,000 species of eels have been identified. In India their number is around 125.

- Eels are local delicacy in many countries like Japan. But consumption of eels in India is limited to coastal areas.

- The coastal region of West Bengal adjoining areas of Bay of Bengal are the rich marine biodiversity. Over the past few years, it has yielded two new species of fish. In 2015, *Gymnothorax mishrai* (Bengal moray eel), a short brown unpattered moray eel was discovered. Scientists also had discovered another new species of *Haplogenyis bengalensis* (Indian velvetchin), an edible marine fish from the same area.

24-Chinese scientists have discovered XMU-MP-1 that can regenerate tissue

- Chinese scientists have discovered a small molecule (new drug) named XMU-MP-1 that can regenerate tissue. **potential to eliminate transplants of some organs.** It has I.
- The drug, XMU-MP-1 can promote repair and regeneration in the liver, intestines and skin.
- It was found that it has ability to inhibit the activity of two enzymes MST1 and MST2, the central component of this pathway which normally prevent cells from proliferating.
- **promote cell growth in four different mouse models** By inhibiting the activity of MST1/2, XMU-MP-1 can with acute injuries.
- For this research purpose, researchers had specifically targeted a critical signalling molecule in the Hippo pathway, which controls organ size and growth.
- This study paves the way for medicines that help to rebuild organs instead of relying on complicated therapeutic strategies such as regenerative cells to specific spots and delivering biomaterials in the body to repair and restore injured tissue.

25-Plant Genome Savior Community Award for 2012-13

The PPV&FR Authority, New Delhi is organizing its **Plant Genome Savior Community Award (2012-13)**, **Plant Genome Saviour Farmer Rewards 2013** and **Plant Genome Saviour Farmers' Recognition 2013** function on 24th August, 2016 at A.P. Shinde Symposium Hall, NASC Complex, DPS Marg, New Delhi. Union Minister of Agriculture and Farmers Welfare Shri. Radha Mohan Singh will be the Chief Guest and distribute the awards to awardees.

What

- **India enacted the Protection of Plant Varieties and Farmers' Rights Act in 2001** for the protection of plant varieties, the rights of farmers and plant breeders and to encourage the development of new plant varieties.
- **The Act is the first of its kind in granting intellectual property rights not only to the plant breeders but also to the farmers by protecting new, extant and farmers' varieties.**
- **Protection of Plant Varieties and Farmers' Rights Authority was established in New Delhi in November, 2005 as per provision under the Act.**
- The Authority has made landmark achievement in last ten years. **Registration of plant varieties was started by the Authority with twelve crop species in 2007 and now 114 crop species are covered under the umbrella of PPV&FRA for granting IPR.**
- Nearly, 78 distinctiveness, uniformity and stability (DUS) test centers have been established in State Agriculture Universities (SAU), Indian Council of Agricultural Research (ICAR), Indian Council of Forestry Research and Education (ICFRE), Centre of Scientific and Industrial Research (CSIR) & other reputed research institutes.
- **National Gene Bank for conserving seeds of registered varieties and field gene banks have been established at SAUs** for conserving genes of perennial crops.
- The Authority established **two Branch offices at Ranchi and Guwahati** and opening of other four branch offices are in under consideration.
- **The Authority is operating the National Gene Fund constituted by Government of India under section 45 of the Act.**
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fluorescent jellyfish proteins that were grown in bacteria.

-
- The first of its kind represents a major advance breakthrough in so-called polariton lasers operating at room temperature. Major difference between laser and other sources of light is that, laser emits light coherently.
-
- Polariton laser works by passing photons back and forth between excited molecules. Unlike conventional lasers, the photons in Polariton laser are released and reabsorbed within the device itself before zooming out as laser light.
-
- To develop the fluorescent Polariton laser, scientists had engineered barrel-shaped fluorescent proteins from jellyfish DNA. They had filled optical microcavities (between two mirrors) with this protein before subjecting them to optical pumping.
-
- Nanosecond flashes of blue light from an external laser were used to bring the system up to the required energy to create laser light.
-
- After the threshold was reached for polariton lasing, scientists pumped more energy into the device setup that resulted in conventional lasing.
-
- These lasers have the potential to be far more efficient and compact than conventional ones. It could open up research avenues in quantum physics and optical computing. Consumes less energy compared to conventional lasers.
-
- It can be used for the purpose more efficient optical communications or in medical lasers that are less destructive to living tissue.

28- Beautiful blue lakes in the Antarctic equals imminent disaster

-
- A new study has revealed that numerous lakes – all lovely shades of azure – are being seen atop East Antarctic ice sheet's Langhovde Glacier.
-
- It's beautiful to look at. Except, scientists have seen these lakes appearing before – on the fastest melting ice mass of the world, Greenland.
-
- The study has scientists worried that the lakes are an ominous indication of yet another vital landscape falling prey to global warming.
-
- Supraglacial lakes** or meltwater lakes are small to mid-sized water bodies that form as hot summer air heats up the surface of an ice sheet. Such lakes have been mushrooming across Greenland for years now – a serious indication of global warming and a strong cause of ice sheet collapse.
-
- As the meltwater from the lakes drains into the underlying ice, it lubricates the ice sheet's foundation, potentially weakening it and rendering it more likely to fracture and break apart.
-
- The implications of this work are enormous since it has already been established that Greenland too has been melting rapidly due to these kinds of lakes.

29-Prevent disease in banana crops

The **National Research Centre for Banana (NRCB)** has asked the Bihar government to take effective steps to **quarantine banana crops affected by fusarium wilt disease** so as to prevent the spread of the disease to other States. Since **the disease was noticed in 15 villages of Theni district**, the NRCB has advised farmers of Theni district to take effective bio-control measures to prevent the disease, which is a lethal soil-borne fungal disease.

What

- **The fungus will block the flow of water and nutrients through the roots of the plants.** The affected plants will eventually split at the base and then wither. Similarly, the fungus will persist in soil for some years and the use of chemical pesticides will have no effect.
- **The disease would spread to neighbouring plantations** quickly if effective control measures were not taken.
- **The wilt disease had been noticed in a few parts of the country mainly in Bihar. The Grand Nain (G-9) banana raised in Purnia and Katihar districts of Bihar had been hit due to the disease.** It had become a cause of concern for all stakeholders, including farmers and scientists. There was a need to enforce domestic quarantine of the affected fields in order to prevent spread of the disease.
- R. Selvarajan, Principal Scientist (pathology-virology), NRCB, said that a brain storming session was held recently in Tiruchi to discuss ways and means to prevent the disease.
- NRCB scientists have been closely monitoring the affected areas. It had been planned to provide intensive training at Central Institute for Subtropical Horticulture in Lucknow soon on the management of the fungal wilt disease.

30-Monsanto halts next gen GM cotton seeds launch

Monsanto Co has withdrawn an application seeking approval for its next generation of genetically modified cotton seeds in India, a major escalation in a long-running dispute between New Delhi and the world's biggest seed maker. A letter sent by Monsanto's local partner in India, the conglomerate's biggest market outside the Americas, strongly objects to a government proposal that would force Monsanto to share its technology with local seed companies. The company is also at loggerheads with India over how much it can charge for its genetically modified cotton seeds, costing it tens of millions of dollars in lost revenue every year.

What

- The unprecedented decision to pull the application could set back Monsanto's efforts to introduce its new seed, **called Bollgard II Roundup Ready Flex technology**, for years and lead to further losses.
- It will also ratchet up pressure on the Indian government, as it undermines Prime Minister Narendra Modi's efforts to make the country look more attractive to foreign investors.
- It could also hurt Indian cotton farmers. The new seed variety helps fight against weeds that sap the cotton crop of vital nutrients and depress yields.
- A Monsanto spokesman said the withdrawal of the application was "an outcome of the uncertainty in the business and regulatory environment", but that the move had "no impact on our current cotton portfolio being sold in India".
- A spokesman for the Union environment ministry, which had the application before it, was not available for comment.
- Shares in Monsanto's local unit, Monsanto India, were last down 2.5 per cent, compared with a 0.3 per cent gain in the broader NSE share index.
- July 5 In a letter dated , Maharashtra Hybrid Seeds Co Ltd (Mahyco), Monsanto's technology partner in India, singled out a government proposal mooted in May that would require Monsanto to share its proprietary technology.

About Bollgard II Roundup Ready Flex

- **Bollgard II Roundup Ready Flex would have been the first technological breakthrough since the launch of Bollgard II**, potentially pushing up crop yields at a time when some farmers have said the existing variety was losing its effectiveness.
- **Bollgard II, introduced in 2006, is slowly becoming vulnerable to bollworms**, experts say, and, as any technology, has a limited shelf life.
- **GEAC for approval of the new GM seed some time in 2007**. The application was in the final stages of a tedious and time-consuming process, which included years of field trials.

31-Govt takes food, mouth disease vaccination to 16 more states

Seeking to end Foot & Mouth Disease (FMD) from India, the agriculture ministry has conceived a '**FMD Mukta Bharat**' (FMD Free India) programme to cover all the states which have not yet been covered under the six monthly vaccination scheme.

Details:

- Sixteen states and one Union Territory (UT) are yet to be covered under intensive FMD vaccination at six monthly intervals.

- It has now been decided to take up FMD vaccination in these states and UT under Rashtriya Krishi Vikas Yojana (RKVY) during 2016-17.

What is Foot & Mouth Disease?

- Foot & Mouth Disease is one of the most devastating

contagious viral animal diseases affecting all susceptible cloven-footed animals.

Losses due to FMD

- As per the estimates by the Indian Council of Agricultural Research (ICAR), direct loss due to milk and meat is to the tune of Rs 20,000 crore per annum due to FMD.

- It could be much more if the indirect losses due to reduced work capacity, abortions, subsequent infertility and sterility (that account for the reduced milk production subsequently) were taken into account.

'Foot and Mouth Disease Control Programme (FMD-CP)'

In order to prevent the economic losses arising due to Foot and Mouth Disease, a **location specific programme** called 'Foot and Mouth Disease Control Programme (FMD-CP)' is **under implementation since 10th Plan Period**.

Gradually, the FMD-CP was expanded during 11th & 12th Plan Period.▪

As of now, it covers 351 districts in 13 states and 6 UTs.▪

The scope of the programme will now be extended to cover the remaining 16 states and one UT in a phased manner so as to yield the desired results for the creation of FMD Free Zones, depending upon the availability of resources.

It claimed that with the robust implementation of FMD-CP in the states, disease occurrence has reduced drastically.▪

Total cases of FMD outbreaks in India have been reduced from 879 in 2012 to 109 in 2015.

32-CSIR-CFTRI develops Nutrice Cream

The Council of Scientific and Industrial Research (CSIR) and CSIR-Central Food Technological Research Institute (CSIR-CFTRI) Mysuru on 4 August 2016 developed the Nutrice Cream.

Nutrice cream was developed in association with M/s Oleome Biosolutions, Bengaluru and M/s Dairy Classic Ice Creams Pvt. Ltd.

About Nutrice cream

- Nutrice cream is an Omega-3 and Vitamin-E enriched frozen nutritional dessert from vegetarian source.
- This product will provide the Recommended Dietary Allowance (RDA) of omega-3 for children in one serving.
- It has been developed using Chia seeds, having the highest content of Omega-3 fat from a vegetarian source.
- CFTRI has developed agro technology for Chia and has shared the seeds to farmers from across the nation.

Dietary supplementation of Omega-3 (ω -3) fats, which are the Poly Unsaturated Fatty Acids (PUFA), have been reported to have beneficial health functions including brain development in children and good health in elderly population.

33-Prototype Fast Breeder Reactor to be delayed

The Centre has informed that the much delayed completion of work on **India's first Prototype Fast Breeder Reactor (PFBR) at Kalpakkam** is likely to be completed only by March 2017.

India's first Prototype Fast Breeder Reactor (PFBR):

The Prototype Fast Breeder Reactor (PFBR) is a 500 MWe fast breeder nuclear reactor presently being constructed at the Madras Atomic Power Station in Kalpakkam, India.

PFBR is being constructed by the Bharatiya Nabhikiya Vidyut Nigam Limited (BHAVINI).

The Kalpakkam PFBR is using uranium-238 not thorium, to breed new fissile material, in a sodium-cooled fast reactor design.

As of 2007 the reactor was expected to begin functioning in 2010 but now it is expected to achieve first criticality in January 2017.

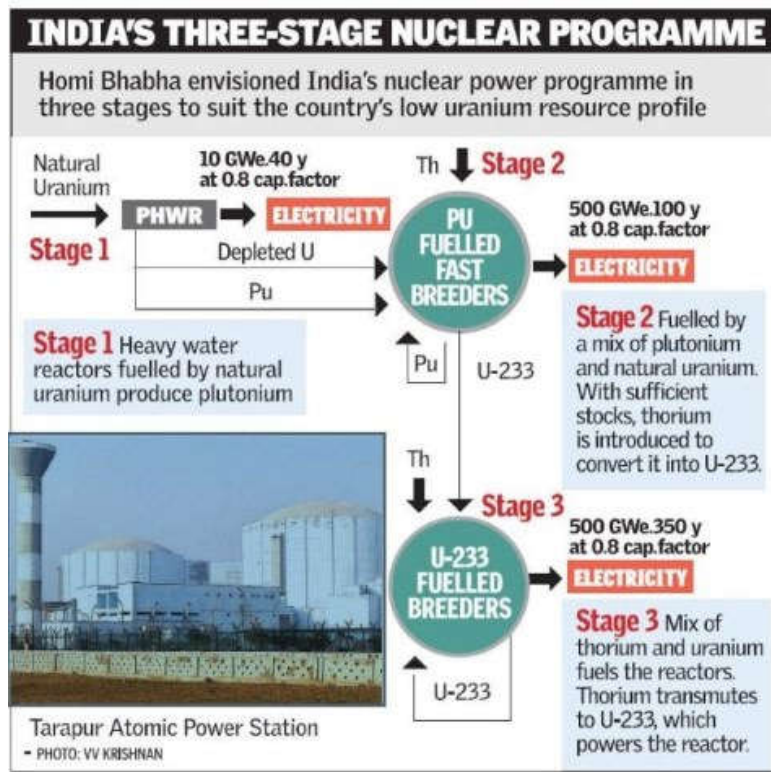
Concerns about PFBR:

liquid sodium PFBR will be cooled by creates additional safety requirements to isolate the coolant from the environment, since sodium explodes if it comes into contact with water and burns when in contact with air.

Another hazard associated with the use of sodium as a coolant is the absorption of neutrons to generate the radioactive ²⁴ isotope

India's three-stage nuclear power programme:

Dr. Homi Bhaba devised India's three-stage nuclear power program in the 1954. It was formulated to provide energy security to India through the use of uranium and thorium reserves found in the monazite sands of coastal regions of South India.



34-Rice crops that can help farmers cut costs and reduce pollution

A team of Canadian and Chinese researchers has identified “superstar” varieties of rice that can reduce fertiliser loss, thereby helping farmers cut costs and reduce environmental pollution in the process.

Key facts:

- The rice varieties that the researchers identified belong to both – and Japonica (the rice used in sushi) genotypes. **Indica – the world’s most popular rice type commonly grown in India, China and Southeast Asia**
- **Zhongjiu25 (ZJ25)Wuyunjing7 (WYJ7)** and were the most effective genotypes among Indica and Japonica varieties, respectively.

35-Harnessing The Immune System To Fight Cancer

Some of the most promising advances in cancer research in recent years involve treatments known as immunotherapy.

▪ Rather than attacking the cancer directly, as chemotherapy does, immunotherapy tries to rally the patient’s own immune system to fight the disease.

▪ A widely used type of immunotherapy involves drugs that free immune cells to fight cancer by blocking a mechanism – called a **checkpoint** – that cancer uses to shut down the immune system.

What is immunotherapy?

Immunotherapy is a type of cancer treatment that helps your immune system fight cancer.

The immune system helps your body fight infections and other diseases.

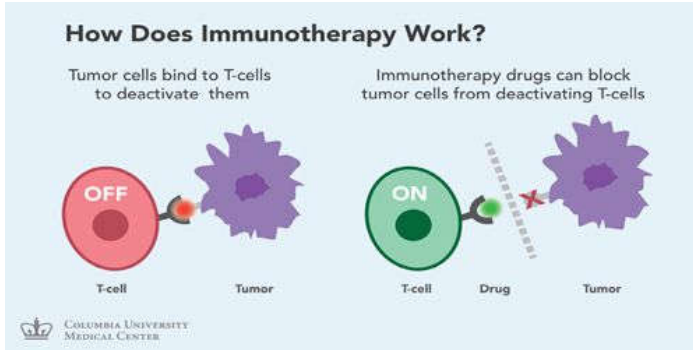
It is made up of white blood cells and organs and tissues of the lymph system.

Immunotherapy is a type of biological therapy, which is a type of treatment that uses substances made from living organisms to treat cancer.

Immunotherapy is not yet as widely used as surgery, chemotherapy, and radiation therapy.

How immunotherapy works against cancer?

One reason that cancer cells thrive is because they are able to hide from your immune system. Certain immunotherapies can mark cancer cells so it is easier for the immune system to find and destroy them. Other immunotherapies boost your immune system to work better against cancer.



Fighting Cancer: Weighing Treatment Options	
IMMUNOTHERAPY PROS <ul style="list-style-type: none"> Utilizes the body's own immune system to fight disease Can adapt to different cancer cells Immunologic memory can prevent cancer recurrence Can have fewer side effects CONS <ul style="list-style-type: none"> Unclear why it works for only some patients Effects can take time Possible side-effects from overactivity of the immune system 	CHEMOTHERAPY PROS <ul style="list-style-type: none"> Kills cancer cells directly Drugs are available now CONS <ul style="list-style-type: none"> Impacts healthy cells along with cancer cells Suppresses immune system leading to increased risk of infection Can worsen fatigue Cancer cells can develop resistance <p><small>Source: UC San Francisco</small></p>

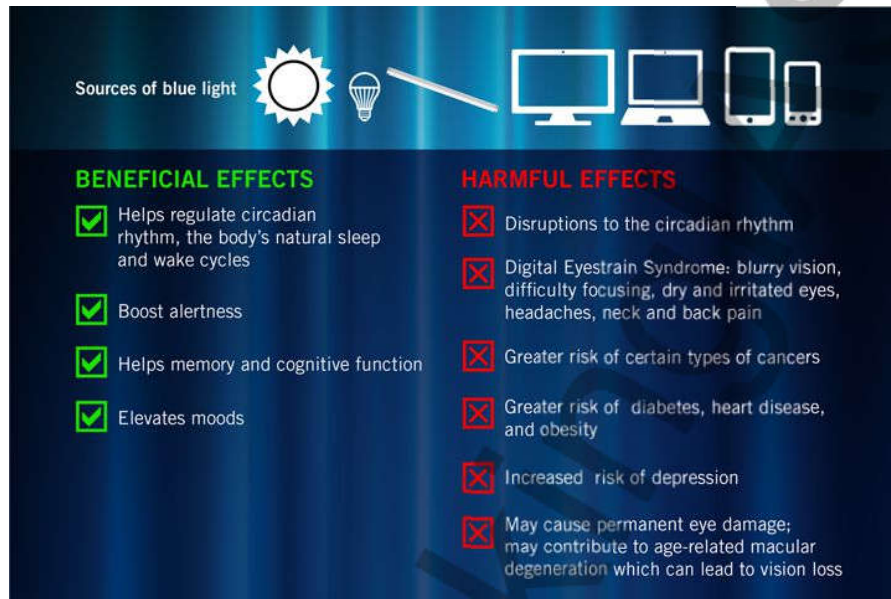
36-Beware of blue light radiation while chasing Pokémon

The popular app, Pokémon Go, has brought with it increased exposure to **blue light radiation** and concern among doctors about the long-term adverse eye-health effects, especially among children.

What is Blue light radiation?

computer vision syndrome (CVS) ■ Blue light radiation, also referred to as , is the condition results from uninterrupted focus on a display for elongated periods of time.

Health impacts of Blue light radiation



- Blue light radiation is believed to affect the secretion of melatonin hormone, linked to influencing when people sleep and how well they sleep.
- Long hours in front of a screen have been known to cause myopia or nearsightedness.

37-Kudankulam plant safest in the world, says Russian official

■ The Kudankulam plant is the first in the world to have implemented all the requisite post-Fukushima safety measures and to have operated them successfully. That means it would have withstood a Fukushima-like incident.

■ The KKNPP can withstand any anticipated operational occurrences, it can even withstand a fall of aircraft. ■

The reactor is protected from the impact of any earthquake, tsunami, tornado and hurricane.

Which safety measures

are taken?

■ There are a number of advanced active and passive safety systems which ensure unprecedented design-level nuclear and ecological safety of the plant.

■ Double localising and protective containment, passive heat removal system from reactor plant automatically, core catcher, and closed industrial water intake are some of the safety features incorporated.

■ Given that a large amount of seawater is drawn in to cool the reactors, measures have been taken to preserve the biological diversity of the Mannar Bay adjacent to Kudankulam.

■ Seawater is supplied from the so-called “bucket” constructed in the sea into the special facilities and systems which ensure that fish and plankton return to sea.

Background:

The title of 'safest nuclear power plant in the world' may have seemed a long way back in February this year when the 1,000-MW plant stopped generation following a steam leak in the plant's secondary side.

India and Russian Nuclear Cooperation:

As part of India-Russia nuclear cooperation, the Rosatom state nuclear corporation is scheduled to construct six units of VVER-1000 light-water reactors at Kudankulam.

In December 2014, both sides announced a decision for the construction of at least 12 more units in India. ■

On India's request, additional safety measures are being enforced in Units 3 and 4 to withstand even higher seismic, climatic and technical impact

On Units 5 and 6, in November 2015, Russia submitted the technical-commercial offer and their design had been agreed upon.

In February, a road map for construction of Units 5 and 6 prior to the General Framework Agreement (GFA) has been signed. The GFA is expected to be signed in autumn this year

Russia is awaiting India's decision on another site for setting up additional reactors.

38-NASA to explore asteroid Bennu during its close encounter with Earth

A near-Earth asteroid that is coming towards our planet after being dislodged by a gravitational pull can indeed strike us and cause massive destruction, but according to experts, it has only a one in 2,700 chances of hitting.

Although there are very low chances for impact for Bennu, a large near-Earth asteroid to hit earth's orbit in 2135, the consequences for the same could prove catastrophic. The impact would cause a mass extinction.

OSIRIS-REx Mission

The Origins, Spectral Interpretation, Resource Identification, Security, Regolith Explorer (OSIRIS REX) is a planned NASA asteroid study and sample return mission.

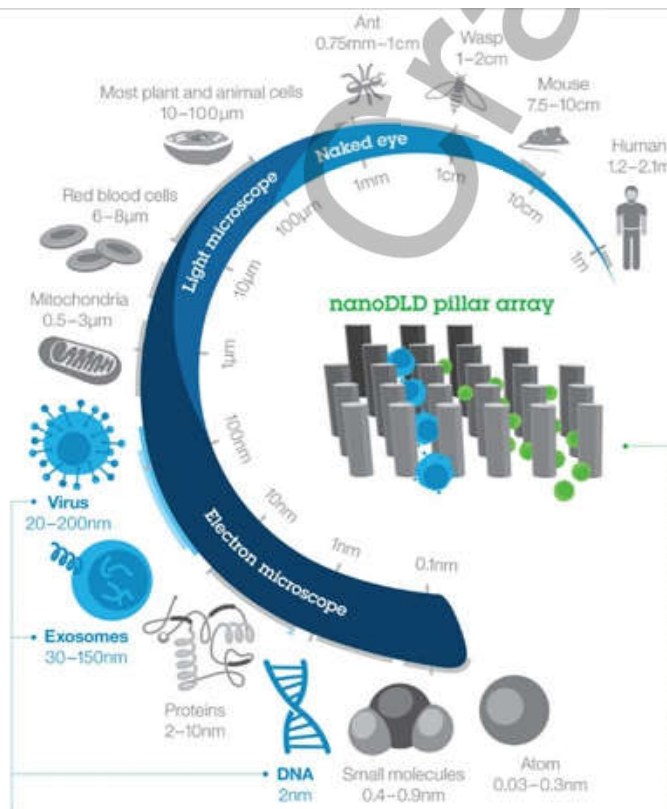
The launch is planned for September 8 2016. ■

The mission is to study asteroid 101955 Bennu, a carbonaceous asteroid (formerly designated 1999 RQ36) and in 2023 to return to Earth a sample for detailed analysis.

Material returned is expected to enable scientists to learn more about the time before the formation and evolution of the Solar System, initial stages of planet formation, and the source of organic compounds which led to the formation of life.

39-IBM's Lab-on-a-chip technology promises early cancer detection

Scientists at IBM have developed a new lab-on-a-chip technology that can, for the first time, separate biological particles at the nanoscale and could help detect diseases such as cancer before symptoms appear.



What are exosomes?

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-
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What are the existing challenges?

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-
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Significance of Lab-on-a-chip technologies

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The goal is to shrink down to a single silicon chip all of the processes necessary to analyze a disease that would normally be carried out in a full-scale biochemistry lab.

What is nano-DLD?

The chip is capable of separating bioparticles down to 20 nanometres (nm) in diameter, a scale that gives access to important particles such as DNA, viruses and exosomes (small fluid-filled sacs containing material originating from cells).

Once separated, these particles can be analysed by physicians to reveal signs of disease even before patients experience any physical symptoms in order to provide the best possible outcome.

Until now, the smallest bioparticle that could be separated by size with on-chip technologies was about 50 times larger, for example, separation of circulating tumour cells from other biological components.

Exosomes are increasingly being viewed as biomarkers for the diagnosis and prognosis of malignant tumours. ▪

They are released in easily accessible bodily fluids such as saliva, urine or blood. ▪

They represent a precious biomedical tool as they can be used in the context of less invasive liquid biopsies to unveil the origin and nature of a cancer.

Researchers targeted exosomes with their lab-on-chip technology as existing scientific techniques face challenges for separating and purifying exosomes in liquid biopsies.

Exosomes range in size from 20-140nm and contain information about the health of the originating cell that they are shed from.

A determination of the size, surface proteins and nucleic acid cargo carried by exosomes can give essential information about the presence and state of developing cancer and other diseases.

Researchers showed they could separate and detect particles as small as 20 nm from smaller particles, that exosomes of size 100 nm and larger could be separated from smaller ones, and separation can take place in spite of diffusion, a hallmark of particle dynamics at these small scales.

Lab-on-a-chip technologies have become an incredibly helpful tool for physicians as they can be significantly faster, portable, easy to use and require less sample volume to help detect diseases.

The nanoscale, on-chip technology, called nanoscale deterministic lateral displacement or nano-DLD, has been developed by scientists at IBM.

It works by allowing a liquid sample to be passed, in continuous flow, through a silicon chip containing an asymmetric pillar array.

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This array allows the system to sort a microscopic waterfall of nanoparticles, separating particles by size down to tens of



nanometers resolution.

40-Chinese scientists to conduct first ever human gene-editing trial

Chinese scientists will perform the world's first genetic editing trial on humans in August 2016, in an attempt to find a cure for lung cancer.

- **CRISPR-Cas9** A group of oncologist will inject patients with cells that have been modified using the gene-editing technique.

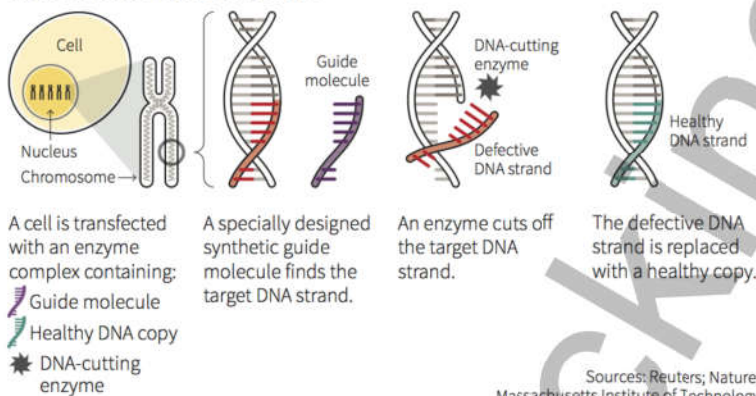
CRISPR-Cas9

CRISPR-Cas9 is a unique technology that enables geneticists and medical researchers to edit parts of the genome by cutting out, replacing or adding parts to the DNA sequence.

DNA editing

A DNA editing technique, called CRISPR/Cas9, works like a biological version of a word-processing programme's "find and replace" function.

HOW THE TECHNIQUE WORKS



W. Foo, 24/04/2015

REUTERS

- The word 'CRISPR' stands
 - RIS
 - P
- forlustered egularly nterspacedhort alindromic
- It was named "2015 Breakthrough of the Year" by the U.S. journal Science.
 - It allows scientists to selectively edit genome parts and replace them with new DNA stretches.
 - Cas9 is an enzyme that can edit DNA, allowing the alteration of genetic patterns by genome modification.
 - CRISPR is a collection of DNA sequences that direct Cas9 where to cut and paste.
 - This process will hopefully kick-start the T cells to launch an attack on the tumour cells. It is like building a cancer-fighting army outside the patient body.
 - However, the T cells might also attack normal tissue, this first phase of the trial aims to determine whether the approach is safe.

Significance of the technology:

- CRISPR-Cas9 technology has the potential to revolutionise the treatment of blood diseases, tumours and other genetic diseases.
 - It is faster, cheaper and more accurate than previous techniques of editing DNA.

The scientists chose cancer patients for the initial trial. Why?

- The mortality rate of lung cancer patients is high. This is why the scientists chose cancer patients for the initial trial.

41-ICMR sets guidelines for testing of AYUSH drugs

To bring research on Ayurvedic drugs and formulations closer to practices in Western medicine, the Indian Council of Medical Research has released a set of guidelines concerning standards that must be adhered to in testing medicines from AYUSH (Ayurveda, Yoga, Unani, Siddha and Homeopathy) schools.

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The ICMR guidelines are not a precursor to a law though adherence to them is required by India's drug regulator to grant permission for trials.

Highlights of the draft guidelines

Ethical principles

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Research on traditional and folk medicines and patented and proprietary varieties of traditional medicines involving human participants must be done using the same ethical principles under which drug trials are conducted.

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That means the adverse effects of such drugs and a system whereby the potency and safety of the investigational drug can be measured ought to be in place. Compensation should be provided to the affected persons.

Supervision of trials

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If a mix of medicinal systems are involved, then there ought to be experts from each of those fields supervising trials and

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If a product deriving from traditional knowledge were to be commercialised, the "legitimate rights/share of the tribe or community from which the knowledge was gathered should be taken care of appropriately while applying for Intellectual Property Rights and patents for the product".

Emerging fields of research

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The guidelines deal with emerging fields of research such as synthetic biology and ethical rules governing medical diagnostics, and specify that all participants be made aware of the risks and not be offered undue inducements to participate in the trial of a new drug.

Clinical trials

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India has several sets of guidelines governing the conduct of clinical trials and stem cell research that are updated from time to time. However, there has been little clarity on how Ayurvedic formulations and other traditional medicines ought to be tested.

This is a positive step and is important for traditional Indian formulations to be able to access international markets.▪

Background

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India has frequently seen controversies over the improper conduct of clinical trials and there is a proposed amendment to the Drug and Cosmetics Act that seeks to impose stricter penalties for those found violating clinical trial guidelines.

Sports and Awards

1-Narsingh Yadav ousted from Olympics

Indian wrestler Narsingh Yadav has been ousted from Olympics as the CAS slapped him with a four-year ban, while hearing into the **World Anti-Doping Agency's appeal against the clean chit** given to him in a dope scandal by NADA. Narsingh's name appeared in the official schedule released after he underwent the regular weigh-in. He was scheduled to take on France's Zelimkhan Khadjiev in the qualification round.

- WADA filed an urgent application before the CAS **ad hoc Division to challenge the decision of NADA India to exonerate Narsingh Yadav** following two positive anti-doping tests with methandienone on June 25 and July 5
- The athlete asserted that he was the victim of sabotage (food/drink tampering) by another person. **WADA requested that a four-year period of ineligibility** be imposed on the athlete," the CAS said in a statement.
- The CAS panel did not accept the argument of the athlete that he was the victim of sabotage and noted that there was no evidence that he bore no fault, nor that the anti-doping rule violation was not intentional. Therefore the standard four-year period of ineligibility was imposed by the panel," the statement added.
- **The embattled 74kg category grappler has maintained that his scandalous dope test** was a result of conspiracy by rivals who spiked his food or drinks.
- Having grabbed the quota by virtue of **his bronze in Las Vegas 2015**, Narsingh's road to Rio was fraught with obstacles after he was named to represent India ahead of double Olympic-medallist Sushil Kumar.

Ecology

1-CAMPA - IN & OUT

Compensatory afforestation is defined as afforestation done in lieu of the diversion of forest land for non-forest use. The bill seeks to establish a permanent National Compensatory Afforestation Fund under the Public Account of India and it also allows the states to establish State Compensatory Afforestation Fund. Compensatory Afforestation Fund Management and Planning Authority, or **CAMPA, was constituted by a direction of the Supreme Court dated October 30, 2002**, asking the government to create a fund where all the payments received towards compensatory afforestation, additional compensatory afforestation, penal compensatory afforestation and net present value of the diverted forest land will be deposited. The net present value is the amount that someone has to pay for diverting forest land for non-forest purposes. The amount will be determined by an expert committee appointed by the Centre.

The Parliament passed the Compensatory Afforestation Fund Bill, 2016. The bill provides for establishment of funds at the Centre and state levels for compensatory afforestation.

Under the bill, states will get 42 thousand crore rupees for afforestation and related activities."

It also has a provision for setting up of authorities, both at the national and state levels, for administration of funds and utilization of funds by the user agencies to undertake plantations, protection of forests and forest-related infrastructure development.

Odisha will get maximum amount of around six thousand crore rupees out of this fund."

Clause 6 of the Bill has the provisions of consultation with Gram Sabhas in the areas where Scheduled Tribes and other traditional dwellers are living.

The Bill establishes the National Compensatory Afforestation Fund under the Public Account of India, and a State Compensatory Afforestation Fund under the Public Account of each state.

These Funds will receive payments for: (i) compensatory afforestation, (ii) net present value of forest (NPV), and (iii) other project specific payments.

The National Fund will receive 10% of these funds, and the State Funds will receive the remaining 90%."

These Funds will be primarily spent on afforestation to compensate for loss of forest cover, regeneration of forest

ecosystem, wildlife protection and infrastructure development.

▪
The Bill also establishes the National and State Compensatory Afforestation Fund Management and Planning Authorities to manage the National and State Funds.

Difficulties

1. The main difficulty in implementation is the availability of non-forest land for afforestation. As per the law, the chosen land needs to be preferably contiguous to the forest being diverted so that it will become easier for forest officials to manage it. But in case of non-availability of land near to the forest being diverted, land in any other part of the state can be used for the purpose. In case suitable non-forest land cannot be found, then the degraded forests can be chosen for afforestation, but in such cases, twice the area of diverted forest has to be brought under afforestation. Although the law provides flexibility in choosing the forest lands, still difficulty is faced especially in smaller states and heavily forested states like Chhattisgarh to find non-forest lands for afforestation.
2. Secondly, although the fund was envisaged to be used for compensatory afforestation, the Compensatory Afforestation Fund Bill has expanded its scope of use to include general afforestation programme run through the Green India Mission, forest protection, forest management, forest and wildlife related infrastructure development, wildlife conservation, and relocation of people from protected wildlife areas. Critics argue that the diversion of funds for other activities would take away the focus from the prime objective of compensating for the forest cover lost to developmental or industrial development.

2-Obama establishes world's largest marine reserve in Hawaii

President Barack Obama burnished his environmental legacy by **establishing the world's largest marine reserve**, home to **thousands of rare sea creatures in the northwestern Hawaiian islands**. Obama's announcement more than quadrupled the size of the existing protected area, known as the **Papahānaumokuākea Marine National Monument**, which is now 582,578 square miles (1.5 million square kilometers) -- about **four times the size of California**.

- The waters are home to **pristine coral reefs** and hundreds of animals found nowhere else on Earth, including a new species of ghost octopus discovered only this year and the world's oldest living organism, black coral, which is estimated to be 4,265 years old.
- Some 14 million seabirds soar over the area and make their nests on the islands, including a 65-year-old albatross named Wisdom. The area is home as well to threatened green turtles and endangered Hawaiian monk seals.
- **The marine monument was established in 2006 by then president George W. Bush** and was **designated a UNESCO World Heritage Site in 2010**. "By expanding the monument, President Obama has increased protections for one of the most biologically and culturally significant places on the planet.
- Greenpeace also hailed what it called a "bold decision" that will ban commercial fishing and mineral extraction in the region.

3-Poor air quality across 41 cities in 2015, says CPCB survey

According to a latest analysis released by the Central Pollution Control Board (CPCB), 41 Indian cities with a million-plus population faced bad air quality in nearly 60% of the total days monitored in 2015.

According to the report, what are good days and what are bad days?

Days wherein all monitored parameters like sulphur dioxide, nitrogen dioxide, and particulate matter are within the prescribed norms were considered good days.

While remaining monitoring days when value of one or the other parameter exceeds the norms were categorised as bad days.

Which are considered “million-plus” cities?

population more than one million According to the 2011 Census, there are 46 cities in India with and they are termed as “million-plus” cities.

Highlights of the report:

Coimbatore and Rajkot had highest number of good quality days, while Varanasi, Gwalior and Allahabad didn't have even one good air quality day among all the days when their air quality was monitored.

Most cities recorded high percentage of good days during monsoon season and low percentage of good days during winter season.

Coastal cities have recorded higher percentage of good days compared to the land locked cities.

The southern and western cities have recorded higher percentage of good days.

4-Study identifies key species which act as warning signs of ecosystem collapse

Biodiversity increases resilience: more species means each individual species is better able to withstand impacts. Think of decreasing biodiversity as popping out rivets from an aircraft. A few missing rivets here or there will not cause too much harm. But continuing to remove them threatens a collapse in ecosystem functioning. Forests give way to desert. Coral reefs bleach and then die.

biodiversity has a value that has been overlooked, New research suggests that but could be vitally important if we are to manage our impacts on ecosystems.

It shows that crucial information about the overall health or resilience of an ecosystem may be lurking in data about supposedly inconsequential species. In fact, the presence or absence of some of the rarest species may be giving us important clues as to how near an ecosystem is to a potential collapse.

ecosystem canaries Such rare species we call . Like canaries that coal miners used to check for poisonous gasses often the first species to disappear from a stressed ecosystem. deep underground, ecosystem canaries are

changes in the functioning of ecosystems Their vanishing can be linked to , which can serve as a warning that a collapse is approaching.

The study used data collected from lakes in China that showed changes in the abundance of species **algae (diatom) and aquatic midges (chironomid)** from communities as they compete for resources under environmental pressures

. From this data it was possible to identify three types of organism: ; ; and slowly-replicating but strongly competitive ‘keystone’ species weakly-competitive but fast-replicating ‘weedy’ species slowly-replicating and weakly-competitive ‘canary’ species.

Runoff of fertiliser from surrounding fields has a major environmental impact on these lake ecosystems. As the

situation worsens the canary species is the first to suffer.

With continuing degradation affecting all species, this leads to the eventual collapse of the keystone species as they are replaced by the weedy species.

critical transition The loss of keystones tips the ecosystem into a – the point at which a system shifts into an alternate state which in lakes is dominated by smothering algae and absence of many plant and animal species. Moving a lake back to a clear water, high biodiversity state can be extremely difficult. Better to avoid the collapse in the first place.

By searching for changes in the structure of populations that includes the ratio of keystone, weedy and canary species, we were able to detect a clear signal of an impending collapse many years, sometimes decades before the actual event. Time enough to put in place changes to farming and other practices.

5-Microplastics should be banned in cosmetics to save oceans

Environmental audit committee calls for ban after hearing that **microbeads harm marine life and enter the food chain.**

Members of the environmental audit committee have called for a ban within 18 months after hearing that trillions of tiny pieces of plastic are accumulating in the world's oceans, lakes and estuaries, harming marine life and entering the food chain. About 86 tonnes of microplastics are released into the environment every year in the UK from facial exfoliants alone, they were told.

Microplastic pollution comes from the fragmentation of larger pieces of plastic waste, small synthetic fibres from clothing and the microbeads used in cosmetics and other products.

The microbeads in scrubs, shower gels and toothpastes are an avoidable part of this plastic pollution problem. A single shower could result in 100,000 plastic particles entering the ocean.

The best way to reduce this pollution is to prevent plastic being flushed into the sea in the first place.

6-Indian Seasonal Energy Efficiency Ratio (ISEER)

The **Bureau of Energy Efficiency (BEE)** has introduced a **new star rating methodology called Indian Seasonal Energy Efficiency Ratio (ISEER) for air conditioners.** This evolved rating methodology factors in variance in higher temperature in India and rates air conditioners accordingly. Consumers can now purchase air conditioners with higher efficiency leading to lower electricity bills. Consumers can now purchase air conditioners with higher efficiency leading to lower electricity bills.

BEE Star Labels Explained



Look for stars on an appliance model. More stars means more electricity saving.

Look for the year on the label as star ratings change periodically when standards improve. A BEE 5 star rated model in 2013 may be equivalent to BEE 3/4 star model in 2014.

Appliance/Type	: XX/Split
Brand	: YYYY
Model/Year	: ABC/2007
Cooling Capacity (W)	: XX
Power Consumption (W)	: XX
Variable Speed Compressor	: Yes/No
Heat Pump	: Yes/No



Although BEE Star rated appliances do comply with Indian Standards, but higher star rating does not mean better quality.

BEE Star rating is available in following home appliances: Refrigerators, Air Conditioners, Water Heaters, T8 Tubelights, 1200 mm sweep Ceiling Fans.



What

Note

Keeping the performance of air conditioners during higher temperature in mind, **ISEER will address the different climatic zones in India and higher temperature.** ISEER measures energy efficiency of air conditioners based on a weighted average of the performance at outside temperatures between 24 and 43

degree C based on Indian weather data.

As per Indian Weather Data Handbook, 2014, weather profile of 54 major cities shows that 65% of the total number of hours in a year have a temperature above 24 deg C (5778 hours out of 8760). Air conditioners in India have hitherto been tested under the IS 1391 at a standard operating conditions of outside temperature of 35 degree C. Star rating is given to manufacturers based on the test results provided by them as tested on the above standard.

Talking about ISEER, Shri Sanjay Seth, Secretary, Bureau of Energy Efficiency said that the new methodology for rating system will bring in higher energy efficiency of appliances and reduce energy consumption. He further said that the standards have been developed while keeping changing Indian temperature in mind.

Such innovations will help us achieve the objective sooner.”

Ratings based on ISEER have been introduced on a voluntary basis for Variable Speed (Inverter) Air Conditioners since June 2015 and proposed to be merged with fixed speed air conditioners in the mandatory regime from January 2018. Some of the leading manufacturers have already adopted the rating for inverter air conditioners.

BEE has from the beginning worked out a plan of progressively improving the efficiency of Room AC from 2008 and to transform market towards better energy efficiency standards, BEE continuously tightens the standards such that, **the Star-5 in 2010 became Star-3 in 2015 and will become Star-1 in 2018 as per new ISEER methodology.**

The weighted average Energy Efficiency Ratio (EER) of AC has increased from 2.6 in 2006 to 3.26 in 2015, which is an increase of 25% in efficiency due to tightening of standards.

Since 2010 Bureau of Energy Efficiency has mandated air conditioners as a mandatory-labelled appliance under Energy Conservation Act and since then air conditioners cannot be sold without star label.

Now as per latest notification, from January 2016, **Star-2 is the least efficiency level to be sold in the market**, hence variation in power consumption is compared between Star-5 (most efficient) and Star-2 (least efficient) air conditioners.

7-WWF urges closure of all tiger farms in Asia

The World Wildlife Fund (WWF) called on Asian states to close their tiger farms to boost efforts against the black-market trade in animal parts.

According to WWF, there remained 200 tiger farms in Asia, mostly in China, Laos, Vietnam and Thailand.

WWF drew a clear distinction between such farms — which are only known to exist in Asia — and zoos that strive to create acceptable conditions for tigers to live in a controlled area.

According to WWF, tigers living in farm-like captivity have become habituated to human presence and cannot simply be released in the wild.

Background:

Many tiger farms have been implicated in the hugely lucrative but illegal trafficking market.

The so-called “Temple of Tigers” in western Thailand was closed in May after Thai wildlife officials discovered dozens of dead cubs inside a freezer.

At a conference in St Petersburg in 2010, 13 Asian countries agreed to double the number of tigers living in the wild on the continent by 2022, which is China's next Year of the Tiger.

Tiger farms:

There has been a marked increase in tiger 'farms' in China, Laos, Vietnam and Thailand where tigers are being kept, and are often intensively bred, for trade.

India & World

1-India-Bangladesh Nuclear Agreement

India has concluded a nuclear agreement with Bangladesh in a sign that the bilateral neighbourhood relationship is becoming special. The core of the new engagement is all 21st century—energy, connectivity, security.

▪

The nuclear agreement is a three-document package that has been negotiated between the Ministry of External Affairs, India and the Bangladesh department of science and technology over the past few months.

The Indian nuclear deal will equip and train Bangladesh to import their first nuclear power plant from Russia.*

It's a very big deal for Bangladesh and almost unique for India.*

▪

After Prime Minister Narendra Modi and his Bangladesh counterpart Sheikh Hasina inaugurated a 100Mw power transmission line from Palatana to Bangladesh, India is preparing to upgrade it to 500Mw.

India also promised to send diesel to Bangladesh from West Bengal.*

India wants to transport LPG and LNG to the northeastern states—through Bangladesh.*

▪

India has offered Bangladesh a stake in this, letting them share LPG and LNG according to their needs, even as they allow transit of energy to Tripura.

▪

In the next stage, India has told Bangladesh, it wants to generate power in the northeast and have it pass through Bangladesh, offering them an 'offtake', that is allowing them to take power for own use from the transmission line.

▪

Four Indian companies—BHEL, Reliance, Shapoorji-Pallonji and Adani—have bid to build power plants in Bangladesh.

▪

The comfort factor for both countries is the fact that both land and maritime boundaries are now clearly demarcated. In this case, certainly, better fences have made better neighbours.

The almost seamless implementation of the LBA has made it easier to plan roads and railways to Bangladesh.*

▪

The two countries want to revive the train lines that were operational between the two sides, until 1965, when Pakistan shut them down—Akhaura-Agartala, Khulna-Darshana, Parvatipur-Kawnia lines will be on top of the list.

A bridge on the Feni river will come in the coming years.*

Bangladesh has its eyes set on a water deal, particularly on Teesta and Feni. And India has promised to deliver.*

▪

In the new evolving relationship, both sides are willing to give each other some space. Basically, once all these projects kick in, Bangladesh could be well on its way to becoming a middle-income country in a decade.

2-India-China Relations: 8 Steps to a Partnership of the People

President Pranab Mukherjee was on a four day visit to China from May 24 to May 27. During his visit he exchanged views on all aspects of India's ties with Chinese leadership. In the first leg of his State visit, Pranab Mukherjee went to Guangzhou which is one of the most important Industrial Provinces of China. In his second

and last leg of his visit, the President reached Beijing where he had talks with the top leaders of China including with his counterpart Xi Jinping on bilateral, regional and international issues. The President was accompanied by a delegation of top Indians academicians including Vice Chancellors of Central Universities and Directors of IITs, where they signed a MoU with top Chinese research and educational institution. Delivering a lecture at the Peking University, Indian President outlined eight pillars for the future India-China relations.

8 Steps for Partnership of the People

1. In spite of having more than a third of the world's population, the contacts between the people's representatives on both sides are still very limited. More regular contacts between our people's representatives at official and non-official levels is the need of the hour. We must broaden these contacts—beyond capitals to provincial and local bodies.
2. Both India and China are 'young' societies. Our youth share common aspirations and perceptions. Their annual exchanges have been fruitful, but both sides need to synergize their potential by including more educational opportunities, youth festivals, sports exchanges, youth-oriented tourism and social media linkages etc.
3. As citizens of a digital age, we recognise the power of visual images. This makes joint film production a useful instrument for creating positive perceptions. We should endeavour to expand the reach of our initiatives through regular screening and televising of our films and programmes in both countries.
4. We need to re-energize our intellectual and cultural exchanges. Yoga in India and Tai Chi in China as well as traditional medicine are part of our cultural heritage. Our annual India-China Think-Tank Forum and High-level Media Forum are good initiatives. Greater exchanges between institutions of higher learning, more cultural festivals and joint research and scholarship programmes can help dispel the notion that we need to look to the West and not to each other to make progress in education, science & technology.
5. Travel can be a very important binding factor. It is obvious that in the coming decade, Indians and Chinese will represent the largest volume of tourist travel globally. The immense potential of India as a tourism destination must be better projected. I commend both Governments for holding the Visit India Year in China last year and the Visit China Year in India this year. We welcome your Government's decision to open a second route for the Kailash-Mansarovar pilgrimage. Indians would like to have more opportunities to travel to their holy sites in China and, in turn, welcome more Chinese visits to Buddhist pilgrimage centres in India.
6. Civil society is playing an increasingly significant role in both our societies, addressing a range of common concerns including the challenges of urbanization, environmental degradation, the urgent need for skills development and the digital divide. By pursuing sustainable solutions and sharing experiences, civil societies on both sides can collaborate—duly respecting the parameters in which they are required to operate in our respective countries.
7. We have a common approach to global and developmental issues that facilitate our strong cooperation in multilateral fora including the G-20, BRICS, EAS, AIIB, SCO and the United Nations. We can use such platforms to enhance public awareness of the desire of both our countries for a shared future shaped by us together. As our respective peoples and the world see our Governments working together at the global and regional level, they, too, will support and contribute to the achievement of our shared goals.
8. Trade and commerce can be the most powerful agents in reinforcing our complementarities. We are pleased that in the past decade there has been substantial growth in our bilateral trade and investment ties, but there is a vast untapped potential waiting to be fully realised. We invite Chinese companies to participate in the 'Make in India' initiative and to join us in Start Up India. Let us jointly innovate to create a new model for business.

3-India in NSG ?

Why is the NSG entry so important?

▪

It was the 2008 civil nuclear deal with the US that paved the way for India's NSG bid. The same year India had got a one time waiver from the NSG to source power from non-fossil sources. However India needs more energy and as per

the calculations it needs to source 40 per cent of power from non-fossil sources.

- With an entry into the NSG, India can continue to avail the best technology for nuclear energy without seeking waivers. India would also be in a stronger position to implement its plan of building reactors and selling it outside if it becomes part of the NSG.

- Once India is part of the NSG it would also have access to technology in the defence, space and nuclear sector. Further admission to the Missile Technology Control Regime would also pave the way for India to buy high end missile technology.

- A membership to the NSG would also help firms in India expand business. The nuclear industry in India would no longer have to work in isolation and will have to cater to international norms. This would mean a better market presence world wide.

Why HURDLE?

- China's stance that India's application cannot be considered because it has not signed NPT was backed by nearly 10 other countries at a plenary session of NSG in Seoul.

- India failed to gain a seat at the NSG table despite strong backing from the US, the UK, France and a number of others in the 48-member group.

- An NSG statement cited that the group declared its firm support for the full, complete and effective implementation of NPT as the cornerstone of the international non-proliferation regime—a clear indication that no exception will be made in the case of India. It, however, said that discussions on the participation of countries that have not signed NPT would continue.

- India has refused to sign the pact, which it terms discriminatory, but points out that it has adhered to global non-proliferation norms voluntarily.

That China would not relent on India was evident when chief Chinese negotiator Wang Qun told reporters that for a country to be a member of NSG, signing of NPT is a must. This rule was not set by China but by the international community. If exceptions are allowed here or there on the question of NPT, international non-proliferation will collapse altogether. NSG had so far not agreed to any agenda item on the participation of non-NPT countries. Therefore, there was no question of China supporting or opposing India's membership.

China's rigid position came despite Prime Minister Narendra Modi meeting Chinese President Xi Jinping in Tashkent on June 23, where the two leaders were attended the Shanghai Cooperation Organisation summit. Narendra Modi urged Xi Jinping to make a fair and objective assessment of India's application at the NSG plenary.

- India's application was submitted before NSG on 12 May, had acquired an immediacy given the country's commitment to generating 40% of its energy requirement from non-fossil sources by 2030.

- India believes that an early decision on its application remains in larger global interest. India's participation in the NSG will further strengthen nuclear non-proliferation and make global nuclear commerce more secure. It will advance energy security and make a difference to combating climate change.

- With this act, China has pushed India further away, and one could see India forging closer ties with the US, Japan and other countries.

- Already, there are signs of Chinese concerns over India seemingly moving closer to the US and forging stronger ties with Japan. China also views with suspicion India's increasing links with South-East Asian countries, some of which are locked in maritime boundary disputes with China.

The unsuccessful bid has put a question mark on cooperation between China and India in international fora—whether at the climate change talks or at the World Trade Organization (WTO). It is also expected to redefine Asia's future strategic contours, with China sharply positioned as India's strategic rival.

4-Feed the Future - India Triangular Training Program; India and USAID

announced some six years back in November 2010 when US President Barak Obama visited India.

- The effort included Triangular Cooperation adapting technological advances and innovative solutions to address Food Security Challenges in Africa.
- This pilot stage focused on three African Countries i.e., Kenya, Liberia and Malawi with potential to expand throughout the African Continent in future.
- Consequently, National Institute of Agricultural Extension Management (MANAGE), Hyderabad and National Institute of Agricultural Marketing (NIAM), Jaipur conducted 7 training programs covering 219 executives from Kenya, Liberia & Malawi.
- Participants Surveys were conducted in Kenya, Liberia & Malawi to assess the impact of training programs. Results were beyond expectations.
- Due to the success of first seven training programs, there have been considerable enthusiasms from the prospective Executives from Africa and Asia to participate in the present training program.
- USAID and Ministry of External Affairs (MEA) identified additional countries among those involved in India supported development programs and designated as Feed the Future; India Triangular Training Programme. India and the US both appreciate trilateral cooperation with African Partners including in areas such as Agriculture, health, energy, women empowerment and sanitation under the statement of guiding principles on triangular cooperation for global development. They looked forward to opportunities to deepen the US-India Global Development Cooperation in Africa, as well as in Asia and beyond.

5-US Postal Service honors Diwali Festival with a Forever Stamp

The United States Postal Service (USPS) on 23 August 2016 announced to commemorate the joyous Hindu festival of Diwali with the launch of **Forever stamp**.

The first-day-of-issue dedication ceremony of the Forever Stamp will take place at the Consulate General of India, New York on 5 October 2016. The launch of this stamp is an important recognition for the more than 3 million Indian-Americans who celebrate Diwali every year in US.

The Diwali stamp will be issued as a Forever stamp. This Forever stamp will also be equal in value to the current First Class Mail 1-ounce price.

The stamp design is a photograph featuring a traditional diya oil lamp beautifully lit, sitting on a sparkling gold background.

6-5-point agenda for Pak talks

India has set clear terms for talks with Pakistan, outlining a **five-point agenda** and asking the neighbouring country to stop exporting terror and inciting violence in Jammu and Kashmir. New Delhi has made it clear that if Foreign Secretary S Jaishankar visits Islamabad for talks with his Pakistani counterpart A A Chaudhry, the discussion should focus on the progress made in bringing to justice the perpetrators of the 2008 Mumbai and 2016 Pathankot terrorist attacks.

What

Cessation of cross-border terrorism by Pakistan and ending incitement to violence in the Valley.▪

- **Detaining and prosecuting internationally recognised terrorists**, who have been active in Pakistan in exhorting and supporting violence in Jammu and Kashmir.

▪ **Closing down terror camps in Pakistan** where militants like Bahadur Ali, who was recently arrested in the state, continued to be trained for attacks against India.

Recalled the signing of the **Simla Agreement in 1972** and **Lahore Declaration of 1999** by leaders of both the countries to resolve bilateral disputes within the framework of the two documents.

- **Infiltration of military personnel across the Line of Control at Kargil** and continued support of terrorist activities.

7-Join agreement against parental abduction: U.S.

The United States has urged India to join 'Hague Abduction Convention' to safeguard the rights of children born to Indian-American couples.

Reason:

- Almost a hundred children born to Indian-American couples are facing an uncertain future due to the trauma of separation of their parents and the complex legal issues involved.

Why India should sign this convention?

- A growing number of children of such couples were facing difficulties due to 'International Parental Child Abduction' (IPCA) and India need to create a more effective response to deal with such cases.

Regarding IPCA, India's case-load is second largest in the United States which is followed by Mexico.▪

At least 90 children from 80 Indian-American families were affected by separating parents and the legal problems involved.

- As more and more Indians are studying and working in the U.S, such cases are growing in number and it is necessary to get a better mechanism to deal with this.

What is Inter-country parental child abduction?

- Inter-country parental child abduction is a situation that is attained when one parent takes a child or children to a foreign country to prevent the other parent from seeking custody of the child.

Hague Abduction Convention

The Hague Convention on the Civil Aspects of International Child Abduction or Hague Abduction Convention is a multilateral treaty **developed by the Hague Conference on Private International Law (HCCH)**.

- It provides an expeditious method to return a child internationally abducted by a parent from one-member country to another.

The Convention was entered into force between the signatories on 1 December 1983.▪

The Convention was drafted to ensure the prompt return of children who have been abducted from their country of habitual residence or wrongfully retained in a contracting state not their country of habitual residence.

- The primary intention of the Convention is to preserve whatever status quo child custody arrangement existed immediately before an alleged wrongful removal or retention thereby deterring a parent from crossing international boundaries in search of a more sympathetic court.

applies only to children under the age of 16The Convention .▪

94 states are party to the convention. In 2016, Philippines acceded to the convention.

For the first time, the victims of cross border firing along the Indo-Pakistan border in Jammu and Kashmir will get compensation of

8-In a first, compensation to victims of cross-border firing

Rs 5 lakh, similar to those who die due to terrorism or Left Wing Extremism violence.

At present, there is no scheme to compensate victims of cross border firing.■

Details:

■
The Union Cabinet has given its approval to enhance the grant of compensation to the civilian victims under the scheme titled “Central Scheme for Assistance to Civilian Victims of Terrorist/ Communal/Left Wing Extremist (LWE), Cross Border Firing and Mine/IED blasts on Indian Territory” from Rs.3 lakhs to Rs.5 lakhs.

The highlights of the scheme are as follows:

■
For the first time, civilian victims of cross border firing along the Indo-Pak border will be given a compensation of Rs. 5 lakh similar to those who die due to terrorism or LWE violence.

■
Now onwards, any civilian who dies anywhere in the country due to terror attack, LWE violence, firing from across the border, shelling or IED explosion will be given Rs.5 lakh as compensation uniformly. The amount will be given to the next of kin of the victim.

5 lakh will also be given to those who receive 50 per cent or more disability or incapacitation due to the same reasons.■

■
The compensation amount will be given subject to the condition that no employment has been provided to any of the family members of the victims by State or Central Government.

■
Families of the victims would be eligible to get assistance under the scheme even if they have received any other assistance, by way of payment of ex-gratia or any other type of relief from the Government or any other source except when a similar scheme is already being implemented by the Central Government.

9-India Bangladesh sign a MoH on Route permit for petroleum goods.

■
India and Bangladesh have signed a Memorandum of Understanding (MoU) on Route Permit for carrying Petroleum Goods to Tripura via Bangladesh.

■
The MoU was signed between Indian Oil Corporation Limited (IOCL) and the Roads and Highways Department of Bangladesh in Dhaka.

■
The MoU enables IOCL to send its trucks carrying High Speed Diesel, Motor Spirit, Superior Kerosene Oil and Liquefied Petroleum Gas (LPG) from Meghalaya to Tripura via territory of Bangladesh.

■
The validity of this facility is till end of September, 2016. Besides, both sides have also agreed to extend the transit facility for a further short period on need basis.

■
Due to heavy rains in the North-Eastern region during this Monsoon season, the roads, including NH 44, have been affected. It has resulted in non-plying of goods trucks, including those carrying petroleum goods to Tripura.

■
This has resulted into a situation of scarcity of essential petroleum goods. Comment With granting access to transit routes Bangladesh Government has shown friendly, multi-dimensional and expanding bilateral relation with India.

This friendly gesture is expected to improve the situation of shortage of petroleum products in Tripura.

The President of India, Shri Pranab Mukherjee **launched Akashvani’s Maitree Channel in Kolkata, West Bengal** on August 23, 2016. Speaking on the occasion, the President said that the Akashvani Maitree channel **can play a significant role in promoting**

10-Akashvani Maitree launched

and preserving the composite Bengali cultural heritage which is the proud inheritance of all Bengali speaking people irrespective of their geographical location. He said that he was sure that the blending of content from both India and Bangladesh in the fields of art, culture, literature, music, sports and also on shared socio-economic issues will make the channel a unique one and establish it in the hearts of millions of radio loving people both in India and Bangladesh as well as outside.

India and Bangladesh are not just neighbours but are bound by an umbilical connection of ethnicity and kinship. India always attaches highest importance to bilateral relations with Bangladesh because of our **shared history, heritage, culture, language, physical proximity** and also the role which the two nations can play together for the development and prosperity of the entire subcontinent and beyond. The bedrock on which the edifice of this unique relationship stands is the unwavering faith of both the countries in democratic values, principles of liberalism, egalitarianism, secularism and respect for each other's sovereignty and integrity.

He stated that with the launch of Akashvani Maitree, a new chapter is being added in the annals of India- Bangladesh relations. He said that Akashvani Maitree and its multimedia website is a unique venture and initiative of All India Radio not only for the Bengali listeners in West Bengal, Bangladesh and the adjoining areas but the entire Bengali speaking Diaspora living in different parts of the globe.

Social Issues and Development

1-Rashtriya Swasthya Bima Yojana

The Rashtriya Swasthya Bima Yojana (RSBY) is an scheme for unorganized sector workers below poverty line (BPL) and their families first launched in the Financial year 2007-08 and it became fully operational from 1st April 2008. The "Unorganized workers social Security Act, 2008" came into operation from 31st December 2008.

Rashtriya Swasthya Bima Yojana (RSBY) was initially launched by the Ministry of Labour and Employment, to provide health insurance coverage for the Below Poverty Line (BPL) families.

Starting 1 April 2015, the Rashtriya Swasthya Bima Yojana (RSBY) of the Labour and Employment Ministry will now be **implemented** under the **Ministry of Health and Family Welfare**.

Objective of RSBY:

To provide protection to BPL households from financial liabilities which arise out of out-of-pocket (OOP) payments for health shocks that involve hospitalization.

Need for RSBY:

In India, the estimated workforce amounts to 47 crores, out of which only 8 crore are organized workers while 39 crore are workers in the unorganized sector.

Even though the Government is providing 'free' health services, the policy makers have identified that the 'free' government health services are not meeting the needs of the community. This is the reason why a great deal of out-of-pocket expenses are still taking place, which lead to indebtedness in turn. The poorest sections of society bear the brunt of it, as is evident.

Moreover, since 94% of the workforce in India works in the unorganized sector and, hence, does not enjoys the desired social security cover available in the organised sector. There is a need for a Government sponsored health insurance cover.

The target group of RSBY is the Poor, illiterate and migratory worker of unorganized sector.

The RSBY scheme has been appreciated by the World Bank, the UN and the ILO, as one of the world's best health insurance schemes.

It provides for IT-enabled and **smart –card-based cashless** health insurance.▪

▪

The scheme is a cashless system to overcome the issues of reimbursement and migration coupled with illiteracy of the target group.

- The beneficiaries under RSBY are entitled to hospitalization coverage up to Rs. 30,000 for majority of the diseases which require hospitalization. The Government has also fixed the package rates for the hospitals regarding a large number of interventions.▪ Pre-existing conditions are covered from the first day and there is no age limit set.▪
- The coverage under the RSBY extends to five members of the family including the head of household, spouse and up to three dependents. The beneficiaries are required to pay only Rs. 30 as the registration fee.▪
- The Central and State Government pay the premium to the insurer that is selected by the State Government on a competitive bidding basis.

Funding of RSBY

The Ratio of **75:25** is followed generally. And 90:10 in case of NE States and J&K.▪

- **Central Government's contribution** – 75% (90 percent in case of North-Eastern States and J&K) of the estimated annual premium. Along with the cost of Smart Card.
- The respective **State Government's contribution** – 25% (10 percent in case of North-Eastern States and J&K) of the annual premium.

Unique Features of RSBY

The RSBY scheme is different from other schemes in various important aspects:

- **Information Technology (IT) Intensive** – IT applications are used for the social sector scheme on a large scale where every beneficiary family is issued a biometric enabled smart card which contains their fingerprints and photographs. Also all the hospitals empanelled under the RSBY are IT enabled and hence, connected to the server located at the district level. This is meant to ensure a smooth data flow with regards to service utilization.
- **Empoweres the beneficiary** – RSBY provides the participating BPL households freedom of choice between public and private hospitals and also makes them a potential client which is worth attracting on account of the significant revenues that the hospitals stand to earn through this scheme.
- **Portability of RSBY**– A key feature of RSBY is that the beneficiary who has been enrolled in a particular district of any state will be able to use his or her smart card in any of the RSBY empanelled hospital across the country. This makes the scheme unique as well as beneficial to the poor families which migrate from one place to the other in search of work. Additionally, the cards can be split for the migrant workers to carry a share of the coverage with them separately, if required.
- **Cash less and Paperless transactions** – The beneficiary of RSBY gets cashless benefit in any RSBY empanelled hospitals.
- **Safe and Secure** – The use of biometric enabled smart card and a key management system makes the RSBY scheme safe and foolproof. The key management system in RSBY ensures that card is handed over to the correct beneficiary and accountability is ensured in terms of issuance and usage of the smart card. With the biometric-enabled Smart Card, it is ensured that only the real beneficiary uses the smart card.
- **RSBY is a Business Model for all Stakeholders** – This scheme has been designed as a business model for each stakeholder in the social sector scheme with incentives for all.

For Hospitals – The incentive is to provide treatment to a large number of beneficiaries since it is paid according to per beneficiary treated.

2-Child Labour (Prohibition and Regulation) Amendment Act

Recently both houses of Parliament have passed the Child Labour (Prohibition and Amendment) Bill, 2016. The Bill seeks to amend the Child Labour (Prohibition and Regulation) Act, 1986, which prohibits the engagement of children in certain types of occupations and regulates the condition of work of children in other occupations. The amendments brought in by government have led heated debate among its supporters and opponents.

Changes made

-

It prohibits employment of children below 14 years in all occupations except where the child helps his family after school hours.

-

It adds a new category of persons called 'adolescent' i.e. a person between 14 and 18 years of age. It prohibits employment of adolescents in hazardous occupations.

-

The central government may add or omit any hazardous occupation from the list included in the Bill. It enhances the punishment for employing any child in an occupation. It also includes penalty for employing an adolescent in a hazardous occupation.

-

It empowers the government to make periodic inspection of places at which employment of children and adolescents are prohibited.

Analysis

-

Some argues that instead of curbing child labour completely, the amendments allow children up to the age of 14 to be employed in family business and created new category adolescents, who can be employed in non-hazardous occupations.

-

The amendments tweak the law in such a way that children are in some form or other available for employment. Such amendments violate the natural rights of children.

-

Amendment also reduced the list of hazardous activities has been from 83 to 3. Under the garb of family enterprises, children can be made to work in brick kilns, slaughterhouses, carpet, zari and bidi units, etc. Hence they argued that amendments demonstrate a lack of national commitment to abolishing all forms of child labour.

-

But considering the socio-economic realities of India, exemption to family enterprises will helps to children to contribute economically while studying.

-

Working outside of school hours and earning valuable income for the family will surely have a positive impact on family as well as children.

-

Hence allowing children to work in family business is nowhere harmful, but to the some extent worries of slashing of hazardous occupations may have negative impact.

Suggestions-

-

Government should reconsider the Hazardous list again, as slashing those to only 3 have negative impact on children.

Changes brought through amendments have raised debates on child labour in India. But considering the socio-economic realities in India, most of the changes are indeed required except slashing the number of hazardous occupations. Government should relook on this aspect. Hence changes in child labour act do not demonstrate any lack of commitments on abolition of child labour.

3-Supreme Court admits Muslim woman's plea to declare triple talaq illegal

▪ The Supreme Court took on board a petition by a West Bengal-based Muslim woman to declare the practices of "talaq-e-bidat" (triple talaq), "nikah halala" and polygamy under the Muslim personal laws illegal and unconstitutional.

▪ A Bench of Chief Justice of India T.S. Thakur and Justices A.M. Khanwilkar and D.Y. Chandrachud tagged the petition filed by Ishrat Jahan, a native of Howrah, with a batch of petitions filed by several Muslim women, women's rights organisations and the Supreme Court's own suo motu PIL to consider whether certain practices of marriage and divorce under the Islamic personal laws amount to gender discrimination.

▪ In her petition, Ms. Jahan, represented by advocate V.K. Biju, contended that personal laws that validate triple talaq as a form of divorce and recognise the practices of "nikah halala" and polygamy were void and unconstitutional as "they are not only repugnant to the basic dignity of a woman as an individual but also violative of the fundamental rights."

▪ At this point, Chief Justice Thakur orally remarked that "he [a Muslim man] is entitled to have four wives and even without talaq, he can marry again."

▪ At this point, Mr. Biju argued that "the Constitution does not grant absolute protection to a personal law that is arbitrary or unjust, nor are personal laws exempted from the jurisdiction of the legislature or the judiciary."

▪ The effect of Islamic personal law on women in the community recaptured the Supreme Court's attention on October 16, 2015, when a Bench of Justices I directed the registration of a PIL titled 'Muslim women's quest for equality'. The Bench ordered the PIL to be placed before an appropriate three-judge Bench for adjudication.

▪ Subsequently, a slew of petitions were filed in the Supreme Court by Muslim women against their personal law. One of them, by Shayara Bano, said that she only wished to "secure a life of dignity, unmarred by discrimination on the basis of gender or religion."

▪ However, the Muslim Personal Law Board has questioned the court's jurisdiction, arguing that the judiciary cannot adjudicate on personal laws.

4-Infant Mortality & Maternal Mortality

Infant mortality refers to deaths of young children, typically those less than one year of age. It is measured by the infant mortality rate (IMR).

Classification

Infant mortality rate (IMR) is the number of deaths of children less than one year of age per 1000 live births. The rate for a given region is the number of children dying under one year of age, divided by the number of live births during the year, multiplied by 1,000.

Forms of infant mortality:

▪ **Perinatal mortality** is late foetal death (22 weeks gestation to birth), or death of a newborn up to one week postpartum.

▪ **Neonatal mortality** is newborn death occurring within 28 days postpartum. Neonatal death is often attributed to inadequate access to basic medical care, during pregnancy and after delivery. This accounts for 40–60% of infant [4] mortality in developing countries.

▪ **Post neonatal mortality** is the death of children aged 29 days to one year. The major contributors to post neonatal death are malnutrition, infectious disease, and problems with the home environment.

Infant mortality rate was an indicator used to monitor progress towards the **Fourth Goal of the Millennium Development Goals of the United Nations for the year 2015**.

It is now a **target in the Sustainable Development Goals for Goal Number 3** ("Ensure healthy lives and promote well-being

for all at all ages”).

Maternal death is defined by the World Health Organization (WHO) as “the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes.”

Measurement

The four measures of maternal death are the maternal mortality ratio (MMR), maternal mortality rate, lifetime risk of maternal death and proportion of maternal deaths among deaths of women of reproductive years (PM).

▪

Maternal mortality ratio (MMR): the ratio of the number of maternal deaths during a given time period per 100,000 live births during the same time-period. The MMR is used as a measure of the quality of a health care system.

▪

Maternal mortality rate (MMRate): the number of maternal deaths in a population divided by the number of women of reproductive age, usually expressed per 1,000 women.

▪

Lifetime risk of maternal death: refers to the probability that a 15-year-old female will die eventually from a maternal cause if she experiences throughout her lifetime the risks of maternal death and the overall levels of fertility and mortality that are observed for a given population. The adult lifetime risk of maternal mortality can be derived using either the maternal mortality ratio (MMR), or the maternal mortality rate (MMRate).

▪

Proportion of maternal deaths among deaths of women of reproductive age (PM): the number of maternal deaths in a given time period divided by the total deaths among women aged 15–49 years.

The **total fertility rate (TFR)**, sometimes also called the **fertility rate**, **period total fertility rate (PTFR)** or **total period fertility rate (TPFR)** of a population is the average number of children that would be born to a woman over her lifetime if:

She were to experience the exact current age-specific fertility rates (ASFRs) through her lifetime, and

She were to survive from birth through the end of her reproductive life.

It is obtained by summing the single-year age-specific rates at a given time.

Health situation in India

Despite being sensitive indicators of a country’s health status, high IMR and MMR represent only the tip of the real problem. **It is estimated that more than 60 million people are pushed into poverty every year in India because of healthcare payments – that’s 122 per minute or 52.5 lakh per month – a staggering statistic by any standard.** Indians represent more than 60% of the global figure.

India’s steady decline in infant mortality is remarkable also because it was not at all affected by economic growth. Between 1950 and 2010, the absolute decline in IMR from 165 to 53 was actually larger in absolute numbers than the decline in China, from 122 to 22.

UN has termed the dramatic decline of IMR in the past quarter of a century as one of the most significant achievements in human history, in which India had a major part. **Although India may have failed to achieve MDG 4 of reducing IMR to 27**, 15 states/UTs had already achieved the goal.

Millennium Development Goals (MDG)

▪

MDGs are a set of numerical & time-bound targets to measure achievements in human and social development laid down by the UN. • Of the 8 MDGs, IMR, U5MR and MMR are

Goal No.	Goals Indicators	Targets by 2015
5	Improve maternal health	Maternal Mortality Ratio (MMR) 109
4	Reduce infant mortality	Infant Mortality Rate (IMR) 28
4	Reduce child mortality	Under 5 Mortality Rate (U5MR) 42

Government initiatives:

The key steps taken to accelerate the pace of reduction for Maternal Mortality Ratio (MMR), Infant Mortality Rate (IMR) and Total Fertility Rate (TFR) under the National Health Mission (NHM) are:

▪ **Promotion of institutional deliveries** through Janani Suraksha Yojana (JSY).

▪

Janani Shishu Suraksha Karyakaram (JSSK) entitles all pregnant women delivering in public health

institutions to absolutely free and no expense delivery, including caesarean section. Similar entitlements have been put in place for all sick infants accessing public health institutions for treatment.

▪

Operationalization of Sub-Centres, Primary Health Centres, Community Health Centres and District Hospitals for providing 24×7 basic and comprehensive obstetric care, neonatal, infant and child care services.

▪

Mother and Child Protection Card in collaboration with the Ministry of Women and Child Development to monitor service delivery for mothers and children.

▪

Mother and Child Tracking System is being implemented to ensure antenatal, intranatal and postnatal care along-with immunization services.

Identifying the severely anaemic cases of pregnant women at sub centres and PHCs for their timely management"

▪

Operationalization of Safe Abortion Services and Reproductive Tract Infections and Sexually Transmitted Infections (RTI/STI) at health facilities with a focus on "Delivery Points".

▪

Maternal Death Review (MDR) is being implemented across the country both at facilities and in the community. The purpose is to take corrective action at appropriate levels and improve the quality of obstetric care.

▪

Establishing Maternal and Child Health (MCH) Wings at high caseload facilities to improve the quality of care provided to mothers and children.

▪

National Iron plus Initiative (NIPI), Under through life cycle approach, age and dose specific IFA supplementation programme is being implemented.

▪

To tackle the problem of anaemia due to malaria particularly in pregnant women and children, Long Lasting Insecticide Nets (LLINs) and Insecticide Treated Bed Nets (ITBNs) are being distributed in endemic areas.

▪

Capacity building of health care providers in basic and comprehensive obstetric care, Integrated Management of Neo-natal and Childhood Illness (IMNCI), Navjaat Shishu Suraksha Karyakaram (NSSK), Facility Based Newborn Care (FBNC) and Infant and Young Child Feeding practices (IYCF)

▪

Setting up of Skill Labs with earmarked skill stations for different training programs to enhance the quality of training in the states.

▪

"Prevention of Post-Partum Haemorrhage (PPH) A new initiative of through Community based advance distribution of Misoprostol" by ASHAs/ANMs for high home delivery districts.

▪

Emphasis on facility based newborn caree. Special New Born Care Units (SNCUs), Newborn Stabilization Units (NBSUs) and Newborn Care Corners (NBCCs) at different levels to reduce child morbidity and mortality:

▪

India Newborn Action Plan (INAP) Launch of with an aim to reduce neonatal mortality and stillbirths to single digit by 2030.

▪

Newer interventions to reduce newborn mortality– Vitamin K injection at birth, Antenatal corticosteroids for preterm labour, kangaroo mother care and injection gentamicin to young infants in cases of suspected sepsis.

▪

Newer interventions to reduce maternal mortality and morbidity–Diagnosis & management of Gestational Diabetes Mellitus, Hypothyroidism during pregnancy, Training of General Surgeons for performing Caesarean Section, Calcium supplementation during pregnancy and lactation, De-worming during pregnancy, Maternal Near Miss Review, Screening for Syphilis during pregnancy and Dakshata guidelines for strengthening intra-partum care

▪

Home based new-born care through ASHAs to improve new born practices at the community level and early detection and referral of sick new born babies.

▪

Intensified Diarrhoea Control Fortnight (IDCF) to be observed in July-August 2015 focusing on ORS and Zinc distribution for management of diarrhoea and feeding practices.

▪

Integrated Action Plan for Pneumonia and Diarrhoea (IAPPD) launched in four states with highest infant mortality (UP, MP, Bihar and Rajasthan).

▪

Nutritional Rehabilitation Centres (NRCs) have been established for management of severe acute malnutrition in children.

▪

Appropriate Infant and Young Child Feeding practices are being promoted in convergence with Ministry of Woman and Child Development.

▪

Village Health and Nutrition Days in rural areas as an outreach activity, for provision of maternal and child health services.

▪

Universal Immunization Programme (UIP): Vaccination protects children against seven vaccine preventable diseases.

▪

Mission Indradhanush has been launched in 201 high focus districts to fully immunise more than 89 lakh children who are either unvaccinated or partially vaccinated; those that have not been covered during the rounds of routine immunisation for various reasons.

▪

Rashtriya Bal Swasthya Karyakram (RBSK) for health screening and early intervention services has been launched to provide comprehensive care to all the children in the age group of 0-18 years in the community.

▪

Expansion of Family Planning Choices through introduction of new device– IUCD 375 (effective for five years) introduced in program in 2012-13 and introduction of new method Post partum IUCD in 2010-11 has provided post partum women an effective spacing option

▪

Influencing the demand through ASHA Schemes for Family Planning through Scheme of Home Delivery of Contraceptives by ASHAs, Scheme of Ensuring Spacing at Birth and Pregnancy Testing Kits (PTK) scheme

▪

Promoting quality sterilization services through enhanced compensation scheme, ensuring drop back services to sterilization clients and dedicated Mobile teams for FP services.

▪

Promoting quality IUCD services by introducing PPIUCD incentive scheme, development of online beneficiary based software to track IUCD removals/complications and increasing provider's base for providing IUCD services through Task shifting.

Government schemes:

The Pradhan Mantri Swasthya Suraksha Yojana (PMSSY) was announced in 2003 with objectives of correcting regional imbalances in the availability of affordable/ reliable tertiary healthcare services and also to augment facilities for quality medical education in the country.

PMSSY has two components: setting up of AIIMS like institutions and

Up gradation of Government medical college institutions.

Six AIIMS-like institutions, one each in the States of Bihar (Patna), Chhattisgarh (Raipur), Madhya Pradesh (Bhopal), Orissa (Bhubaneswar), Rajasthan (Jodhpur) and Uttaranchal (Rishikesh) have been setup under the PMSSY scheme.

Rashtriya Bal Swasthya Karyakram (RBSK) is an important initiative aiming at early identification and early intervention for children from birth to 18 years to cover 4 'D's viz. Defects at birth, Deficiencies, Diseases, Development delays including disability.

Janani Shishu Suraksha Karyakaram (JSSK)

Government of India has launched Janani Shishu Suraksha Karyakaram (JSSK) on 1st June, 2011.

The scheme is estimated to benefit more than 12 million pregnant women who access Government health facilities for their delivery. Moreover it will motivate those who still choose to deliver at their homes to opt for institutional deliveries. .

▪

It is an initiative with a hope that states would come forward and ensure that benefits under JSSK would reach every needy pregnant woman coming to government institutional facility. All the States and UTs have initiated implementation of the scheme.

The following are the Free Entitlements for pregnant women:

Free and cashless delivery*

Free C-Section*

Free drugs and consumables*

Free diagnostics*

Free diet during stay in the health institutions*

Free provision of blood*

Exemption from user charges*

Free transport from home to health institutions*

Free transport between facilities in case of referral*

Free drop back from Institutions to home after 48hrs stay*

The following are the Free Entitlements for Sick newborns till 30 days after birth. This has now been expanded to cover sick infants:

Free treatment*

Free drugs and consumables*

Free diagnostics*

Free provision of blood*

Exemption from user charges*

Free Transport from Home to Health Institutions*

Free Transport between facilities in case of referral*

Free drop Back from Institutions to home*

Reproductive, Maternal, Newborn, Child and Adolescent Health

▪

RMNCH+A approach has been launched in 2013 and it essentially looks to address the major causes of mortality among women and children as well as the delays in accessing and utilizing health care and services.

▪

The RMNCH+A strategic approach has been developed to provide an understanding of 'continuum of care' to ensure equal focus on various life stages. Priority interventions for each thematic area have been included in this to ensure that the linkages between them are contextualized to the same and consecutive life stage.

▪

It also introduces new initiatives like the use of Score Card to track the performance, National Iron + Initiative to address the issue of anaemia across all age groups and the Comprehensive Screening and Early interventions for defects at birth, diseases and deficiencies among children and adolescents.

▪

The RMNCH+A appropriately directs the States to focus their efforts on the most vulnerable population and disadvantaged groups in the country. It also emphasizes on the need to reinforce efforts in those poor performing districts that have already been identified as the high focus districts.

Objectives:

▪

The 12th Five Year Plan has defined the national health outcomes and the three goals that are relevant to RMNCH+A strategic approach as follows:

Health Outcome Goals established in the 12th Fiver Year Plan

Reduction of Infant Mortality Rate (IMR) to 25 per 1,000 live births by 2017*

Reduction in Maternal Mortality Ratio (MMR) to 100 per 100,000 live births by 2017*

Reduction in Total Fertility Rate (TFR) to 2.1 by 2017*

India Newborn Action Plan (INAP)

▪
The India Newborn Action Plan (INAP) is India's committed response to the Global Every Newborn Action Plan (ENAP), launched in June 2014 at the 67th World Health Assembly, to advance the Global Strategy for Women s and Children's Health.

▪
The ENAP sets forth a vision of a world that has eliminated preventable newborn deaths and stillbirths. INAP lays out a vision and a plan for India to end preventable newborn deaths, accelerate progress, and scale up high-impact yet cost effective interventions.

▪
INAP has a clear vision supported by goals, strategic intervention packages, priority actions, and a monitoring framework. For the first time, INAP also articulates the Government of India's specific attention on preventing stillbirths. INAP is guided by the principles of Integration, Equity, Gender, Quality of Care, Convergence, Accountability, and Partnerships. It includes six pillars of intervention packages across various stages with specific actions to impact stillbirths and newborn health.

5-POCSO e-box launched to protect children from sexual offences

An online complaint box for reporting child sexual abuse, **the POCSO e-Box was launched by the Minister for Women and Child Development, Smt. Maneka Sanjay Gandhi** in New Delhi. **Protection of Children from Sexual Offences (POCSO), e-Box**, is an online complaint management system for easy and direct reporting of sexual offences against children and timely action against the offenders **under the POCSO Act, 2012**.

▪
The idea of an e-Box came out of a police initiative in which **physical complaint boxes were placed in schools**.

The e-Box will make it possible to implement it on a large scale throughout the country. "

▪
A **large number of incidents of abuse are against close relatives** and so they get pushed under the carpet.

E-Box is very simple to operate and will help to maintain the confidentiality of the complaint."

▪
The e-Box is incorporated prominently in the home page of National Commission for <http://ncpcr.gov.in/>**Protection of Child Rights (NCPCR)** website where a user has to simply push a button named POSCO e-Box.

This will navigate to a page with a window containing an animation movie. "

▪
The animation movie reassures the child that whatever has happened to him/her is not his/her fault and she/he need not feel guilty and that NCPCR is a friend which will help her.

▪
After the user presses the arrow on this page, it navigates to another page where he/ she has to select at least one picture option (describing the category of harassment) and fill the form with details such as mobile number, e-mail and description of the harassment followed by the 'submit' button.

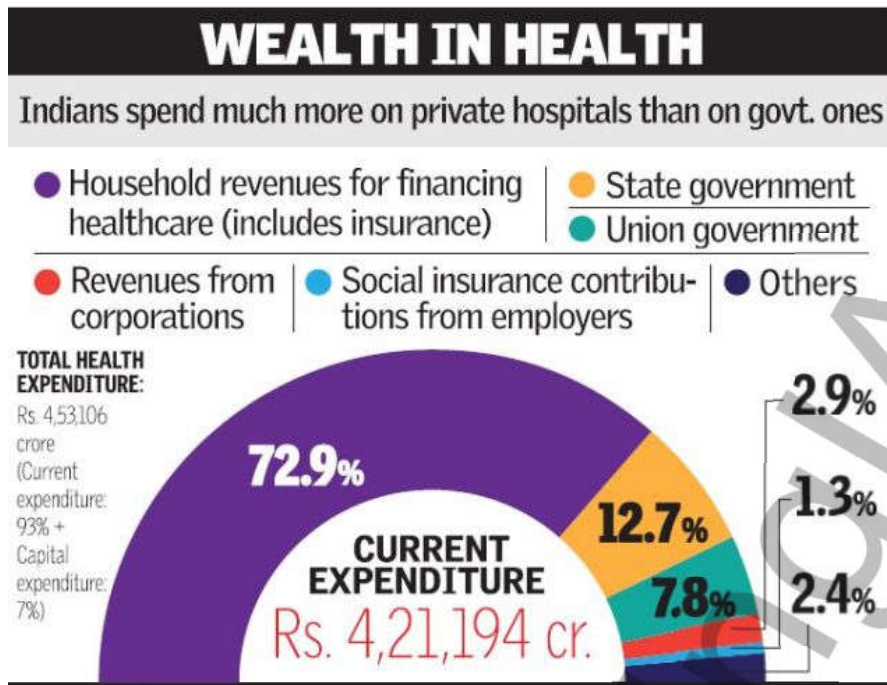
The complaint is then registered and a **unique auto-generated complaint number is flashed.**"

Note:-

- Sexual offences against children are rampant but only a small percentage gets reported. According to a study, about **53% of children surveyed**, reported having faced one or the other form of sexual abuse in their lifetime.
- In most cases, the offender is a family member/near relative or an acquaintance. "
- The child victim in such cases generally does not report these offences. **Sexual abuse scars the psyche of the affected child for entire life.** A child who is sexually abused has to face very serious consequences such as cognitive impairment, violent and risk behaviour including depression and anxiety.
- Feeling shame and guilt with poor interpersonal relationship & self esteem are other consequences of sexually abused children.
- Being concerned about such offences against children, the **Government enacted POCSO Act, 2012 to protect them from offences of sexual assault, sexual harassment and pornography**, while safeguarding the interest of the child at every stage of the judicial process, by incorporating child friendly mechanisms for reporting, recording of evidence, investigation and speedy trial of offences through designated Special Courts.
- **Any human being up to the age of 18 years is recognised as a child under the POCSO Act."**

6-National Health Accounts (NHA) report

Indians spent eight times more on private hospitals and twice as much on transporting patients compared to costs in government hospitals, according to the National Health Accounts (NHA) Estimates for the financial year 2013-14. The data was recently released by the Health Ministry after almost a decade.



The estimates say that households spent Rs. 64,628 crore on private hospitals compared to just Rs. 8,193 crore on government hospitals. A total of Rs. 18,149 crore was spent on patient transportation services, like use of an ambulance.

Low public spending

SOURCE: NHA ESTIMATES FOR INDIA 2013-14, MINISTRY OF HEALTH AND FAMILY WELFARE

Considering all revenue sources, including government funding, expenditure on private hospitals — Rs. 88,552 crore — was double that on government hospitals — Rs. 41,797 crore.

The NHA monitors the flow of resources in the country's health system and provides details of health finances.

India spent a total of Rs. 4.5 lakh crore on healthcare in 2013-14 at 4 per cent of the GDP, of which Rs. 3.06

lakh crore came from households.

Public spending is abysmally low, constituting around 29 per cent of the total health expenditure — 1 per cent of GDP. There has been a marginal improvement from 2004-05, when the share of government spending was just 22 per cent.

Preventive care gets just 9.6 per cent of the total money that flows in India's healthcare system.

The current expenditure on preventive care is estimated at Rs 40,627 crore. All the government-funded national health programmes such as the National Disease Control Programmes are covered under this category.

High out-of-pocket costs

Indians' out-of-pocket (OOP) expenditure on healthcare, which is the money individuals pay on their own rather than being covered by insurance or health benefits, has been estimated to be around Rs. 2.9 lakh crore or 69 per cent of total health expenditure (THE) in the country. This is alarmingly high and India stands among the highest in this metric worldwide.

The share of OOP as a percentage of Current Health Expenditure (CHE) has however, decreased from 69.4 per cent in 2004-05 to 64.2 per cent in 2013-14. The CHE comprises 93 per cent, the rest 7 per cent going to Capital Expenditure.

7-Central Board for Workers' Education renamed

Union government has renamed the Central Board for Workers' Education as **"Dattopant Thengadi National Board for Workers Education and Development"**.

The Dattopant Thengadi National Board for Workers Education and Development having national network is a Central Autonomous Body, under Government of India, Ministry of Labour & Employment.

It has been working since 1958 with its network of 50 Regional Directorates, 9 Sub Regional Directorates, 6 Zonal Directorates.

The Headquarter is situated at Nagpur.

It also has an Apex National Training Institute i.e. Indian Institute of Workers' education at Mumbai.

It is engaged in generating awareness about various subjects relating to labour, industry, nation and other socio-economic issues, besides Government's schemes amongst both organized and unorganized/ rural sector workers for the last 59 years in the country.

Dattopant Thengadi

Born in 1920 in **Maharashtra**, Dattopant Thengadi was a Hindu Ideologue and Indian trade union leader.

Swadeshi Jagaran Manch
Bharatiya Mazdoor Sangh
Bharatiya Kisan Sangh

He is the founder of the , and the .

Some of the hallmark qualities of his lifestyle are: simple living, in-depth study, deep thinking, clarity of thought, courage of the conviction and missionary zeal for the goal.

He devoted his entire life for the upliftment of the poor people and promotion of social harmony in the country.

He was a great thinker, intellectual and efficient organizer, a towering personality in the Labour Movement in India.

He contributed very immensely for the economic growth of the county and was a well-known trade unionist of national repute.

8-A bench of Supreme Court held that men cannot automatically be arrested on dowry harassment complaints

A Curative Bench, led by Chief Justice of India T.S. Thakur, has upheld a 2014 Supreme Court verdict that men cannot be “automatically” arrested on dowry harassment complaints filed by their wives.

The four-judge Bench found no fault with the verdict that the dowry harassment law had become a “menace”, more often used as “weapons rather than shields by disgruntled wives”.

Days before his retirement in 2014, Justice Chandramauli Kumar Prasad led a Bench that lamented that courts were filled with mothers-in-law, sisters-in-law and fathers-in-law and husbands facing prosecution under Section 498 A (dowry harassment) of the Indian Penal Code.

cognisable and non-bailable offence Dowry harassment is a . If guilty, a person faces up to three years’ imprisonment and fine. Women’s rights groups were irked by the verdict, and the National Commission for Women sought a rare curative relief in the court.

In his verdict, Justice Prasad pointed to a “phenomenal increase in matrimonial disputes in recent years” even as the “institution of marriage is greatly revered in this country”.

Presenting government crime statistics to show that 1.97 lakh people were arrested in 2012 for dowry harassment, nearly a quarter of those being women, the verdict said: “

This depicts that mothers and sisters of the husbands were liberally included in their arrest net.”

9-India’s TB Programme – Connecting the DOTS is critical

If there is already a long delay before TB patients in India start treatment, the Directly Observed Treatment Short-course (DOTS) strategy offered by India’s TB control programme does not make it easy for patients to access and complete the treatment.

In contrast, patients who took DOTS from private practitioners faced fewer barriers and were more likely to complete the treatment. The results were published recently in the journal BMC Health Services Research.

Despite TB treatment being free, patients and their caregivers faced challenges, and these were related to coping with RNTCP’s DOTS strategy, the paper says.

Poor patients residing in rural areas faced the greatest difficulty in overcoming the barriers. They had to travel long distances every alternative day to reach a DOTS centre, had to put up with inconvenient timings and “unfavourable attitude” of RNTCP staff.

With the timing of DOTS centres at RNTCP being fixed, patients had to reschedule their daily routine to make the visit possible. Travel plus the long waiting period at DOTS centres meant that patients and their caregivers, who are mostly daily wagers, ended up missing work for at least half a day.

One way of solving this is by having more number of DOTS centres to increase its proximity to a patient’s residence.

But more importantly, there is dire need to bring in more flexibility in terms of timings.

In stark contrast to public sector DOTS centres, patients who approached private practitioners for DOTS could tailor

their timings to suit their daily schedule.

There is a compelling need to decentralise DOTS providers. Whoever is closer to the patients, including private doctors, pharmacists, teachers and anganwadi workers should be allowed to provide DOTS therapy.

The study found that only two patients who had approached the public sector were directed to private doctors for DOTS treatment.

With stigma and discrimination already being rampant, the national TB control programme has done little to reduce it. In fact, RNTCP is programmed to cause stigma and discrimination.

Currently, the emphasis is more on achieving targets than being patient-friendly. This should change and RNTCP should seriously consider a “patient-centred approach to TB control, delivered with dignity and compassion” as its priority if it intends to provide “universal access to quality assured free diagnosis and treatment to patients”.

10-Sugamaya Pustakalaya – Online Library for Persons with print Disabilities

“**Sugamaya Pustakalaya**” is an online platform that makes accessible content available to print-disabled people in accessible formats.

(Divyangjan) It has been created by Department of Empowerment of Persons with Disabilities, Ministry of Social Justice and Empowerment in collaboration with member organizations of Daisy Forum of India and powered by TCS Access.

Books are available in Accessible formats for people with visual impairment and other print disabilities. Over 2 lakhs books in diverse languages. Integrating libraries across India and the Globe, including the largest international library, Bookshare.

In case of End User i.e. person with Print Disability: The next time a person with Print Disability needs to read a book, he can skip the laborious process of looking for volunteers to read them to him or scan and edit them. A quick search on the Sugamaya Pustakalaya may land him with the book of his choice at the click of a button.

In case of a School/College/Library: Universities, School Library, Public Libraries or any such institution can become a member of DFI or subscribe to the online library to offer entire collection of the Sugamaya Pustakalaya to their members or students with print disabilities.

In case of a Publisher/Government House/Textbook Production House: They can be part of creating history by creating the largest accessible online library in a developing country. Increase their reader base to include persons with print disabilities by sharing accessible formats of their publications to be put up on Sugamaya Pustakalaya.

In case of an NGO: They can begin a library service for persons with print disabilities by joining as a members and offer the complete content provided by the Sugamaya Pustakalaya to their members.

In case of a Corporate: Their employees can volunteer for accessible content creation and help reach out to millions of users with print disabilities. The IT industry can contribute with technology development to fill gaps in authoring and reading of digital content in all Indian languages.

11-NNMB survey

National Nutrition Monitoring Bureau (NNMB) survey

Children below the age of three are consuming, on an average, 80 ml of milk per day instead of the 300 ml they require. These data explain, in part, why in the same survey, 35 per cent of rural men and women were found to be undernourished, and **42 per cent of children were underweight.**

In poorer areas, the situation is worse, as a 2014 survey conducted by Aajeevika Bureau, a not-for-profit organisation, across four panchayats in South Rajasthan indicated.

Almost half the **500 mothers surveyed had not eaten pulses the previous day**, a third had not eaten vegetables and almost none had eaten any fruit, egg or meat. As a result, half of all mothers and their children under three in these areas were undernourished.

▪

These data have implications for Prime Minister Narendra Modi's **Make-in-India and Skill-India programmes for economic growth**.

▪

"The consequences of child undernutrition for morbidity and mortality are enormous -- and there is, in addition, an appreciable impact of undernutrition on productivity so that a failure to invest in combating nutrition reduces potential economic growth," a 2015 World Bank report noted.

▪

India's economy has been growing consistently since the early 1990s. The country has survived the recessions that started in US in 2008 and affected large parts of the world. What is not as well known is that over the same period, more and more people in rural India were eating less and less.

▪

While growth of gross domestic product (GDP) is estimated every six months using different methods, nutrition levels are estimated once every 10 years, leading to data gaps that IndiaSpend reported in July 2016.

▪

Nutrition monitoring has been defined by the World Health Organisation as the measurement of the changes in nutrition status of a population or a specific group of individuals over time.

What is NNMB ?.

▪

The NNMB was set up in 1972 to monitor the status of nutrition in rural India across 10 states. The bureau conducted nutrition surveys in rural areas in these 10 states over three time periods: 1975-79; 1996-97 and 2011-2012.

▪

These surveys provide us a **temporal understanding of food intake among rural India over the past four decades**.

▪

In 2015, the NNMB -- **the only source of longitudinal data on nutrition levels** and food intake across 10 states of India -- was shut down.

12-Lok Sabha passed the Employees Compensation (Amendment) Act 2016 by voice vote.

Lok Sabha passed **The Employees Compensation (Amendment) Act 2016** that provides for higher compensation in case an employee is injured in industrial accident and has a provision for hefty penalty in case any violation by the employers.

Key features of the bill:

The Bill amends the Employee's Compensation Act, 1923.▪

▪

The Act provides payment of compensation to employees and their dependants in the case of injury by industrial accidents, including occupational diseases.

Duty to inform employee of right to compensation:

▪

The Bill introduces a provision which requires an employer to inform the employee of his right to compensation under the Act.

▪

Such information must be given in writing (in English, Hindi or the relevant official language) at the time of employing him.

Penalty for failure to inform:

The Bill penalises an employer if he fails to inform his employee of his right to compensation.▪

▪

Such penalty may be between fifty thousand to one lakh rupees.

Appeals from the Commissioner's order:

▪ The Act provides that any dispute related to an employee's compensation will be heard by a Commissioner (with powers of a civil court).

Appeals from the Commissioner's order, related to a substantial question of law, will lie before the High Court.▪

Further, the Act stipulates that appeals can be made against orders related to compensation, distribution of compensation, award of penalty or interest, etc. only if the amount in dispute is at least three hundred rupees.

The Bill raises this amount to ten thousand rupees. It permits the central government to further raise this amount.▪

Withholding payments pending appeal:

▪ Under the Act, if an employer has appealed against a Commissioner's order, any payments towards the employee can be temporarily withheld.

▪ The Commissioner may do so only by an order of the High Court, until the matter is disposed of by the Court. The Bill deletes this provision.

Voice Vote

Voice voting is one of the types of voting in the Parliament. It is used at the discretion of the Chairman/Speaker of the house. Very often, legislative bodies use voice vote to pass simple bills, move amendments to the bills. There is no restriction or rule as such, as to when and why to use voice voting. But there are some conventions which indicate the choice of voting method. When the house is at general consensus regarding passing/rejection of a bill, moving/not moving amendments, the chairman uses voice vote.

For eg., If a government has strength of at least 272 votes in the Lok Sabha, it fulfills the requirement of majority. If the speaker or chairman acknowledges this majority, he/she does not waste time in the electronic voting process and simply calls for a voice vote. In which case, we may not know the exact number of votes in the favor of the bill/amendment/motion.

On the other hand, when no-confidence motion is moved in the house, which essentially overthrows the government, there is a need to know the precise number of members who are in favor of no-confidence motion. At that time, electronic voting is used. If my memory serves me right, In 1996, Vajpeyee government lost the floor-test by 1 vote! So you can imagine the importance of each and every vote. Voice vote is used when the speaker acknowledges the simple majority. And electronic vote is used when crucial bills/motions are moved.

13-NDDB to "Giftmilk" to Improve Child Nutrition

▪ Government has approved a proposal for setting up an Institution for promotion of nutrition through milk/milk products (especially for children) utilizing Corporate Social Responsibility funds of NDDB's subsidiaries and other voluntary donation.

▪ Subsequently, NDDB registered a trust/ society known as 'NDDB Foundation for Nutrition'(NFN) to implement this initiative known as "Giftmilk" to improve child nutrition through consumption of milk & milk products by providing milk free of cost.

▪ The supply of milk / milk product would be facilitated through dairy cooperatives only.

Political Issues, Human Rights and Governance

1-Consecutive life terms 'irrational': SC

▪ Consecutive prison terms for those convicted of more than one offence in a single trial are infrequent in India. When those who have attracted great public odium by the enormity of their crimes are found guilty, the judges are seen to have the option of awarding sentences that are 'consecutive', to be undergone one after another as opposed to concurrently, where the longest jail term subsumes the shorter ones.

▪ The Supreme Court has now provided clarity on the question of whether two or more sentences of life imprisonment can be made to run one after another. It is basically irrational and anomalous, says the Constitution Bench. As life imprisonment is for the remainder of one's life, unless ended by remission or commutation, multiple life terms should be counted concurrently. Accordingly, judgments that run contrary to this principle have been overruled. Consecutive sentences are still permissible if one is a fixed term and the other is one of life, provided the term sentence is completed first and the life sentence begins later.

▪ Unbelievably lengthy prison sentences are not common in India, unlike in some jurisdictions in the West. However, most of these countries balance it with a robust system of probation or parole. **On the other hand, the idea of releasing a prisoner under supervised probation after a part of the sentence has been served is still rare in India; both state and society expect convicts to be imprisoned for as long as possible.**

▪ **This highlights an issue that occasionally crops up in judicial discourse: the absence of sentencing guidelines in India.** In theory, sentences can be deterrent, retributive, reformatory or restorative. However, the present sentencing paradigm is judge-centric, leaving much to the court's discretion. Some believe this may be right because no two offences, or even offenders, are likely to be the same. Circumstances (aggravating or mitigating), motive and nature of the crime are all taken into account by judges in sentencing. For heinous crimes, the ideas of deterrence and retribution inform judicial discretion, and hence the more popular verdicts are those that award deserved punishment.

▪ **Until sentencing guidelines are framed by the legislature or the superior judiciary, individual judges will have to carry the burden of awarding punishment that befits the crime.** By holding that there shall be no consecutive life terms, the court has offered a ray of hope to even those locked away for life, even if it may not guarantee release. For, justice ultimately cannot be merely retributive.

2-Judicial Review, Judicial Activism and Judicial Overreach

Recently, the Supreme Court cautioned judges against judicial overreach and said that judges must remain within the limits of the law and not peddle individual perceptions and notions of justice.

Judicial Review - Article 13 of the Constitution explicitly provides for the power of Judicial Review wherein the the Judiciary is can strike down any legislation that is unconstitutional. It is a check against mala fide legislative action. Notably the recent striking down of the 99th constitutional amendment, Sec 66A of the IT Act are apt in this regard.

Judicial Activism - The discontinuation of the principle of Locus Standi and innovation of the PIL has allowed the Judiciary to check arbitrary executive action by inventing the novel idea of Judicial activism. This has been evolved through jurisprudence and does not find mention in the constitution. The recent order passed by the National Green Tribunal banning diesel trucks older than 10 years in Delhi is a notable example. Judicial activism was pioneered in India by Justices Krishna Iyer and P.N.Bhagwati. It essentially involves the judiciary taking up cases of public importance (either on its own or via a case filed). This activist nature of courts has led to several good effects like;

▪ The increase in public interest litigations leading to a number of cases pertaining to the poor and marginalized being heard in courts.

▪ Activisms acting as an effective check to the sometimes rash policies of the government in power and as a reminder that the government is not supreme.

▪ Renewed faith of the people in the judiciary as the defender of rights of the people.

▪ Several landmark judgements like the Habeas Corpus Case (ADM Jabalpur vs Shivkant Shukla) are proof of the effectiveness of judicial activism.

However, there are also some drawbacks to this behaviour of the courts like -

It creates a conflict situation between the legislature and the executive.

Judicial overreach has led to the Judiciary encroaching on what are clearly the spheres of the legislature/executive branch of the government as the case of the supreme court's ruling to change all auto Rickshaws in Delhi from Petrol to CNG shows.

It has led to the supreme court having less time for it's mandated purpose of being the defender of the constitution and the arbiter of disputes between centre and states.

Development has been stymied between the contrasting judgments and legislations of the judiciary and legislature respectively.

Though judicial activism was introduced to give importance to the problems of the weakest members of society, over the years it has become more of judicial overreach with the courts and governments constantly at conflict with each other. There has to be a clearer understanding between the two and functioning of the democracy should revert to that of cooperation between the different arms of government.

Judicial Overreach - When Judicial Activism is extrapolated and is found to be constricting executive action and initiative, it is known as Judicial overreach. The recent order passed by the Allahabad High Court making it compulsory for all Bureacrats to send their children to government schools can be seen as such a move.

In the question of legal accountability of legislative and executive organs, Judicial review and Judicial Activism are required to ensure accountability. But since Judicial Overreach is an extended arm of Judicial activism, it is a necessary evil. Following Separation of powers in spirit is the way forward.

What did the Supreme Court say in its recent judgement?

The court said that judges should not peddle individual perceptions and notions of justice. A judge's solemn pledge has to remain embedded to Constitution and the laws.

The apex court said if a judge considered himself or herself a "candle of hope" and took decisions under the influence of such a notion, it might do more harm than good to the society.

While using the power one has to bear in mind that 'discipline' and 'restriction' are the two basic golden virtues within which a judge functions as per the Supreme Court.

3-Country's first e-court opened at Hyderabad High Court

Under Integrated Criminal Justice System, **India's first e-court** was opened at High Court of Judicature at **Hyderabad, which is the common high court for the states of Telangana and Andhra Pradesh.**

Key facts:

Telangana and Andhra Pradesh were first two states in the country to be chosen for Integrated Criminal Justice System (ICJS) project

It is not only the e-court in the sense it is fully computerised but it also a paperless court.

The purpose of e-courts was to ensure speedy justice for the litigants. He stressed the need to appoint staff for paperless courts and advised judges to focus on online data entry.

Why these two states were chosen for ICJS?

Telangana and Andhra Pradesh made lot of progress in technology and it was one of the reasons for the decision to launch the ICJS, a "system which is going to integrate police stations with the courts, with jails, with the prosecution

and with the forensic science laboratories”.

4-Why Speaker's power to disqualify is not unrestrained?.

The Supreme Court while interpreting Article 179 of the Constitution in a judgment on the Arunachal Pradesh crisis recently ruled that a Speaker should refrain from deciding the disqualification of MLAs for defection under the Tenth Schedule of the Constitution if he himself is facing the prospect of removal.

▪
The ruling was a safeguard against a Speaker using the disqualification proceedings of legislators for his own political ends.

SC's observations

▪
A Speaker, under the threat of losing his position, may choose to disqualify the MLAs to alter the composition of the House in his favour. But, it would be constitutionally impermissible for a Speaker to adjudicate upon disqualification petitions under the Tenth Schedule, while a notice of resolution for his own removal from the office of Speaker is pending.

▪
If a Speaker truly enjoys the support of the House's majority, there would be no difficulty whatsoever to demonstrate the confidence which the members of the State Legislature repose in him.

▪
The office of Speaker, with which the Constitution vests the authority to deal with disqualification petitions against MLAs, must surely be a Speaker who enjoys the confidence of the Assembly.

Article 179

Article 179(c) provides that a Speaker (or Deputy Speaker) “may be removed from his office by a resolution of the Assembly passed by a majority of all the then members of the Assembly”.

▪
The judgment points to the phrase “all the then members of the Assembly” to conclude that the composition of legislators should remain the very same while deciding whether a majority in the House wants the Speaker to continue or not.

▪
The words ‘all the then members’ demonstrate an expression of definiteness. Any change in the strength and composition of the Assembly, by disqualifying sitting MLAs, for the period during which the notice of resolution for the removal of the Speaker (or the Deputy Speaker) is pending, would conflict with the express mandate of Article 179(c), requiring all ‘the then members’ to determine the right of the Speaker to continue.

▪
Further, MLAs so disqualified by the Speaker would be subsequently deprived of the opportunity to participate in the motion against the Speaker himself under Article 179(c).

5-Lok Sabha passes Lokpal and Lokayukta (Amendment) Bill, 2016

The Lok Sabha on 27 July 2016 passed the Lokpal and Lokayukta (Amendment) Bill, 2016. The bill with amendments was passed without any discussion.

The bill seeks to amend the existing Lokpal and Lokayukta Act, 2013 that provides Lokpal (at Centre) and Lokayukta (at States) statutory backing to inquire into allegations of corruption against certain public functionaries and for related matters.

Amendments to Lokayukta Act, 2013

- The bill amends section 44 of the 2013 Act and says that every public servant shall make a declaration of his assets and liabilities in such form and manner as may be prescribed.
- It substitute clause (kiss) of sub-section (2) of section 59 to empower the Central Government to make rules with retrospective effect for the purpose of prescribing the form and manner in which declaration of assets and liabilities is to be made by

public servant under section 44.

Section 44 of Lokayukta Act, 2013

Section 44 of the Lokayukta Act, 2013 provides for declaration of assets by the public servants.

It says that every public servant shall, within a period of thirty days from the date on which he makes and subscribes an oath or affirmation to enter upon his office, furnish to the competent authority the information relating to—(a) the assets of which he, his spouse and his dependent children are, jointly or severally, owners or beneficiaries; (b) his liabilities and that of his spouse and his dependent children.

6-Uniform Civil Code

▪

A uniform civil code will mean a set of common personal laws for all citizens. Currently, for example, there are different personal laws for Hindus and Muslims. Personal law covers property, marriage and divorce, inheritance and succession.

▪

Uniform Civil code is enshrined as article 44, as part of the Directive Principles of States policy, in the Indian Constitution. It makes the implementation of the Uniform Civil Code as a duty of the state

▪

Personal Laws in India were first framed in India during British Rule. The British feared opposition from community leaders and refrained from further interfering within this domestic sphere. The demand for a uniform civil code was first put forward by women activists in the beginning of the twentieth century, with the objective of women's rights, equality and secularism.

▪

After independence, the Indian Government under Jawaharlal Nehru wanted to bring out a uniform civil code. However, after heated debates and oppositions, 4 bills relating to personal laws of Hindus (Hindu Marriage Act, Succession Act, Minority and Guardianship Act and Adoptions and Maintenance Act) could only be passed.

▪

The uniform civil code became a flashpoint in Indian politics in 1985 during the **Shah Bano case**. The Supreme Court had held that Bano, a Muslim woman, should get alimony from her former spouse. In the context of that judgement, the court had said uniform civil code should apply for personal law. The Rajiv Gandhi government had controversially piloted a law in Parliament to overturn the Supreme Court ruling.

Debate on uniform civil code

▪

The uniform civil code has always been a subject of intense debate. An examination of the various stands pro and against the same follows:

• **Arguments Pro uniform civil code-** ▪ As per Article 44 enshrined in the Constitution, it is a duty of the State to move towards establishing a uniform civil code

- It means Uniform laws for all engendering equality among all citizens; Inconsistency in personal laws runs contrary to Right to Equality
- True spirit of secularism- Uniform Civil code is true spirit of secularism as religion is a personal matter so laws should be common for all religions
- Needed to protect vulnerable sections of the society from abuses associated with unequal, derogatory and inhuman personal laws; For eg anti-women laws
- Article 25 empowers state to regulate "secular activity which may be associated with religious practices"
- The establishment of a Uniform Civil code would pave way for greater unity among Indians. The animosity due to different treatment of different sections under different laws will be removed.
- Human right violations and exploitations due to social institutions and norms such as Khap dictates and honour killings can be checked effectively.
- Uniformity of laws will reduce the burden on judiciary in context of pronouncing judgements on personal laws

Views against Uniform Civil Code:- ▪ Accommodation of various ideas/beliefs and consensus building should be the key rather than legal enforcement of a uniform set of norms. The society must be slowly reformed and no manner of coercion must be exercised.

- The fears among the minority community of majority domination must be adequately allayed and all apprehensions addressed.
- In the views of some experts, the idea of uniform civil code is against secularism ideals as it involves the state interfering in religious matters.

Recent events

-

SC has been considering a suo motu PIL on gender discrimination faced by Muslim women owing to arbitrary divorce and second marriage of their husbands during the currency of their first marriage

-

Recently, the Government has asked the law commission to examine the issue implementing the Uniform Civil Code. This is the first time a government has asked the commission, which has a crucial advisory role on legal reform, to look into the politically controversial issue of a uniform civil code.

Way ahead

-

Clearly, the concept of uniform civil code is fraught with numerous differences in opinions and has multiple challenges on-road to its implementation by the Indian state.

Challenges in the way of implementation of Uniform Civil Code ▪ Building a consensus over Uniform laws in personal matters among various communities in India is a humongous task itself.

- India has a long history of personal laws which people are familiar with. Hence, abrupt changes in these laws will be difficult to adapt for the people and may even cause confusion.
- Further, no draft of uniform code has been prepared yet. Also questions regarding the nature of a uniform civil code if implemented in future should it be a blend of personal laws of various religious communities in India or have completely different provisions based on the Constitution of India.

Way out ▪

There needs to a massive consensus building campaign. The state authorities and informed members of civil society must work together to convince communities about need for genuine reform in their personal laws and the benefits of enforcing a uniform civil code. Further, allaying minority fears over the code is the need of the hour.

-

Further, a piecemeal approach can also be adopted to start reform in areas/sections where communities are most comfortable with reform thereby gradually starting the process of transformation.

7-Expansion Of Red Corridor In India

Left Wing Extremism (LWE) or Naxalism originated in **Naxalbari** in West Bengal, as result of a peasant uprising Naxalism ideology is based on a mix of 3 ideological threads- led by Charu Majumdar. **Marxism-Leninism-Maoism.**

They aim to overthrow the Indian State through an armed struggle and capture political power to bring about New Democratic Revolution in India. They claim that only through this revolution will the contradictions between the masses and feudal elites vanish.

The **Red Corridor** is a region in the eastern part of India that experiences considerable Naxalite–Maoist insurgency.

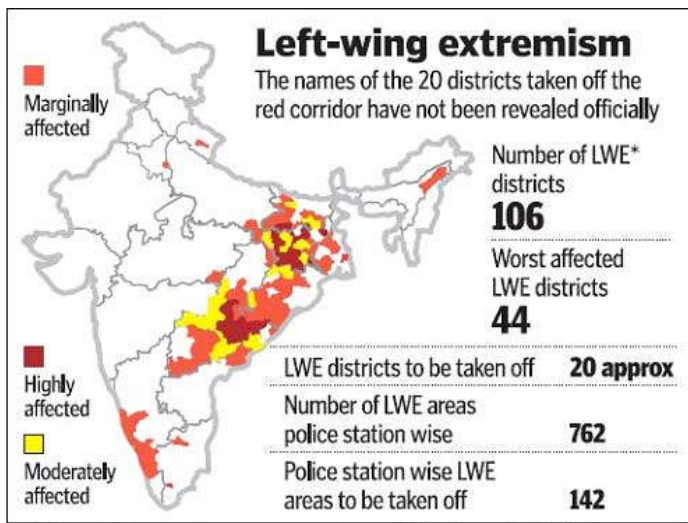
The corridor is almost continuous spanning from India's border with Nepal to northern Tamil Nadu

Chattisgarh, Jharkhand and Orissa have most districts infested by LWE

There are 106 districts spanning across 10 States in the Red Corridor.' Of these, 44 districts are worst-affected

Reasons for rise of Left Wing Extremism

-
-
-
-
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Extent of Problem

The Left Wing Extremists aim to bring about an armed struggle against Indian state. For this they resort to tactics such as attacks on armed forces and establishments, establishing a parallel governance structure, extortion and looting.

Government interventions

- Absence of adequate land reform in states leading to sense of deprivation among the masses
- Industrialisation and Mining activities leading to displacement of communities and lack of percolation of benefits to the local population.
- Mismanagement of forests and forest rights- Denial of forests rights to tribals and diversion of forests land on which they depended for their livelihood
- Exploitation of tribals and peasants by moneylenders
- Tribal policies adopted by the government led to further alienation and lack of basic amenities
- Inter and intra-regional disparities- Unbalanced development and benefits not reaching to all
- Inadequate reach of state leaving a political vacuum in some areas
- A number of attacks on security establishments especially in Chattisgarh have been reported in the recent years.

However, the year 2015 saw the lowest Maoist violence in six years with 1,088 incidents and 226 deaths being reported as compared to 2,213 incidents, in which as many as 1,005 people lost their lives in 2010.

This year, though the number of Maoist-related incidents has seen a spike, with 605 incidents and 161 deaths reported till June 30, compared to the 592 incidents and 120 deaths during the same period last year

Unified Command

in the States of Chhattisgarh, West Bengal, Jharkhand and Odisha, which constituted of officers from the security establishment, besides civilian officers representing the civil administration and it will carry out carefully planned anti-LWE measures.

Security Related Expenditure (SRE) Scheme:

Funds are provided for meeting the recurring expenditure relating to insurance, training and operational needs of the security forces, rehabilitation of Left Wing Extremist cadres who surrender in accordance with the surrender and rehabilitation policy of the State Government concerned, community policing, security related infrastructure for village defence committees and publicity material.

Scheme of Special Infrastructure:

To cater to critical infrastructure gaps, this cannot be covered under the existing schemes. These relate to requirements of mobility for the police / security forces addressing special need of the forces in these areas.

Central Scheme for assistance to civilian victims/family of victims of Terrorist, Communal and Naxal violence:

The broad aim of the Scheme is to assist families of victims of Terrorist, Communal and Naxal violence.

Integrated Action Plan:

The Planning Commission is implementing the Integrated Action Plan (IAP) for 78 Selected Tribal and Backward Districts for accelerated development. The aim of this initiative is to provide public infrastructure and services in 78 affected / contiguous Districts.

Road Requirement Plan for LWE areas:

for improvement of road connectivity in 34 most LWE affected districts in 8 States

Civic Action Programme:

Under this scheme financial grants are sanctioned to CAPFs to undertake civic action in the affected states. This scheme aims to build bridges between the local population and the security forces. focuses on creation of public infrastructure and servicesAdditional Central assistance for LWE areasRecent revisions to Skill development in LWE districts - Roshni (part of Deendayal Upadhyaya Gramin Kaushalya Yojana); training and placement of rural poor youth.

Red Corridor

The Union government is **set to reduce the number of Maoist-affected districts by about a fifth.**

Approximately 20 of the 106 districts that have been described as being Maoist-affected and are part of the Red Corridor may soon no longer be part of the listThe 106 districts that span 10 States — Bihar, Jharkhand, Andhra Pradesh, Maharashtra, Odisha, Telangana, West Bengal, Madhya Pradesh, Uttar Pradesh and Chhattisgarh — are described as those affected by Left Wing Extremism (LWE) and constitute the ‘Red Corridor.’

Once these districts are taken off the list of Red Corridor, the financial aid made available to these districts annually for various developmental works will dry up.

The considerations on which the government has examined the districts with LWE features are: their violence profile, an assessment of the kind of logistical and other support provided to armed Maoist cadres by their sympathisers and “over ground workers”, and the kind of positive changes brought about by development work that these districts have seen.

For instance, for the last four years in Bankura, West Midnapore, Purulia and Birbhum districts of West Bengal, there has been no reported incident of Maoist-related activities. Even so, a senior government official pointed out, two battalions of central armed police (roughly 1,000 men comprise a battalion) continue to be deployed there, as West Bengal has staunchly opposed the withdrawal of forces. The implication: they could be better deployed elsewhere.

Way Ahead

Handling the violent aspects of Left Wing Extremism with force in an exemplary manner; zero tolerance to violence Greater focus on development of affected districts; making sure public services reach allBetter implementation of Forest rights act

Convergence of schemes in left Wing extremism areas

Infrastructural development in these areas to prevent feeling of alienation

Effective, responsive and efficient administration with greater transparency, social audits of schemes

Empowering Panchayats in the LWE areas to ensure greater say to the locals ensuring effective decentralisation of power.

Sensitisation of police and forces engaged in the LWE areas; checking excessive use of force.

Rehabilitation policy for Naxalites who have left violent path

With respect to the decision to reduce the number of LWE affected districts, there is a need to be careful as it **could have spillover effects**

-When LWE is checked in districts neighbouring these excluded districts then extremism could spill over to these districts by way of extremists taking refuge in them.

8-CAG uncovers roads to nowhere

According to the performance audit report of the Pradhan Mantri Gram Sadak Yojana (PMGSY) by CAG, tabled in Parliament recently, a total of 372 works under the rural road connectivity scheme were abandoned/proposed to be abandoned mid-way in 11 States, due to non-availability of land or land disputes. Of these, Rajasthan accounts for the highest – 213 abandoned works – followed by Odisha with 107 works.

Highlights of the report:

- In 26 States, 4,496 works were delayed from one month to 129 months. Among these, Bihar accounted for the highest number of delays at 1,243, due to paucity of funds and non-availability of material, followed by 572 in Odisha, 378 in Rajasthan due to land dispute, heavy rain, as well as paucity of funds, and 367 works in Uttar Pradesh.

- The report also found a few discrepancies, such as unconnected habitations that were shown as connected, non-inclusion of eligible habitations, etc, in 19 States.

- In seven States – Bihar, Gujarat, Jharkhand, Madhya Pradesh, Tamil Nadu, Tripura, and West Bengal – 73 road works were executed and shown as completed.

- To reduce systemic deficiencies and closer monitoring of the scheme, the CAG report urged the nodal Rural Development Ministry to create a Geographical Information System data base of rural roads information system for each State, and fix responsibility and accountability of agencies and individuals.

About PMGSY:

PMGSY was launched on 25th December 2000 as a fully funded Centrally Sponsored Scheme to provide all weather road connectivity in rural areas of the country. The programme envisages connecting all habitations with a population of 500 persons and above in the plain areas and 250 persons and above in hill States, the tribal and the desert areas.

The objective was to give roads to villages:

With a inhabitants of 1000 persons & more by year 2003*

Having populace of 500 & more by 2007*

Mount states, ethnic & desert region villages having a population of 500 & more by the year 2003, &*

Mount states, ethnic & desert region villages having population of 250 & more by 2007.*

9-Centre accepts some suggestions of collegium

The Central government has accepted some recommendations of the Supreme Court collegium on draft memorandum of procedures for appointment of judges.

Which suggestions has been accepted?

- Lifting the proposed cap on the number of jurists and lawyers for appointment as judges in the Supreme Court. The draft sent to the Chief Justice of India in March had recommended that up to three judges from among jurists and lawyers could be appointed.

- While the government had earlier proposed merit-cum-seniority as the criterion for elevation of judges, only seniority is now being considered to be the main condition.

Which has not been accepted?

- The government has not changed its stand on the proposed clause under which it will have powers to reject any candidate recommended by the collegium on grounds of public interest and national security.

- The collegium had earlier rejected the proposal. However, the revised draft proposes that the government will communicate to the collegium the reasons for rejecting any name recommended by it.

In December 2015, the supreme court, after restoring the collegium system, had directed the Centre to frame a new Memorandum of Procedure (MoP).

The court had directed the government to do this in consultation with the Chief Justice of India, who would in turn take into confidence his four seniormost puisne judges of the Supreme Court and who are part of the collegium.

Later, the Court had raised concerns over some issues in the draft MoP. The Supreme Court had asked the government to re-consider these clauses.

10-EC to now review national, state status of political parties every 10 years

The Election Commission amended rules whereby it will now review the national and state party status of political parties every 10 years instead of the present five.

■

To enable putting in place the latest changes, the EC has amended Paragraph 6C of the Election Symbols (Reservation and Allotment) Order, 1968.

■

This change in rules will ensure that ruling parties do not lose their status due to anti-incumbency factor after every election.

Criteria for being a national party

A political party becomes eligible to be recognised as a national party if it fulfils any of the three following conditions:

■

The party has won 2% of seats in the Lok Sabha (11 seats) from at least three different states in the latest general election.

■

In an election to the Lok Sabha or Legislative Assembly, the party has polled 6% of the total valid votes in at least four states, in addition to winning four Lok Sabha seats.

A party has got recognition as a state party in at least four states. ■

Once a political party is recognised as a national party, the question of whether it continues to be recognised as such after subsequent Lok Sabha polls depends on whether it fulfils any of the three conditions.

What is the most important benefit of being recognised as a national party?

■

Being recognised as a national party means a party is entitled to a reserved symbol for its candidates contesting from across the country.

This is critical for political parties since a large section of voters in the country are illiterate and depend on symbols to identify the party they want to vote for. Having a Pan-India symbol helps parties reach out to prospective voters.

Are there any other benefits of being recognised as a national party?

■

Candidates from a national party require only one proposer to file their nominations and are entitled to two sets of electoral rolls free of cost.

■

National parties get dedicated broadcast slots on public broadcasters Doordarshan and All India Radio during the general elections.

■

Further, political parties are entitled to nominate 'star campaigners' during general elections. A national party can have a maximum of 40 'star campaigners' while a registered unrecognised party can nominate a maximum of 20 'star campaigners', whose travel expenses are not accounted for in the election expense accounts of candidates.

How many national parties contested the 2014 Lok Sabha elections?

Six political parties — BJP, Congress, CPM, BSP, CPI and NCP — contested as national parties. ■

11-Digital Locker Authority soon to push paperless governance

The Centre will soon appoint an authority to administer and manage its Digital Locker initiative, one of the key projects under Digital India programme, as it looks to push paperless governance.

What has been proposed?

- The Government will appoint a Digital Locker Authority to establish, administer, and manage Digital Locker system to preserve and retain information for efficient delivery of services to the users.

- Controller of Certifying Authorities (CCA) may take up the role of the Authority for regulation purposes, while Standardisation Testing and Quality Certification (STQC) may be made responsible for drafting and maintenance of specifications and audits.

Proposed functions of the authority:

- The Digital Locker Authority will be responsible for granting licenses and to authorise a private entity to offer these services.

- Besides, it will prepare standards and guidelines, while also ensuring compliance by service providers. These guidelines include those for data retention and migration, audit and security and privacy.

- The authority will also need to notify the fee or service charges a subscriber will have to pay for availing Digital Locker services from authorized service providers. Currently, the services are offered for free.

About the DigiLocker:

Digital Locker (DigiLocker) is one of the key initiatives under the Digital India Programme.▪

It was launched by the Department of Electronics and Information Technology (DeitY), under the ministry of communications & IT.

A beta version of the Digital Locker has been already released by the DeitY, Govt. of India.▪

Digital Locker is aimed at minimizing the usage of physical documents and enable sharing of e-documents across agencies.

Facilities under Digital Locker:

- With the help of this Portal, the sharing of the e-documents will be done through registered repositories thereby ensuring the authenticity of the documents online.

Residents can also upload their own electronic documents and digitally sign them using the e-sign facility.▪

These digitally signed documents can be shared with Government organizations or other entities.▪

At present, the digital locker gives 10MB of free space for individuals to store documents and links of government department or agency-issued e-documents. The government is also planning to subsequently increase the storage space to 1 GB.

Advantages:

- Most of our important documents are prevalent in physical form, leading to huge administrative overhead. Digital Locker will minimize the use of physical documents.

Person can access his/her documents anytime anywhere.▪

It will also reduce administrative overhead of Govt. departments and agencies and make it easy for the residents to receive services.

Use of cloud storage by Govt. can be relied upon in terms of security and availability.▪



12-Dignity and Self-Respect: a new mantra for Swachh Bharat Mission

According to a report by Tata Institute of Social Sciences (TISS), recently submitted to the Ministry of Urban Development, recreating an identity of Swachh Bharat Mission around the theme of 'dignity and self-respect' has been strongly recommended for the success of the mission through scaling up citizen's participation in this scheme to make it into a full-fledged 'jan andolan'.

Key recommendations

The TISS report proposes a long-term association between the governments and specialists including ad agencies and behavioural scientists for clearly articulating the real value of sanitation.

In order to ensure financial viability of public toilets, the report suggests adopting a 'Toilet Plus' approach with additional facilities for bathing, change rooms, sanitary napkin dispensers, multi-purpose use of toilet buildings linking them with livelihood and community activities.

The report proposes to levy monthly maintenance charges for community toilets as against pay for use and toilets should be maintained by communities.

Construction of small group toilets with limited access, say for 2 or 3 households, should be preferred as against building large toilet blocks in areas where space is a constraint.

Creating a statutory National Council for Sanitation has been proposed with representation from civil society, academia, technocrats, policy makers, government officials and other stakeholders. The Council can suggest legal reforms to enhance functioning of the Mission besides promoting evidence based policy making.

13-Cabinet approves introduction of the "Surrogacy (Regulation) Bill, 2016"

The Union Cabinet has given its approval for introduction of the "Surrogacy (Regulation) Bill, 2016".

The legislation will ensure effective regulation of surrogacy, prohibit commercial surrogacy and allow ethical surrogacy to the needy infertile couples.

Salient features of the bill:

The legislation will ensure effective regulation of surrogacy, prohibit commercial surrogacy and allow ethical surrogacy to the needy infertile couples.

The Bill will regulate surrogacy in India by establishing National Surrogacy Board at the central level and State Surrogacy Boards and Appropriate Authorities in the State and Union Territories.

The Bill allows ethical surrogacy for all infertile Indian married couple in the country.

The rights of surrogate mother and children born out of surrogacy will be protected.

The Bill shall apply to whole of India, except the state of Jammu and Kashmir.

The couple who are wishing to go for surrogacy must be Indian citizens. No foreign national, not even overseas citizens of India will be allowed the services.

Bill seeks to ensure that the child will be entitled to rights equivalent to that of a biological child. Clinics will also have to track records of the surrogate child for 25 years.

The major benefits of the Act:

It will regulate the surrogacy services in the country.■

■

Commercial surrogacy will be prohibited including sale and purchase of human embryo and gametes.■

Ethical surrogacy to the needy infertile couples will be allowed on fulfilment of certain conditions and for specific purposes.

It will control the unethical practices in surrogacy, prevent commercialization of surrogacy.■

■

It will prohibit potential exploitation of surrogate mothers and children born through surrogacy.

Why this kind of legislation is required?

■

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.

■

Widespread condemnation of commercial surrogacy prevalent in India has also been regularly published in different print-and electronic media since last few years highlighting the need to prohibit commercial surrogacy and allow ethical altruistic surrogacy.

■

The 228th report of the Law Commission of India has also recommended for prohibiting commercial surrogacy and allowing ethical altruistic surrogacy to the needy Indian citizens by enacting a suitable legislation.

Present scenario:

■

At Present, there is no legislation for regulation of surrogacy in India it is regulated under the national guidelines for accreditation, supervision and regulation of ART clinics of India 2005.

14-Corruption under proposed law

In its report on **new anti-corruption bill**, the Select Committee of Rajya Sabha has endorsed Law Commission's report and recommended inclusion of "**undue advantage**" in a relevant provision of the proposed legislation to cover "**any gratification other than legal remuneration**", including sexual favours, to explain offence relating to public servant being bribed.

As per report

■

In a first, the Parliamentary Committee has recommended **criminalising private sector bribery by bringing in corporates and their executives in the ambit of proposed anti-corruption law** and recommended jail term of upto seven years along with fine. Besides, it has suggested punishment for bribe givers too.

■

The **instances of graft are covered under Prevention of Corruption Act, 1988**. To enlarge the definition of taking bribe and cover private sector bribery, the government has decided to introduce Prevention of Corruption (Amendment) Bill, 2013, which is pending. The term used in the bill to define bribery related offences was "**financial or other advantage**".

■

In November last year, some official amendments were moved to replace the term "financial or other advantage" with "undue advantage" to make "any gratification other than legal remuneration" punishable.

■

The Select Committee of the Upper House examined the bill and submitted its report recently.

■

Members of the Committee also felt that the purport of the words '**undue advantage**' used in the proposed amendments includes all forms of pecuniary and non-pecuniary gratifications and appears to be wide enough

to be misused by the enforcement agencies," the report said.

▪

The Committee, apprehends that the enforcement or probe agencies may misuse the expression to harass public servant as well as members of civil society in corruption cases and advises that adequate precautions be taken in this regard.

▪

The Committee, however, notes that **the Law Commission of India in its Two Hundred Fifty-fourth Report** (February, 2015) has suggested to use the expressions 'undue advantage' in the PC Act. The Committee endorses the aforesaid amendments proposed to Section 2 of the PC Act, 1988 under the clause," it reads.

▪

The Law Commission had in its report said "financial or other advantage" as mentioned formulation was narrower than the proposed changes to cover "any gratification whatever, other than legal remuneration".

▪

For example, it clearly covers sexual favours as '**gratification**' in return for the public servant to do/refrain from doing a certain act. However, "other advantage" in "financial or other advantage" being interpreted using ejusdem generis (of or as the same kind) does not seem to cover sexual favours in return for the public servant's acts or omissions.

▪

The panel apprehended that the probe agencies may misuse the proposed clause to harass public servant as well as members of civil society in corruption 'and advised that adequate precautions be taken in this regard.

15-Union Budget in January end

The Finance Ministry is considering a **proposal to advance the budget presentation date to January from the current norm of end-February**. The idea behind this move is to ensure that the **Finance Bill is passed before the start of the fiscal year on April 1** so that all central government departments get their full allocations to work with right from the first day. It should be kept in mind that this proposal is different from that of whether the **financial year of April 1-March 31** needs to be changed or not. **A government appointed committee is looking into that matter**. The proposal for a change in the budget presentation date was first mooted by some of the government's senior most bureaucrats as part of a '**Transforming India**' initiative in **January 2016**. Presenting the budget earlier comes with both advantages and disadvantages.

Advantages

▪

In the existing system, the **Lok Sabha passes a vote on account for the April-June quarter**, under which departments are provided a sixth of their total allocation for the year. This is done by March. The Finance Bill is not passed before late April or early May. If the Budget is read in January and passed by February-March, **it would enable the government to do away with a vote on account for the first three months of a financial year**.

▪

Retired and serving officials say the **biggest plus would be that the Finance Bill, incorporating the Budget proposals, could be passed by February or March**. So, government departments, agencies and state-owned companies would know their allocations right from April 1, when the financial year begins.

▪

It would also help the **private sector to anticipate government procurement trends and evolve their business plans**. And, civil society could deliberate on and give feedback in time for the parliamentary discussions.

Disadvantages

▪

One big disadvantage of advancing the Budget preparations is lack of comprehensive revenue and expenditure data. Currently, work on the Budget begins in earnest by December. By the time it is finalised in mid-February, data on revenue collections and expenditure trends is available **for the first nine months of the financial year**, i.e April-December. Based on which, projections for the full year can be

made.

▪

To read the Budget in January, **the centre will have to start preparing it by early October**. To go by less than six months of data and making projections for the full year and the next year, based on such an incomplete picture, will be an impossible task.

▪

Advancing the Budget dates would be fraught with practical difficulties. **Effective Budget planning also depends on the monsoon forecasts for the coming year**, making the advancing the whole exercise even more difficult.

16-Maharashtra to have own law for internal security

▪

Maharashtra Government has proposed an internal security act to deal with the challenges of terrorism and communal and caste violence.

▪

Maharashtra Protection of Internal Security Act, 2016, The proposed legislation, “ would be the first such state-level act for internal security which will give more power to the police department if implemented.

▪

special security zones It proposes “ where movement of arms, explosives and inflow of unaccounted funds will be prohibited.

▪

Dams, defence institute bases, government buildings or facilities, nuclear reactors, transportation systems have been identified as ‘critical infrastructure sectors’ under the act.

▪

It proposes a ban or regulation of production, sale, storage, possession or entry of any devices or equipment or poisonous, chemical, biological or radioactive article or substances, or electronic content of potentially explosive nature or any inflow of funds in the SSZ, if it is a threat to the internal security or public order in the area.

▪

Every public establishment and government office shall carry out the security audit of its premises and every owner of the premises of the public establishment shall save video footage of public activities for a period of 30 days.

▪

It will be compulsory for all the private institutions to have CCTV surveillance and security arrangements as guided by the police.

▪

There would be a ‘state internal security committee’ with Home Minister as ex-officio Chairman, and include Minister of State (Home) and the Chief Secretary. It would oversee the implementation of this act and also review its implementation.

▪

The act provides strict action against those who hamper the critical assets by means of facilities systems and equipments which if destroyed, degraded or rendered unavailable would affect reliability or operability of the system jeopardizing the national security or economic security. The act also has brought a check over public agitation.

▪

As per the provisions in the act the prior police permission would be needed for any gathering where more than 100 people are expected. Many fear that this is a move to curtail public agitations. Even if the act clarifies that any bona fide act against the policies of the govt with a view to obtain their alteration by lawful and peaceful mean shall not be deemed as act intended to endanger the safety or the stability of the state.

17-DISHA for effective development of Central Scheme

▪

The Union Government has constituted the for effective development and coordination of Central Government’s

District Development Coordination and Monitoring Committee (DDCMC) programme.

▪

DISHA It will be known as .

It will monitor the implementation of 28 schemes and programmes of Union Ministry of Rural Development and other Ministries to promote synergy and convergence for greater impact.

▪

coordinate with Central and State and local Panchayat Governments. The main purpose of the DISHA is to

▪

It has been created for effective coordination and development of Central Government's programme for infrastructure development or Social and human resource development.

▪

The Chairperson of the committee will be the senior most Member of Parliament (Lok Sabha) elected from the district, nominated by the Union Ministry of Rural Development.

▪

It will ensure the participation of people's representative at all levels and successful implementation of flagship programme of central government.

▪

It will ensure that all Central Government programmes are implemented in accordance with the guidelines.

It will look into complaints and alleged irregularities received in the implementation of the programmes.

It will also suggest suitable action to be taken in accordance with the rules which should be acted upon by District Collector or CEO within 30 days.

▪

Moreover, it will closely review the flow of funds including the funds allocated, funds released by both Union Government and the State. It will also review utilisation and unspent balances under each Scheme.

18-Strategic Forces Command exempted from RTI ambit

The Strategic Forces Command, which forms part of the National Command Authority (NCA), has been added to the Second Schedule of the Right to Information Act (RTI), 2005, which exempts security and intelligence establishments from its purview.

About National Command Authority (NCA):

The Nuclear Command Authority (NCA) of India is the authority responsible for command, control and operational decisions regarding India's nuclear weapons programme.

▪

The NCA's Executive Council, chaired by the National Security Adviser, gives inputs to the Political Council, which authorises a nuclear attack if need be.

Political Council is chaired by the Prime Minister and advised by the Executive Council.

▪

This mechanism is meant to ensure that the nuclear weapons are under civilian control.

A Command and Control (C2) mechanism prevents their accidental or unauthorised use.

The NCA's directives are executed by the Strategic Forces Command headed by a Commander-in-Chief of the rank of Air Marshal.

India's nuclear tests:

Smiling Buddha India's first Nuclear test was conducted on 18 May 1974 with the code name .

▪

Since then India has conducted another series of tests at the Pokhran test range in the state of Rajasthan in 1998, which

Operation Shakti included a thermonuclear test, code named .

Section 24 of the RTI Act:

■
Section 24 says the RTI Act is not applicable to the intelligence and security organisations specified in the Second Schedule.

The only exception is for information on allegations of corruption and human rights violations. ■

Among the organisations included in the Second Schedule are the Intelligence Bureau, the Research and Analysis Wing of the Cabinet Secretariat, the Directorate of Revenue Intelligence, the Special Frontier Force, the Border Security Force, the National Security Guards and the Assam Rifles.

Section 8 of the RTI Act:

Section 8, which deals with exemption from disclosure of information. ■

It says that there shall be no obligation to provide any citizen information, disclosure of which will affect India's sovereignty and integrity, the security, strategic, scientific or economic interests of the state and relations with foreign States or will lead to incitement of an offence.

19-Karnataka plea for Mahadayi water rejected

The Mahadayi Water Disputes Tribunal (MWDT) over water sharing of Mahadayi river had concluded its hearing and pronounced its order.

Thereafter, violent protests were reported in many parts of north Karnataka. ■

Interim Order:

The Mahadayi Water Disputes Tribunal (MWDT) headed by J N Panchal, has rejected Karnataka's plea for an interim order to allow the state to draw 7.56 tmcft of water from Mahadayi river to Malaprabha river.

The tribunal rejected Karnataka's plea on various grounds, including that

■
Allowing water to be transferred for the project would be ecologically damaging and upset the "natural equilibrium" of Mahadayi river.

■
Karnataka hadn't shown what would be the downstream effects at 3 km and 5 km of lifting the river and so "relief couldn't be granted."

■
Given the enormous amount of water being transferred, the tribunal reasoned, there would be huge submersible pumps and specialised equipment that would be required.

■
The tribunal said it "didn't have confidence" that Karnataka would rely on temporary structures and equipment — as it has claimed — to effect this transfer of water into the Malaprabha basin

Karnataka government had also not obtained environmental and wildlife clearances to execute the project. ■

Karnataka's contention that 108.72 tmcft of water is available at 75 per cent dependability in the Mahadayi basin wasn't cogent.

Karnataka has relied on the data from the Central Water Commission that is seriously contested by Goa. ■

The said verdict is only the interim order, and not the final one.

About Mahadayi river:

HOW IT ALL STARTED	
<ul style="list-style-type: none"> 2/3rd of river flows in Goa 	
<ul style="list-style-type: none"> Tributaries: Kalasa and Banduari Nalas 	
<ul style="list-style-type: none"> Karnataka wants to construct dams across the Kalasa and Banduari, and divert water to Malaprabha river in Belgaum 	
<ul style="list-style-type: none"> Diversion will cater to the drinking water needs of villages and towns of Belgaum, Dharwad, Bagalkot and Gadag districts 	
<ul style="list-style-type: none"> But Goa opposes diversion as it depends on Mahadayi to keep its Zuari River navigable till the Mormugao harbour in Panaji 	
<ul style="list-style-type: none"> Goa requested, under Section 3 of the Inter-State River Water Disputes Act, 1956, for constitution of a tribunal to address the dispute 	
<ul style="list-style-type: none"> Cabinet in 2009 constituted a tribunal headed by retired Supreme Court judge J M Panchal 	
<ul style="list-style-type: none"> Maharashtra is also party to the dispute. For, the river originates in Karnataka and a major portion of basin is in Goa. But a small portion flows through Maharashtra and then joins the Arabian Sea in Goa 	
<ul style="list-style-type: none"> Central govt notified the Mahadayi Water Disputes Tribunal on Nov 16, 2010 	

The Mahadayi River also known as Mandovi or Mhadei river, is described as the lifeline of the indian state of Goa.

What is the Kalasa-Banduri Nala project?

The Kalasa-Banduri Nala is a canal project undertaken by the Government of Karnataka to divert water from the Mahadayi river to the Malaprabha.

The river has a length of 77 km, 29 km in Karnataka and 52 km in Goa.

originatesIt from a cluster of 30 springs .

at Bhimgad in the Western Ghats in the Belgaum district of Karnataka

The river has a 2,032 km2 catchment area in Karnataka and a 1,580 km2 catchment area in Goa.

The project aimed to improve drinking water supply to the Districts of Belagavi, Dharwad and Gadag.

It involves building across Kalasa and Banduri, two tributaries of the Mahadayi river to divert 7.56 TMC of water to the Malaprabha river, which supplies the drinking water needs of the said 3 districts, i.e., Dharwad, Belagavi and Gadag.

The region is part of Karnataka’s arid area, which is second only to Rajasthan in water scarcity.

The project has been delayed for over a decade during which the state has seen two of the worst droughts in 40 years.

H2O WOES

- The Mahadayi river originates in Kanakumbi village in Belgaum district. It flows 29km in Karnataka before entering Goa.
- In Goa, the Mahadayi (known as the Mandovi) flows 54km before joining the Arabian sea.
- Reports suggest that the water yield in the Mahadayi is about 200 to 210 thousand million cubic feet. Of this, Karnataka’s share is 47tmc feet and Maharashtra’s share is 17.5tmc feet.
- A WRDO report suggests Mahadayi water could be diverted to a water-deficient Malaprabha dam.
- Kalasa-Banduri canal project comprises building of two barrages (dams) across Kalasa and Banduri—tributaries of the Mahadayi—to divert 7.56tmc feet to the Malaprabha for supplying drinking water.
- Karnataka has proposed Mahadayi-Malaprabha river linking project and the Kalasa-Banduri canal project to supply water to the fields in Malaprabha area and drinking water to water-starved Hubli-Dharwad twin cities, Navalgund (Dharwad), Nargund (Gadag) and Badami (Bagalkot).
- The Mahadayi Water Disputes Tribunal set up in 2010 has made little progress, though Karnataka has started building canals in the non-forest area (pending clearances from ministry of environment and forests). The delay in awarding decree has triggered a farmers’ revolt in the region.

About the dispute:

Kalasa-Banduri project planned in 1989; Goa raised objection to it.▪

▪

Goa filed a complaint seeking setting up of a tribunal in July 2002.▪

The Ministry of Water Resources kept the clearance given to Karnataka in abeyance in September 2002.▪

Goa moved the Supreme Court in 2006 seeking constitution of a tribunal, withdrawing approval for any work in the basin.

Mahadayi (Mandovi) is a water deficit basin and water diversion could impact the environment.▪

▪

The Mahadayi Water Disputes Tribunal was set up in 2010.

20-Andhra Pradesh special status?

▪

Andhra Pradesh has been demanding a Special Category State (SCS) status from Centre ever since it was decided to carve out Telangana along with capital city Hyderabad.

▪

State-wide protests, slogan-shouting in Parliament, a Private Member Bill and intense lobbying have not resulted in a favourable decision yet.

Special Category State (SCS) status

Fifth Finance Commission introduced SCS in 1969 giving Jammu and Kashmir, Assam, and Nagaland additional Central assistance and tax concessions.

Special category status is usually based on the recommendations of the National Development Council (NDC).▪

▪

The National Development Council (NDC) laid five guidelines to grant the status

Hilly and difficult terrain;▪

▪

Low population density or sizable share of tribal population;▪

Strategic location along borders with neighbouring countries; Economic and infrastructural backwardness; and▪

▪

Non-viable nature of State finances. Which States are receiving it right now?

▪

Apart from Jammu and Kashmir, Assam, and Nagaland, eight more States were added to the list – Arunachal Pradesh, Himachal Pradesh, Manipur, Meghalaya, Mizoram, Sikkim, Tripura and Uttarakhand.

Difference between Special Status and Special Category Status (SCS):

Andhra Pradesh is asking for Special Category Status and not Special Status, there's a big difference between Special Status and Special Category Status.

▪

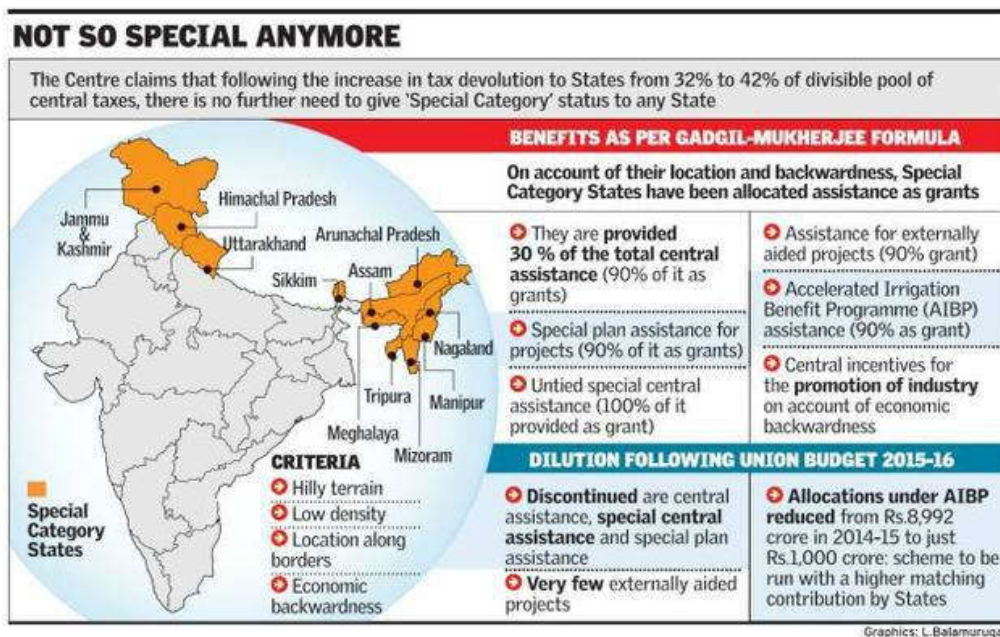
Special Status is guaranteed by the Constitution of India through an Act passed by the two-third majority in both houses of the Parliament (example – J&K)

▪

Special Category Status (SCS) is granted by the National Development Council, an administrative body of the government.

What are the benefits which states get under SCS?

The Planning Commission allocates funds to states through central assistance for state plans.



Central assistance can be broadly split into three components.

Normal Central Assistance (NCA) ■

Additional Central Assistance (ACA) ■

Special Central Assistance (SCA) ■

NCA, the main assistance for state plans, is split to favor special category states: the 11 states get 30% of the total assistance while the other states share the remaining 70%.

The nature of the assistance also varies for special category states; NCA is split into 90% grants and 10% loans for special category states, while the ratio between grants and loans is 30:70 for other states.

For allocation among special category states, there are no explicit criteria for distribution and funds are allocated on the basis of the state's plan size and previous plan expenditures.

Allocation between non special category states is determined by the Gadgil Mukherjee formula which gives weight to population (60%), per capita income (25%), fiscal performance (7.5%) and special problems (7.5%).

Special category states also receive specific assistance addressing features like hill areas, tribal sub-plans and border areas.

Beyond additional plan resources, special category states can enjoy concessions in excise and customs duties, income tax rates and corporate tax rates as determined by the government.

21-OBC status to several communities in TS, AP

The Union Cabinet has given its approval for making suitable amendments in the Central List of OBCs by way of inclusion/correction/deletion of castes/communities applicable to the State of Andhra Pradesh and the newly formed State of Telangana.

The decision has been taken as per the advice received from the National Commission for Backward Classes (NCBC). ■

The changes will enable the persons belonging to these castes/ communities in Andhra Pradesh and Telangana to avail

the benefits of reservation in Government services and posts as well as in Central Educational Institutions as per extant policy. They will also become eligible for benefit under the various welfare schemes, scholarships etc. being administered by the Central Government, which are at present available to the persons belonging to the Other Backward Classes.

Process of inclusion of any castes/communities:

▪

Under Section 9 (“Functions of the Commission”) of the NCBC Act 1993, the Commission examines requests for inclusion of any class of citizens as a backward class in the lists and hears complaints of over-inclusion or under-inclusion of any backward class in such lists and tenders such advice to the Central Government.

▪

The Act also stipulates that the .

advice of the Commission shall ordinarily be binding upon the Central Government

22-File Notings relating to framing of Court Rules not “exempted information” under RTI

In a significant ruling, the Central Information Commission (CIC) held that notes and orders in the file leading to framing and notification of Supreme Court Rules, 2013 (which deal with issues related to functioning of courts) are not exempt from the purview of the Right to Information (RTI) Act, 2005.

Arguments put forth by the CIC

▪

The notes and orders are not covered under Section (1)(g) of the RTI Act as ‘assistance given in confidence for law enforcement or security purposes’.

▪

The framing of Rules is a legislative function and it is neither a judicial function nor it is concerned with any security measures.

▪

The note/notings/ deliberations relating to framing of Rules cannot be termed assistance given in confidence for law enforcement.

The provision can relate to payment to informers by police, IB and CBI, etc.▪

Section (1)(g) of the RTI Act

▪

There shall be no obligation to give any citizen information, the disclosure of which would endanger the life or physical safety of any person or identify the source of information or assistance given in confidence for law enforcement or security purposes.

Central Information Commission

Established in 2005, the Central Information Commission (CIC) is the authorised body under the Government of India.

It was set up under the Right to Information Act.▪

▪

It was set up to act upon complaints from those individuals who have not been able to submit information requests to a Central Public Information Officer or State Public Information Officer due to either the officer not having been appointed, or because the respective Central Assistant Public Information Officer or State Assistant Public Information Officer refused to receive the application for information under the RTI Act.

▪

The Commission includes 1 Chief Information Commissioner (CIC) and not more than 10 Information Commissioners (IC) who are appointed by the President of India.

Personalities

1-Freedom fighter- Tirot Sing

The Union Ministry of Development of North Eastern Region (DoNER) recently commemorated the sacrifices of Tirot Sing, the legendary freedom fighter from Meghalaya who was hanged to death by the British rulers in early 19th century.

The function was part of a 15-day campaign undertaken by the Government of India to hold a series of programmes across the country to commemorate the sacrifices of the freedom fighters at their respective places of origin.

Tirot Sing, also known as U Tirot Sing, was one of the chiefs of the Khasi people in the early 18th century. In the attempt to prevent the Khasi Hills from falling into colonial hands, Tirot Sing had raised the battle cry against the invasive British forces on April 4, 1829, but was eventually captured and defeated. He died in captivity in Dhaka on July 17, 1835.

His death is commemorated in Meghalaya India as U Tirot Sing Day. This year it will be the **180th death anniversary of Tirot Sing**.

2-N. Ramachandran

The president of the Indian Olympic Association (IOA), N. Ramachandran, was awarded the Olympic Order for his outstanding service to the Olympic movement.

The Olympic Order is the highest award of the Olympic Movement and is awarded for particularly distinguished contributions to the Olympic Movement, i.e. recognition of efforts worthy of merit in the cause of sport.

It was established in May 1975 by the International Olympic Committee as a successor to the Olympic Certificate. The Olympic Order originally had three grades (gold, silver and bronze), although the bronze grade fell dormant in 1984.

Tit Bits

1-Exercise Desert Eagle-II

Desert Eagle II, which was the second in the series of bilateral exercises between Indian Air Force (IAF) and United Arab Emirates Air Force (UAE AF), concluded recently. This was a 10-day air combat exercise in which the IAF and the UAE Air Force undertook air exercises from Al-Dhafra Air Base, Abu Dhabi.

2-Court of Arbitration for Sport (CAS)

- **international quasi-judicial body**The Court of Arbitration for Sport (CAS) is an established to settle disputes related to sport through arbitration.

- **headquarters are in Lausanne (Switzerland)**Its and its courts are located in New York, Sydney and Lausanne. Temporary courts are established in current Olympic host cities.

- Generally speaking, a dispute may be submitted to the CAS only if there is an arbitration agreement between the parties which specifies recourse to the CAS. According to rule 61 of the Olympic Charter, all disputes in connection with the Olympic Games can only be submitted to CAS.

In its recent verdict, the court has **banned** wrestler Indian Narsingh Yadav for four years following an appeal by World Anti-Doping Agency (WADA).

3-Bavar 373

Bavar 373 is an **Iranian** long-range mobile **air defense system** currently under development. Development of the system began as a response to the Russian ban on the exportation of its advanced S-300 surface-to-air missile systems to Iran. The system was designed to intercept cruise missiles, drones, combat aircraft and ballistic missiles.

4- Metamaterial & Meteor shower

A **metamaterial** is a material engineered to have a property that is **not found in nature**. They are made from assemblies of multiple elements fashioned from composite materials such as metals or plastics. Metamaterials derive their properties not from the properties of the base materials, but from their newly designed structures. Their precise **shape, geometry, size, orientation and arrangement** gives them their smart properties capable of **manipulating electromagnetic waves**. **negative-index metamaterials** **caused meteor shower** : by blocking, absorbing, enhancing, or bending waves, to achieve benefits that go beyond what is possible with conventional materials. Those that exhibit a negative index of refraction for particular wavelengths have attracted significant research. These materials are known as **meteor shower** is a celestial event in which a number of meteors are observed to radiate, or originate, from one point in the night sky. These meteors are by streams of cosmic debris called meteoroids entering Earth's atmosphere at extremely high speeds on parallel trajectories. The 2016 Perseid will peak on the night of August 11 and **early morning** of August 12. It's easiest to see the shooting stars just before dawn.

Editorials and Columns - Edited

1-Why AFSPA can be lifted, not repealed?.

AFSPA - Armed Forces (Special Powers) Act, 1958 which grants special provisions to armed forces for any region that is termed as "Disturbed Area". AFSPA is invoked when a particular area goes out of control threatening security concerns of common man and the state. The Armed Forces (Special Powers) Act has come in for widespread criticism in Jammu and Kashmir, Manipur and other parts of the northeast because of the human rights abuses that have come to be associated with its operation.

AFSPA - Critics have often chafed at the provisions under Sections 3, 4, 6 and 7 of the AFSPA for being 'draconian.'

Section 3: It lays down the authority which has power to declare areas as 'disturbed'. These authorities are the central and the state governments. So the army does not declare the area as disturbed.

Section 4: It gives the army powers to search premises and make arrests without warrants, to use force even to the extent of causing death, destroy arms/ammunition dumps, fortifications/shelters/hideouts and to stop, search and seize any vehicle.

Section 6: It stipulates that arrested persons and seized property are to be made over to the police with least possible delay.

Section 7: It offers protection of persons acting in good faith in their official capacity. Prosecution is permitted only after sanction by the central government.

These provisions came up for scrutiny before a constitution bench of the Supreme Court in a case titled '*Naga People's Movement of Human Rights Vs UOI*'. The five-judge bench elaborately dealt with the challenge to the legality of deployment of the armed forces in aid to civil power. The court had then unambiguously ruled that AFSPA cannot be regarded as a colourable legislation or a fraud on the Constitution.

The apex court said that the conferring of powers vide Section 4 of AFSPA could not be held arbitrary or violative of Article 14, 19 or 21 of the Constitution. In fact, having considered the role and circumstances under which the armed forces have to operate, the

Supreme Court extended the scope of powers vested vide 4 and 6 of AFSPA so as to include by implication, the power to interrogate the person arrested.

It also allowed the armed forces to retain the weapons seized during the operations in their own custody rather than to hand them over to police authorities.

The mere fact that the provisions of AFSPA have to be invoked in a particular area *ex facie* establishes that handling the law and order situation had gone beyond the control of the state government. The army personnel operating in those circumstances need to enjoy at least similar powers as the police force if not wider ones. So, just as Section 45 of the CrPC disallows arrest of public servants and just as Section 197 provides impunity against prosecution, Section 7 of the AFSPA gives similar protection to the army personnel. Nothing more, nothing less.

And yet, most opponents of the AFSPA have chosen to either downplay or completely ignore this similarity. In the case of J&K, the army needs legal protection all the more since applicability of CrPC is disallowed in the state that operates under a different set of laws called the Ranbir Penal Code.

Way forward

The revocation of AFSPA from any area needs a concerted view of all organs of the state and Centre. A suggested way is to convert these areas into police administered areas/police districts as was done for Srinagar initially without revoking AFSPA. Subsequently, as the situation improves, while evolving the revocation, an exit strategy needs to be worked out for gradual withdrawal of armed forces from the specified area leading to a smooth transition.

Lifting the AFSPA can certainly be attempted but the provisions of the AFSPA, as an emergency law that empowers the army -- the nation's instrument of last resort -- must continue to remain on the statute books given the increasingly violent and uncertain times that the subcontinent is likely to face in coming years.

When needed, it must be applied in small doses. Every country has to balance the need for a stringent law with the basic principles of ensuring human dignity and human rights. Therein lies the challenge for India's leadership.

2-Twin Towns & Sister Cities

Twin towns and sister cities are two of many terms used to describe the cooperative agreements between towns, cities and even counties in geographically and politically distinct areas to promote cultural and commercial ties.

The international sister cities program dates back to 1956 and the Eisenhower Administration. Recognizing the damage done to diplomacy during World War II, Eisenhower established the program as a civilian vehicle for repairing and promoting international relations. Some of the early partnerships with cities in Germany and Japan represented clear attempts to erase old tensions.

While sister city relationships have traditionally been developed for diplomatic, cultural or educational purposes, in today's economic climate there is a growing need for cities to expand and leverage sister city partnerships for economic development.

Global economic factors such as globalisation and urbanisation are opening up new markets, intensifying competition and adding new layers of complexity to global supply chains. Therefore it is critical for city leaders to understand how global economic factors can affect the competitiveness of their city and determine how their unique assets can service the impacts of globalisation so that they can become beneficiaries of new trade flows, direct investment, job creation and innovation and remain an attractive proposition in a world economy.

Current trends are signalling a shift in the focus of sister city partnerships towards economic development, where city leaders and economic trade bodies are exploring ways to help their local businesses take advantage of growth opportunities emerging from developing countries.

Sister Cities exchange notes and look to bring synergy in various areas including education, culture, sports, youth affairs, urban planning, waste water management, infrastructure, environment, public health and exchange of trade and commerce.

Sister Cities of India

1. India - China - Chennai-Chongqing, Hyderabad-Qingdao, Nagpur-Jinan, Delhi-Beijing, Bengaluru-Chengdu, Kolkata-Kunming and Aurangabad-Dunhuang.
- 2.



3-From plate to plough: The arhar challenge

High prices of pulses are upsetting the food budget of many poor families. Soaring retail prices of dals have made dal a luxury for the dal-bhaat and dal-roti eating population.

But not very long ago, wholesale prices of gram, arhar and urad stood below their minimum support prices (MSP). Inflation in pulses was minus 14 per cent in August 2013.

It started rising in the latter half of 2014, crossed the double-digit mark in January 2015. Though inflation has declined somewhat, it still stood strong at 26 per cent in June 2016.

Government has swung into action by setting up an expert committee under the chief economic advisor. Any rational approach would suggest carrying out a thorough diagnosis of what led to this price surge, and based on that, potential solutions.

Back-to-back droughts in 2014 and 2015 reduced production of pulses. With demand remaining somewhat sticky, imports of pulses increased and increased global prices led to increased prices in India.

Government's response to increased prices

The government has tried to augment supplies by keeping imports duty-free.

The government has also signed a long-term contract with Mozambique for import of 1,00,000 tonnes of tur and other pulses. It aims to double the volume of the imports by 2020-2021.

Indian teams are also scouting for possible government-to-government (G2G) imports from Myanmar and many African countries.

Export of all pulses (except kabuli chana and organic pulses up to 10,000 tonnes/year) have been prohibited.

The government is also inching towards a much-desired buffer stock policy for pulses: It has decided to raise buffer stock of pulses from 1.5 lakh tonnes to 8 lakh tonnes; recently it has also proposed to raise the buffer to 20 lakh tonnes.

The Centre has also directed the states to impose strict stocking limits on pulses, and to raid hoarders breaching that limit.

Futures and forward trading in all pulses (except squaring up of position in running contracts in chana) has been suspended.

The Centre has also urged the states to de-list pulses from the APMC act and abolish local taxes on them.

These measures are regressive and futile, and remind one of the controlled and rent-seeking economy of the 1960s. They also expose the hollowness in the understanding in policymaking circles about the market economy.

A bonus of Rs 425/quintal on MSP of kharif pulses — arhar, moong and urad — has been announced to incentivise production. But the MSPs are still far below their respective wholesale prices.

Suggested measures

There is need for a crop-neutral incentive structure, which is currently tilted heavily in favour of rice and wheat.

Dal reconstituted from soya flour can be promoted to fill the protein deficit of the poor.

The government should recognise the huge failure of the technology mission on oilseeds, pulses and maize, which has been in operation since the mid-1980s, and dismantle it.

A national security doctrine is the organizing principle that helps statesmen identify and prioritize that country's geopolitical

4-National security doctrine and strategy

interests.

A country's national security policy is determined by many factors, including external threats, geography, political culture, military capabilities, economic needs, elite opinion, popular opinion (in democracies) and its leaders' perceptions of the country's interests.

This should be **in the form of a national security doctrine and strategy**. Latter flows from the former, both are inter-related but not interchangeable. At its most effective,

India has no such 'doctrine'. It is only the Army that has one and it is anchored on Kautilya's words of wisdom: "

Doctrine, by definition is a stated principle of government policy mainly in foreign or military affairs. The difference between doctrine and strategy is that doctrine is only prescriptive in nature; strategy is descriptive — it describes on a broad perspective on how resources are to be used to achieve some goal.

Shashi Tharoor in his book 'Pax Indica' rues about the fact that India still has not carried out a **strategic review** (a review carried out in 1999 was given a quiet burial because it mentioned China). The Indian government has done well to immediately consider the formation of a department or ministry of homeland security. But the task will remain incomplete if it is not complemented by a well-articulated national security doctrine. **This can be in two parts—one in the open domain, and the second, a classified part.**

Why needed?

The challenge thrown up by the terrorist attack on the Pathankot air force base is to evolve India's national security doctrine to include its response to non-state actors. **The doctrine must be accompanied by a national security strategy** that spells out the command and control structures for meeting eventualities such as terror strikes, so that last-minute goof-ups such as those that have been evident at the Pathankot airbase are not repeated.

After every terrorist attack, there are shallow attempts by the establishment to fit episodic responses into academic frameworks and proposals for security establishment reforms, but in no time things go back to default mode, until the next terrorist attack. The recurring terrorist attacks are not just a humiliation for the country but also a nightmare that is repeatedly disrupting daily routines and taking away precious lives. The very foundations of India's security establishment need to be reformed if a robust national security doctrine is to be implemented.

Why it is that India could not set up a NSC earlier and why is it that India does not have a well-articulated National Security Strategy document?

Two reasons can be adduced for this state of affairs.

▪

no political consensus in the country on national security issuesFirst, there is. For instance, there is no consensus on how to treat challenges from Pakistan and China. The government's policies on these issues have fluctuated. To give another example, there is little agreement on how to deal with Maoism. Similarly, the views of political parties on Kashmir and insurgencies in the North East differ widely.

In the aftermath of Mumbai terror attacks there was acute debate on how India should have responded to the attacks. The government used restraint. Many appreciated the restraint while others saw the government's response as weak. Even today, there is no clarity how the government will deal with such terror attacks in the future.

▪

Secondly, the government has **The NSC has been a useful invention but it is anaemic in terms of resources. More not been able to address the crucial issue of coordination required to formulate and address the issues of national security.**

important, it lacks powers to enforce anything. The departmental interests are very strong and it becomes difficult to synchronise them. There is no common understanding among various segments of the government of what national security constitutes.

There is urgent need to build a broad political consensus on national security issues. An official National Security Strategy document, for the next 10 years, is urgently needed. This will help clarify confusion over national security matters and consolidate government's responses. More important, it will generate informed debate which may help build consensus.

Basis of doctrine:

The proposed security doctrine must be anchored in the foundational values of the Constitution. India enjoys Westphalian sovereignty, which grants it exclusive right to its domestic affairs and security but also comes with a huge bundle of responsibilities.

India still has no written national security doctrine, and whatever is practised as the doctrine, and strategy, is vastly inadequate. The political class across the spectrum needs to come together to define India's permanent interests.

It is time to move on from the unwritten grand strategy of working only towards the political unity and preservation of India to a written doctrine that defines India's role in the world and its commitment to protecting the life, liberty and interests of its people.

The objectives of India's NSD are:

- * How to prevent a repeat of 1962, by maintaining an adequate level of conventional military capability to deter any Chinese temptation to enforce its territorial claims against India by force?
- * How to maintain a credible nuclear deterrent against it?
- * How to find a controlled retaliatory response to Pakistan's proxy war without allowing the response to degenerate into a war involving the use of nuclear weapons?
- * How to neutralise the Pakistani attempts to intimidate and demoralise the Indian population through over-projection of its nuclear and missile capability and irresponsible nuclear rhetoric?
- * Whereas any war with China will most probably be fought in Indian territory, any war with Pakistan will be in Pakistani territory. How to prevent India's overwhelming conventional superiority from pressing the panic button in Pakistan's military leadership and triggering off a nuclear response ?
- * How to achieve India's military objectives in the shortest time possible before international intervention comes in the way of the further conduct of the war?

In response to these questions, a number of possible options had figured in the debate on national security in recent months. Amongst the various options suggested/considered were:

- * Greater transparency about India's nuclear and missile capabilities to reassure our own population
- * A public announcement of India's nuclear command and control mechanism.
- * Discarding India's no first use of nuclear weapons policy.
- * India's readiness and ability to fight a limited conventional war without allowing it to escalate into a nuclear confrontation.
- * A counter-terrorism doctrine to exploit Pakistan's vulnerabilities through covert action to make it pay an increasingly prohibitive price for its proxy war.
- * Co-operative action through other concerned powers to prevent Pakistan's weapons of mass destruction capabilities from falling into the hands of its terrorists.

The announcement by the Govt. of India of India's nuclear command and control mechanism and the contours of its nuclear doctrine on January 4, 2002, was the necessary first step in this direction. **The no first use policy has been reiterated, but in a nuanced form by underlining that India's nuclear capability is meant to deter not only a nuclear strike, but also a strike with chemical or biological weapons.** India's capability and determination for a massive retaliatory response has been reiterated.

However, the nuclear doctrine by itself will not complete the national security doctrine unless it is supplemented by a counter-terrorism doctrine to enable India exercise its right of active defence against the Pakistani use of terrorism as a weapon to achieve its strategic objectives. Such a doctrine should have a mix of carefully-controlled overt and extensive, sustained and deniable covert actions.

Historical evidences:

The 26/11 attacks about seven years ago seemed to be the moment of epiphany. The government of the day immediately set about the task and established a National Counter Terror Centre (NCTC), National Investigation Agency (NIA) and the National Intelligence Grid (Natgrid). NIA has taken off well but the **Natgrid** is far from fruition and has got embroiled in a turf war. The NCTC ran into major challenges with some of the states opposing it.

The Indian National Security Council (NSC) has been in existence since 1999. Yet, the government has not put out an official document outlining a National Security Strategy for India. This is despite the fact that India faces numerous formidable challenges to its national security. The earlier attempts to set up the NSC, notably in 1990, proved short-lived.

India is probably the only country that has released a nuclear doctrine without having articulated its security strategy. Therefore, the Defence Secretary's statement before the Parliamentary Standing Committee on Defence in the 1990s remains true today, "But all the elements of the doctrine are well known and have been incorporated from our constitution downwards...So, our national security doctrine is well known and the absence of a written document...does not create any confusion or lack of clarity in this matter.

Evolution of a National Security Strategy and Current Strategic Thinking

The roots of Indian strategic thought can be traced to Kautilya and his six-pronged policy mentioned in Arthashastra, his treatise on statecraft, prepared in the wake of Alexander's invasion. Post-independence strategic thought can be clearly divided into four distinct phases.

The first phase that continued till the end of the Sino-Indian conflict was shaped by Prime Minister Nehru and others who had faced colonial and imperial domination and went on to reject capitalism as a model of development and to opt instead for a mixed economy dominated by the state. They were also driven by a deep dislike for the British trained senior officers of the Indian Army.

■ ■

This dislike was also tinged with fear that the military, like others in the region, would interfere in affairs of state. In the idealistic belief that the principles of "Panchsheel" would dominate inter-state relations, non-alignment was

developed as a strategic doctrine.

second phase lasted from the mid–sixties till the early nineties The and break-up of the Soviet Union saw a focus on the strengthening of the armed forces and the building of capability to be able to deter another Chinese aggression while simultaneously enhancing capability to neutralize Pakistan by offensive action.

- ▪ self confidence

While India's world view subsequently continued to be defensive, the decisive campaign that led to the creation of Bangladesh gave the political leadership

in India's ability to achieve its aims despite blatant superpower posturing and coercion.▪

High technology along with the rise of new media has given an immense boost to globalization. Thus, India saw itself and attempted to behave as the dominant power in the South Asian region and disapproved and discouraged all attempts by other major powers to increase their influence within the region. The Maldives intervention and the Sri Lankan adventure were clear examples of this outward looking and proactive policy.

The by which time an effective and operationalized nuclear weapon programme was being put in place. While the **third phase could be considered to be the period of the nineties from the time of Soviet disintegration to the end of the Kargil conflict**

demise of the Soviet Union left India seemingly unprotected from great power interference in its sphere of influence, it was the shock of the balance of payments crisis in 1991 that left the country feeling vulnerable and isolated. It forced India to revisit its policy of non-alignment and also to reconsider the viability of its socialistic economic developmental model.

- ▪

The disastrous consequences of the Sri Lankan adventure and increasing menace of Islamic fundamentalism and deterioration within Kashmir forced emphasis to shift towards stabilising the internal situation with little resources, ability or interest in playing the role of a benign big brother in the region.

-

However, by 1996, with the internal situation stabilising and the economy growing attention refocused on regional interests and global aspirations leading to a demonstration of our nuclear capability on Vajpayee's assumption as Prime Minister in 1998.

Along with establishing a nuclear weapons capability, the Government categorically declared a 'no first use' nuclear policy that has continued to be the mainstay of our declared nuclear strategy.

Suggested outline of a National Security Strategy document

A National Security Strategy document should have, at the minimum, the following elements:

- a working definition of national security and national security objectives;▪
- an appreciation of the emerging security environment taking into account the geopolitical changes in the world;▪
- an assessment of the national strengths and weaknesses of the country in dealing with the challenges;▪
- Identification of the military, economic, diplomatic resources needed to meet the challenges.▪

The National Security Strategy should also pay serious attention to coordination among different segments of the government.

A draft National Security Strategy document for the next 10 years may consist of:

a) Definition of national security and political security objectives▪

The document must define national security in broad terms including military as well as non-military dimensions of security. It must clearly **state the objectives** of National Security Strategy. These might be:

- protecting and defending the territorial integrity and national sovereignty of the country▪
- protecting the core values of the nation as enshrined in the Indian Constitution▪

-

Ensuring socio-economic development of the country must also be an objective of National Security Strategy because human security is an important component of comprehensive national security. India's goal should be to play a positive and effective role in global and regional affairs.

b) Appreciation of the geopolitical environment▪

The document should **describe the geopolitical environment** and how it has affected India. These include the transition in the international system to multipolarity; the **rise of China and its intense drive for military modernisation, the growing dysfunctionality of Pakistani state**; the impending withdrawal of US and ISAF troops from Afghanistan; the implications of the Arab spring; the developments in Indian ocean region; the growth of Africa and Latin America; the discovery of energy resources in the Arctic Ocean and the economic uncertainty in the US and Europe.

In addition, there are **non-territorial** challenges too with which India will have to cope up with. These are no less important than the hard security challenges. These include the increasing threat of **piracy in high seas, maritime security, increasing militarization of space, threats from cyber space and intensification of competition for scarce resources like energy and strategic minerals**. The implications of climate change for India's security must also be spelt out.

The strategy document must identify the growing challenge of **terrorism and asymmetric warfare** for Indian security. The threat of Weapon of Mass Destruction (**WMD**) **proliferation** and issues concerning nuclear security must be underlined as growing challenges. A broad counter-terrorism strategy must be identified and implemented.

c) Challenges from the Neighbourhood*

The document may pay special attention to the neighbourhood – the neighbouring countries, the extended neighbourhood and Indian Ocean. Instability in these regions will cause instability in India. India must prepare itself to face the backlash if some states in the region fail. At the same time, India should be prepared to contribute towards stability through bilateral and regional cooperation.

d) Coping up with the challenges*

Having defined the challenges in a clear and unambiguous manner, the strategy document may pay focussed attention to how India will cope with these challenges.

For a realistic National Security Strategy, there must be an appreciation of the **ends and means**.

▪

The end objective is to secure India's security but the means to be adopted to do so must preserve the freedoms and rights of the individuals as enshrined in the Constitution. Thus, for example, a counter-terrorism strategy is needed but it should have enough safeguards to protect individual rights and freedoms.

India should seek a prominent role for itself in the international community without being hegemonistic or threatening. International cooperation; regional and sub-regional cooperation should be given high priority. Permanent membership of the UN Security Council should be aspired for.

e) Internal Security*

The document will need to give urgent attention to **internal security** issues including left wing extremism, Jammu and Kashmir, the North East, communalism, corruption, religious fundamentalism and extremism, regional and socio-economic inequalities. These issues will have to be dealt with within the democratic framework of the Indian Constitution. Adequate sensitivity to people's aspirations will need to be paid.

▪

counter-terrorism strategy An effective encompassing intelligence reforms, police reforms, legal reforms and involving clear rules of engagement with insurgents, militants and terrorists should be adopted.

▪

Similarly, a counter insurgency strategy aimed at firmly dealing with insurgents while addressing the grievances of the alienated groups within the Indian Constitution should be put in place.

▪

Border management, a neglected area should be given high priority. An effectively regulated border which discourages illegal movement but facilitates people-to-people contacts is necessary. Modern border management practices should be adopted.

Visa regime and immigration policies should be overhauled.*

▪

The link between internal security issues and external factors, e.g. externally sponsored terrorism, fake Indian currency, drugs etc., may also be specified.

f) Resources and Capabilities*

Making India secure will require building **diverse capabilities – economic, diplomatic, military, human resources, governance reforms** – and creating synergy between them.

A **strong economy** and **inclusive growth** should form the basis of the National Security Strategy, maintaining strong economic

growth will give India huge strategic advantage as it will strengthen its hard and soft power and increase governments' policy options. Without sustained and sustainable economic growth, Indian National Security Strategy will come to a naught.

▪

diplomaticOur resources

will need to be expanded and strengthened. More diplomats, more training, and more synergy with resources outside the government will be needed. Diplomacy will need to include diverse interests. Public diplomacy will be an integral component of diplomacy.

▪

Technologywill

underpin many of our strengths. Thus, India will need to build capacities in research and development (R&D) in diverse fields to help socio-economic economic development, and self-reliance in strategic sectors including space, defence technologies, agriculture, manufacturing, information technology, clean and green technologies etc. India's defence offsets policy is expected to bring in large investments in the high-tech defence sector. Imaginatively used, offsets programmes can help to establish a vibrant defence R&D and manufacturing sector in the country.

India's three-stage nuclear energy programme and various national missions under the climate change adaptation programme can provide major opportunities to reform the economy, create employment, strengthening R&D in the universities, build national strengths and position India high in the global order. The advances in science and technology should aim at creating highly skilled human resources in the country. The education system will need to be overhauled. Young people must have the opportunity to pursue high quality education if need be through state subsidies. Suitable policy measures must be adopted to take advantage of the demographic dividend.

▪

military reformWhile military modernisation is necessary, the need for is

The institution of Chief of Defence Staff (CDS) even more acute. should be created and necessary changes in defence structures should be brought about. Civil-military relations should be carried out in a harmonious way. Command and control systems for strategic systems must be made robust.

▪

Information warfare and cyber security issues will need to be given due attention. Critical infrastructure potential should assume high priority. The government needs to come out with a comprehensive cyber security policy in this regard.

▪

analytical skillsThe county should create high quality of for

understanding and interpreting the ongoing changes and their implications for India. Universities and think tanks should be strengthened. Historical research and methodologies to build scenarios for the future should be encouraged. Archival material should be made available to researchers.

For an effective implementation of National Security Strategy, a wide range of **governance reforms** will be needed. Governance can be overhauled only through a thoroughgoing reform of the electoral system, the criminal justice system, etc.

There is strong need to focus on the material and non-material needs of the youth. Their needs of education, skill development, employment, family, mobility, etc. should be addressed. This will make them feel proud to be Indian, while they retain and enjoy their multiple identities and freedoms.

Conclusion

The National Security Strategy document needs to be succinct yet it should flag all major issues concerning a security strategy and provide guidelines to concerned departments to pre-frame suitable action plans. Since the global and regional situation is dynamic, the National Security Strategy document should be revised periodically.

It is important to underline that a National Security Strategy document should be realistic and balanced. While recognizing the challenges, it should also underline the opportunities. For, a successful national security strategy can give a fillip to our national consciousness, economy and socio-economic development, thus creating a calmer environment conducive for national development.

5-Inflation Targeting

The Reserve Bank of India (RBI) officially adopted **inflation targeting (IT)** as a monetary policy strategy in February 2015. A few days ago, the government notified a consumer inflation target of 4% to be followed till March 2021. Some economists have expressed fresh concerns about the wisdom of adopting IT. These concerns are misplaced. Inflation hurts everyone in the country from households to firms. Even moderately high inflation is bad for growth as is inflation volatility. The primary objective of monetary policy should be to ensure low and stable inflation. IT offers a framework to achieve this objective in a credible and

sustainable manner. The adoption of IT by the RBI is a significant step in the right direction. The RBI should stick to this framework and put in place the operating procedure needed to implement IT.

Central banks have the power to **print “fiat” money**. Unlike money backed by metals such as silver or gold in the pre-World War II era, fiat money gets its value from a legal decree. Every fiat money needs a nominal anchor to tie down the price level. A nominal anchor can take various forms such as money supply, nominal gross domestic product (GDP), value of domestic currency relative to a foreign currency or a price measure such as the consumer price index (CPI). Since the collapse of the gold standard, central banks have tried all kinds of nominal anchors but with limited success. The world has increasingly moved towards inflation targeting where the nominal anchor is the CPI.

<h2>PITCH FOR ECONOMY</h2>	<h3>RBI GOVERNOR RAGHURAM RAJAN CALLS FOR FOCUS ON DOMESTIC DEMAND INSTEAD OF AN EXPORT PUSH</h3>	<p>IT requires a central bank to adjust its monetary policy instruments in response to the gap between the forecast inflation rate and a pre-announced target rate. Most countries today follow a “flexible IT” framework. This gives the central bank discretion to respond to shocks such as a growth slowdown in the short run and meet the inflation target in the medium run. This is the kind of IT framework that has been adopted by the RBI. The objective is to pin down the value of the rupee to the price of the CPI basket.</p>
<p>BOOST INVESTMENTS, CONTROL INFLATION</p> <ul style="list-style-type: none"> ▶ Provide budgetary incentives for household savings ▶ Soon, timeline for medium-term inflation target ▶ Follow ‘glide path’ for moderate growth along with disinflation 	<p>MAKE IN INDIA, FOR INDIA</p> <ul style="list-style-type: none"> ▶ Export-push mode for growth will be ineffective at this stage ▶ Import substitution policy can increase costs to consumers ▶ Well-designed GST, lower State border taxes critical to growth ▶ Unified market key to reducing transaction costs 	
<p>I am... cautioning against picking a particular sector such as manufacturing for encouragement simply because it has worked well for China</p> <p>— RAGHURAM RAJAN, delivering lecture at FICCI on Friday</p> 		<p>IT anchors the inflation expectations of the private sector. It imposes discipline on monetary policy. Before the adoption of IT, monetary</p>

policy in India was conducted in an ad hoc manner. The RBI would target multiple indicators ranging from inflation and growth to exchange rate and trade balance. There was no clarity about the primary objective of monetary policy. The lack of accountability, clarity and transparency in monetary policy introduced uncertainty. Uncertainty about the central bank’s monetary policy objective is a risk factor for the economy.

In the absence of a specific mandate to target inflation, monetary policy in India was often used to achieve objectives unrelated to price stability. For example, during 2004-07, in response to a surge in foreign capital inflows, the RBI lowered the nominal interest rate. This was done to prevent the rupee from appreciating. This meant interest rates were kept low at a time when the economy was growing at a very high rate fuelled by a credit boom. A pro-cyclical monetary policy triggered inflationary pressures. CPI inflation began exceeding 5% from February 2006 onward. Post 2008, in response to double-digit inflation, the RBI pursued successive rounds of monetary tightening at a time when growth had begun slowing down. IT acts as a guard against this kind of a discretionary monetary policy.

IT was first adopted by the Reserve Bank of New Zealand in 1989. Since then, the number of countries using IT as a framework to conduct their monetary policy has steadily gone up. As of now, 36 countries, including India, have officially adopted IT. In addition, all 19 countries in the euro zone are bound by the inflation target chosen by the European Central Bank. This takes the total count of IT countries to 55.

Since the 2008 financial crisis, questions have been raised about the effectiveness of monetary policy to boost demand in developed countries where interest rates are close to zero. Yet, IT has stood the test of time through shocks, including the 2008 crisis. No country has moved away from IT as a framework and newer countries have adopted it after the crisis. What has changed is not the overarching framework of IT but the instruments used to meet the inflation target. Under conventional IT, short-term interest rates are the instruments of monetary policy. In the post-crisis period, several developed countries started using unconventional measures such as quantitative easing to achieve the inflation target. IT has continued to be the framework used to anchor inflation expectations. A broad consensus supported by empirical evidence has emerged that IT is effective in delivering low and stable inflation and anchoring inflation expectations in developed and emerging countries.

The RBI has taken the first step towards stabilizing inflation by formally adopting IT as India’s monetary policy framework. A lot more remains to be done in order for RBI to actually become an inflation-targeting central bank. Equipped with the IT mandate, the RBI needs to focus its efforts on strengthening monetary policy transmission (MPT) and putting in place a comprehensive operating procedure. Unless financial market reforms are undertaken to strengthen MPT, small rate changes will not have any effect on aggregate demand and hence inflation. The RBI should consider bigger changes in the interest rate. Small rate changes of 25 or 50 basis points work well in IT countries that have strong MPT. One basis point is one-hundredth of a percentage point.

The RBI needs to build internal technical capacity to forecast inflation using sophisticated econometric models, improve the quality of publicly available macroeconomic data, publish its forecasts of inflation and related macroeconomic indicators at regular intervals, systematically track the private sector’s inflation expectations, form the monetary policy committee (MPC) that will decide the interest rate, and furnish the MPC with necessary information, including data, and models used to forecast inflation.

IT is a whole new regime in monetary policymaking in India. The policy focus should now be on understanding how the new

regime works and how this framework can be used to deliver low and stable inflation on a sustainable basis.

6-Cyber extortion - Threat

Cyber extortion is a term generally understood to refer to a category of cyber-crimes, where stolen, sensitive and private data is withheld or threatened to be exposed in order to extort money. In such attacks, while cybercriminals threaten to cripple websites or disclose sensitive data, the data itself (stolen or accessed without authorization) is not tampered with and is usually safely returned on demands of the cyber extortionists being met. Simply put, hackers are forcing companies to pay them to desist from impeding commercial operations – a fee to be left alone.

In a shocking revelation, two Indian companies conceded to having paid hackers money to the tune of \$10 million, to protect sensitive information stolen from their compromised computer networks, from imminent exposure. As the stolen information was incriminatory in nature, the attacks which seem to have originated in the Middle East, went unreported by the companies' even months after payments had been made and no case has been filed by either company. Nevertheless, the discovery has prompted an unprecedented interest in understanding cyber extortion, its operation and treatment in India. In yet another instance of cyber extortion, a businessman from Hyderabad recently found himself unable to access his company's database as it had been encrypted by a hacker demanding payment for decryption.

In the recently reported cases of digital extortion in India, criminals have exploited the vulnerabilities of cyber space to extort money, by predominantly employing the following strategies:

- Gaining unauthorized access to a company's secured data, strategy and trade secrets and threatening to make it public if demands of payment aren't met.

- Encrypting data in order to disable primary owner's access to it and demanding payment for decryption.

According to a recently released threat report by Trend Micro, India also encountered the highest number of ransomware infections in the second quarter of 2015 and has ranked 6th in the list of countries sending maximum spam. Ransomware refers to malicious software implanted in communication devices to take control of them and hold data hostage (usually by encrypting it). Rightful owners are forced to pay "ransom" to cyber criminals in order to regain access to their devices after it has been subject to such attacks. However, in light of allegations of private reports perverting statistics that represent current threat landscape, it is crucial to note that the above-mentioned threat report was published by a private security software firm that potentially stands to benefit from such a scare by creating increased demand for its security solutions.

Regardless, it is evident that in the perpetration of an extortion attempt, information systems are capable of being employed by cyber criminals in one or more of the ways as elucidated below:-

- Information system as the medium for perpetration of the threat.

- Information system as the object of the threat itself.

- Payment to the extorter being facilitated through information systems.

- Information and communication systems used as the medium for exposure, if demands remain unmet.

Noticeably, extortion manifests in several ways and thus, the provisions of the Information Technology Act under which victims of cyber extortion attacks may claim recompense under varies. However, as unauthorized access to data is characteristic of these attacks, S.43 and S.66 of the Information Technology Act, provisions dealing with protection of data and hacking, may be invoked to deal with cyber extortionists.

Further, in order to avoid exposure, cyber extortionists widely resort to the use of ransomware and botnets – network of compromised computers that are under the influence of malware code and unwittingly controlled by a master spam/virus originator usually engaged to forward transmissions. Oft times, cyber extortion attacks are carried out by organized cyber criminals who hedge their collective technical abilities to extract crucial private data and information. Additionally, payments are demanded in bitcoins in order to further preserve anonymity. In the case of the two Indian conglomerates mentioned above, extortionist hackers even avoided being reported as the information they accessed (and threatened to expose) could implicate their victims in wrongdoing, naturally prompting a silent payoff. Hence, even criminals engaging in digital extortion from within India, are likely to escape prosecution under existing laws due to the complexity of ascertaining identity of the perpetrators. However, if they are identified, they may be prosecuted for the offences of extortion and criminal intimidation under S. 383 and S. 503 of the Indian Penal Code in addition to being charged with offences under the Information Technology Act.

The nature of operation of cyber extortion hasn't yet been fully understood or captured by existing definitions. For instance, even a DDOS (extortion) attack may be used by extortionists to make websites unusable, in effect coercing them to pay. Further, payment demanded may not always be monetary in nature or even capable of being materially quantified. Victims are also faced with disbelieving police when they try to lodge a formal complaint as not many enforcement authorities are aware of cyber extortion.

With an exponential rise in cyber extortion attacks globally having been reported and legal recourses proving inadequate, corporate entities and individuals must privately protect their data from intrusion by using advanced

anti-virus tools, firewalls, updated operating systems and conduct regular cyber security audits to ascertain their vulnerability and assess their risk preparedness.



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